











IRMA Standard for Responsible Mining 1.0–Guidance Document

Version 1.2

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Updates to the Guidance

2020

Chapter 2.4—Resettlement: Guidance has been updated to clarify that all of the requirements in the chapter apply to new mines, and that existing mines are not expected to meet requirements related to processes that should have occurred at an earlier stage of development. We now specify which requirements in the Resettlement chapter apply to existing mines.

We also clarify that existing mines that carried out resettlement prior to 30 April 2006 are not expected to meet any of the IRMA Resettlement Chapter requirements. These mines, however, are required to demonstrate that they have remedied or are in the process of remediating any impacts on human rights that are related to resettlement (as per IRMA’s Chapter 1.3—Human Rights Due Diligence).

Chapter 3.4—Mining and Conflict-Affected or High-Risk Areas: Based on feedback from the first two mines undergoing independent, third-party assessments, it is clear that both auditors and mines had questions and required additional clarification on some of the requirements in this chapter. IRMA has decided to form a subcommittee to investigate some of the questions and provide more detailed guidance on expectations.

Consequently, until such time that the guidance is available and can be applied at IRMA-participating mines, IRMA will not require mines audited in 2020 to factor this chapter score into the achievement level score for the mine. It is expected that all mines will be audited and scored against this chapter in 2021.

Please read the [Guidance Note on Chapter 3.4](#).

2021

Chapter 2.1—Environmental Impact Assessment and Management: Recognizing that many existing mines will not have been subject to rigorous ESIA requirements, and recognizing that it is not reasonable to expect existing mines to undertake a new, full ESIA process, the proposal is for IRMA to take the approach that it has taken with other chapters (i.e., require that existing mines demonstrate they are meeting the intent and not the letter of the requirements). Consequently, in 2021, existing mines have two options related to ESIA requirements:

Option 1: Existing mines can be audited against IRMA’s existing ESIA requirements. Some mines, especially newer ones, may want to demonstrate to the world that they have met (in full or part) these best practices in ESIA.

Option 2: Existing mines that were not subject to ESIA, or did carry out ESIA but not according to what is now considered best practice, do not need to be assessed against all of the IRMA ESIA requirements. Rather, they will be asked to demonstrate that they have implemented practices, either during ESIA (if it occurred) or subsequently, that meet the intent of a select set of IRMA’s ESIA requirements (2.1.3.1, 2.1.9.1 and 2.1.10.1) referred to as Core ESIA Requirements. (See Table 1).

Please read the Guidance Note on Chapter 2.1 ([external link](#))

2023

Chapter 2.6 -- Planning and Financing Reclamation and Closure: Updated to address the challenge in certain jurisdictions where there is no governmental body acting in a capacity of financial surety for mining operations. Guidance has been provided for 2.6.4.1, 2.6.4.2, and 2.6.4.3.

Chapter 4.1 – Waste and Materials Management: Updated explanatory notes to include notes on how waste related requirements apply to lithium brine operations.

General: Removed references to IRMA providing certification (except where included in formal language of the standard itself).

Preamble

The IRMA *Standard for Responsible Mining*

Modern societies rely on mined minerals and metals to function. Nearly everything manufactured or constructed – from buildings to roads to computers and trains – contains material mined from the Earth. Mining provides important employment and financial opportunities for host communities and host countries. But large-scale mining is a complex and intensive process that can negatively impact the physical environment, such as through the loss of habitat or contamination of water, and local communities’ social and economic situations.

IRMA was founded in 2006 by a coalition of nongovernment organizations (NGOs); downstream businesses who purchase minerals and metals for the products they make and sell; trade unions; affected communities; and mining companies. IRMA leaders believe that many of the negative social and environmental impacts can be avoided if mines operate according to leading practices. Its vision is:

a world where the mining industry is: respectful of the human rights and aspirations of affected communities; provides safe, healthful and respectful workplaces; avoids or minimizes harm to the environment; and leaves positive legacies.

The IRMA Steering Committee set the mission to establish a multi-stakeholder and independently verified responsible mining assurance system that improves social and environmental performance and creates value for leading mine sites. Through IRMA:

- Industrial-scale mines can document their leadership and receive value for proven responsible performance;
- Purchasers of metals and minerals can source from mines that meet or are working toward meeting a full array of leading practices in social and environmental responsibility;
- Communities, workers, and civil society organizations can convey social licence with assurance that the mine operates to leading levels of socially and environmentally responsible performance.

Introduction to the IRMA Standard

The *Standard for Responsible Mining* (v.1.0) specifies a set of objectives and leading performance requirements for environmentally and socially responsible practice. The Standard serves as the basis of a voluntary system offering independent third-party review and verification of environmental and social performance measures at industrial-scale mine sites around the world.

Principles and Objectives

The *IRMA Standard for Responsible Mining* (the IRMA Standard) is designed to support the achievement of four overarching principles. Additionally, each chapter of the IRMA Standard has an objective that meets one or more of these principles. For organizational purposes, chapters are listed under one core principle. It should be noted, however, that most chapters and their objectives are relevant to more than principle.

Principle 1—Business Integrity

INTENT: Operating companies conduct their business in a transparent manner that complies with applicable host country and international laws, regulations and best practice, respects human rights, and builds trust and credibility with workers, communities and stakeholders.

Chapter 1.1—Legal Compliance: To support the application of the laws and regulations of the country in which mining takes place, or exceed host country laws in a manner consistent with best practice.

Chapter 1.2—Community and Stakeholder Engagement: To support mining company decision-making and enable communities and stakeholders to participate in mining-related decisions that affect their health, wellbeing, safety, livelihoods, futures and the environment.

Chapter 1.3—Human Rights Due Diligence: To respect human rights, and identify, prevent, mitigate and remedy infringements of human rights.

Chapter 1.4—Complaints and Grievance Mechanism and Access to Remedy: To provide accessible and effective means for affected communities and individuals to raise and resolve mine-related complaints and grievances at the mine operational level, while not limiting their ability to seek remedy through other mechanisms.

Chapter 1.5—Revenue and Payments Transparency: To increase transparency of mining related payments and provide communities and the general public with the information they need to understand and assess the fairness of financial arrangements related to mining operations.

Principle 2—Planning and Managing for Positive Legacies

INTENT: Operating companies engage with stakeholders from the early planning stages and throughout the mine lifecycle to ensure that mining projects are planned and managed to deliver positive economic, social and environmental legacies for companies, workers and communities.

Chapter 2.1—Environmental and Social Impact Assessment and Management: To proactively anticipate and assess environmental and social impacts; manage them in accordance with the mitigation hierarchy; and monitor and adapt environmental and social management systems in a manner that protects affected communities, workers and the environment throughout the entire mine lifecycle.

Chapter 2.2—Free, Prior and Informed Consent (FPIC): To demonstrate respect for the rights, dignity, aspirations, culture, and livelihoods of indigenous peoples, participate in ongoing dialogue and engagement

and collaborate to minimize impacts and create benefits for indigenous peoples, thereby creating conditions that allow for indigenous peoples' free, prior and informed consent and decision-making regarding mining development.

Chapter 2.3—Obtaining Community Support and Delivering Benefits: To obtain and maintain credible broad support from affected communities; and produce tangible and equitable benefits that are in alignment with community needs and aspirations and are sustainable over the long term.

Chapter 2.4—Resettlement: To avoid involuntary resettlement, and when that is not possible, equitably compensate affected persons and improve the livelihoods and living standards of displaced persons.

Chapter 2.5—Emergency Preparedness and Response: To plan for and be prepared to respond effectively to industrial emergency situations that may affect offsite resources or communities, and to minimize the likelihood of accidents, loss of life, injuries, and damage to property, environment, health and social well-being.

Chapter 2.6—Planning and Financing Reclamation and Closure: To protect long-term environmental and social values and ensure that the costs of site reclamation and closure are not borne by affected communities or the wider public.

Principle 3— Social Responsibility

INTENT: Operating companies engage with workers, stakeholders and rights holders to maintain or enhance the health, safety, cultural values, quality of life and livelihoods of workers and communities.

Chapter 3.1—Fair Labor and Terms of Work: To maintain or enhance the social and economic wellbeing of mine workers and respect internationally recognized workers' rights.

Chapter 3.2—Occupational Health and Safety: To identify and avoid or mitigate occupational health and safety hazards; maintain working environments that protect workers' health and working capacity; and promote workplace safety and health.

Chapter 3.3—Community Health and Safety: To protect and improve the health and safety of individuals, families, and communities affected by mining projects.

Chapter 3.4—Mining and Conflict-Affected or High-Risk Areas: To prevent contribution to conflict or the perpetration of serious human rights abuses in conflict-affected or high-risk areas.

Chapter 3.5—Security Arrangements: To manage security in a manner that protects mining operations and products without infringing on human rights.

Chapter 3.6—Artisanal and Small-Scale Mining: To avoid conflict and, where possible within the scope of national law, foster positive relationships between large-scale mines and artisanal and small-scale mining (ASM) entities, and support the development of ASM that provides positive livelihood opportunities and is protective of human rights, health, safety and the environment.

Chapter 3.7—Cultural Heritage: To protect and respect the cultural heritage of communities and indigenous peoples.

Principle 4—Environmental Responsibility

INTENT: Operating companies engage with stakeholders to ensure that mining is planned and carried out in a manner that maintains or enhances environmental values, and avoids or minimizes impacts to the environment and communities.

Chapter 4.1—Waste and Materials Management: To eliminate off-site contamination, minimize short- and long-term risks to the health and safety of communities and the environment, and protect future land and water uses.

Chapter 4.2—Water Management: To manage water resources in a manner that strives to protect current and future uses of water.

Chapter 4.3—Air Quality: To protect human health and the environment from airborne contaminants.

Chapter 4.4—Noise and Vibration: To preserve the health and well-being of nearby noise receptors and the amenity of properties and community values, and to protect offset structures from vibration impacts.

Chapter 4.5—Greenhouse Gas Emissions: To minimize climate change impacts through increased energy efficiency, reduced energy consumption and reduced emissions of greenhouse gases.

Chapter 4.6—Biodiversity, Ecosystem Services and Protected Areas: To protect biodiversity, maintain the benefits of ecosystem services and respect the values being safeguarded in protected areas.

Chapter 4.7—Cyanide: To protect human health and the environment through the responsible management of cyanide.

Chapter 4.8—Mercury Management: To protect human health and the environment through the responsible management of mercury.

IRMA and its supporters are committed to promoting the uptake of the IRMA Standard by recognizing and rewarding mining operations that are assessed as meeting the requirements in each chapter of the Standard and thereby fulfilling IRMA's overall principles objectives.

Development of the Standard for Responsible Mining

The *Standard for Responsible Mining* v1.0 was created by the IRMA Steering Committee (now Board of Directors) and Secretariat through an intensive multi-year consultation process. Representatives of IRMA's five core sectors as well as representatives from government agencies, financial institutions, academic organizations, related certification programs, and others participated in the process to define the content of the Standard.

IRMA conducted two rounds of public consultation (in 2014 and 2016) and two field tests (one in Zimbabwe and one in the United States) to collect input on the requirements of the Standard, and convened multi-stakeholder working groups and consulted independent experts to further articulate requirements that reflect responsible mining. During the two public consultation periods, more than 120 individuals and organizations provided over 2,100 comments and recommendations that informed the content presented in *Standard for Responsible Mining* v.1.0.

To view stakeholder comments and IRMA's responses, visit: <http://www.responsiblemining.net/irma-standard/>

Scope of the IRMA Standard

The IRMA Standard is intended to be applicable to all types of industrial- or large-scale mining (including surface, sub-surface and solution mining), and all mined materials (e.g., minerals, metals) with the exception of energy fuels. IRMA will not assess and verify oil and gas operations, and more work is needed before thermal coal and uranium can be considered for inclusion.

There is no defined minimum cut-off point for the scale of mine to which the IRMA Standard may apply, but it is not designed to be applicable to artisanal or small-scale mining.

The IRMA Standard and assurance scheme covers mining and associated activities, such as construction of infrastructure or preliminary ore processing, that occur on the mine site, and includes requirements that pertain to different phases of the mine life cycle. The Standard does not apply to additional processing of mined material that takes place off site, the manufacturing and assembly of products, or end product use and disposal.

All participating mine sites of whatever type and scale are measured against all relevant requirements of the IRMA Standard. The requirements have therefore been drafted at a level of generality that allows different actions to be taken at mine sites of different types and scales, while still being able to demonstrate compliance.

IRMA is paying specific attention to the issues of scope and applicability of the *IRMA Standard for Responsible Mining* to mine sites of different scales and types within its scope during its Launch Phase (see pages 5 and 6), and if necessary, will develop further guidance. The subsections below provide more information on the applicability of the Standard under different conditions.

Applicability Relative to the Life-Cycle Stage of the Assessed Mine

IRMA recognizes that there are some requirements within the Standard that cannot be met once a mining operation has reached a certain stage – in other words, an operator cannot “turn back the clock” to change actions that have already occurred, nor can it meet time-dependent requirements that did not take place at the appropriate time. For example, a mine already in operation that seeks to be assessed against the IRMA standard but did not obtain the free, prior and informed consent of indigenous peoples before it went into operation can no longer obtain the “prior” consent of indigenous peoples.

IRMA also recognizes that some of the best practices outlined in the IRMA Standard reflect changes in global practice and norms that have come to the fore only in recent years. For example, while there may have been an understanding that companies should respect human rights, the 2011 *UN Guiding Principles on Business and Human Rights* strengthened the expectation that companies do so. Similarly, while there may have been some understanding that companies should act responsibly when operating in conflict-affected or high-risk areas, it was not until 2011, and the release of the *OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas*, that there was an internationally recognized and accepted due diligence framework for companies to follow. While newer mines may have implemented systems to meet these relatively new expectations, older mining operations may not have done so.

IRMA seeks to make its assurance program available to any mine that can demonstrate a high performance level that is consistent with the Standard’s principles and objectives. The fact that a mining project did not fully comply with all requirements of the IRMA Standard during an early stage of its development should not necessarily exclude it from subsequent assessment, as long as the social and environmental objectives of the IRMA Standard are achieved, and mines address and remedy impacts from past practices that do not meet those objectives.

The IRMA Steering Committee is actively considering how best to address non-compliances with the IRMA Standard that occurred during a mine’s early stages of development. In some chapters, readers will notice that the Scope of Application section has information on “New versus Existing Mines.” Where present, that subsection recognizes that some requirements in the chapter cannot be applied retroactively at existing mines, and clarifies how IRMA expects companies to demonstrate that they still meet the intent of the social and environmental objectives of the chapter. We realize that further attention (and guidance to companies and auditors) may be needed in this area, and are prepared to further revise as warranted so that stakeholders can be assured that IRMA verification measures against a high performance bar in all cases.

Application in Relation to Mine Life Cycle

The IRMA Standard contains requirements that apply during different phases of the mining life cycle (e.g., exploration, construction, operations and closure). The Standard recognizes that different aspects of some requirements will be assessed at different phases of the life cycle (for example, while requirements related to the planning of mine closure may be assessed even during the construction phase, effective implementation of those requirements cannot be assessed until closure is under way or completed).

At present, assessment of compliance is expected to occur after a mine becomes operational. While the current Standard focuses on verifying operating mines it is possible that future versions will include additional nodes applying to specific phases (e.g., exploration, construction) so that companies might be assessed during these early



We have marked these types of challenges in this document with a [flag] and are most appreciative of solution-based suggestions. You can search for these flags by using the search term flag, or look for flags in Chapters 2.1, 2.4, 3.2, 4.2, 4.3, 4.5 and 4.8.

stages as a prospective “IRMA Ready” mine project (having met requirements related to social engagement and environmental protection for those particular stages of development).

Application in Relation to Scale of Mine Site

As mentioned previously, IRMA is designed for industrial-scale mining operations. However, IRMA is paying particular attention to issues related to small-to-medium-sized companies that operate industrial-scale mines. IRMA leaders understand that smaller companies may have less experience with some planning, monitoring, reporting and other formal processes than larger companies with more resources. IRMA wants to create a Standard that is accessible to all companies wanting to demonstrate their commitment to greater social and environmental performance, and as a result, we are evaluating potential barriers to smaller operators and considering ways to reduce barriers while still maintaining a Standard that is protective of social and environmental values. Possible strategies being considered include longer timelines allowed to accomplish some tasks, adjusted fees for participation in IRMA, and technical and financial resources to support capacity building, training opportunities for smaller companies, especially those producing low-value commodities.

Language

The IRMA Standard follows ISO guidance in the use of the word ‘shall’ to indicate a requirement that must be met. For example, “There shall be an environmental impact assessment for the mine site.”

The requirements of the IRMA Standard have been drafted taking account of the intent that conformity will be strictly assessed in accordance with the wording. If flexibility is intended, for example, if mines can choose to implement one or more elements from a longer list, then this is specified in the wording of the requirement.

A range of technical terms are defined in the Glossary located at the end of the document. The definitions are considered to be normative for the purpose of interpreting the IRMA Standard. As mentioned above, where these terms appear in the text of a chapter, they are listed up front, and are defined at the end of each chapter.

Flagged Items

There are seven chapters in the Standard (Chapters 2.1, 2.4, 3.2, 4.2, 4.3, 4.5 and 4.8) where either the chapter or specific requirements in them have been flagged. Flagged issues are places where IRMA seeks assistance in resolving challenging issues in which there is either a difference in opinion between stakeholder perspectives and/or it is a complex topic on which the broader world community is also struggling with no clear resolution.

In most cases, IRMA is looking for input from mine sites, to help inform how IRMA will approach certain issues in the future. So auditors will be expected to document mine site input on the flagged issues.

NOTE that In two chapters (4.3-Air Quality and 4.8-Mercury Management), the flagged requirements will not factor into the mine’s score.

Chapter Structure

BACKGROUND

Each chapter has a short introduction to the issue covered in the chapter, which may include an explanation of why the issue is important, a description of key issues of concern, and the identification of key aspects of recognized or emerging best practice that the standard aims to reflect.

OBJECTIVES/INTENT STATEMENT

A description of the key objectives that the chapter is intended to contribute to or meet.

SCOPE OF APPLICATION

A description of the conditions under which the chapter may or may not be relevant for particular mines. If the company can provide evidence that a chapter is not relevant, that chapter will not need to be included in the scope of the IRMA audit. A requirement is 'not relevant' if the issue to which a requirement relates is not applicable at the mine site. For example, requirements related to the use of cyanide would not be relevant at a mine site at which cyanide is never used.

The section may also include information on the applicability of certain chapters, or requirements within chapters, based on the timing of the audit. This differentiation was needed, because existing mines may not have implemented certain best practices during particular phases (and those requirements cannot be carried out retroactively), while new mines will be expected to have implemented the best practices.

CRITICAL REQUIREMENTS IN THIS CHAPTER

If a chapter has critical requirements they are listed here. Critical requirements consist of a set of 40 requirements that have been identified by the IRMA Board of Directors as being core requirements that any mine site claiming to be following good practices in mining should be meeting.

TERMS USED IN THIS CHAPTER

This is a list of the terms used in the chapter ■ The terms listed are defined at the end of each chapter ■ They are also defined in the Glossary at the end of the Standard document ■

In each chapter, the defined terms appear in the text with a dashed underline, and you can [click here to jump to definitions at the end of the chapter](#)

CRITERIA AND REQUIREMENTS

X.X.X. These are Criteria Headings

X.X.X.X. (if this is a critical requirement it will be indicated here in red text)

These are the requirements that must be met for an IRMA verification level to be issued and subsequently maintained by a mining project. Most criteria have more than one requirement. All requirements must be met in order to comply fully with the criterion.

- a. Some requirements consist of hierarchical elements
 - i. at more than one level.

Applicants may be required to meet all elements in a list, or one or more of the elements of such a list, as specified.

NOTES

Any additional notes related to the chapter and its requirements are explained here.

Cross References to Other Chapters	
CHAPTER	ISSUES
Chapters that have content related to the chapter at hand are listed here	This area describes how the chapters are related.

TERMS USED IN THIS CHAPTER

Terms used in the chapter are defined in this section.

Guidance Version of the Document

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>The requirements listed under each Criterion heading are normative. Assessment of conformity is against the requirements.</p> <p>Additional information on the intent of the requirements may be contained in Explanatory Notes.</p> <p>If there is a question related to the intent of the requirement, they should be directed to the IRMA Director of Standards and Assurance. All questions will be documented, and may result in additional information added to Explanatory Notes.</p>	<p>This information provides non-normative guidance to help auditors, companies and stakeholders understand sources of information that an auditor would be expected to have access to, and the kinds of activities that the auditor might be expected to undertake in order to verify conformity with a requirement.</p> <p>This is not a complete list of methods, nor is the certification body required to carry out all of the means of verification listed.</p>	<p>This section provides non-normative examples of some of the documents and records that could be used to assess conformity with IRMA requirements.</p> <p>This is not a complete list, nor is the certification body required to inspect all documents listed here.</p>	<p>Explanatory Notes contain additional information that may aid Auditors in assessing conformity with IRMA requirements.</p> <p>This includes information related to the intent of the requirement, as well as resources that may be reviewed to provide more context.</p> <p>If there is a question related to the intent of the requirement, they should be directed to the IRMA Director of Standards and Assurance.¹ All questions will be documented, and may result in additional information added to Explanatory Notes.</p>

Requirements for Achievement Levels

IRMA and its supporters are committed to promoting the uptake of the IRMA Standard by recognizing and rewarding mines that have achieved best practices in environmental and social responsibility. IRMA leaders also recognize that, in the past, there may not have been incentive for mines to go beyond host country laws and strive for best practices, or that some mines may have unique circumstances that pose particular challenges to implementing certain best practices.

¹ Email Lisa Sumi: lsumi@responsiblemining.net

Rather than only rewarding the small group of mines that are already achieving best practices, IRMA leaders have developed a system to also recognize lower levels of achievement in hopes that more mines will be able to come into the IRMA system and gain some market benefits, while continuing to strive toward meeting IRMA's comprehensive set best practices over time.

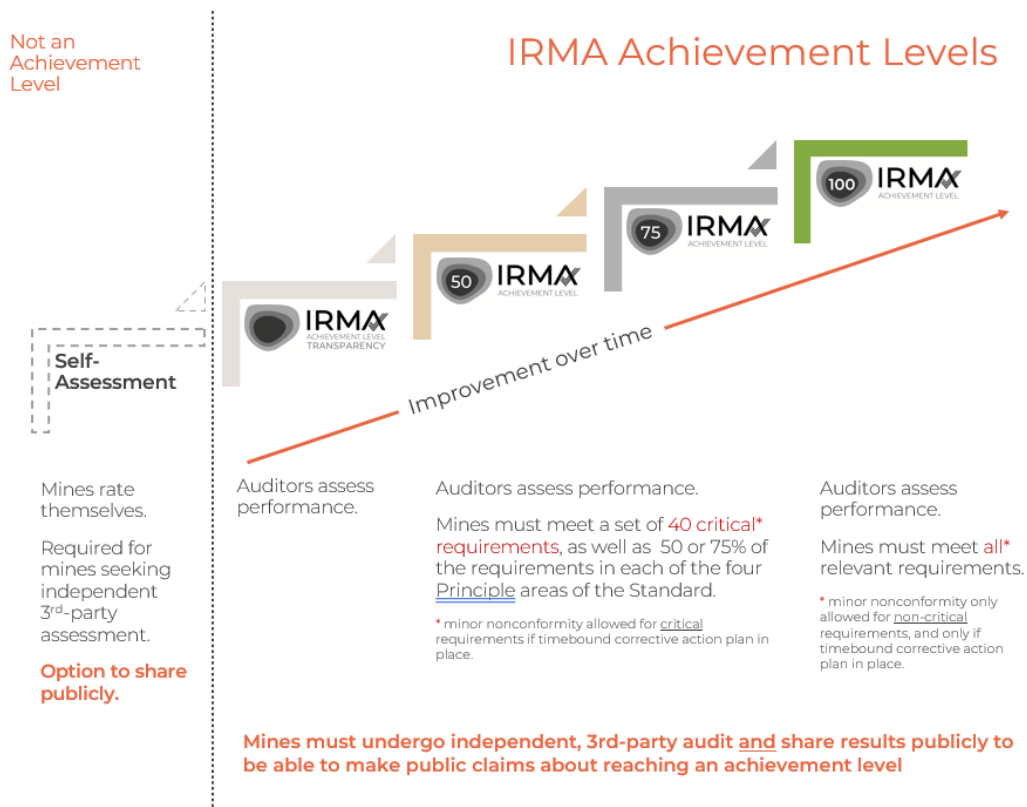
Three levels of achievement will be recognized within the IRMA system:

- **IRMA 100** – Mines fully meet all critical requirements (see Annex B), at least substantially meet all non-critical requirements, and achieve an overall score of 90% in each of the four IRMA principles (i.e., Business Integrity, Positive Legacies, Social Responsibility and Environmental Responsibility).^{*} Where requirements are only substantially met there is a corrective action plan in place, approved by the certification body, to reach full conformance within allotted time frames. Mines are required to publicly release audit summary.
- **IRMA 75** – Mines at least substantially meet all critical requirements (see Annex B), and have in place a corrective action plan to fully meet them. A score of 75% is achieved in each of the four IRMA principles.^{*} Mines are required to publicly release audit summary.
- **IRMA 50** – Mines at least substantially meet all critical requirements (see Annex B), and have in place a corrective action plan to fully meet them. A score of 50% is achieved in each of the four IRMA principles.^{*} Mines are required to publicly release audit summary.

^{*} The "principle" score is based on total number of relevant requirements in the chapters that fall under each principle, see example on [page 28](#).

There is one other way for mines to be recognized in the IRMA system. There is no achievement level awarded by IRMA, but through IRMA Transparency mines can still publicly disclose their participation in the IRMA system and talk about their performance publicly.

- IRMA Transparency (Verified Score) – be audited by IRMA-approved auditors and publicly release score and audit summary.



IRMA Rating System

All requirements under assessment will be rated on their level of conformity. The following rating system will be used, and the general criteria for differentiating between ratings is as follows:

Fully meets:

Relevant policies, procedures, methodologies, training programs, or work plans, etc. and performance meet the requirement as written or fully meet its intent. Stated performance for all elements or sub-requirements is evident with extremely rare exceptions (and exceptions in compliance do not affect, in any way, consistency with the objective of the chapter).

Substantially meets:

Relevant policies, procedures, methodologies, training programs, or work plans, etc. have sufficient detail or require only minor augmentation. For example:

- Many, but perhaps not all relevant personnel are informed of policies and procedures. Work plans are developed and implementation is under way.
- Training programs are being implemented, though perhaps not fully or to maximum efficacy.

Where requirements are performance-based, mine has implemented appropriate actions to meet the performance expectation, but is not fully meeting it.

Where sub-requirements exist, the majority of the sub-requirements are being met, but one or a few factors need clarification, augmentation or complete implementation.

Partially meets:

Relevant procedures, methodologies, training programs, or work plans, etc. are under development; or policies, procedures, etc. are in place but do not have sufficient detail and need significant augmentation; or they are in place but are not being implemented or are inconsistently applied; or implementation is in early stages so difficult to gauge its effectiveness/successful implementation.

Where requirements are performance-based, mine has taken some actions to meet the performance expectation outlined, but there is considerable additional work necessary to meet the expectations.

Where sub-requirements exist, the majority or all of the sub-requirements need clarification, augmentation or implementation.

Does not meet:

Relevant policies, procedures not developed, actions have not been taken to meet performance expectations, or performance expectations are not being met despite efforts being made by the company.

Not relevant

Requirements are not applicable at the mine site. Mines will be expected to provide rationale for why requirements are not relevant.

Not assessed

Mines choose to exclude certain requirements from the assessment.

IRMA Scoring System

All requirements, except for those deemed “not relevant,” will be scored. The following scoring system will be used:

Rating	Score
Fully meets	2
Substantially meets	1.5
Partially meets	1
Does not meet	0
Not assessed	0

As mentioned above, mines may opt to exclude requirements from an assessment in order to reduce audit costs, e.g., when they know for sure that they are not meeting the requirement. Mines should be aware, however, that all relevant requirements factor into the score for a particular chapter. Consequently, if a mine chooses to not have a relevant requirement assessed it will receive a score of zero (0). This is because if a requirement is not assessed there is no evidence that the mine is partially, substantially or fully meeting the requirement. In the public audit report the rating will show up as “Not Assessed.”

Critical Requirements in the IRMA Standard

Critical requirements consist of a set of 40 requirements that have been identified by the IRMA Board of Directors as being core requirements that any mine site claiming to be following good practices in mining should be meeting. The critical requirements are identified in the Standard portion of this document (and are listed in Annex B of the *Assessment Manual for Mines*).

IRMA 100 mines must fully meet all critical requirements, and mines achieving IRMA 50 or IRMA 75 must substantially meet all critical requirements, demonstrate progress over time, and fully meet all critical requirements within specified time frames (see Table 3 in the *Assessment Manual for Mines*). By requiring mines at the IRMA 50 or 75 level to be working toward full achievement of all critical requirements IRMA is fostering improvement at these sites.

Basis for IRMA 100

The highest level of achievement within the IRMA system is IRMA 100. The basis for IRMA 100 is that 90-100% of the relevant requirements of the IRMA Standard have been met by the applicant mine or have been substantially met and the mine develops a corrective action plan that outlines measures to be taken to fully conform with all requirements within specified time frames (see Table 2 in the *Assessment Manual for Mines*).

IRMA is allowing IRMA 100 achievement even with some level of minor nonconformity because it is recognized that occasional, temporary failures of conformity are inevitable when managing large, complex mining operations. Consequently, and in line with other comparable voluntary certification schemes, IRMA expects that recognition of achievement may be issued, and may subsequently be maintained, despite the existence of minor nonconformities with the requirements of the IRMA Standard. If achievement of IRMA 100 is granted even though the mine has some minor nonconformities, it will be expected that appropriate and timely actions will be taken by the mine to correct problems and analyze issues contributing to the nonconformity so that they can be avoided in the future.

Any failures to conform with IRMA Standard requirements identified by an auditor will be explicitly documented in the audit report, and the resulting decision to issue, re-issue, suspend or withdraw an achievement level will be clearly and explicitly justified by the responsible certification body.

Prior to the CB's decision on whether or not to award an achievement level, operating companies will have the opportunity to provide additional evidence if they believe any ratings have been made in error.

Conditions for IRMA 100:

- IRMA has identified 40 requirements in the IRMA Standard that it has listed as critical requirements (see [Annex B](#)). Mines must fully meet all critical requirements.
- Mines must at least substantially meet all relevant non-critical requirements in the IRMA Standard. Requirements with a “substantially met” score must develop a corrective action plan and implement actions by the next surveillance audit.
- Mines must achieve a score of at least 90% of the total possible score in each of the four IRMA Principle areas (i.e., Business Integrity, Positive Legacies, Social Responsibility and Environmental Responsibility).²
- Once a mine has received a rating of IRMA 100, the same requirement shall not receive a rating lower than “fully meets” in three (3) consecutive audits. The rationale for this is that corrective actions taken are failing to provide lasting remedy. If a there is a third occurrence, the mine's achievement level may be suspended or withdrawn.

Basis for IRMA 50 and IRMA 75

The basis for IRMA 50 or IRMA 75 is that mines must demonstrate that they have reached a score of 50% or 75% of the total possible score, respectively, in each of the four IRMA Principle areas (i.e., Business Integrity, Positive

² For example, the total possible score in Principle 1 = # of relevant requirements in every chapter in Principle 1 x 2 points.

Legacies, Social Responsibility and Environmental Responsibility).³ See Appendix 3 for an example of how scoring will be applied.

The rationale for calculating the score for each Principle, rather than the Standard as a whole, is to ensure that mines that receive an IRMA achievement level of 50 or 75 are able to demonstrate a level of competency across the four primary areas of the IRMA Standard, rather than performing strongly in one or two areas only.

Additionally, all critical requirements in the IRMA Standard must at least be “substantially met,” and have in place a corrective action plan to fully meet those requirements by the following surveillance or reassessment audit (whichever comes first). There is the potential to receive an extension of 12-18 months to reach “fully met” status, if progress is being made but there are extenuating circumstances that prevented full conformance within the allotted time frame.

Basis for Transparency and Demonstration of Improvement Over Time

The IRMA Standard is a high-bar standard, and for some mines the process of working toward meeting such a comprehensive set of best practices will take longer. While the IRMA system primarily aims to recognize and reward mines that are achieving best practices in social and environmental performance, IRMA leaders also recognize the value and importance of supporting mines wherever they happen to be on their journey to improve their practices.

Within IRMA, the act of transparency is recognized as a form of leadership in and of itself, as increased transparency can lead to more meaningful engagement and dialogue with a mine’s stakeholders about particular strengths and challenges with the mining project.

The IRMA Board of Directors has therefore decided that mines that are not yet achieving 50% of the requirements in each of the four IRMA principles can still be recognized by IRMA by setting a baseline of performance through a third-party audit and sharing their results publicly. Through follow-up audits these mines can demonstrate publicly that they are improving over time. These mines may decide to set a goal to achieve a certain IRMA level with a certain time frame, but this is not required by IRMA.

Associated Documents and Materials

It is important to note what is **not** in this document. IRMA leaders recognize that there are key aspects of IRMA achievement that are equally relevant to the Standard for the success of IRMA’s mission and which are being developed in tandem but are not embodied in this Guidance Document for Auditors.

IRMA Requirements for CBs: IRMA’s requirements for CBs describe the requirements for CBs to be eligible for to perform auditing services for IRMA. The document contains procedures for auditing and verifying compliance with the IRMA Standard, and granting verified statements of achievement.

IRMA Assessment Manual for Mines: This document is directed at mines applying for IRMA independent assessment. It contains specifics on the mine site assessment application process, length of time for which a verification statement will be valid, frequency of review, details on costs, and other mechanics of the system.

Comments on the IRMA Standard and system are always welcome. They may be emailed to us at: comments@responsiblemining.net

Additional information about IRMA is available on our website: www.responsiblemining.net

³ Ibid.

Business Integrity Requirements



Chapter 1.1—Legal Compliance

BACKGROUND

Compliance with applicable host country laws is one of the most basic principles of operating a mine, or any activity, in a given jurisdiction. As an international best practice standard IRMA’s requirements may also contain provisions that will be more stringent or demanding than the minimum legal requirements specified at the national level in a particular country.

This chapter seeks to ensure that the IRMA Standard supports and complements compliance with international and national laws and regulations. It is based on five precepts:

- Compliance with host country laws and permits;
- Compliance with the IRMA Standard and requirements;
- Compliance with the most protective of host country or IRMA requirements;
- Compliance with the host country law when there is a direct conflict with an IRMA requirement - and explanation and documentation of any conflict to ensure that the decision process and response are clear and available to interested parties; and
- Maintenance of records to document and demonstrate compliance with host country requirements and the IRMA Standard.

TERMS USED IN THIS CHAPTER

- Associated Facility ■ Competent Authority ■ Confidential Business Information ■ Contractor ■ Corporate Owner ■ Host Country Law ■ Mine Closure ■ Mining Project ■ Operating Company ■ Remedy ■ Stakeholder ■

These terms appear in the text with a dashed underline, and they are explained at the end of the chapter

OBJECTIVES/INTENT OF THIS CHAPTER

To support the application of the laws and regulations of the country in which mining takes place, or exceed host country laws in a manner consistent with best practice.

SCOPE OF APPLICATION

Chapter Relevance: This chapter is applicable to all mines applying for IRMA independent assessment.

CRITICAL REQUIREMENTS IN THIS CHAPTER

The operating company complies with host country laws that are applicable to the mining project (1.1.1.1).

Legal Compliance Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
1.1.1. Compliance with Host Country Laws	Auditing Note for 1.1.1.1: Ideally, the operating company will have a system in	For 1.1.1.1: <ul style="list-style-type: none"> Licences, permits, operational notices such as notices 	Explanatory Note for 1.1.1.1: <u>Host country law</u> may also be referred to as national law, if such a phrase is used in

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>1.1.1.1. (Critical Requirement) The <u>operating company</u> shall comply with all applicable <u>host country laws</u> in relation to the <u>mining project</u> and <u>associated facilities</u>.</p>	<p>place for identifying which host country laws apply to the project, and for tracking compliance with laws and permits. If mines do not have such a system, it would be a possible suggestion for an area of improvement (but not required as a corrective action).</p> <p>Re: international laws. If the host country has ratified or acceded to international laws or treaties, but has not implemented them in host country law, mines are not expected to be complying with those particular international laws. However, mines could be encouraged to do so, and if they are already complying it should be noted as a strength, as that would definitely be a demonstration of best practice.</p> <p>For 1.1.1.1: If in place, review documentation tracking compliance obligations and compliance status.</p> <p>Review licences, permits, operational notices such as notices of violation, citations, enforcement actions, payments of penalties and fines, and other regulatory documentation.</p> <p>Review claims and/or prima facie evidence of non-compliance; and</p>	<p>of violation, citations, inspection reports, enforcement actions, payments of penalties and fines, and other regulatory documentation.</p> <ul style="list-style-type: none"> • Matrix, chart or other tracking system listing regulatory requirements, source documents, and compliance status (updated over time). • Internal or external audits (e.g., ISO audits or others) related to legal and/or regulatory compliance. 	<p>reference to the laws of the country in which the <u>mining project</u> is located.</p> <p><u>Host country law</u> includes all applicable requirements, including but not limited to laws, rules, regulations, and permit requirements, from any governmental or regulatory entity, including but not limited to applicable requirements at the federal/national, state, provincial, county or town/municipal levels, or their equivalents in the country where the mine is located.</p> <p>It also includes any international laws, conventions, treaties, etc. that have been ratified or acceded to by the host country and incorporated into law through specific national policy and legislation. If the host country has ratified or acceded to international laws or treaties, but has not implemented them in host country law, mines are not expected to be complying with those particular international laws. However, mines are encouraged to do so, as that would definitely be a demonstration of best practice.</p> <p>If companies are in conformance with ISO 14001 (Environmental Management Systems) they will have documented their compliance obligations relevant to environmental aspects, planned actions to be taken to address those obligations, and monitored and evaluated compliance status with legal and regulatory requirements.⁴</p> <p>Ideally, systems should be in place for tracking the status of all compliance obligations (e.g., environmental, occupational health and safety, labor, human rights, social, taxes, etc.).</p>

⁴ See, for example, ISO 14001:2015. Environmental management systems — Requirements with guidance for use. See, for example, Sections 6.1.3 , 6.1.4, 9.1.2. Standard available for purchase at: <https://www.iso.org/standard/60857.html>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>1.1.2. Compliance with Most Protective Requirements</p> <p>1.1.2.1. The <u>operating company</u> shall comply with whichever provides the greatest social and/or environmental protections of <u>host country law</u> or IRMA requirements. If complying fully with an IRMA requirement would require the <u>operating company</u> to break <u>host country law</u> then the company shall endeavor to meet the intent of the IRMA requirement to the extent feasible without violating the law.</p>	<p>government, company, and third-party records and documentation sufficient to demonstrate compliance in relation to any claims/prima facie evidence of non-compliance.</p> <p>For 1.1.2.1: Review mine operations and practices for clear demonstration that they meet IRMA Standards, unless the <u>host country laws</u> are more stringent.</p> <p>When a company expresses inability to meet an IRMA requirement because it requires breaking <u>host country law</u>, the <u>operating company</u> should provide an explanation of the applicable <u>host country law</u>, the law’s conflict with IRMA, and the resolution implemented by the company, including any efforts to meet the intent of the IRMA requirement within the bounds of <u>host country law</u>. Where justification, further detail, or documentation is required then the <u>operating company</u> shall also provide that to the IRMA auditor.</p>	<p>For 1.1.2.1:</p> <ul style="list-style-type: none"> • Copies of any host-country laws that conflict with IRMA requirements. 	<p>Explanatory Note for 1.1.2.1: For purposes of this section, “most protective” means the law or requirement that will best prevent or mitigate negative impacts on human health, safety, environment, human rights, cultural resources, etc., in the host country and cause the least risk to the host state’s economic resources.</p>
<p>1.1.3. Response to Non-Compliance</p> <p>1.1.3.1. If non-compliance with a <u>host country law</u> has taken place, the <u>operating company</u> shall be able to demonstrate that timely and effective action was taken to remedy the non-</p>	<p>For 1.1.3.1: Review <u>operating company</u> responses and remedies to confirm that timely and effective action has been taken, i.e., the company has successfully resolved non-compliances and problems within a timeframe acceptable to the</p>	<p>For 1.1.3.1:</p> <ul style="list-style-type: none"> • Documentation of non-compliances (e.g., notices of violation, enforcement actions, inspection reports or other regulatory documentation) • Documentation of any resolutions to non-compliance issues (e.g., corrective actions taken; payment of fines; 	<p>Explanatory Note for 1.1.3.1: Non-compliance with <u>host country law</u> includes any breaches of laws, as well as breaches of permit requirements (e.g., if a <u>water quality criterion</u> value in a permit has been exceeded, that is a non-compliance issue, even if no citation or fine was issued).</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>compliance and to prevent further non-compliances from recurring.</p>	<p><u>competent authority</u>. Confirm through interviews or document review that compliance has been achieved, or is being sufficiently pursued, to the satisfaction of the <u>competent authority</u>.</p> <p>Review any procedural or other changes that have been implemented to prevent similar non-compliance from recurring.</p> <p>If the non-compliance is human rights related, see IRMA Chapter 1.3 for IRMA expectations related to effective <u>remedy</u> for infringements of human rights.</p>	<p>subsequent documentation from regulatory authorities confirming that non-compliance issues have been resolved, etc.)</p> <p>NOTE: This evidence is intended to inform two IRMA issues: (1) that the operating company is documenting things that IRMA requires it to document/disclose and (2) that the operating company is compliant or taking appropriate steps to become compliant for all requirements plus host country law.</p>	
<p>1.1.4. Contractor Compliance</p> <p>1.1.4.1. The <u>operating company</u> shall demonstrate that it takes appropriate steps to ensure compliance with the IRMA Standard by <u>contractors engaged</u> in activities relevant to the <u>mining project</u>.</p>	<p>For 1.1.4.1: Review actions and documentation demonstrating that the <u>operating company</u> performs oversight and monitoring of its <u>contractors</u> related to compliance with IRMA requirements. Demonstration of oversight shall include, but not be limited to <u>operating company</u> records, actions, plans, or policies related to <u>contractors</u> while working at the mine site and while engaged in activities reasonably related to the <u>contractor's</u> services to the <u>operating company</u>, and any systems in place to track contractor compliance with company's performance expectations.</p> <p>Contractors should be aware that they are expected to comply with certain environmental and social performance</p>	<p>For 1.1.4.1:</p> <ul style="list-style-type: none"> • Policies that include environmental or social expectations of contractors (that are consistent with IRMA requirements) while working at the mine site or engaged in activities reasonably related to the contractor's services to the operating company. • Documentation of meetings or correspondence with contractors where information was conveyed on expectations to meet certain environmental and social standards (e.g., IRMA requirements). • Documentation of oversight of contractor practices, such as audits, inspections, reports from contractors on their performance, etc. • Documentation of the operating company discussing deficiencies and requiring corrective actions where a contractor failed to operate according to these requirements, and documentation that the operating company acted in response. 	<p>Explanatory Note for 1.1.4: The definition of <u>contractors</u> includes relevant subcontractors (i.e., those involved in providing to the <u>operating company</u> or the company's <u>contractors work</u> or services that are relevant to the mining project).</p> <p><u>Contractors</u> will be only expected to comply with IRMA requirements that relate to the performance of any of their activities that are relevant to the <u>mining project</u>.</p> <p>While not required, it may be beneficial for companies to integrate <u>contractor</u> obligations related to environmental and social management into the mine's Environmental and Social Management System (see Chapter 2.1, criteria 2.1.7).</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>1.1.5. Record-Keeping and Disclosure</p> <p>1.1.5.1. The <u>operating company</u> shall maintain records and documentation sufficient to authenticate and demonstrate compliance and/or non-compliance with <u>host country laws</u> and the IRMA Standard.</p> <p>1.1.5.2. Records related to compliance and/or non-compliance with <u>host country laws</u> shall be made available to IRMA auditors, and shall include descriptions of non-compliance events and ongoing and final <u>remedies</u>.</p>	<p>levels conveyed to them by the operating company (although they need not be aware of the IRMA Standard requirements, per se, as long as they are meeting them in practice).</p> <p>For 1.1.5.1: Review <u>operating company</u> records for their qualitative and quantitative completeness demonstrating compliance with <u>host country laws</u> and IRMA requirements. Records should be maintained in perpetuity, but for IRMA purposes, at least through <u>mine closure</u>. Examples of relevant records include documentation related to IRMA’s individual chapters, host country regulatory reports (both compliance and non-compliance, compliance inspections), and monitoring data/reports.</p> <p>For 1.1.5.2: Confirm that the company willingly shares non-confidential data on compliance and non-compliance with auditors.</p> <p>Review <u>operating company</u> documents and other sources (e.g., government documentation) of mine-related non-</p>	<ul style="list-style-type: none"> Documentation of contractors communicating about a deficiency with operating company/IRMA performance standards, and corrections undertaken of its own initiative, which would demonstrate both that the operating company has requirements for compliance and that steps are being taken by contractors to comply. <p>For 1.1.5.1 and 1.1.5.2:</p> <ul style="list-style-type: none"> Documentation including permits, licences, operational notices, inspection reports, and other regulatory documentation. Documentation related to non-compliance with host country law (e.g., notices of violation, enforcement actions, reports of failed inspections, payments of penalties and fines, or other regulatory documentation) Documentation of any resolutions to non-compliance issues (e.g., corrective actions taken; payment of fines; subsequent documentation from regulatory authorities confirming that non-compliance issues have been resolved, etc.) <p>NOTE: Documentation related to compliance with IRMA requirements will be checked by auditors during the independent audit process, and will vary by chapter.</p>	<p>Explanatory Note for 1.1.5.1: <u>Operating companies</u> should keep records of inspections and any information regarding non-compliance (e.g. notices of non-compliance or less formal correspondence/notification) from regulatory bodies, and also document steps taken to resolve those non-compliance issues, ongoing or permanent activities, and dates when non-compliance issues are considered by regulatory bodies to be resolved.</p> <p>Also, companies that seek to be assessed by IRMA will also need to keep sufficient records to be able to demonstrate compliance with IRMA Standard requirements. It is recognized, however, that at <u>existing mines</u> some records may no longer exist. In those cases, it may be possible to waive this requirement. Those questions will be handled on a case-by-case basis during the assessment process.</p> <p>Explanatory Note for 1.1.5.2: As used in this section, “records” includes, but is not limited to, any permit, regulatory, or relevant governmental actions whether pending or resolved “ongoing remedies” refers to situations where the operating company is still working on achieving compliance to the satisfaction of the regulatory government entities/<u>competent authorities</u>.</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>1.1.5.3. Upon request, <u>operating companies</u> shall provide <u>stakeholders</u> with a summary of the mine <u>project's</u> regulatory non-compliance issues that are publicly available.</p>	<p>compliance. Documentation might include a link to the company's permit-related non-compliance in company annual or sustainability reports; or, if not publicly available, review of company documents. The <u>operating company</u> shall provide access to actual government reports in its possession or to which it has access, such as inspection reports, notices of violations and resolution, etc. Confirm that company information is present and up-to-date.</p> <p>Auditing Note for 1.1.5.3: Companies may provide <u>stakeholders</u> with non-compliance information that is not already publicly available through regulators or the company, but are not required to do so in 1.1.5.3. This extra level of transparency would be notable as going beyond leading practice.</p> <p>For 1.1.5.3: Confirm through review of information requests, interviews with <u>operating company</u> and <u>stakeholders</u> that if requested, companies have provided <u>stakeholders</u> with information on regulatory non-compliances such as citations, violations, fines or penalties that is publicly available. (See Explanatory Note for 1.1.5.3).</p>	<p>For 1.1.5.3:</p> <ul style="list-style-type: none"> Records (e.g., emails, copies of letters, etc.) indicating that stakeholder requests for summaries of a mining project's regulatory non-compliance issues have been provided to stakeholders. 	<p>This information is required to be released to auditors, so that auditors can verify that timely and effective action is being taken to comply with the law and/or remedy any non-compliance and prevent further non-compliances from recurring.</p> <p>Explanatory Note for 1.1.5.3: "Publicly available" means that information is either already accessible by the public (e.g., compliance/non-compliance reports, statistics, inspection or other reports published on a regulatory website, or compliance/non-compliance-related information published by the company), or that information could be accessed through legal public means (e.g., through information requests to regulators).</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>1.1.5.4. Where the <u>operating company</u> claims that records or documentation contains <u>confidential business information</u>, it shall:</p> <ol style="list-style-type: none"> Provide to auditors a general description of the confidential material and an explanation of the reasons for classifying the information as confidential; and If a part of a document is confidential, only that confidential part shall be redacted, allowing for the release of non-confidential information. 	<p>Provision of information needs to conform with criterion 1.2.4 in Chapter 1.2.</p> <p>For 1.1.5.4: Review <u>operating company</u> documentation or interview relevant personnel to obtain an explanation for why confidential information is being withheld from auditor. Confirm that company rationale for keeping information confidential aligns with the definition of <u>confidential business information</u>.</p> <p>Review any documents provided to auditors that include <u>confidential business information</u>. Confirm that non-confidential information is not redacted.</p>	<p>For 1.1.5.4:</p> <ul style="list-style-type: none"> Copies of records or documents that include information that has been withheld from the public, with information redacted, and written or verbal description of the confidential business information 	<p>Explanatory Note for 1.1.5.4: Note that IRMA auditors or certification bodies may be required to execute nondisclosure-confidentiality agreements to view confidential information. These agreements shall not be a bar to IRMA auditors disclosing confidential information required by law.</p> <p>The operating company's description of confidential business information must be sufficient to identify the information claimed as confidential - and to demonstrate that only confidential information is being withheld. For example, an operating company's annual submission to government regulators may contain confidential information about ore mineralization and volumes/locations (which could be legitimately confidential) but will also probably contain non-confidential information that should not be claimed as confidential. By comparison, a report from or to a mineralogy lab may be fully confidential.</p>

NOTES

This chapter balances the importance of compliance with host country laws with the recognition that laws can greatly vary between countries and regions. Therefore, this chapter establishes minimum legal standards and applicability requirements for other IRMA chapters when comparing host country law with the requirements in the IRMA Standard. As a general rule, and particularly recognizing that participation in IRMA is voluntary, this chapter prioritizes IRMA requirements because IRMA seeks to raise the bar of mining practices globally - and not just codify existing practices (whether considered best or not).

IRMA achievement is based on the evidence available to and reviewed by a certification body. IRMA achievement does not guarantee that an assessed mine complies with all the legal obligations associated with a mining project and may not be used to suggest otherwise or as a defense to claims regarding legal violations.

IRMA is developing a Policy on Association that, when finalized, will identify selected, essential international norms and requirements, the breach of which may be grounds for rejection of an operating company and/or its corporate owner from continued IRMA participation. The IRMA Policy on Association will not be put into effect until after the IRMA Launch Phase. IRMA welcomes comments on its draft Policy on Association, which is available at: www.responsiblemining.net/images/uploads/IRMA_Policy_On_Association_Draft_v1.0.pdf.

Cross References to Other Chapters	
CHAPTER	ISSUES
All IRMA Chapters	As per Chapter 1.1, if there are <u>host country laws</u> that pertain specifically to the topics addressed in any IRMA chapter, the <u>operating company</u> is required to abide by those laws. If IRMA requirements are more stringent than <u>host country law</u> , the company is required to also meet the IRMA requirements, as long as complying with them would not require the company to break the <u>host country law</u> . <u>Contractors</u> may be hired by the operating company to carry out various activities such as environmental, social or other impact assessments, construction work, mine site security, or others. As per 1.1.4, such <u>contractors</u> are expected to operate in manner that aligns with the IRMA Standard.
1.2—Community and Stakeholder Engagement	<u>Stakeholders</u> have access to information on regulatory non-compliances upon request (1.1.5.3). Access to information needs to conform with criteria 1.2.4 in Chapter 1.2. Both Chapters 1.1 and 1.2 include provisions that allow <u>confidential business information</u> to be withheld from auditors (Chapter 1.1) and <u>stakeholders</u> (Chapter 1.2). In both cases, however, companies are expected to redact only the confidential information and release the remaining non-confidential information to auditors and <u>stakeholders</u> .
1.3—Human Rights Due Diligence	If an <u>operating company's</u> legal non-compliance is human rights related, see IRMA Chapter 1.3 for IRMA expectations related to effective <u>remedy</u> .
1.5—Revenue and Payments Transparency	In Chapter 1.5, criteria 1.5.2 on disclosure of project-level payments to governments requires <u>operating companies</u> to disclose publicly any fines or other similar penalties that have been issued in relation to the <u>mining project</u> . This information should be made available to <u>stakeholders</u> if requested, as per requirement 1.1.5.3 in this chapter.

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the [Glossary of Terms](#) at the end of the IRMA Standard document.

Associated Facility

Any facility owned by the operating company that is located on or near to the mine lease/property and is related to the mining project (including ore processing facilities, stationary physical property such as power plants, roads, railroads, borrow areas, fuel production or preparation facilities, parking areas, shops, offices, housing facilities, storage facilities and others).

Certification Body

Also known as a conformity assessment body, is an entity that performs auditing and conformity assessment services to determine if specified requirements are fulfilled (in this case conformity with the IRMA *Standard for Responsible Mining*).

Competent Authority

The government department or other authority having power to issue and enforce regulations, orders or other instructions having the force of law in respect of the subject matter of the provision concerned.

Confidential Business Information

Material that contains trade secrets or commercial or financial information that has been claimed as confidential by its source. The information must be secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question; it must have commercial value because it is secret; and it must have been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret.

Contractor

An individual, company, or other legal entity that carries out duties subject to a contractual agreement that defines, for example, work, duties or services, pay, hours or timing, duration of agreement, and that remains independent for employment, tax, and other regulatory purposes. This includes sub-contractors.

Corporate Owner(s)

The corporation(s) or other business institution(s) including any private or state-run enterprises that have complete or partial financial interest in or ownership of a mining project.

Host Country Law

May also be referred to as national law, if such a phrase is used in reference to the laws of the country in which the mining project is located. Host country law includes all applicable requirements, including but not limited to laws, rules, regulations, and permit requirements, from any governmental or regulatory entity, including but not limited to applicable requirements at the federal/national, state, provincial, county or town/municipal levels, or their equivalents in the country where the mine is located. The primacy of host country laws, such as federal versus provincial, is determined by the laws of the host country.

Mine Closure

A period of time when ore-extracting and processing activities of a mine have ceased, and final decommissioning and mine reclamation are occurring. It typically includes pre-closure (detailed closure design and planning), closure (actual activities of closure of mine workings and construction/decommissioning) and post-closure (mainly long-term reclamation, monitoring, and treatment) periods, each with its own specific activities.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Remedy/Remediation (including in relation to Human Rights Impacts)

Remediation and remedy refer to both the processes of providing remedy for an adverse impact and the substantive outcomes that can counteract, or make good, the adverse impact. These outcomes may take a range of forms, such as apologies, restitution, rehabilitation, financial or non-financial compensation, and punitive sanctions (whether criminal or administrative, such as fines), as well as the prevention of further harm through, for example, injunctions or guarantees of non-repetition.

Stakeholder

A person or group or people who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



Chapter 1.2—Community and Stakeholder Engagement

BACKGROUND

Large-scale mining developments have the potential to last for decades over their life cycle. Often mines are built in locations near existing communities; in other cases, new communities emerge because of mining activities. Mining projects have the potential to significantly impact the lives of people in those communities. Some changes may be beneficial, for example, through the provision of jobs, or through mining company investment in community development projects. But mining projects also have the potential to create negative impacts, and even be a source of social conflict, within communities.

Increasingly, mining companies, host governments, and financial institutions are recognizing that building strong, lasting relationships with those affected by mining activities can improve the identification and management of risks, as well as the long-term viability of operations.⁵ Meaningful stakeholder engagement that is proactive, inclusive, accountable, and transparent is more likely to result in optimal outcomes for both communities and mining companies.⁶

OBJECTIVES/INTENT OF THIS CHAPTER

To support mining company decision-making and enable communities and stakeholders to participate in mining-related decisions that affect their health, wellbeing, safety, livelihoods, futures and the environment.

SCOPE OF APPLICATION

Chapter Relevance: This chapter is relevant for all mines assessed under IRMA.

New vs. Existing Mines: New mines shall meet all requirements in this chapter. Existing mines being assessed will be required to meet all requirements in Chapter 1.2, with the exception of the requirement in 1.2.2.1 that engagement begin prior to or early in the development phase of the mining project. For some existing mines, this may not have occurred. Those mines will have to demonstrate that they currently engage with stakeholders on an ongoing basis.

CRITICAL REQUIREMENTS IN THIS CHAPTER

The mine fosters two-way dialogue and meaningful engagement with stakeholders (1.2.2.2).

TERMS USED IN THIS CHAPTER

Accessible ■ Affected Community ■ Artisanal and Small-Scale Mining (ASM) ■ Child Labor ■ Collaborate ■ Confidential Business Information ■ Consultation ■ Existing Mine ■ Forced Labor ■ Inclusive ■ Indigenous Peoples ■ Mining Project ■ Mining-Related Activities ■ New Mine ■ Operating Company ■ Rights Holder ■ Stakeholder ■ Vulnerable Group ■ Worker ■ Workers' Organizations ■

These terms appear in the text with a dashed underline, and

⁵ Herbertson, K., Ballestaeros, A., Goodland, R. and Munilla, I. 2009. Breaking Ground: Engaging Communities In Extractive And Infrastructure Projects. (World Resources Institute). pdf.wri.org/breaking_ground_engaging_communities.pdf

⁶ For example, Principle 10 of the Rio Declaration of 1992 states that, "Environmental issues are best handled with the participation of all concerned citizens." See United Nations. 1992. Report of the United Nations Conference on Environment and Development. Annex I. "Rio Declaration on Environment and Development." <http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm> See IRMA Guidance for more information.

Community and Stakeholder Engagement Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>1.2.1. Planning and Designing Stakeholder Engagement Processes</p> <p>1.2.1.1. The operating company shall undertake identification and analysis of the range of groups and individuals, including community members, rights holders and others (hereafter referred to collectively as “stakeholders”) who may be affected by or interested in the company’s mining-related activities.</p>	<p>Auditing Note for 1.2.1.1: For 1.2.1.1, generally, criterion, relevant documents may include: engagement plan, relevant sections of the environmental and social impact assessment, and minutes of meetings with stakeholders consulted in engagement plan development.</p> <p>For 1.2.1.1.1: Interview operating company representatives (e.g., site management, community relations team, staff from other departments that engage with stakeholders) and stakeholders and review documentation to confirm that that operator has identified a reasonable range of affected and interested stakeholders.</p>	<p>For 1.2.1.1.1:</p> <ul style="list-style-type: none"> • Stakeholder analysis reports/records. • Stakeholder mapping reports/records. • Stakeholder database. • Stakeholder tracking reports/records. • Stakeholder engagement plan. • Stakeholder engagement procedure. • Minutes of meetings with stakeholders from relevant company departments. 	<p>Explanatory Note for 1.2.1.1.1: Stakeholder analysis involves a more in-depth look at stakeholder group interests, how those interests will be affected and to what degree, and what influence stakeholders could have on the project. The answers to these questions provide the basis from which to build stakeholder engagement plan. It is important to note that not all stakeholders in a particular group or sub-group will necessarily share the same concerns or have unified opinions or priorities.</p> <p>Various activities being undertaken by a company (e.g., socio-economic baseline studies and livelihood studies) can inform both the identification of stakeholders and the existence of sub-groups within communities, and the analysis of stakeholders, as can consultations with the exploration team, site visits and consultations with local community members. Stakeholder mapping exercises and the compilation of community Venn diagrams may assist in better understanding local groupings and their interactions.⁷</p> <p>The “range of stakeholders” should include those whose lives, livelihoods, health, safety and rights may be directly affected by the company’s activities. Relevant stakeholders will vary from one mine to the next, but should always include women, men, and vulnerable groups (or their representatives) such as children, minorities and the elderly. Depending on the circumstances, stakeholders may include indigenous peoples (if their rights or territories may be affected), mine workers (if they live in affected communities), artisanal and small-scale miners (ASM), farmers, hunters, gatherers, fishers, water users, etc. Stakeholders also include those who have an interest in the mining project and also those who have the potential to affect the operation, such as</p>

⁷ A Venn diagram is a drawing made up of circles representing different groups and/or organizations. The size and position of the circles represents the importance and interaction of the group/organizations in relation to others.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>1.2.1.2. A <u>stakeholder engagement plan</u> scaled to the <u>mining project's</u> risks and impacts and stage of development shall be developed, implemented and updated as necessary.</p>	<p>For 1.2.1.2: Interview <u>operating company</u> representatives and <u>stakeholders</u> and review documentation to confirm that that operator has developed and implemented its engagement plan, and updated if necessary.</p>	<p>For 1.2.1.2:</p> <ul style="list-style-type: none"> • Stakeholder engagement plan and evidence of its implementation. • Stakeholder engagement procedures. 	<p>government officials, public health agencies, non-governmental organizations/civil society, other mining or industrial operations in the area, etc.</p> <p>For the purposes of this chapter, we are referring to <u>rights holders</u> and <u>stakeholders</u> collectively as <u>stakeholders</u>. However, when <u>rights holders</u> have been identified (e.g., see IRMA Chapter 1.3, requirement 1.3.2.3.e) particular effort should be made to include them in <u>stakeholder engagement</u> processes.</p> <p>According to OECD, “All people have human rights and thus all <u>stakeholders</u> as individuals are “<u>rights-holders</u>”. However, not all stakeholders will have their human rights put at risk or impacted by an extractive project or its associated activities. . . individuals living in a community whose only local water source may be polluted by an extractive operation may be <u>rights-holders</u>. <u>Workers</u> facing discrimination in the workplace are also rights-holders. In addition to individual human rights, certain groups such as indigenous and tribal peoples can have collective rights and consequently the group itself may be considered a <u>rights-holder</u>.”⁸</p> <p>Explanatory Note for 1.2.1.2: The purpose of a <u>stakeholder engagement plan</u> is to describe a company’s program for engaging with stakeholders in a culturally appropriate manner (whether it be for a single project or a range of company operations). The goal is to ensure the timely provision of relevant and understandable information. It is also to create a process that provides opportunities for <u>stakeholders</u> to express their views and concerns, and allows the company to consider and respond to them.</p> <p>According to IFC (2007), <u>stakeholder engagement plans</u> should:</p> <ul style="list-style-type: none"> • Describe regulatory, lender, company, and/or other requirements for <u>consultation</u> and disclosure • Identify and prioritize key stakeholder groups

⁸ OECD. 2017. *OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector*. p. 20. Available at: <http://www.oecd.org/publications/oecd-due-diligence-guidance-for-meaningful-stakeholder-engagement-in-the-extractive-sector-9789264252462-en.htm>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
			<ul style="list-style-type: none"> • Provide a strategy and timetable for sharing information and <u>consulting</u> with each of these groups • Describe resources and responsibilities for implementing stakeholder engagement activities • Describe how stakeholder engagement activities will be incorporated into a company’s management system. <p>Re: engagement plans being updated “as necessary.” It is important to understand that stakeholders’ interests can change or realign as their relationships with the project progress. As a result, stakeholder engagement plans should change over time to reflect this, as well as reflect engagement with new stakeholders over time. At minimum, this should occur when there are major changes to the scope of the <u>mining project</u> (e.g., expansions, proposed resettlement projects, addition of new facilities, major changes in security arrangements, etc.) or the operating environment (e.g., changes in political stability, demographic changes the community, arrival or increase of artisanal mining in the region, etc.).</p> <p>“Scaled to the <u>mining project’s</u> risks and impacts” means that the level of <u>stakeholder engagement</u> may need to be greater, and include a wider range of <u>stakeholders</u>, if the risks to communities and the environment are high. Increased <u>stakeholder engagement</u> is likely warranted in these circumstances due to the heightened concern or interest in the project, and the increased potential for conflict and opposition to a project. Conversely, if the risks to communities and the environment are low, there may be less need to engage a wide range of <u>stakeholders</u>, and engagement can focus more on the directly affected <u>stakeholders</u> and <u>affected communities</u>.</p> <p>“Scaled to the stage of development” means that the engagement plan may be different for different stages of development, e.g., exploration, permitting, construction, operation, decommissioning and closure, post-closure. Engagement plans will likely need to change over time to reflect the different levels of engagement that should occur during these stages.</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>1.2.1.3. The <u>operating company</u> shall consult with <u>stakeholders</u> to design engagement processes that are <u>accessible</u>, <u>inclusive</u> and <u>culturally appropriate</u>,⁹ and shall demonstrate that continuous efforts are taken to understand and remove barriers to engagement for affected <u>stakeholders</u> (especially women, <u>marginalized</u> and <u>vulnerable groups</u>).</p>	<p>For 1.2.1.3: Review documentation, including minutes of meetings, and interview <u>stakeholders</u> and community members to confirm their participation in the development of engagement processes that are <u>accessible</u> (efforts have been made to remove barriers to participation and make information understandable), <u>culturally appropriate</u> and <u>inclusive</u>.</p> <p>Review the grievance log to check any grievances related to lack of stakeholder engagement.</p> <p>Determine if relevant <u>stakeholder feedback</u>, whenever received, results in changes to reduce barriers to engagement.</p>	<p>For 1.2.1.3:</p> <ul style="list-style-type: none"> • Stakeholder engagement plan. • Stakeholder consultation plan. • Stakeholder engagement procedure. • Stakeholder management procedure. • Stakeholder communication strategy/procedure. • Stakeholder analysis reports/records. • Stakeholder mapping reports/records. • Records of communication with stakeholders, e.g. meeting minutes, recordings, etc. • Grievance mechanism/policies and procedure. • Records of lodged/investigated grievances. • Monitoring or evaluation reports related to on stakeholder engagement. 	<p>Explanatory Note for 1.2.1.3: “<u>Accessible</u>,” in reference to engagement processes, means being made available in an understandable manner to all stakeholder groups for whose use they are intended, and providing adequate assistance for those who may face particular barriers to access. For example, there may be communities or groups within communities that are not literate, and therefore, need information conveyed in a form other than written (e.g., face-to-face meetings; video; audio). Some communities may prefer to receive information verbally. Some communities or groups within communities may not have reliable access to the internet or computers, and therefore would need written information in hard copy, available at a nearby locations during hours that enable access to individuals who work during the day.</p> <p>“<u>Inclusive</u>,” in the context of stakeholder engagement, means that engagement includes men, women, the elderly, youth, displaced persons, <u>vulnerable groups</u> and disadvantaged persons or groups.</p> <p>“<u>Culturally appropriate</u>” engagement processes would be those that are aligned with the cultural norms and communication styles of the <u>affected communities</u> and <u>stakeholders</u>. Companies would be expected to use methods, languages, terminology and formats that are respectful of cultural differences (e.g., in some cultures, it is disrespectful to look directly into a person’s eyes), and can be easily understood by the affected communities and stakeholders. Stakeholders can help to define for the company what is considered culturally appropriate.</p> <p>Some <u>indigenous peoples</u> have developed <u>community consultation</u> protocols or policies that outline how external actors (governments, companies, NGOs, researchers) are expected to engage with them in the context of activities that could impact their land or natural resources. In the absence of any formal protocols, <u>operating companies</u> could consult with external experts or others</p>

⁹ See definitions of inclusive and accessible.

“Culturally appropriate” engagement processes (e.g., communications, interactions and conveyance of information) would be those that are aligned with the cultural norms and communication styles of the affected communities and stakeholders. Companies would be expected to use methods, languages, terminology and formats that are respectful of cultural differences (e.g., in some cultures, it is disrespectful to look directly into a person’s eyes), and can be easily understood by the affected communities and stakeholders. As per requirement 2.8.1.3, stakeholders can help to define for the company what is considered culturally appropriate.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
			<p>for suggestions of how to initiate engagement, and whom to engage in indigenous peoples' communities.</p> <p>It is critical that the social and cultural contexts be understood in order to identify and develop plans to address barriers to engagement.</p> <p>Potential barriers to engagement may include the following:</p> <ul style="list-style-type: none"> • Power dynamics within communities. Local power brokers may dominate meetings with outsiders or create a coercive atmosphere which hinders meaningful and inclusive engagement. Engagement activities may put some stakeholders at risk (e.g., <u>human rights defenders</u>, <u>community or workers' representatives</u> and leaders). • Social or cultural norms or practices may prevent certain individuals or groups in a community from participating in engagement activities. For example, in some cultures women may not feel comfortable or be permitted to participate in important community decision-making processes. In some contexts, religious denomination, ethnicity or caste may exclude some people from meetings or from important decision-making processes. <u>Vulnerable groups</u> and youth may be excluded from engagement in some cultures. • Logistical constraints may include isolation of communities, rugged terrain, and poor transportation infrastructure may make it difficult for certain <u>stakeholders</u> to participate in engagement activities. Poor communication networks may also hinder participation. The women with family responsibilities, elderly/youth and those in poor health or with disabilities may face constraints in participating in engagement processes. • Socio-economic constraints may include situations where people may not be able to afford transportation costs or to take time off work or family duties to attend meetings and consultations. <u>Stakeholders</u> may not be literate or may have low levels of education. • Legislative requirements and repressive regimes may mean that in some cases local law or practice may contradict enterprise policy or international standards. Local government authorities or traditional leaders may not have

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>1.2.1.4. The <u>operating company</u> shall demonstrate that efforts have been made to understand community dynamics in order to prevent or mitigate community conflicts that might otherwise occur as a result of company engagement processes.</p>	<p>For 1.2.1.4: Confirm that the company has made efforts to understand community dynamics; and that this information has fed into the development of appropriate engagement processes.</p> <p>Relevant documentation to support the review of these requirements may include the following:</p> <ul style="list-style-type: none"> • Outreach materials sent to <u>stakeholders</u>; • Attendance records, meeting minutes and other documentation such as notes from meetings held 	<p>For 1.2.1.4:</p> <ul style="list-style-type: none"> • Social baseline report. • Stakeholder engagement plan. • Stakeholder consultation plan. • Stakeholder engagement procedure. • Stakeholder management procedure. • Community development project or program documentation. • Venn diagrams of community groups/sub-groups from stakeholder analyses. • Stakeholder engagement reports. • Records of communication with stakeholders. 	<p>had prior experience in engagement for a major extractive project, and may require capacity building. Or, they may request assistance to help them manage the additional burden or pressure that comes from coordinating a <u>community consultation</u> or engagement process.</p> <ul style="list-style-type: none"> • The needs, wants or expectations of various <u>stakeholder</u> groups may be competing or diametrically opposed, meaning there is no consensus on issues amongst <u>stakeholders</u>. Competing interests and expectations could cause challenges to effective engagement if the operating company favors one group over another in the distribution of benefits from a project during engagement activities, or may be perceived as doing so. • Violence and opposition from <u>stakeholders</u> or civil society who are actively campaigning against the enterprise or project may make engagement efforts with some <u>stakeholders</u> challenging. Violence is used by some <u>stakeholders</u> to express dissatisfaction with the enterprise or project. <p>Explanatory Note for 1.2.1.4: Understanding impacts, and local power dynamics is important for designing <u>stakeholder</u> engagement activities appropriately tailored to the culture and context.¹⁰ Social or cultural norms or practices may prevent certain individuals or groups in a community from participating in engagement activities. For example, in some cultures women may not be permitted to participate in important community decision-making processes. In some contexts, religious denomination, ethnicity or caste may exclude some people from meetings or from important decision-making processes, or existing tensions between groups may prevent participation in engagement processes or create conflicts during engagement processes. Youth may be excluded from engagement in some cultures, potentially creating disillusionment in a population that may have interest in the mining project but no voice. In these cases, it may be necessary to hold separate consultation and engagement activities with different groups.</p>

¹⁰ OECD. 2017. *OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector*. Available at: <http://www.oecd.org/publications/oecd-due-diligence-guidance-for-meaningful-stakeholder-engagement-in-the-extractive-sector-9789264252462-en.htm>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
	<ul style="list-style-type: none"> with <u>community stakeholders</u>; • Copies of presentation or other communication material provide to <u>community stakeholders</u> by the <u>operating company</u> or any other third parties supporting the engagement processes; • Terms of reference for any committees or forums established to engage with <u>affected communities</u> and <u>stakeholders</u>. • Social baseline study; community development projects or programs; grievance log; community Venn diagrams. • Other relevant materials. 	<ul style="list-style-type: none"> • Documented meeting minutes or recordings. • Stakeholder analysis reports/records. • Stakeholder mapping reports/records. • Grievance mechanism/policies and procedure. • Records of lodged grievances. 	<p>Efforts may include <u>consulting</u> with individual or certain groups of <u>stakeholders</u> on issues related <u>community dynamics</u> about which the company should be made aware, or consulting with external experts to better understand if there may be any cultural or social factors that, if not managed for in engagement processes, could create unintended conflicts within communities. It is important that designated personnel (in particular those who liaise with <u>stakeholders</u>) are aware of the findings, so that they can continue to ensure that efforts are undertaken to reduce community conflicts that may be caused or exacerbated by the company's engagement processes.</p>
<p>1.2.2. Engagement Processes</p> <p>1.2.2.1. <u>Stakeholder engagement</u> shall begin prior to or during mine planning, and be ongoing, throughout the life of the mine.</p>	<p>For 1.2.2.1: For <u>new mines</u>, interview the <u>operating company</u> and <u>stakeholders</u>, and review documents to confirm that <u>stakeholder engagement</u> occurred from the point that the company undertook <u>mining-related activities</u> in the area. For <u>existing mines</u>, confirm that they have engagement processes in place and are engaging with <u>stakeholders</u> on an ongoing basis.</p> <p>See the Table “Cross-References to Other Chapters” and confirm that required stakeholder engagement</p>	<p>For 1.2.2.1:</p> <ul style="list-style-type: none"> • Stakeholder engagement plan. • Stakeholder consultation plan. • Stakeholder engagement procedure. • Stakeholder management procedure. • Stakeholder engagement reports. • Records of communication with stakeholders. • Documented meeting minutes or recordings. • Grievance mechanism/policies and procedure. • Records of lodged grievances. 	<p>Explanatory Note for 1.2.2.1: Ideally, <u>stakeholder engagement</u> should begin during exploration, or, if the <u>operating company</u> purchased or acquired an exploration project, soon after the purchase/acquisition. For <u>new mines</u>, engagement is expected to begin no later than the mine planning stage.</p> <p>It is recognized that early <u>stakeholder engagement</u>, i.e., prior to or during mine planning, may not have occurred at some <u>existing mines</u>. Because existing mines cannot turn back the clock, those mines will only have to demonstrate that they currently engage with stakeholders on an ongoing basis.</p> <p>The process of <u>stakeholder engagement</u> is dynamic, interactive and ongoing. Often mines will have active community liaison staff to provide ongoing access to the company on a daily basis, as well as more formal engagement activities and events.</p> <p>Assigned timelines for engagement activities should be flexible to the extent possible taking into consideration timing obligations imposed by governments</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
	outlined in other IRMA Chapters has occurred.		<p>or outlined in contracts. Planned stakeholder engagement activities, as well as stakeholder identification and outreach plans, should be reviewed and adjusted in response to or in anticipation of the following events, as relevant:</p> <p>Advanced exploration Feasibility studies Acquisition of a deposit/concession Construction of new infrastructure or mine expansions Meetings with <u>stakeholders</u> during mine operations to provide updates on <u>mining project</u> activities and discuss stakeholder issues of concern</p> <p>The IRMA Standard specifies numerous points in the mine development process where stakeholder engagement is required. See the Table “Cross-References to Other Chapters” at the end of the chapter to find out more.</p>
<p>1.2.2.2. (Critical Requirement) The <u>operating company</u> shall foster two-way dialogue and meaningful engagement with <u>stakeholders</u> by:</p> <ol style="list-style-type: none"> Providing relevant information to <u>stakeholders</u> in a timely manner; Including participation by site management and subject- 	<p>For 1.2.2.2: Interview <u>operating company</u> and <u>stakeholders</u> to confirm that: relevant information is made available; issues experts/company management have been engaged; engagement includes dialogue and information exchange (not simply one-way transfer of information from company to <u>stakeholders</u>); engagement respectful, free from</p>	<p>For 1.2.2.2:</p> <ul style="list-style-type: none"> Stakeholder engagement plan. Stakeholder consultation plan. Stakeholder engagement procedure. Stakeholder management procedure. Stakeholder engagement reports. Stakeholder database. Stakeholder tracking reports/records. 	<p>Explanatory Note for 1.2.2.2: “Meaningful engagement” includes a two-way exchange of information between the <u>operating company</u> and <u>stakeholders</u>, with <u>stakeholders’</u> views being taken into account in decision-making; engagement is conducted in good faith (i.e., the company genuinely intends to understand how <u>stakeholder</u> interests are affected by their actions and to address adverse impacts, and <u>stakeholders</u> honestly represent their interests, intentions and concerns); and companies are responsive to <u>stakeholder</u> input and follow through on commitments.¹¹</p> <p>“marginalized or <u>vulnerable groups</u>” may include ethnic or religious minorities, the poor, the elderly, children, youth, etc. In such cases, confirm that efforts</p>

¹¹ OECD. 2017. *OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector*. p. 18. Available at: <http://www.oecd.org/publications/oecd-due-diligence-guidance-for-meaningful-stakeholder-engagement-in-the-extractive-sector-9789264252462-en.htm>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>matter experts when addressing concerns of significance to <u>stakeholders</u>;</p> <p>c. Engaging in a manner that is respectful, and free from manipulation, interference, coercion or intimidation;</p> <p>d. Soliciting feedback from <u>stakeholders</u> on issues relevant to them; and</p> <p>e. Providing <u>stakeholders</u> with feedback on how the company has taken their input into account.</p>	<p>manipulation, interference, coercion and intimidation; the company solicits input and provides <u>stakeholders</u> with feedback on how input has been taken into account.</p> <p>Review minutes of meetings or the stakeholder database, which may include suggestions and comments from stakeholders, and discuss with company how these have been addressed/taken into account.</p>	<ul style="list-style-type: none"> Records of communication with stakeholders. Documented meeting minutes or recordings. Meeting attendance records. Stakeholder survey response records Reports or summaries of stakeholder input and company feedback. Grievance mechanism/policies and procedure. Records of lodged grievances. 	<p>have been made to include their participation either directly, or through representatives such as advocates for children or the poor, recognized or respected leaders or spokespeople for various groups, etc.</p> <p>Timelines for <u>stakeholder</u> engagement should be planned for that allow for engagement to begin as early as practicable, provide stakeholders with sufficient time to engage meaningfully and are flexible enough to be adjusted to changes in the local context or operating environment. Timelines should also reflect the ongoing nature of stakeholder engagement.</p> <p>Useful sources of information on stakeholder engagement include:</p> <p>OECD. 2017. OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector.¹²</p> <p>Herbertson, K., Ballestaeros, A., Goodland, R. and Munilla, I. 2009. <i>Breaking Ground: Engaging Communities in Extractive and Infrastructure Projects</i>. (World Resources Institute).¹³</p> <p>IFC. 2007. Stakeholder Engagement: A good practice handbook for companies doing business in emerging markets.¹⁴ Available at: AccountAbility. 2006. From Words to Action: the Stakeholder Engagement Manual.¹⁵</p>
<p>1.2.2.3. The <u>operating company</u> shall <u>collaborate</u> with <u>stakeholders</u>, including representatives from <u>affected communities</u>, to design and form <u>stakeholder</u> engagement mechanism(s) (e.g., a permanent</p>	<p>For 1.2.2.3: Interview <u>operating company</u> and <u>stakeholders</u> to confirm that specific engagement mechanisms have been co-created by the company and <u>stakeholders</u> to provide oversight of the company's environmental and</p>	<p>For 1.2.2.3:</p> <ul style="list-style-type: none"> Stakeholder engagement plan. Stakeholder consultation plan. Stakeholder engagement procedure. Stakeholder management procedure. Stakeholder engagement reports. 	<p>Explanatory Note for 1.2.2.3: A <u>stakeholder</u> advisory committee represents interests and views related to a project. The committee can be composed of representatives from community, gender groups, religious groups, civic organizations among others.</p> <p>If a <u>stakeholder</u> advisory-type committee (or its equivalent) is formed, the role that such a committee serves will be different in different communities. Some communities may be more concerned with environmental impacts, and want</p>

¹² Available at: <http://www.oecd.org/publications/oecd-due-diligence-guidance-for-meaningful-stakeholder-engagement-in-the-extractive-sector-9789264252462-en.htm>

¹³ Available at: pdf.wri.org/breaking_ground_engaging_communities.pdf

¹⁴ Available at: https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/publications/publications_handbook_stakeholderengagement__wci__1319577185063

¹⁵ Available at: <http://www.setoolbelt.org/resources/949>

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<p>advisory committee, or committees dedicated to specific issues), to provide <u>stakeholder oversight of the mining project's environmental and social performance</u>, and/or input to the company on issues of concern to <u>stakeholders</u>.</p>	<p>social performance. Note the form of such mechanisms.</p>	<ul style="list-style-type: none"> • Records of communication with stakeholders. • Documented meeting minutes or recordings. • Meeting attendance records. • Reports or summaries of stakeholder input and company feedback to stakeholders. • Stakeholder analysis reports/records. • Stakeholder mapping reports/records. • Scoping reports. • Environmental Impact Assessment Reports. • Grievance mechanism/policies and procedure. Records of lodged grievances. 	<p>to play more of a role in participating in or reviewing monitoring data, while other communities may be more interested in development opportunities or community health impacts. Also, the interests, and therefore role of committees may shift over time. Several committees or advisory groups may be formed to interact with the <u>operating company</u> on different issues.</p> <p>In some cases, <u>stakeholder advisory committees</u> may not reflect the manner in which communities wish to engage with companies, so other mechanisms may be more appropriate. Any alternative mechanisms should be designed in <u>collaboration with the stakeholders</u>.</p>
<p>1.2.2.4. Engagement processes shall be <u>accessible</u> and culturally appropriate, and the <u>operating company</u> shall demonstrate that efforts have been made to include participation by women, men, and marginalized and <u>vulnerable groups</u> or their representatives.</p>	<p>For 1.2.2.4: Interview <u>operating company</u> and <u>stakeholders</u> to confirm that processes are <u>accessible</u>, culturally appropriate and <u>inclusive</u> (of gender, age, economic status, <u>stakeholder</u> sectors, etc.).</p> <p>Note that marginalized or <u>vulnerable groups</u> may include ethnic or religious minorities, the poor, the elderly, children, youth, etc. In such cases, confirm that efforts have been made to include their participation either directly, or through representatives such as advocates for children or the poor, recognized or respected leaders or spokespeople for various groups,</p>	<p>For 1.2.2.4:</p> <ul style="list-style-type: none"> • Stakeholder engagement plan. • Stakeholder consultation plan. • Stakeholder engagement procedure. • Stakeholder management procedure. • Stakeholder engagement reports. • Records of communication with stakeholders. • Records of communications with stakeholder advocates or specialists with local knowledge, expertise. • Documented meeting minutes or recordings. • Meeting attendance records. • Reports or summaries of stakeholder input 	<p>Explanatory Note for 1.2.2.4: "<u>Accessible</u>": In reference to engagement processes, means being made available in an understandable manner to all <u>stakeholder</u> groups for whose use they are intended, and providing adequate assistance for those who may face particular barriers to access. For example, providing opportunities for participation at times of day and in locations that make it possible for interested stakeholders to attend meetings, etc.</p> <p>"Culturally appropriate" engagement processes (e.g., communications, interactions and conveyance of information) would be those that are aligned with the cultural norms and communication styles of the affected communities and <u>stakeholders</u>. Companies would be expected to use methods, languages, terminology and formats that are respectful of cultural differences (e.g., in some cultures, it is disrespectful to look directly into a person's eyes), and can be easily understood by the <u>affected communities</u> and <u>stakeholders</u>. Stakeholders can help to define for the company what is considered culturally appropriate.</p> <p>Some <u>indigenous peoples</u> have developed community <u>consultation</u> protocols or policies that outline how external actors (governments, companies, NGOs,</p>

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<p>1.2.2.5. When <u>stakeholder engagement</u> processes depend substantially on community representatives, the <u>operating company</u> shall demonstrate that efforts have been made to confirm whether or not such persons represent the views and interests of <u>affected community</u> members and can be relied upon to faithfully communicate relevant information to them. If this is not the case, the <u>operating company</u> shall undertake additional engagement processes to enable more meaningful participation by and information sharing with the broader community.</p>	<p>etc. Auditors may not have access to vulnerable people directly, and so confirmation may need to come through interviews with community advocates or others with local knowledge.</p> <p>For 1.2.2.5: If relevant, interview <u>operating company</u> and <u>stakeholders</u> to confirm that efforts were made to determine that elected community representatives adequately represent the views/interests of constituents, and that they are reporting back to the community; and/or to determine whether alternative processes were set up to enable wider community feedback.</p>	<p>and company feedback to stakeholders.</p> <ul style="list-style-type: none"> • Stakeholder analysis reports/records. • Stakeholder mapping reports/records. • Scoping reports. • Environmental Impact Assessment Reports. • Grievance mechanism/policies and procedure. • Records of lodged grievances. <p>For 1.2.2.5:</p> <ul style="list-style-type: none"> • Stakeholder engagement plan. • Stakeholder consultation plan. • Stakeholder engagement procedure. • Stakeholder management procedure. • Stakeholder engagement reports. • Records of communication with stakeholders. • Documented meeting minutes or recordings. • Meeting attendance records. • Reports or summaries of stakeholder input and company feedback to stakeholders. • Stakeholder analysis reports/records. • Stakeholder mapping reports/records. • Grievance mechanism/policies and procedure. • Records of lodged grievances. 	<p>researchers) are expected to engage with them in the context of activities that could impact their land or natural resources. In the absence of any formal protocols, operating companies could consult with external experts or others for suggestions of how to initiate engagement, and whom to engage in indigenous peoples' communities.</p> <p>Specialists with extensive local knowledge may also be able to provide insight into appropriate engagement processes.</p> <p>Explanatory Note for 1.2.2.5: In some situations, <u>stakeholder engagement</u> processes rely substantially on select community representatives instead of participation by broader community members. This may occur, for example, as a result of community preferences or protocols.</p> <p>In these cases, it is important for <u>operating companies</u> to understand whether or not accurate information about the <u>mining project</u> is being conveyed to the broader community, and whether or not the views and interests of the broader community are being accurately reflected back to the company by the community representatives. One method for gauging broad community awareness of and concerns with the mining operation is for the mine to conduct a stakeholder survey. Additionally, if mines have a community liaison person that is regularly available in the community (including during evening hours so that those with day-jobs have access to the liaison), then mine stakeholders and the company itself would have a way to double-check that information being provided by community representatives to the broader community is accurate and complete.</p> <p>If the concerns and interest of the broader community are not being heard and responded to by the operating company, conflicts between the company and community (or within communities) could arise.</p> <p>Alternative ways of engaging the broader community may include, for example, holding separate meetings with different groups, with the objective of ensuring marginalized or potentially vulnerable people (e.g. ethnic</p>

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<p>1.2.2.6. The operating company shall document engagement processes, including, at minimum, names of participants, and input received from and company feedback provided to stakeholders.</p>	<p>For 1.2.2.6 and 1.2.2.7: Review documentation (e.g., stakeholder input forms, published feedback summaries, meeting minutes, slides from presentations, etc.) related to stakeholder engagement, confirming that the company has documented engagement with stakeholders, and provided responses to stakeholder input including through reporting (in person, or through distribution of summary reports).</p>	<p>For 1.2.2.6:</p> <ul style="list-style-type: none"> • Stakeholder database. • Stakeholder tracking reports/records. • Meeting attendance records/registers. • Documented meeting minutes, presentations or recordings etc. • Stakeholder engagement reports. • Records of communication with stakeholders. • Reports or summaries of stakeholder input and company feedback to stakeholders. 	<p>minorities, different caste groups) have a chance to participate in engagement processes (e.g., to hear about the company's activities and provide feedback). Similarly, there may be the need to provide a separate forum for women to participate in engagement to ensure that the engagement team includes women.¹⁶</p> <p>Explanatory Note for 1.2.2.6: Databases, such as Microsoft Access, enable tracking of ongoing interactions between the company and stakeholders. While not required, it is a recommended way to document and track engagement efforts.</p> <p>Documenting names of all participants at a meeting may be difficult, particularly at large community meetings that include illiterate communities. Also, some cultures or stakeholders may not want to sign attendance lists. In these situations, companies should be able to demonstrate that efforts were made to document participant names at all meetings (e.g., through sign-up lists), and that if actual names were not always gathered that at least the number and diversity of participants (e.g., genders, ages, etc.) should be noted. Unattributed questions and comments should also be tracked, as well as company responses.</p>
<p>1.2.2.7. The operating company shall report back to affected communities and stakeholders on issues raised during engagement processes.</p>	<p>For 1.2.2.6 and 1.2.2.7: Review documentation (e.g., stakeholder input forms, published feedback summaries, meeting minutes, slides from presentations, etc.) related to stakeholder engagement, confirming that the company has documented engagement with stakeholders, and provided responses to stakeholder</p>	<p>For 1.2.2.7:</p> <ul style="list-style-type: none"> • Stakeholder engagement reports. • Stakeholder tracking reports/records. • Records of communication with stakeholders. • Documented stakeholder input forms, meeting minutes, published feedback 	<p>Explanatory Note for 1.2.2.7: Reporting back to stakeholders is important to demonstrate how their inputs have or have not been integrated into mining operation planning, why and how any issues raised during the process have been resolved, and to notify them of any next steps. Reporting back should also involve consultation with the stakeholders in question on their satisfaction as to how their inputs have or have not been integrated into the operation planning or not.</p>

¹⁶ OECD. 2017. *OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector*. Available at: <http://www.oecd.org/publications/oecd-due-diligence-guidance-for-meaningful-stakeholder-engagement-in-the-extractive-sector-9789264252462-en.htm>

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	input including through reporting (in person, or through distribution of summary reports).	<p>summaries, slides from presentations, etc.</p> <ul style="list-style-type: none"> • Meeting attendance records. • Reports or summaries of stakeholder input and company feedback to stakeholders. • Grievance mechanism/policies and procedure. • Records of lodged grievances. 	Reporting back should be done regularly and in a timely manner. Periodic check-ins with <u>stakeholder</u> groups can be helpful in assessing whether they feel their views are being adequately represented and to discuss how to proceed when it is believed that this is not the case. ¹⁷
<p>1.2.3. Strengthening Capacity</p> <p>1.2.3.1. The <u>operating company</u> shall offer to <u>collaborate with stakeholders from affected communities</u> to assess their capacity to effectively engage in <u>consultations, studies, assessments, and the development of mitigation, monitoring and community development strategies</u>.¹⁸ Where capacity gaps are identified, the <u>operating company</u> shall offer appropriate assistance to facilitate effective <u>stakeholder engagement</u>.¹⁹</p>	<p>For 1.2.3.1: Interview <u>operating company</u> and sample of <u>stakeholders</u> to determine if attempts have been made to assess capacity needs of <u>stakeholders from affected communities</u>, and strengthen the capacity of <u>affected community members</u> so that they are able to fully participate in <u>mining-project-related engagement activities</u>.</p> <p>Review capacity building training materials and records (participant lists, workshop summaries or minutes) or other materials related to efforts to facilitate effective stakeholder engagement. And, if relevant, correspondence with capacity building</p>	<p>For 1.2.3.1:</p> <ul style="list-style-type: none"> • Stakeholder engagement reports. • Records of communication with stakeholders. • Documented meeting minutes or recordings. • Meeting attendance records. • Capacity building training materials and records, and/or correspondence with any collaborators • Records of funding or other in-kind support to stakeholders • Reports or summaries of stakeholder input and company feedback to stakeholders. • Scoping reports. • Environmental impact assessment reports. • Specialist study reports. 	<p>Explanatory Note for 1.2.3.1: Stakeholders may not be interested in participating in all of the activities listed in 1.2.3.1. In such cases, the operating company should be able to produce evidence that good faith efforts that were made to provide stakeholders with opportunities to fully participate.</p> <p>Capacity needs may be legal, technical, process-oriented (e.g., negotiation skills), logistical, or other.</p> <p>“Appropriate assistance to facilitate effective engagement” may include the provision of information and explanations in local languages; the creation of materials and approaches designed to be <u>accessible</u> to lay people; provision of capacity building or training on data collection methods, mapping, monitoring or other topics that may be relevant to the issues being discussed; or provision of funding to <u>stakeholders</u> so that they can work with independent experts. It may also include ensuring that sufficient time is given for <u>stakeholders</u> to review information and comment on materials, and get feedback on why their comments were or were not taken into account.</p> <p>The <u>operating company</u> may provide assistance directly or in partnership with other agencies such as national and global trade unions, NGOs, academic institutions, government, etc. Resources to support engagement (e.g.</p>

¹⁷ OECD. 2017. *OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector*. pp. 79, 80. Available at: <http://www.oecd.org/publications/oecd-due-diligence-guidance-for-meaningful-stakeholder-engagement-in-the-extractive-sector-9789264252462-en.htm>

¹⁸ Capacity needs may be legal, technical, process-oriented (e.g., negotiation skills), logistical, or other.

¹⁹ Depending on the circumstances, appropriate assistance may include providing access to training, independent experts, etc.

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	<p>collaborators (e.g., government agencies, academia, NGOS).</p> <p>Review materials related to other means of facilitating stakeholder capacity to engage meaningfully (E.g., provision of funding for stakeholders to hire experts to train or advise them on issues, procedures, etc.).</p> <p><u>Note that stakeholders may not be interested in participating in all of the activities listed in 1.2.3.1. In such cases, the operating company should be able to produce evidence (e.g., meeting minutes, written responses from stakeholders declining invitations to participate) that good faith efforts that were made to provide stakeholders with opportunities to fully participate.</u></p>	<ul style="list-style-type: none"> • Grievance mechanism/policies and procedure. • Records of lodged grievances 	<p>technical and legal support, community capacity building, local facilitators as well as compensation for costs to communities of engaging in the process) should be determined in <u>consultation with stakeholders</u>.</p> <p>If capacity building training is provided, it should be designed and delivered in a manner that is culturally sensitive and appropriate.</p>
<p>1.2.4. Communications and Access to Information</p> <p>1.2.4.1. Any information that relates to the mine’s performance against the IRMA Standard shall be made available to relevant <u>stakeholders</u> upon request, unless the <u>operating company</u> deems the request to be unreasonable²⁰ or</p>	<p>For 1.2.4.1: Determine, through interviews with <u>operating company</u> and/or review of company websites to see if information is publicly available; and to confirm that information not publicly available has been made available to <u>stakeholders</u> upon request.</p>	<p>For 1.2.4.1:</p> <ul style="list-style-type: none"> • Stakeholder engagement plan. • Stakeholder engagement procedure. • Stakeholder communication strategy/procedure. • Records of requests made by stakeholders. • Records of communication with stakeholders. 	<p>Explanatory Note for 1.2.4.1: A determination of "relevant stakeholders" will vary from mine to mine and issue to issue. However, at minimum, members of <u>affected communities</u> should always be considered relevant <u>stakeholders</u>, as they are the most likely to be directly affected by the mine. <u>Rights holders</u>, i.e., those whose human rights are put at risk or impacted by the <u>mining project</u>, should also always be considered relevant <u>stakeholders</u>. (See Explanatory Note for 1.2.1.1)</p> <p>Other <u>stakeholders</u>, such as government agencies, NGOs/civil society, academics, finance institutions, purchasers, etc., will be particularly relevant</p>

²⁰ Companies are not expected to release information that is culturally inappropriate, compromises the safety of any individual, is confidential employee information, or legitimate confidential business information. Culturally inappropriate information may include that which is sensitive to particular communities, and therefore should not be freely released to all requesting parties (e.g., locations of indigenous peoples’ sacred sites). As per requirement 1.2.1.3, stakeholders can help to define what is considered culturally inappropriate.

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<p>the information requested is legitimate <u>confidential business information</u>. If part of a document is confidential only that confidential part shall be redacted, allowing for the release of non-confidential information.</p>		<ul style="list-style-type: none"> • Grievance mechanism/policies and procedure. • Meeting minutes. • Records of publicly available information (e.g. website, newsletters, audit summaries, etc.) relating to the mine’s performance against the IRMA Standard. 	<p>on some issues, and less relevant for others. In some chapters of the IRMA Standard chapters there is guidance on the types of stakeholders who could be deemed relevant. For example:</p> <ul style="list-style-type: none"> • In Chapter 2.1, where environmental impacts may occur that don't directly impact humans, "relevant <u>stakeholders</u>" to be engaged might include governmental or academic scientists, environmental NGOs that work on biodiversity, wildlife management or other ecological issues, or community members who indirectly depend on the adequate functioning of potentially impacted ecosystems. • In Chapter 3.1, companies are encouraged to engage with relevant <u>stakeholders</u> on issues of <u>child labor</u> and <u>forced labor</u>. Such <u>stakeholders</u> might include NGOs working on those issues, as well as <u>workers</u> or <u>workers' organizations</u>. • In Chapter 3.3, when addressing treatment and prevention of infectious diseases, relevant <u>stakeholders</u> may include <u>workers' organizations</u>, public health agencies, community organizations working on education and access to treatment • In Chapter 3.4, relevant <u>stakeholders</u> are to be consulted in the development of conflict risk assessments. In that case, relevant <u>stakeholders</u> may include local government or community leaders; civil society organizations; other companies operating in the area; or independent experts with local knowledge and expertise. <p>Relevant <u>stakeholders</u> must be provided with access to information needed to engage with the <u>operating company/mining project</u> in an informed manner on topics or requirements included in the IRMA Standard.</p> <p>IRMA encourages full transparency, but understands that there may be circumstances where providing requested information may create challenges for some mines, especially smaller operations. <u>Operating companies</u> may elect to refuse requests deemed to be overly onerous to compile/fulfill, such as converting large volumes of complex, technical data into a relevant, understandable form, etc., but as per 1.2.4.4 they must provide a written</p>

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<p>1.2.4.2. If original requests for information are deemed unreasonable, efforts shall be made by the <u>operating company</u> to provide <u>stakeholders</u> with overviews or summaries of the information requested.</p>	<p>For 1.2.4.2: Confirm that if <u>stakeholder</u> requests have not been fully or partially fulfilled, that the <u>operating company</u> has made an effort to accommodate the requests with at least a summary or overview of the issues.</p>	<p>For 1.2.4.2:</p> <ul style="list-style-type: none"> • Stakeholder engagement plan. • Stakeholder engagement procedure. • Stakeholder communication strategy/procedure. • Records of requests made by stakeholders. • Records of communication with stakeholders. • Grievance mechanism/policies and procedure. • Records of redacted information provided to stakeholders. • Meeting minutes. • Records of publicly available information (e.g. website, newsletters, etc.). 	<p>justification for why the information is being withheld. And as per 1.2.4.2, in such cases, efforts should be made to at least provide to <u>stakeholders</u> with overviews or summaries of the information requested.</p> <p>Companies are not expected to release information that is culturally inappropriate, compromises the safety of any individual, is confidential employee information, or legitimate <u>confidential business information</u>.²¹ Culturally inappropriate information may include that which is sensitive to particular communities, and therefore should not be freely released to all requesting parties (e.g., locations of <u>indigenous peoples’</u> sacred sites). As per requirement 1.2.1.3, <u>stakeholders</u> can help to define what is considered culturally inappropriate.</p> <p>Explanatory Note for 1.2.4.2: As mentioned in the note for 1.2.4.1, designated or relevant personnel should be made aware that if information requests are not completely fulfilled by the company, that efforts need to be made to at least provide an overview or summary of the information requested. Companies are not expected, however, to release information that is culturally inappropriate, compromises the safety of any individual, is confidential employee information, or legitimate <u>confidential business information</u></p>

²¹ Ruggie, J. 2011. Guiding Principles on Business and Human Rights. Report of the Special Representative of the Secretary General on the issue of human rights and transnational corporations and other business enterprises, John Ruggie. (A/HRC/17/31). <https://www.ohchr.org/documents/issues/business/A.HRC.17.31.pdf>

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<p>1.2.4.3. Communications shall be carried out and information shall be provided to <u>stakeholders</u> in a timely manner, and shall be in formats and languages that are culturally appropriate and <u>accessible</u> to affected communities and <u>stakeholders</u>.²²</p>	<p>For 1.2.4.3: Interview <u>stakeholders</u> to determine if they have timely access to the <u>operating company</u> documents and information in formats and languages that are <u>accessible</u> and understandable.</p>	<p>For 1.2.4.3:</p> <ul style="list-style-type: none"> • Stakeholder engagement plan. • Stakeholder consultation plan. • Stakeholder engagement procedure. • Stakeholder management procedure. • Stakeholder engagement reports. • Stakeholder communication strategy/procedure. • Records of communication with stakeholders. • Documented meeting minutes or recordings. • Grievance mechanism/policies and procedure. • Records of lodged grievances. 	<p>Explanatory Note for 1.2.4.3 and 1.2.4.4: “in a timely manner” will likely vary based on the <u>operating company’s</u> resources and procedures (e.g., some companies may have due diligence procedures in place for releasing data publicly) and also the size/nature of the request. As a general rule of thumb, however, requests should be fulfilled within 1 to 3 months, although for particularly large requests or requests made to companies with limited capacity to fulfill information requests, some flexibility may be needed. Also, some companies have stringent quality assurance procedures that must be followed in order to share data publicly, and so may require more time to prepare materials for release. (See also 1.2.4.4 for requests that are not responded to in what seems like a “timely manner.”)</p> <p>“Culturally appropriate”: communication includes interactions and conveyance of information using methods, languages, terminology and formats that are respectful of cultural differences (e.g., in some cultures, it is disrespectful to look directly into a person’s eyes); and can be easily understood by the <u>affected communities</u> and <u>stakeholders</u>. As per requirement 1.2.1.3, <u>stakeholders</u> can help to define for the company what is considered culturally appropriate.</p> <p>“<u>Accessible</u>”: In reference to engagement processes, means being known in an understandable manner to all <u>stakeholder</u> groups for whose use they are intended, and providing adequate assistance for those who may face particular barriers to access. For example, there may be communities or groups within communities that are not literate, and therefore, need information conveyed in a form other than written (e.g., face-to-face meetings; video; audio). Some communities may prefer to receive information verbally. Some communities or groups within communities may not have reliable access to the internet or computers, and therefore would need</p>

²² “Culturally appropriate”: communication includes interactions and conveyance of information using methods, languages, terminology and formats that are respectful of cultural differences (e.g., in some cultures, it is disrespectful to look directly into a person’s eyes); and can be easily understood by the affected communities and stakeholders. As per requirement 1.2.1.3, stakeholders can help to define for the company what is considered culturally appropriate.

“Accessible”: In reference to engagement processes, means being known in an understandable manner to all stakeholder groups for whose use they are intended, and providing adequate assistance for those who may face particular barriers to access. For example, there may be communities or groups within communities that are not literate, and therefore, need information conveyed in a form other than written (e.g., face-to-face meetings; video; audio). Some communities may prefer to receive information verbally. Some communities or groups within communities may not have reliable access to the internet or computers, and therefore would need written information in hard copy, available at a nearby locations during hours that enable access to individuals who work during the day.

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1.2.4.4. If requests for information are not met in full, or in a timely manner, the operating company shall provide stakeholders with a written justification for why it has withheld information.	For 1.2.4.4: If there have been stakeholder requests for information, confirm with stakeholders that if any requests were not fulfilled in a timely manner or were not met in full, that they were provided with a written reason.	For 1.2.4.4: <ul style="list-style-type: none"> • Stakeholder engagement reports. • Records of communication with stakeholders. • Documented meeting minutes or recordings. • Meeting attendance records. • Reports or summaries of stakeholder input and company feedback to stakeholders. • Grievance mechanism/policies and procedure. • Records of lodged grievances. 	written information in hard copy, available at a nearby locations during hours that enable access to individuals who work during the day. Explanatory Note for 1.2.4.4: Providing information “in a timely manner” will likely vary based on the operating company’s resources and procedures (e.g., some companies have stringent quality assurance procedures that must be followed in order to share data publicly, and so may require more time to prepare materials for release), and also the size/nature of the request. As a general rule, however, requests should be fulfilled within 1 to 3 months, although for particularly large requests or requests made to companies with limited capacity to fulfill information requests, some flexibility may be needed. (See also 1.2.4.4 for requests that are not responded to in what seems like a “timely manner.”)

Cross References to Other Chapters	
CHAPTER	ISSUES
1.1—Legal Compliance	Stakeholders have access to information on regulatory non-compliances upon request (1.1.5.3). Access to information needs to conform with criteria 1.2.4 in Chapter 1.2.
1.3—Human Rights Due Diligence	Stakeholders are consulted in the human rights risks and impact assessment process, including providing input and reviewing drafts. Affected rights holders are engaged in a collaborative process with companies in the development of mitigation plans when their human rights have been infringed upon; and can provide input on the company’s monitoring of its human rights due diligence. Engagement needs to conform with the requirements in Chapter 1.2.
1.4— Complaints and Grievance Mechanism and Access to Remedy	Stakeholders are engaged in the development of an operational-level grievance mechanism, which will provide stakeholders and rights holders with a culturally appropriate means of filing complaints and suggestions, and having their concerns addressed. This engagement needs to conform with the requirements in Chapter 1.2.
2.1—Environmental and Social Impact Assessment and Management	Stakeholders are consulted throughout the environmental and social impact assessment process, including scoping, the collection of data, the development of mitigation plans, and in the monitoring program. This engagement needs to conform with the requirements in Chapter 1.2.

Cross References to Other Chapters	
2.2—Free, Prior and Informed Consent	Companies <u>collaborate with indigenous peoples</u> to identify <u>indigenous peoples'</u> rights and interests such as lands or resources that may be affected by the <u>mining project</u> ; identify studies or assessments needed to determine potential impacts from the mine on these rights and interests; and design and implement plans to address information gaps. Engagement continues throughout the <u>Free, Prior and Informed Consent (FPIC)</u> process, and if consent is given, throughout the life of the mine. This engagement and access to relevant information needs to conform with the requirements in Chapter 1.2.
2.3—Obtaining Community Support and Delivering Benefits	Companies <u>collaborate with affected community</u> members and other relevant <u>stakeholders</u> in the development of a participatory community development planning process to guide a company's contributions to community benefits; and to monitor any mechanisms developed to deliver benefits. This engagement needs to conform with the requirements in Chapter 1.2.
2.4—Resettlement	Individuals and communities potentially affected by <u>resettlement</u> are consulted during the assessment of risks and impacts; the development of <u>Resettlement Action Plan</u> and/or <u>Livelihood Restoration Plan</u> and resettlement options; and <u>resettlement</u> implementation, including the monitoring of that implementation. This engagement and access to relevant information needs to conform with the requirements in Chapter 1.2.
2.5—Emergency Preparedness/Response	<u>Stakeholders</u> are involved in the development of the Emergency Response Plan and participate in emergency response planning exercises. This engagement needs to conform with the requirements in Chapter 1.2.
2.6—Reclamation and Closure	<u>Stakeholders</u> can comment on reclamation and closure plan, and the mine's financial surety; and if <u>long-term water treatment</u> may occur, <u>stakeholders</u> are consulted during the risk assessment and subsequent community/company discussions. This engagement and access to relevant information needs to conform with the requirements in Chapter 1.2.
3.1—Fair Labor and Terms of Work	<u>Workers</u> and <u>workers' representatives</u> are <u>stakeholders</u> of the mine. Engagement with <u>workers</u> and/or <u>workers' representatives</u> occurs during the negotiation of collective bargaining agreements, <u>retrenchment</u> plans and in the calculation of <u>living wage</u> . This engagement and access to relevant information needs to conform with the requirements in Chapter 1.2.
3.2—Occupational Health and Safety	Engagement with <u>workers/workers' representatives</u> occurs during health and safety risk assessment; design of workplace monitoring and worker <u>health surveillance</u> ; development of strategies to prevent or <u>mitigate</u> risks to <u>workers</u> ; design of programs to support <u>worker</u> health and safety; and in inspections, monitoring and investigation of safety and health matters. This engagement and access to relevant information needs to conform with the requirements in Chapter 1.2.
3.3—Community Health and Safety	Companies <u>collaborate</u> with relevant community members and other <u>stakeholders</u> , including <u>workers</u> who live in <u>affected communities</u> , in the scoping of community health and safety risks and impacts; the development of prevention or <u>mitigation</u> strategies; the collection of any data needed to inform the health risk and impact assessment process; and the design and implementation of community health and safety monitoring programs. This engagement and access to relevant information needs to conform with the requirements in Chapter 1.2.
3.4—Mining and Conflict Affected Areas	<u>Stakeholders</u> are <u>consulted</u> during the conflict-affected areas screening process and conflict risk assessment; and affected <u>stakeholders</u> <u>collaborate</u> in the development of mitigation strategies to address risks that are relevant to them. This engagement and access to relevant information needs to conform with the requirements in Chapter 1.2.
3.5—Security Arrangements	<u>Stakeholders</u> are <u>consulted</u> during the security risk assessment; and if there are risks specific to conflicts between communities/ <u>workers</u> and mine security providers, community and <u>worker</u> <u>stakeholders</u> <u>collaborate</u> with the company to develop strategies to prevent or mitigate those risks. <u>Stakeholders</u> may also receive training on security and human rights issues. This engagement and access to relevant information needs to conform with the requirements in Chapter 1.2.
3.6—Artisanal and Small-Scale Mining	If <u>artisanal and small-scale mining (ASM)</u> is occurring in the vicinity of the industrial scale mine that is participating in IRMA, the <u>ASM</u> operating entities and miners would be considered <u>stakeholders</u> , and engagement with them would need to conform with the requirements in Chapter 1.2.

Cross References to Other Chapters	
3.7—Cultural Heritage	Stakeholders are consulted during cultural heritage screening, assessment and development of mitigation measures. If indigenous peoples' cultural heritage is affected, they are engaged in and FPIC process before any critical cultural heritage is disturbed or used for commercial purposes. This engagement and access to relevant information needs to conform with the requirements in Chapter 1.2.
4.1—Waste and Materials Management	Stakeholders are required to be consulted during the screening and assessment of mine waste facility site and management alternatives; and in preparation of emergency preparedness plans on issues related to catastrophic failure of waste facilities. Stakeholders are also to be provided with certain information related to waste management upon request. Engagement and communications with stakeholders must conform with the requirements in Chapter 1.2.
4.2—Water Management	Stakeholders are engaged in the identification of potential and future uses of water (4.2.1), scoping of impacts of the mining project water (4.2.2.2), evaluation of mitigation measures (4.2.3.1), if relevant, risk assessment related to mixing zones (4.2.3.2), decisions on replacement water sources (4.2.3.4), participation in water monitoring (4.2.4.3), review and revision of adaptive management plans (4.2.4.6), and sharing of information (4.2.5). This engagement and access to relevant information needs to conform with the requirements in Chapter 1.2.
4.4—Noise and Vibration	Affected stakeholders are consulted in the development of noise mitigation plans. This engagement and access to relevant information needs to conform with the requirements in Chapter 1.2.
4.6— Biodiversity, Ecosystem Services and Protected Areas	Stakeholders are consulted in the assessment of potential effects of mining on biodiversity, ecosystem services and protected areas. This engagement and access to relevant information needs to conform with the requirements in Chapter 1.2.

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the [Glossary of Terms](#) at the end of the IRMA Standard document.

Accessible

In reference to grievance mechanism or engagement processes, means being known in an understandable manner to all stakeholder groups for whose use they are intended, and providing adequate assistance for those who may face particular barriers to access.

Affected Community

A community that is subject to risks or impacts from a project.

Artisanal and Small-Scale Mining (ASM)

Formal or informal operations with predominantly simplified forms of exploration, extraction, processing and transportation. ASM is normally low capital intensive and uses high labour intensive technology. ASM can include men and women working on an individual basis as well as those working in family groups, in partnership or as members of cooperatives or other types of legal associations and enterprises involving hundreds or thousands of miners. For example, it is common for work groups of 4-10 individuals, sometimes in family units, to share tasks at one single point of mineral extraction (e.g. excavating one tunnel). At the organisational level, groups of 30-300 miners are common, extracting jointly one mineral deposit (e.g. working in different tunnels), and sometimes sharing processing facilities.

Child Labor

Work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development.

Collaboration

The process of shared decision-making in which all stakeholders constructively explore their differences and develop a joint strategy for action. It is based on the premise that, through dialogue, the provision of appropriate information, collectively defined goals, and the willingness and commitment to find a solution acceptable to all parties, it is possible to overcome the initially limited perspectives of what is achievable and to reach a decision which best meets the interests of the various stakeholders. At this level, responsibility for decision-making is shared between stakeholders.

Confidential Business Information

Material that contains trade secrets or commercial or financial information that has been claimed as confidential by its source. The information must be secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question; it must have commercial value because it is secret; and it must have been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret.

Consultation

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. In principle, the company should take into account the concerns and views expressed by stakeholders in the final decision.

Existing Mine

A mine that was operational prior to the date that the IRMA standard was published in final (June 2018).

Forced Labor

Any work or service not voluntarily performed that is exacted or coerced from an individual under threat of force or penalty. This covers any kind of involuntary or compulsory labor, such as indentured labor, bonded labor or similar labor-contracting arrangements required to pay off a debt; or slavery or slavery-like practices. It also includes requirements of excessive monetary deposits, excessive limitations on freedom of movement, excessive notice periods, substantial or inappropriate fines, and loss or delay of wages that prevent workers from voluntarily ending employment within their legal rights.

Inclusive

In the context of stakeholder engagement, means that engagement includes men, women, the elderly, youth, displaced persons, vulnerable and disadvantaged persons or groups.

Indigenous Peoples

An official definition of “indigenous” has not been adopted by the United Nations system due to the diversity of the world’s indigenous peoples. Instead, a modern and inclusive understanding of “indigenous” includes peoples who: identify themselves and are recognized and accepted by their community as indigenous; demonstrate historical continuity with pre-colonial and/or pre-settler societies; have strong links to territories and surrounding natural resources; have distinct social, economic or political systems; maintain distinct languages, cultures and beliefs; form non-dominant groups of society; and resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities. In some regions, there may be a preference to use other terms such as: tribes, first peoples/nations, aboriginals, ethnic groups, Adivasi and Janajati. All such terms fall within this modern understanding of “indigenous.”

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mining-Related Activities

Encompasses any activities that may occur during any phase of the mine life cycle (planning, impact assessment, exploration, mine construction, mining, mine closure), and includes all physical activities (e.g., land disturbance and clearing, sampling, airborne surveys, construction, ore removal, ore processing, waste management, reclamation, etc.).

New Mine

A mine that becomes operational and applies for IRMA verification after the date that the IRMA standard was published in final (June 2018).

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Rights Holder

Rights holders are individuals or social groups that have particular entitlements in relation to specific duty bearers (e.g., State or non-state actors that have a particular obligation or responsibility to respect, promote and realize human rights and abstain from human rights violations). In general terms, all human beings are rights-holders under the Universal Declaration of Human Rights. In particular contexts, there are often specific social groups whose human rights are not fully realized, respected or protected.

Stakeholder

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Vulnerable Group

A group whose resource endowment is inadequate to provide sufficient income from any available source, or that has some specific characteristics that make it more susceptible to health impacts or lack of social or economic opportunities due to social biases or cultural norms (e.g., may include households headed by women or children, people with disabilities, the extremely poor, the elderly, at-risk children and youth, ex-combatants, internally displaced people and returning refugees, HIV/AIDS-affected individuals and households, religious and ethnic minorities, migrant workers, and groups that suffer social and economic discrimination, including indigenous peoples, minorities and in some societies, women).

Workers

All non-management personnel.

Workers' Organization

Typically called trade unions or labor unions, these organizations are voluntary associations of workers organized on a continuing basis for the purpose of maintaining and improving their terms of employment and workplace conditions.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



Chapter 1.3—Human Rights Due Diligence

BACKGROUND

In 1948, the United Nations General Assembly adopted the *Universal Declaration of Human Rights*, which for the first time in human history, enumerated the fundamental civil, political, economic, social and cultural rights that all human beings should enjoy. Since that time, a series of core international human rights conventions and treaties, along with other instruments, have established the international legal framework for individual and collective human rights.²³ For example, United Nations instruments have elaborated on the rights of indigenous peoples; women; national or ethnic, religious and linguistic minorities; children; persons with disabilities; and migrant workers and their families.²⁴

In 2011, the UN *Guiding Principles on Business and Human Rights* (the ‘Guiding Principles’), which were unanimously endorsed by the United Nations’ Human Rights Council, clarified the corporate responsibility to respect human rights, stating that all corporations “should avoid infringing on the human rights of others.”²⁵ Other frameworks have similarly emerged that outline specific due diligence under particular circumstances. For example, the *OECD Due Diligence Guidance for Mineral Supply Chains in Conflict-Affected and High-Risk Areas*²⁶ provides specific guidance for mining companies on what due diligence is required in such areas to address risks to human rights and other risks when operating in those areas (see IRMA Chapter 3.4).

OBJECTIVES/INTENT OF THIS CHAPTER

To respect human rights, and identify, prevent, mitigate and remedy infringements of human rights.

SCOPE OF APPLICATION

Chapter Relevance: This chapter is relevant for all mines assessed under IRMA. The requirements outlined below are applicable to activities and business relationships that relate to the mining project being assessed, not all of a company’s activities and business relationships.

CRITICAL REQUIREMENTS IN THIS CHAPTER

The operating company has a policy in place that acknowledges its responsibility to respect all internationally recognized human rights (1.3.1.1) and an ongoing process to identify and assess potential and actual human rights impacts from mining project activities and business relationships (1.3.2.1). The operating company is taking steps to remediate any known impacts on human rights caused by the mine (1.3.3.3).

TERMS USED IN THIS CHAPTER

- Actual Human Rights Impact ■ Adverse Human Rights Impact ■ Business Relationships ■ Competent Professionals ■ Confidential Business Information ■ Consultation ■ Grievance ■ Grievance Mechanism ■ Human Rights Defenders ■ Human Rights Risks ■ Indigenous Peoples ■ Inform ■ Leverage ■ Mining Project ■ Mining-Related Activities ■ Mitigation ■ Operating Company ■ Potential Human Rights Impact ■ Remediation/Remedy ■ Rights-Compatible ■ Rights Holder ■ Salient Human Rights ■ Serious Human Rights Abuses ■ Stakeholders ■ Vulnerable Group ■

²³ For more information, see the UN website: www.un.org/en/sections/what-we-do/protect-human-rights/index.html and OHCHR Human Rights website: www.ohchr.org/EN/ProfessionalInterest/Pages/UniversalHumanRightsInstruments.aspx

²⁴ The Office of the High Commissioner for Human Rights (OHCHR) lists a number of United Nations human rights instruments that enumerate the rights of persons belonging to particular groups or populations. See: OHCHR. 2012. *The Corporate Responsibility to Respect – An Interpretive Guide*. p. 38. www.ohchr.org/Documents/Issues/Business/RtRInterpretativeGuide.pdf

²⁵ See: Ruggie, J. 2011. *Guiding Principles on Business and Human Rights: Implementing the United Nations “Protect, Respect and Remedy” Framework*. March 21, 2011. A/HRC/17/31. www.ohchr.org/Documents/Issues/Business/A-HRC-17-31_AEV.pdf

²⁶ OECD. 2013. *Due Diligence Guidance on Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas* (2nd Ed.) p. 3. www.oecd.org/corporate/mne/GuidanceEdition2.pdf

Human Rights Due Diligence Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>1.3.1. Policy Commitment</p> <p>1.3.1.1. (Critical Requirement) The <u>operating company</u> shall adopt a policy commitment that includes an acknowledgement of its responsibility to respect all internationally recognized human rights.</p>	<p>Auditing Note for Chapter 1.3: It may not always be possible, or safe, to engage directly with <u>rights holders</u> as part of the means of verification process. For example, “Some individuals and/or groups would face persecution for even suggesting that impacts may constitute a corporate human rights abuse. . . The process for assessing rights in these contexts will require alternative methodologies. For situations where direct consultation may put groups at risk, it may be necessary to engage third parties, such as NGOs or other agencies or individuals who have worked closely with particular groups.”²⁷</p> <p>For 1.3.1.1: Confirm that a policy commitment is in place that includes an acknowledgement to respect all internationally recognized human rights (e.g., at minimum those included in the International Bill of Human Rights and the eight ILO core conventions).</p>	<p>For 1.3.1.1:</p> <ul style="list-style-type: none"> Human rights policy, corporate responsibility policy or other policy or policies documenting respect for human rights (a policy may be specific to the operating company, or a corporate policy that is being implemented by the operating company at the mine site level). 	<p>Explanatory Note for 1.3.1.1: IRMA recognizes that for some <u>operating companies</u>, a policy commitment may be made at the corporate level. In these cases, we do not expect <u>operating companies</u> to have their own policies, but they will be expected to demonstrate that they are operating in compliance with their <u>corporate owner’s</u> policy (e.g., site-level management understand the policy, and have integrated it into the mine’s procedures and dealings with business partners, <u>contractors</u>, etc.).</p> <p>Re: “all internationally recognized human rights”, as per the United Nations Guiding Principles for Business and Human Rights (UNGPs) the core internationally recognized human rights include those contained in the International Bill of Human Rights and the eight ILO core conventions.</p> <p>The UNGPs also state that: “Depending on circumstances, business enterprises may need to consider additional standards. For instance, enterprises should respect the human rights of individuals belonging to specific groups or populations that require particular attention, where they may have adverse human rights impacts on them. In this connection, United Nations instruments have elaborated further on the rights of indigenous peoples; women; national or ethnic, religious and linguistic minorities; children; persons with disabilities; and migrant workers and their families. Moreover, in situations of armed</p>

²⁷ Kemp, D. & Vanclay, F. 2013. “Human rights and impact assessment: clarifying the connections in practice,” *Impact Assessment and Project Appraisal*. 31 (2), p. 92. <https://www.tandfonline.com/doi/abs/10.1080/14615517.2013.782978>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>1.3.1.2. The policy shall:</p> <ol style="list-style-type: none"> Be approved at the most senior level of the company; Be informed by relevant internal and/or external expertise; Stipulate the <u>operating company's</u> human rights expectations of personnel, business partners and other parties directly linked to its <u>mining project</u>; Be publicly available and communicated internally and externally to all personnel, business partners, other relevant parties and <u>stakeholders</u>; Be reflected in the <u>mining project's</u> operational policies and procedures. 	<p>For 1.3.1.2:</p> <ul style="list-style-type: none"> Interview senior management or review documentation that shows the commitment is approved at the most senior level. Interview relevant staff and review documentation to confirm the policy was informed by internal/external expertise. Review documents to confirm the company has a policy/procedure that stipulates its expectations of personnel, business partners and others parties. Review communication with suppliers, business relations and other parties directly linked to its operations, products or services, to establish that the company's policy and the company's specific expectations of the business partner/supplier, etc., has been communicated to relevant representatives. If necessary, 	<p>For 1.3.1.2:</p> <ul style="list-style-type: none"> Human rights policy, corporate responsibility policy or other policy or policies documenting respect for human rights (a policy may be specific to the operating company, or a corporate policy that is being implemented by the operating company at the mine site level). Records of policy development/implementation related communications & processes (e.g. minutes; project management charts with time-frames, etc.). Policy development road map (e.g. 'who', 'when', 'how'). Records of communications with company personnel, business partners, other relevant parties and stakeholders (e.g., meeting minutes, correspondence, etc.). Codes of conduct or other materials that codify expected human rights behavior of business partners and other parties, and documentation tracking their performance against key indicators 	<p>conflict enterprises should respect the standards of international humanitarian law."²⁸</p> <p>Explanatory Note for 1.3.1.2: This requirement is from United Nations Guiding Principles for Business and Human Rights.²⁹</p> <p>For 1.3.1.2.b, expertise can be drawn from various sources, ranging from credible online or written resources to <u>consultation</u> with recognized experts.</p> <p>For 1.3.1.2.c, the <u>operating company</u> should document in the policy its expectations of company personnel, business partners and others linked to the mining project (e.g., <u>contractors</u>, <u>suppliers</u>, State security forces and investors). For example, the company may require that certain entities are only expected to comply with particular parts of the company's policy, or the company may stipulate that entities are expected to comply with the entire policy.</p> <p>For 1.3.1.2.d, the operating company must communicate the policy to all personnel, suppliers, business relations and other parties directly linked to its operations, products or services, and, in the case of operations with significant <u>human rights risks</u>, to the potentially affected <u>stakeholders</u>. Doing so provides a starting point from which the company can better <u>leverage</u> respect for human rights in these relationships, should this be necessary. For example, it can facilitate the inclusion of provisions for the respect of human rights in contracts with suppliers and</p>

²⁸ Ruggie, J. 2011. Guiding Principles on Business and Human Rights. p. 14. https://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf

²⁹ Ruggie, J. 2011. Guiding Principles on Business and Human Rights. Principle 16. https://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
	<p>interview a sample of those parties.</p> <ul style="list-style-type: none"> Interview company to confirm that the commitment was communicated internally and externally, and is publicly available, e.g., on a website, and/or in published materials. Interview <u>stakeholders</u> to confirm they were informed of the company's human rights commitments in formats understandable to them. Review procedures, and interview relevant staff to confirm that the commitment to respect human rights has been integrated into the operation (i.e., recognized at different levels of the company) and that operational-level procedures have been developed and are being implemented. 		<p>partners; and it can provide the basis for auditing or monitoring performance and for factoring the results into decisions on future <u>business relationships</u>.³⁰</p> <p>For 1.3.1.2.e, relevant human rights policies, procedures and practices should be integrated in the company's management system, ideally through:</p> <p>Operational policies, processes and practices that regulate the way the different business activities of the company are regulated and carried out; and</p> <p>Developing key actions on the integration of human rights considerations to be embedded in operational policies and processes, for example, in recruiting and developing employees, acquiring land and building infrastructure, using natural resources and disposing of waste etc.³¹</p>
<p>1.3.2. Assessment of Human Rights Risks and Impacts</p> <p>1.3.2.1. (Critical Requirement)</p> <p>The <u>operating company</u> shall establish an ongoing process to identify and assess <u>potential human rights impacts</u> (hereafter referred to as <u>human rights "risks"</u>) and <u>actual human rights impacts</u> from <u>mining project activities</u> and <u>business</u></p>	<p>For 1.3.2.1: Interview relevant <u>operating company</u> staff and review any related policies or procedures on how the company assesses <u>human rights risks</u> and impacts. Confirm that an assessment has been completed and, if relevant, updated in response to changes in the <u>mining project</u> (e.g., expansions), <u>business relationships</u> (e.g., a new security provider) or in the</p>	<p>For 1.3.2.1 – 1.3.2.4:</p> <ul style="list-style-type: none"> Human rights risk and impact assessment methodology and/or process. Human rights risk and impact assessment reports. Documentation of stakeholder and rights holder consultations related to human rights risk and impact assessment. Documentation of monitoring or other reports (e.g., monitoring of security risks, conflict risks, country 	<p>Explanatory Note for 1.3.2.1: The assessment of <u>human rights risks</u> and impacts may be done as a stand-alone assessment, or integrated into the ESIA or another assessment. (E.g., Environmental and Social Impact Assessments (see Chapter 2.1), Resettlement risk and impact assessments (Chapter 2.4), conflict risk assessments (Chapter 3.4), security risk assessments (Chapter 3.5), etc.</p>

³⁰ Office of the High Commissioner for Human Rights (OHCHR). 2012. The Corporate Responsibility to Respect Human Rights - An Interpretive Guide. https://www.ohchr.org/Documents/Publications/HR.PUB.12.2_En.pdf

³¹ IBLF and IFC, 2010. Guide to Human Rights Impact Assessment and Management. p. 53. https://www.unglobalcompact.org/docs/issues_doc/human_rights/GuidetoHRIAM.pdf

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>relationships. Assessment of human rights risks and impacts shall be updated periodically, including, at minimum, when there are significant changes in the mining project, business relationships, or in the operating environment.</p>	<p>operating environment (e.g., increase in political conflict or insecurity).</p>	<p>risks, changes in demographics, proposals for changes to the mine’s operations) that may trigger the need to update the assessment of human rights risks and impacts.</p>	<p>The time frame for "periodically updating" the human rights risk assessment should be defined in the human rights risk assessment methodology. Updates should occur, for example, prior to initiation of a new phase of development, when any major changes in operations occur such as expansion, if there is an influx of migrant labor, or if there are changes in ownership structure or management of the company, etc.</p> <p>Although not required, companies may want to consider having independent, third-parties conduct the assessment,³² and/or hiring independent human rights experts to review the veracity of assessments and provide feedback and recommendations on improving assessment methodology going forward.</p> <p>A broad range of human rights of workers and community members may be affected by mining.³³ These include, but are not limited to:</p> <ul style="list-style-type: none"> Right to life Right to liberty and security Right to participate in public life Right of self-determination Right to an adequate standard of living Right to health Right to education Right to take part in cultural life, benefit from scientific progress, material and moral rights of authors and inventors Rights of minorities

³² ICMM. 2012. Integrating Human Rights Due Diligence Into Corporate Risk Management Processes. p. 26. <https://www.icmm.com/website/publications/pdfs/social-and-economic-development/3308.pdf>

³³ IBLF and IFC, 2010. Guide to Human Rights Impact Assessment and Management. https://www.unglobalcompact.org/docs/issues_doc/human_rights/GuidetoHRIAM.pdf See also: ICMM. 2012. Integrating Human Rights Due Diligence Into Corporate Risk Management Processes. Section 3. <https://www.icmm.com/website/publications/pdfs/social-and-economic-development/3308.pdf>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>1.3.2.2. Assessments, which may be scaled to the size of the company and severity of <u>human rights risks</u> and impacts, shall:</p> <p>a. Follow a credible process/methodology;³⁴</p> <p>b. Be carried out by <u>competent professionals</u>; and</p>	<p>For 1.3.2.2.a: Review the assessment methodology to confirm that it was consistent with a credible risk and impact assessment process (see Explanatory Note).</p> <p>Interview persons with human rights expertise who were consulted during the assessment process to determine if they</p>	<p>For 1.3.2.1 – 1.3.2.4:</p> <ul style="list-style-type: none"> • Human rights risk/impact assessment methodology and/or process. • Human rights risk and assessment reports. • Human rights risk and impact assessment stakeholder and rights holder consultation report(s), records or documentation. 	<p>Right of protection for the child Right to freedom from war propaganda, and freedom from incitement to racial, religious or national hatred Right not to be subjected to torture, cruel, inhuman and/or degrading treatment or punishment Right to equality before the law, equal protection of the law, non-discrimination Right to access to effective <u>remedies</u> Right to freedom of movement Right to freedom of thought, conscience and religion Right to freedom of opinion, information and expression Right to freedom of assembly Right to freedom of association Right to form and join trade unions and the right to strike Right to work Right to enjoy just and favorable conditions of work Right not to be subjected to slavery, servitude or <u>forced labor</u> Right to social security, including social insurance</p> <p>Explanatory Note for 1.3.2.2: Re: 1.3.2.2.a, although the assessment may be scaled to the size of company and severity of risks and impacts (i.e., fewer risks or less severe impacts will likely require a far less detailed or complex assessment), the company must still demonstrate that it followed a credible risk/impact assessment methodology.</p> <p>A “credible” assessment process/methodology would typically include: scoping or identification of the <u>salient human rights issues</u>, <u>stakeholder consultations</u>; data</p>

³⁴ A “credible” assessment process/methodology would typically include: scoping or identification of the salient human rights, stakeholder consultations; data collection; assessment of the severity of human rights risks and impacts; development of prevention/mitigation measures; and monitoring and evaluation of the effectiveness of implemented measures. This process should be ongoing/updated, as mentioned in 1.3.2.1. For more information see: <https://www.humanrights.dk/projects/human-rights-impact-assessment>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>c. Draw on internal and/or external human rights expertise, and consultations with potentially affected rights holders, including men, women, children (or their representatives) and other vulnerable groups, and other relevant stakeholders.</p>	<p>believed the assessment methodology to be credible.</p> <p>For 1.3.2.2.b: Interview relevant operating company staff and/or review documentation of the relevant professional human rights expertise of those carrying out the assessment.</p> <p>For 1.3.2.2.c: Review lists of stakeholders and persons with human rights expertise consulted during the human rights assessment process, and review consultation documentation (e.g., meeting minutes). Interview a sample of relevant stakeholders and rights holders to determine if they were meaningfully engaged as part of the human rights risk and impact assessment consultations (See IRMA Chapter 1.2 for stakeholder engagement requirements, and 1.2.2.2 for more on meaningful engagement.) In particular, outreach should be made to rights holders, women, vulnerable groups and minority groups to confirm that they were engaged in a meaningful manner, and barriers to their participation were addressed.</p>		<p>collection; assessment of the severity of human rights risks and impacts; development of prevention/mitigation measures; and monitoring and evaluation of the effectiveness of implemented measures. This process should be ongoing/updated, as mentioned in 1.3.2.1.³⁵</p> <p>“Potentially affected rights holders” include affected community members as described in 1.3.2.2.c, as well as workers, and indigenous peoples and others whose rights may be affected by the mining project.</p> <p>“Other relevant stakeholders” may include community legal advisors, human rights defenders, representatives of competent authorities, NGOs, including those that specialize in human rights, and community-based organizations.</p> <p>Re: 1.3.2.2.c, "Stakeholder engagement needs to be at the core of a HRIA, and in particular the participation of rights-holders is crucial at all stages of the assessment process. In the planning and scoping phase, the HRIA team will identify the stakeholders who should be engaged in the process. In the data collection and baseline development phase, interviews with rights-holders, duty-bearers and other relevant parties will be one of the main sources of primary data. Perspectives of rights-holders themselves will be used for assessing the severity of impacts in the analysing impacts phase."³⁶</p> <p>According to the Danish Institute on Human Rights, in addition to rights holders and duty bearers, there are a</p>

³⁵ For more information see: <https://www.humanrights.dk/projects/human-rights-impact-assessment>

³⁶ Danish Institute for Human Rights (DIFHR). 2016. Human Rights Impact Assessment: Guidance and Toolbox. Road Test Version. p. 90. https://www.humanrights.dk/sites/humanrights.dk/files/media/dokumenter/business/hria_toolbox/hria_guidance_and_toolbox_final_may2016.pdf 223795_1_1.pdf

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			<p>number of other relevant parties who should be engaged in the process such as: representatives from civil society, experts or journalists; and/or organizations that hold relevant and important information for the HRIA. It is particularly important to engage human rights actors as part of the HRIA. These could include: NGOs and/or CSOs working on specific human rights issues; intergovernmental agencies such as the Office of the High Commissioner for Human Rights in the specific country, or other agencies working on specific rights issues such as the ILO on labor rights, or UNICEF on children’s rights; national human rights institutions; and independent human rights experts. Involving such actors in HRIA can help to ensure that essential human rights information and analysis from different perspectives is included in the assessment.³⁷</p> <p>Companies should also identify and assess any actual or potential <u>adverse human rights impacts on vulnerable groups</u> that may be caused directly or indirectly, by their own activities or as a result of business relationships. With some vulnerable groups, such as children, <u>consultations</u> may occur with advocates or representatives instead of the vulnerable members themselves. For example, according to UNICEF: "Mining companies will find it necessary to directly consult with children only in limited circumstances. Triangulation with other sources of information from child rights advocates or adult key informants – such as police, company personnel, community leaders and health workers – can often yield sufficient information. However. . . in certain scenarios, only children have the knowledge or facts that derive from their direct experiences. Depending on the issue and need</p>

³⁷ Ibid. p. 109.

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<p>1.3.2.3. As part of its assessment, the <u>operating company</u> shall document, at minimum:</p> <ol style="list-style-type: none"> The assessment methodology; The current human rights context in the country and <u>mining project</u> area; Relevant human rights laws and norms; 	<p>Auditing Note for 1.3.2.3: For this criterion, interview relevant <u>operating company</u> staff and relevant <u>stakeholders</u>, and review documentation, such as the assessment methodology and the assessment itself.</p> <p>For 1.3.2.3.a: Confirm that the assessment methodology has been documented.</p>	<p>For 1.3.2.1 – 1.3.2.4:</p> <ul style="list-style-type: none"> Human rights risk/impact assessment methodology and/or process. Human rights risk and impact assessment report(s) or documentation that includes information required in 1.3.2.3.b – f). Human rights risk and impact assessment stakeholder and rights holder consultation report(s), records or documentation. 	<p>for engagement, business assessments and decisions that are informed by children’s opinions can be more relevant, more effective and more sustainable."³⁸</p> <p>Finally, it should be noted that there may be challenges to obtaining adequate representation of <u>stakeholder</u> viewpoints and interests in the human rights assessment. For example, women or other vulnerable groups may be included in meetings, but their participation may have been constrained for cultural reasons. Additionally, in some circumstances certain rights holders may not be willing to participate in company-led human rights assessments. The Danish Institute for Human Rights elaborates on potential challenges to conducting effective stakeholder engagement with <u>rights-holders</u> and other stakeholders.³⁹ When <u>stakeholder</u> participation is limited, companies should be transparent about this, and explain the steps that were taken to try to overcome the limitations.</p> <p>Explanatory Note for 1.3.2.3.e: According to OECD, “All people have human rights and thus all stakeholders as individuals are “<u>rights-holders</u>”. However, not all <u>stakeholders</u> will have their human rights put at risk or impacted by an extractive project or its associated activities. It is important to identify <u>human rights risks</u> related to extractive activities among stakeholders and recognize such stakeholders as “rights-holders” in the context of engagement activities. For example, individuals living in a community whose only local water source may</p>

³⁸ UNICEF. 2016. Child Rights and Mining Toolkit. p. 22. https://www.unicef.org/csr/files/FINAL_Child_Rights_and_Mining_Toolkit_060217.pdf

³⁹ Danish Institute for Human Rights (DIFHR). 2016. Human Rights Impact Assessment: Guidance and Toolbox. Road Test Version. pp. 102-104. https://www.humanrights.dk/sites/humanrights.dk/files/media/dokumenter/business/hria_toolbox/hria_guidance_and_toolbox_final_may2016.pdf 223795_1_1.pdf

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<p>d. A comprehensive list of the <u>human rights risks</u> related to <u>mining project activities</u> and <u>business relationships</u>, and an evaluation of the potential severity of impacts for each identified <u>human rights risk</u>;</p> <p>e. The identification of <u>rights holders</u>, an analysis of the potential differential risks to and impacts on <u>rights holder groups</u> (e.g., women, men, children, the elderly, persons with disabilities, <u>indigenous peoples</u>, ethnic or religious minority groups, and other disadvantaged or <u>vulnerable groups</u>), and a disaggregation of results by <u>rights holder group</u>;</p> <p>f. Recommendations for preventing, <u>mitigating</u> and <u>remediating</u> identified risks and impacts, giving priority to the most <u>salient human rights</u> issues.</p>	<p>For 1.3.2.3.b, c: Confirm that there has been consideration of the human rights context in the country, including an understanding of applicable laws and norms.</p> <p>For 1.3.2.3.d and e: Confirm that the assessment includes a comprehensive list of the risks to human rights from the <u>mining project and operating company's business relationships</u>; an evaluation of the potential severity of the impacts; an analysis of the differential risks to/impacts on women, men, children and other relevant <u>vulnerable groups</u>); and a disaggregation of data by rights holder group.</p> <p>For 1.3.2.3.f: Confirm that the assessment includes recommendations for addressing risks (i.e., preventing, mitigating and <u>remediating</u> impacts). See notes for requirement 1.3.3.3.</p>	<p>For 1.3.2.1 – 1.3.2.4:</p> <ul style="list-style-type: none"> Human rights risk and impact assessment process and/or methodology. Human rights risk and impact assessment reports. 	<p>be polluted by an extractive operation may be rights-holders. <u>Workers</u> facing discrimination in the workplace are also rights-holders. In addition to individual human rights, certain groups such as indigenous and tribal peoples can have collective rights and consequently the group itself may be considered a rights-holder. Identifying rights-holders is the first step to ensure that human rights are recognized and respected.”⁴⁰</p> <p>In particular, the UN Guiding Principles require that companies pay special attention to potential or actual impacts on human rights in relation to individuals from groups or populations that may be at heightened risk of vulnerability and marginalization, and thus, the company may need to consider additional human rights standards and instruments relating to <u>indigenous peoples</u>, women, national or ethnic, religious and linguistic minorities, children persons with disabilities, and migrant <u>workers</u> and their families. Also, the differential risks or experiences of impacts felt by women versus men.⁴¹</p>
<p>1.3.2.4. At minimum, <u>stakeholders</u> and <u>rights holders</u> who participated in the assessment process shall have the opportunity to review draft key issues and findings that are relevant to them, and</p>	<p>Auditing Note for 1.3.2.4: In some cases, the <u>operating company</u> may have made public a draft or final <u>human rights risk and impact assessment report</u>. If this is done, it should be noted (as well as the</p>	<p>For 1.3.2.1 – 1.3.2.4:</p> <ul style="list-style-type: none"> Human rights risk and impact assessment process and/or methodology. Human rights risk and impact assessment reports. 	<p>Explanatory Note for 1.3.2.4: Meaningful participation in the impact assessment process is as important as the outcomes, and rights holders are considered to be active agents in the impact assessment process. A human rights impact assessment should not be just about gathering</p>

⁴⁰ OECD. 2017. *OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector*. p. 20. Available at: <http://www.oecd.org/publications/oecd-due-diligence-guidance-for-meaningful-stakeholder-engagement-in-the-extractive-sector-9789264252462-en.htm>

⁴¹ UN OHCHR. 2014. Frequently Asked Question About the Guiding Principles on Business and Human Rights. p. 13. http://www.ohchr.org/Documents/Publications/FAQ_PrinciplesBusinessHR.pdf

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shall be consulted to provide feedback on those findings.	method by which it was made public, i.e., internet, hard copies, etc.). For 1.3.2.4: Review documentation (e.g., stakeholder/rights holder feedback logs) and interview a sample of relevant stakeholders and rights holders to confirm that they had the opportunity to review the draft findings, and provide feedback.	<ul style="list-style-type: none"> Stakeholder and rights holder consultation report(s), records or documentation. Reports on stakeholder engagement and levels of engagement achieved. Documentation of outreach to stakeholders (e.g., letters, print and/or radio advertisements) inviting them to review and provide feedback on draft findings. 	information, but also an exchange of knowledge between participants throughout the assessment process. ⁴² Key elements for meaningful stakeholder engagement include ongoing engagement that is two-way, conducted in good faith and is responsive to the views, experiences and expectations being exchanged. ⁴³
1.3.2.5. The operating company shall demonstrate that steps have been taken to effectively integrate assessment findings at the mine site operational level.	For 1.3.2.5: Interview relevant operating company staff to determine how the company integrates the findings across relevant internal functions and processes, e.g., confirm that identification, prevention, mitigation and remediation of adverse human rights impacts is an activity of focus for mine site management, and is recognized at other levels of the company, and that procedures and processes have been revised if necessary based on the assessment findings.	For 1.3.2.5: <ul style="list-style-type: none"> Human rights risk and impact assessment reports. Records showing integration of assessment findings at the mine site operational level (e.g., memos to relevant personnel, actions plans, monitoring data, training records). Records showing implementation of human rights risk and impact assessment findings. Monitoring and evaluation reports (including of stakeholder attitudes and perceptions) on effectiveness of implemented findings including mitigation measures. 	Explanatory Note for 1.3.2.5: Unless a system already exists, the company may need to put in place measures that enable mine site operational staff to be aware of, understand the impact of, and be prepared to respond to human rights impacts. This may involve developing new processes and systems or making changes to existing ones, such as: Procedures to inform relevant operational staff on the findings of human rights assessments Cross-functional groups to liaise on human rights challenges Cross-functional communications prior to decisions/actions Staff training or guidance related to relevant human rights issues, policies, mitigation/remediation management plans and processes, and stakeholder and worker grievance mechanisms. Such training and guidance may need to be

⁴² Danish Institute for Human Rights (DIFHR). 2016. Human Rights Impact Assessment: Guidance and Toolbox. Road Test Version. pp. 18 and 96.
https://www.humanrights.dk/sites/humanrights.dk/files/media/dokumenter/business/hria_toolbox/hria_guidance_and_toolbox_final_may22016.pdf 223795_1_1.pdf

⁴³ OECD. 2017. *OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector*. p. 18. Available at: <http://www.oecd.org/publications/oecd-due-diligence-guidance-for-meaningful-stakeholder-engagement-in-the-extractive-sector-9789264252462-en.htm>

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<p>1.3.3. Prevention, Mitigation and Remediation of Human Rights Impacts</p> <p>1.3.3.1. Mining project stakeholders shall have access to and be informed about a rights-compatible grievance mechanism and other mechanisms through which they can raise concerns and seek recourse for grievances related to human rights.⁴⁵</p>	<p>For 1.3.3.1: Interview relevant operating company staff to determine how the company has communicated to stakeholders the existence of the operational-level complaints and grievance mechanism (see IRMA Chapter 1.4) and/or other means to raise concerns about human rights impacts related to company activities. Interview a sample of rights holders to confirm that they are aware of the existence of the operational-level mechanism and/or other means to raise concerns about human rights risks and impacts related to company activities.</p>	<p>For 1.3.3.1:</p> <ul style="list-style-type: none"> • Grievance mechanism policies/procedure. • Records of lodged/investigated grievances where applicable. • Documentation of communication of the grievance mechanism to stakeholders. (e.g., correspondence, meeting minutes, advertisements, etc.) • Evidence of grievance mechanism that is publicly available e.g., on websites, public notice boards etc. 	<p>updated over time to reflect changes in policies, plans and practices.</p> <p>Rules or incentives for staff to report on human rights issues</p> <p>A position such as human rights coordinator to oversee human rights matters including effectiveness of due diligence, etc.⁴⁴</p> <p>Systems for monitoring and evaluating the effectiveness of efforts being implemented to address human rights issues at the operational level</p> <p>Explanatory Note for 1.3.3.1: The operational-level grievance mechanism developed as per IRMA Chapter 1.4 may be used as the mechanism to receive all types of complaints, including those related to human rights, or a separate mechanism may be created to handle only human rights complaints and grievances. If a separate mechanism is developed, it shall be done in a manner that is consistent with Chapter 1.4.</p> <p>Also, there may be other mechanisms that are not operated by the company through which stakeholders or rights holders can seek recourse (e.g., administrative, judicial and non-judicial remedies, indigenous peoples' traditional or customary dispute resolution processes, etc.). These alternative options should be mentioned to stakeholders or rights holders who lodge human-rights-related grievances with the company.</p>

⁴⁴ Office of the High Commissioner for Human Rights (OHCHR). 2012. The Corporate Responsibility to Respect Human Rights - An Interpretive Guide. p. 52. https://www.ohchr.org/Documents/Publications/HR.PUB.12.2_En.pdf and IBLF and IFC, 2010. Guide to Human Rights Impact Assessment and Management. pp. 53 and 54. https://www.unglobalcompact.org/docs/issues_doc/human_rights/GuidetoHRIAM.pdf

⁴⁵ The operational-level grievance mechanism developed as per IRMA Chapter 1.4 may be used as the mechanism to receive all types of complaints, including those related to human rights, or a separate mechanism may be created to handle only human rights complaints and grievances. If a separate mechanism is developed, it shall be done in a manner that is consistent with Chapter 1.4. Also, there may be other mechanisms that are not operated by the company through with stakeholders or rights holders can seek recourse (e.g., administrative, judicial and non-judicial remedies), and these options should be mentioned to stakeholders who lodge human rights related grievances with the company.

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<p>1.3.3.2. Responding to <u>human rights risks</u> related to the mining project:</p> <p>a. If the <u>operating company</u> determines that it is at risk of causing <u>adverse human rights impacts</u> through its mining-related activities, it shall prioritize preventing impacts from occurring, and if this is not possible, design strategies to <u>mitigate</u> the <u>human rights risks</u>. <u>Mitigation</u> plans shall be developed in <u>consultation</u> with potentially affected <u>rights holder(s)</u>.</p> <p>b. If the <u>operating company</u> determines that it is at risk of contributing to <u>adverse human rights impacts</u> through its mining-related activities, it shall take action to prevent or <u>mitigate</u> its contribution, and use its</p>	<p>For 1.3.3.2:</p> <p>Interview relevant <u>operating company</u> staff to ensure that they understand the appropriate response to <u>human rights risks</u> related to the mining project (i.e., potential impacts on human rights from the <u>mining project</u> itself, or the potential that the company could contribute to or be linked to <u>human rights risks</u> from others’ activities).</p> <p>Interview a sample of potentially affected <u>rights holders</u> to confirm they were informed of risks to their human rights from the <u>mining project</u>, and were offered means to ensure that they had the capacity to understand their rights and <u>remedies</u>; that the risks identified by the company’s human rights assessment process (or through other means) were</p>	<p>For 1.3.3.2:</p> <ul style="list-style-type: none"> • Human rights risk and impact assessment reports. • Human rights due diligence reports. • Documented mitigation procedures. • Documented mitigation action plan. • Documented mitigation records. • Documentation of communications with affected rights holders (e.g., meeting minutes, correspondence, etc.) • Documentation of communications with other relevant parties/business relationships (e.g., meeting minutes, correspondence, etc.) regarding their human rights risks. 	<p>A worker-specific <u>grievance mechanism</u> required in IRMA Chapter 3.1, however, if a special mechanism is developed for human rights related issues, it should also be accessible to <u>workers seeking remedy</u> for grievances specifically in relation to perceived infringements of their human rights (Note: core labor rights are considered human rights).</p> <p>Explanatory Note for 1.3.3.2: The “prevention of <u>adverse human rights impact</u>” refers to actions taken to ensure such impact does not occur.</p> <p>“Mitigation of <u>human rights risks</u>” refers to actions taken to reduce the likelihood of a certain adverse impact occurring.⁴⁶</p> <p>Leverage is an advantage that gives power to influence. In the context of Chapter 1.3, it refers to the ability to effect change in the wrongful practices of the party that is causing or contributing to an <u>adverse human rights impact</u>. For more information on leverage see OHCHR (2012).⁴⁷</p> <p>Additional information on causing, contributing to and being linked to human rights risks and impacts can be found in Debevoise and Plimpton (2017) and OHCHR (2013, 2014).⁴⁸</p>

⁴⁶ UN OHCHR. 2012. *The Corporate Responsibility to Respect Human Rights: An Interpretive Guide*. p. 7. www.ohchr.org/EN/Issues/Business/Pages/Tools.aspx

⁴⁷ Ibid. pp. 48-52.

⁴⁸ Debevoise and Plimpton. 2017. Practical Definitions of Cause, Contribute, and Directly Linked to Inform Business Respect for Human Rights. (Discussion Draft). <https://business-humanrights.org/sites/default/files/documents/Debevoise-Enodo-Practical-Meaning-of-Involvement-Draft-2017-02-09.pdf>; UNOHCHR. 2013. Letter to Chair of the OECD Working Party on Responsible Business Conduct. pp. 2-4. <http://www.ohchr.org/Documents/Issues/Business/LetterOECD.pdf>; and UN OHCHR. 2014. Frequently Asked Question About the Guiding Principles on Business and Human Rights. p. 29, 31, 32. http://www.ohchr.org/Documents/Publications/FAQ_PrinciplesBusinessHR.pdf.

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<p>leverage to influence other contributing parties to prevent or mitigate their contributions to the human rights risks.</p> <p>c. If the operating company determines that it is at risk of being linked to adverse human rights impacts through its business relationships, it shall use its leverage to influence responsible parties to prevent or mitigate their risks to human rights from their activities.</p> <p>1.3.3.3. (Critical Requirement) Responding to actual human rights impacts related to the mining project:</p>	<p>satisfactorily prevented or reduced as a result of mitigation; and that mitigation plans were developed through a consultative process. Review any company documentation on prevention and mitigation plans.</p> <p>Interview relevant company staff to confirm they undertook actions to use leverage to mitigate human rights risks that they could contribute to or be linked to (e.g., they engaged with responsible parties to convince them to prevent or mitigate the human rights risks related to their activities).</p> <p>Auditing Note for 1.3.3.3: Interview relevant operating company staff and affected rights holders, and documentation, if any.</p> <p>For 1.3.3.3.a: Determine if any actual human rights impacts were identified. If so, confirm that the activities causing impacts were stopped or changed, and that actions were taken mitigate the impact. Confirm that remediation for impacts occurred. Also, confirm that remediation provided for actual human rights impacts were developed with affected rights holders in a collaborative,</p>	<p>For 1.3.3.3:</p> <ul style="list-style-type: none"> • Human rights risk and impact assessment reports. • Human rights due diligence reports. • Documented mitigation and/or remediation procedures. • Documented mitigation and/or remediation action plan. • Documented mitigation and/or remediation records. • Documentation of communications with affected rights holders (e.g., meeting minutes, correspondence, etc.). • Documentation of communications with other relevant parties/business relationships (e.g., meeting 	<p>Explanatory Note for 1.3.3.3: According to the OHCHR (2012, p. 15) there are three basic ways in which a company can be involved in an adverse impact on human rights: (a) It may cause the impact through its own activities; (b) It may contribute to the impact through its own activities—either directly or through some outside entity (government, business or other); (c) It may neither cause nor contribute to the impact, but be involved because the impact is caused by an entity with which it has a business relationship and is linked to its own operations, products or services. Each of the three scenarios has different implications for the nature of a business responsibilities. For more information see OHCHR (2012) and Debevoise and Plimpton (2017).⁴⁹</p>

⁴⁹ Ibid. pp. 15-18; and Debevoise and Plimpton. 2017. Practical Definitions of Cause, Contribute, and Directly Linked to Inform Business Respect for Human Rights. (Discussion Draft). <https://business-humanrights.org/sites/default/files/documents/Debevoise-Enodo-Practical-Meaning-of-Involvement-Draft-2017-02-09.pdf>

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<p>a. If the <u>operating company</u> determines that it has caused an <u>actual human rights impact</u>, the company shall:</p> <p>i. Cease or change the activity responsible for the impact; and</p> <p>ii. In a timely manner, develop <u>mitigation strategies and remediation in collaboration with affected rights holders</u>. If mutually acceptable remedies cannot be found through dialogue, the <u>operating company</u> shall attempt to reach agreement through an independent, third-party mediator or another means mutually acceptable to affected <u>rights holders</u>;</p> <p>b. If the <u>operating company</u> determines that it has contributed to an <u>actual human rights impact</u>, the company shall cease or change any activities that are contributing to the impact, <u>mitigate</u> and <u>remediate</u> impacts to the extent of its contribution, use its <u>leverage</u> to influence other contributing parties to cease or change their activities, and <u>mitigate</u> and <u>remediate</u> the remaining impact;</p>	<p>timely and culturally appropriate manner, and that remedies were agreed to in principle and accepted by them in practice.</p> <p>For 1.3.3.3.b: Determine if the company was found to be contributing to <u>adverse human rights impacts</u>. If so, confirm it took the steps needed to cease their contribution to those impacts and used their <u>leverage</u> to mitigate impacts to which they contributed, and remediate their impacts either directly or in cooperation with others (e.g., courts, government, other responsible parties or third parties).</p> <p>For 1.3.3.3.c: Determine if the company was found to be linked to <u>adverse human rights impacts</u> (e.g., through a <u>business relationship</u>). If so, confirm it undertook actions to use their <u>leverage</u> to <u>mitigate</u> impacts that they were linked to</p> <p>For 1.3.3.3.d: Determine if any human rights impacts related to the company were being addressed or had been addressed through judicial or State-based processes, and if so, confirm that</p>	<p>minutes, correspondence, etc.) regarding their human rights impacts.</p> <ul style="list-style-type: none"> Documentation of communications with host countries or others involved in mitigation or remediation of company-related human rights impacts. 	<p>These implications are outlined in the UN Guiding Principles on Business and Human Rights, Principle 19 (Ruggie, 2011; see also OHCHR, 2012, pp. 15 and 18) and requirement 1.3.3.3 is meant to align with the responsibilities outlined in the UNGPs.⁵⁰</p> <p>The “<u>prevention of adverse human rights impact</u>” refers to actions taken to ensure such impact does not occur.</p> <p>“<u>Mitigation of adverse human rights impact</u>” refers to actions taken to reduce its extent, with any residual impact then requiring <u>remediation</u>.</p> <p>“<u>Remediation and remedy</u>” refer to both the processes of providing <u>remedy</u> for an <u>adverse human rights impact</u> and the substantive outcomes that can counteract, or make good, the adverse impact.</p> <p>These outcomes may take a range of forms, such as apologies, restitution, rehabilitation, financial or non-financial compensation, and punitive sanctions (whether criminal or administrative, such as fines), as well as the prevention of harm through, for example, injunctions or guarantees of non-repetition.⁵¹</p> <p>Companies may see value in creating a policy on redress/compensation with a compensation scale that is based on the nature, extent, severity of the human rights impacts.</p> <p>Explanatory Note for 1.3.3.3.d: “Cooperating with other legitimate processes such as judicial or State-based</p>

⁵⁰ UN OHCHR. 2012. *The Corporate Responsibility to Respect Human Rights: An Interpretive Guide*. www.ohchr.org/EN/Issues/Business/Pages/Tools.aspx; Ruggie, J. 2011. Guiding Principles on Business and Human Rights. Report of the Special Representative of the Secretary General on the issue of human rights and transnational corporations and other business enterprises, John Ruggie. (A/HRC/17/31). <https://www.ohchr.org/documents/issues/business/A.HRC.17.31.pdf>

⁵¹ UN OHCHR. 2012. *The Corporate Responsibility to Respect Human Rights: An Interpretive Guide*. p. 7. www.ohchr.org/EN/Issues/Business/Pages/Tools.aspx

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<p>c. If the <u>operating company</u> determines that it is linked to an <u>actual human rights impact</u> through a <u>business relationship</u> the company shall use its <u>leverage</u> to prevent or <u>mitigate</u> the impact from continuing or recurring; and</p> <p>d. The <u>operating company</u> shall cooperate with other legitimate processes such as judicial or State-based investigations or proceedings related to human rights impacts that the <u>operating company</u> caused, contributed to, or was directly linked to through its <u>business relationships</u>.</p>	<p>the <u>operating company</u> was cooperating or cooperated with those processes.</p>		<p>proceedings” could include human rights related investigations or processes being carried out by host country government departments or agencies such as an ombudsman office or labor office, national human rights institutions, National Contact Points for OECD members and adherents of the OECD Declaration on International Investment and Multinational Enterprises, local or traditional mechanisms used by indigenous or other communities, host country or international courts, other State-administered or statutory body empowered to take on the role of adjudicating appropriate remedies when there has been the infringement of human rights.⁵²</p>
<p>1.3.4. Monitoring</p> <p>1.3.4.1. The <u>operating company</u> shall monitor whether <u>salient human rights risks</u> and impacts are being effectively addressed. Monitoring shall include qualitative and quantitative indicators, and draw on feedback from internal and external sources, including affected <u>rights holders</u>.</p>	<p>For 1.3.4.1: Interview relevant <u>operating company</u> staff about the monitoring program. Review indicators of salient impacts being monitored, and any data from the monitoring program. Confirm that the company incorporated feedback from internal and external sources, including relevant <u>stakeholders</u> and/or affected <u>rights holders</u>, in the monitoring.</p>	<p>For 1.3.4.1:</p> <ul style="list-style-type: none"> • Human rights risk and impact monitoring procedure. • Human rights risk and impact monitoring reports. • Human rights risk and impact assessment reports. • Human rights due diligence reports. • Documentation of consultations or communications with affected rights holders and external sources (e.g., meeting minutes, correspondence, etc.), and company responses. 	<p>Explanatory Note for 1.3.4.1: A company’s <u>salient human rights</u> issues are those human rights that stand out because they are at risk of the most severe negative impact through the company’s activities or <u>business relationships</u>. This concept of salience uses the lens of risk to people, not the business, as the starting point, while recognizing that where risks to people’s human rights are greatest, there is strong convergence with risk to the business.</p> <p>The emphasis of salience lies with those impacts that are:</p> <p>Most severe: based on how grave and how widespread the impact would be and how hard it would be to put right the resulting harm.</p> <p>Potential: meaning those impacts that have some</p>

⁵² For more information see: UN OHCHR, 2012. *The Corporate Responsibility to Respect Human Rights: An Interpretive Guide*. pp. 64 -66. www.ohchr.org/EN/Issues/Business/Pages/Tools.aspx and OHCHR. 2014. Frequently Asked Questions About the Guiding Principles on Business and Human Rights. pp. 12, 14, 34 and 35. http://www.ohchr.org/Documents/Publications/FAQ_PrinciplesBusinessHR.pdf

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<p>1.3.4.2. External monitoring of an <u>operating company's</u> human rights due diligence shall occur if the company's due diligence efforts repeatedly fail to prevent, <u>mitigate or remediate actual human rights impacts</u>; or if its due diligence activities failed to prevent the company from unknowingly or unintentionally causing, contributing to or being linked to any <u>serious human rights abuse</u>.⁵⁴ Additionally:</p> <p>a. The company shall fund the external monitoring; and</p>	<p>For 1.3.4.2: Determine, through interviews with relevant operating company staff and <u>stakeholders and/or rights holders</u>, review of <u>grievance mechanism</u> findings, review of monitoring results, and other sources of information, if the company has been implicated in the repeated infringements of human rights, or <u>serious human rights abuses</u>. If so, confirm that external monitoring of the company's human rights due diligence has occurred; that a <u>collaborative</u> process was undertaken to develop the external monitoring</p>	<p>For 1.3.4.2:</p> <ul style="list-style-type: none"> • All of the above (for 1.3.4.1) • Documentation of communications with those carrying out external monitoring (e.g., meeting minutes, correspondence, etc.), and company responses. 	<p>likelihood of occurring in the future.</p> <p>Negative: placing the focus on the avoidance of harm to human rights rather than unrelated initiatives to support or promote human rights.</p> <p>Impacts on human rights: placing the focus on risk to people, rather than on risk to the business.</p> <p>Salience therefore focuses the company's resources on finding information that is necessary for its own ability to manage risks to human rights and related risks to the business. In this way, it helps companies report on the human rights information that shareholders, investors, governments, customers, consumers, media, civil society organizations and directly affected people want to see.⁵³</p> <p>Explanatory Note for 1.3.4.2: External monitoring may also be referred to as independent monitoring. It would involve a review of the due diligence system and its implementation to determine why the company's system failed to prevent, mitigate or remediate human rights impacts. The external monitoring would also be expected to develop recommendations on steps to take to improve the effectiveness of a company's due diligence efforts to prevent future impacts.</p> <p>NOTE: This requirement does not apply to cases where a company has knowingly or intentionally caused, contributed to or been linked to serious human rights</p>

⁵³ For more information see: UN Guiding Principles Reporting Framework website. "Salient Human Rights Issues." <https://www.ungpreporting.org/resources/salient-human-rights-issues/>

⁵⁴ This requirement does not apply if a company has knowingly or intentionally caused, contributed to or been linked to serious human rights abuses. (See Notes section at the end of Chapter 1.3 for more on serious human rights abuses).

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>b. The form of such monitoring, and selection of external monitors, shall be determined in collaboration with affected rights holders.</p>	<p>program; and that the affected rights holders had the capacity needed to engage in that process as per IRMA Chapter 1.2.</p>		<p>abuses. (See Notes section at the end of Chapter 1.3 for more on serious human rights abuses).</p> <p>Serious human rights abuses include:⁵⁵</p> <ul style="list-style-type: none"> i) any forms of torture, cruel, inhuman and degrading treatment; ii) any forms of forced or compulsory labour, which means work or service which is exacted from any person under the menace of penalty and for which said person has not offered himself voluntarily; iii) the worst forms of child labour (as per ILO Convention 182); iv) other gross human rights violations and abuses such as widespread sexual violence; v) war crimes or other serious violations of international humanitarian law, crimes against humanity or genocide.
<p>1.3.5. Reporting</p> <p>1.3.5.1. The operating company or its corporate owner shall periodically report publicly on the effectiveness of its human rights due diligence activities. At minimum, reporting shall include the methods used to determine the salient human rights issues, a list of salient risks and impacts that were identified, and actions taken by the operating company.</p>	<p>For 1.3.5.1: Determine, through interviews with the operating company, whether it or its corporate owner has carried out human rights due diligence reporting related to the mining project. Review operating company website and published material to determine if the operating company has made progress reports publicly available. Review reports to confirm that they include information on human rights risks and actual human</p>	<p>For 1.3.5.1:</p> <ul style="list-style-type: none"> • Publicly available human rights due diligence reports (or relevant sections of other reports that contain information on the effectiveness of the company's human rights due diligence activities). • Documentation of meetings or communications with stakeholders and rights holders (e.g., meeting minutes, correspondence, etc.) where the company reported on the effectiveness of its human rights due diligence activities. 	<p>Explanatory Note for 1.3.5.1 and 1.3.5.2: According to the UN Guiding Principles on Business and Human Rights, “The responsibility to respect human rights requires that business enterprises have in place policies and processes through which they can both know and show that they respect human rights in practice. Showing involves communication, providing a measure of transparency and accountability to individuals or groups who may be impacted and to other relevant stakeholders, including investors.</p>

⁵⁵ OECD. 2016. Due Diligence Guidance on Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. 3rd Ed. <http://www.oecd.org/daf/inv/mne/OECD-Due-Diligence-Guidance-Minerals-Edition3.pdf>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>to prevent, mitigate and/or remediate the human rights risks and impacts.</p>	<p>rights impacts that have been identified in relation to the mining project, and account for how the operating company has prevented, mitigated and/or remediated those impacts.</p>		<p>Communication can take a variety of forms, including in-person meetings, online dialogues, consultation with affected stakeholders, and formal public reports. Reporting should cover topics and indicators concerning how enterprises identify and address adverse impacts on human rights."⁵⁶</p> <p>Formal reporting by enterprises is expected where risks of severe human rights impacts exist, whether this is due to the nature of the business operations or operating contexts.</p> <p>The UN Office of the High Commissioner for Human Rights (OHCHR) elaborates that, "As Guiding Principle 21 makes clear, enterprises whose operations or operating contexts pose a risk of severe human rights impact should report formally on how they address it. . . There may even be reasons for some enterprises with lesser human rights risk profiles to include information on their human rights performance in regular, formal public reports. For instance, the internal process of writing a report can help to embed within an enterprise an understanding of human rights issues and of the importance that respecting human rights holds for the business itself. The additional transparency that reporting of this kind provides can help protect the enterprise's reputation and build wider trust in its efforts to respect human rights."⁵⁷</p> <p>Formal reporting is itself evolving, from traditional annual reports and corporate responsibility/sustainability reports,</p>

⁵⁶ UN Guiding Principles, Commentary for Principle 21. (Ruggie, J. 2011. Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework. March 21, 2011. A/HRC/17/31. www.ohchr.org/Documents/Issues/Business/A-HRC-17-31_AEV.pdf)

⁵⁷ For more information see: UN OHCHR, 2012. *The Corporate Responsibility to Respect Human Rights: An Interpretive Guide*. p. 59. www.ohchr.org/EN/Issues/Business/Pages/Tools.aspx

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>1.3.5.2. If relevant, the <u>operating company</u> shall publish a report on external monitoring findings and recommendations to improve the <u>operating company's</u> human rights due diligence, and the <u>operating company</u> shall report to relevant <u>stakeholders</u> and <u>rights holders</u> on its plans to improve its due diligence activities as a result of external monitoring recommendations.</p>	<p>For 1.3.5.2: The requirement is relevant only if external monitoring has taken place. If relevant, confirm, through review of documents or company website that a report on external monitoring findings and recommendations has been published; and confirm through review of documents (e.g., meeting minutes) and/or interviews with <u>operating company</u> staff and <u>stakeholders/rights holders</u> that the company has communicated to <u>rights holders</u> and <u>stakeholders</u> a plan to improve its due diligence based on the external monitoring recommendations.</p>	<p>For 1.3.5.2:</p> <ul style="list-style-type: none"> Publicly available human rights due diligence reports. Published report on external monitoring findings and recommendations. Documented improvement plans for due diligence activities. Documentation of meetings or communications with stakeholders and rights holders (e.g., meeting minutes, correspondence, etc.) where the company reported on plans to improve human rights due diligence activities based on external monitoring results. 	<p>to include online updates and integrated financial and non-financial reports. See UNGP Reporting Framework for some examples of public reporting.⁵⁸</p> <p>Re: "periodically report," the OHCHR suggests that formal reports may be produced annually or more frequently or when a particular impact arises or both.⁵⁹</p>
<p>1.3.5.3. Public reporting referred to in 1.3.5.1 and 1.3.5.2 may exclude information that is politically sensitive, <u>confidential business information</u>, or that</p>	<p>For 1.3.5.3: Interview <u>operating company</u> to determine if some information has not been made fully available in the public reports. Determine the nature of that information, and confirm that those who</p>	<p>For 1.3.5.3:</p> <ul style="list-style-type: none"> Publicly available human rights due diligence reports (or relevant sections of other reports that contain information on the effectiveness of the company's human rights due diligence activities). 	<p>Explanatory Note for 1.3.5.3: Requirement 1.3.5.1 requires operating companies to report on the methods used to determine the salient human rights issues, a list of salient risks and impacts that were identified, and actions taken by the operating company to prevent, mitigate and/or remediate the human rights risks and impacts. However,</p>

⁵⁸ UN Guiding Principles Reporting Framework: <https://www.ungpreporting.org/>

⁵⁹ For more information see: UN OHCHR, 2012. *The Corporate Responsibility to Respect Human Rights: An Interpretive Guide*. p. 60. www.ohchr.org/EN/Issues/Business/Pages/Tools.aspx

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
may compromise safety or place any individual at risk of further victimization.	should be made aware of information (e.g., those who face specific risks to human rights and/or safety as identified in the assessment) have been provided the sensitive information through other means (e.g., in-person meetings).	<ul style="list-style-type: none"> Published report on external monitoring findings and recommendations. Documentation of materials that have been excluded from the public report (including rationale for excluding the information). 	there may be cases where it is not appropriate to release certain information publicly. Principle 21 of the UN Guiding Principles states that, "In order to account for how they address their human rights impacts, business enterprises should be prepared to communicate externally, particularly when concerns are raised by or on behalf of affected stakeholders. Business enterprises whose operations or operating contexts pose risks of severe human rights impacts should report formally on how they address them. In all instances, communications should: . . .(c) In turn not pose risks to affected stakeholders, personnel or to legitimate requirements of commercial confidentiality." Elsewhere in the UNGPs, it is stated that "Any stipulation of what would constitute adequate communication should take into account risks that it may pose to the safety and security of individuals and facilities; legitimate requirements of commercial confidentiality; and variations in companies' size and structures." ⁶⁰

NOTES

This chapter is based on the framework for corporate responsibility established in the UN *Guiding Principles on Business and Human Rights*, and includes best practice requirements to increase transparency regarding human rights impacts, and the ability of rights holders to participate, in a meaningful way, in decisions that affect their lives.

This chapter does not specifically address cases where operating companies knowingly contribute to serious human rights abuses. However, IRMA has created a Policy on Association to provide a means for IRMA to exclude companies from IRMA participation if those companies are directly or indirectly involved in activities that violate IRMA's core principles and values. It is likely that knowingly or intentionally causing or contributing to serious human rights abuses would be grounds for IRMA to exclude an operating company or its corporate owner from participating, or terminate a relationship with a company that has a participating IRMA mine. In the current draft policy, the decision of whether or not to deny or withdraw IRMA achievement recognition, and any terms and conditions that might allow a company to re-associate with

⁶⁰ Ruggie, J. 2011. UN Guiding Principles on Business and Human Rights. Commentary for Principle 3. A/HRC/17/31. www.ohchr.org/Documents/Issues/Business/A-HRC-17-31_AEV.pdf

IRMA, will be made by the IRMA Steering Committee. The IRMA Policy on Association will not be put into effect until after the IRMA Launch Phase. IRMA welcomes comments on its draft policy, available at: www.responsiblemining.net/images/uploads/IRMA_Policy_On_Association_Draft_v1.0.pdf.

In Chapter 1.3, criteria 1.3.4, the decision to initiate external monitoring may be made by an operating company that has recognized (e.g., through its human rights due diligence processes, complaints filed through its operational-level grievance mechanism, observations made by a third party, or some other means) its repeated failure to prevent, mitigate or remediate human rights impacts, or that its due diligence has failed to prevent it from causing, contributing to, or being linked to serious human rights abuses. External monitoring may also be suggested as a corrective action, if an IRMA auditor discovers during an IRMA audit that the operating company’s due diligence has failed to prevent any of the situations listed above.

Cross References to Other Chapters	
CHAPTER	ISSUES
1.2—Community and Stakeholder Engagement	Engagement with <u>stakeholders</u> and <u>rights holders</u> in Chapter 1.3 must conform with the requirements of Chapter 1.2. In particular, criterion 1.2.3 is important to ensure that affected <u>rights holders</u> have the capacity to fully understand their rights and participate effectively in the assessment and development of prevention/ <u>mitigation plans</u> , monitoring, and <u>remedies</u> for impacts on their human rights. And 1.2.3 ensures that communications and information are in culturally appropriate formats and languages that are <u>accessible</u> to <u>affected communities</u> and <u>stakeholders</u> , and are provided in a timely manner.
1.4— Complaints and Grievance Mechanism and Access to Remedy	As mentioned in 1.3.3.1, the <u>operating company</u> shall ensure that <u>stakeholders</u> have access to a mechanism for raising human rights concerns. Any operational-level <u>grievance mechanism</u> developed as per Chapter 1.4 is required to be <u>rights-compatible</u> , and should be appropriate for raising human-rights-related complaints. It may be deemed necessary, however, to create a separate mechanism for determining appropriate <u>remedies</u> for infringements of human rights. If a separate mechanism is created, it is expected to adhere to the requirements of Chapter 1.4.
2.1—Environmental and Social Impact Assessment and Management	As long as the assessment of <u>human rights risks</u> and impacts meets the requirements in Criterion 1.3.4, it may be conducted as stand-alone assessment or integrated into a larger impact assessment process (e.g., the Environmental and Social Impact Assessment mentioned in Chapter 2.1).
2.2—Free, Prior and Informed Consent	<u>Indigenous peoples</u> are <u>rights holders</u> , and mining developments pose risks to their individual and collective human rights. The requirements in Chapter 2.2 are meant to facilitate a <u>rights-compatible</u> relationship between <u>indigenous peoples</u> and mining companies. See requirement 2.2.1.1 on the company’s policy commitment to respect <u>indigenous peoples’</u> rights; and requirements 2.2.3.2.a, b and c, related to engagement with <u>indigenous peoples</u> in the assessment of potential impacts on <u>indigenous peoples’</u> rights from mining-related activities.
2.4—Resettlement	Even where <u>mining project</u> proponents have obtained legal rights over land, displaced households and <u>affected communities</u> have human rights under international law that must be fully respected and fulfilled by project proponents and contractors. <u>Human rights risks</u> related to resettlement may be assessed as per requirement 1.3.2.1 in Chapter 1.3, or assessed as part of the Resettlement Risk and Impact Assessment Process in Chapter 2.4.
3.1—Fair Labor and Terms of Work	Even though there is a <u>worker grievance mechanism</u> required as per Chapter 3.1, the <u>grievance mechanism</u> in Chapter 1.3 may also be used by <u>workers</u> seeking remedy specifically in relation to perceived infringements of their human rights (e.g., core labor rights are considered human rights). Incidents of <u>child labor</u> or <u>forced labor</u> associated with a <u>mining project</u> are addressed in Chapter 3.1, but should also be assessed as per requirement 1.3.2.1 in Chapter 1.3. Similarly, the determination of whether or not there is a high risk of <u>child labor</u> in the supply chain should occur as part of the <u>operating company’s</u> human rights due diligence in Chapter 1.3. If <u>child labor</u> in the supply chain is identified as being a salient risk during the human rights impact assessment, the company will be required to carry out the remaining due diligence as per Chapter 1.3, and also the requirements in 3.1.7.6. Similarly, if <u>forced labor</u> in the supply chain is identified as a risk, the company should carry out due diligence as per Chapter 1.3, and also the requirements in 3.1.8.2.

Cross References to Other Chapters	
3.2—Occupational Health and Safety	<u>Workers</u> have the right to health, and so during the human rights assessment companies should include an assessment of the potential that <u>workers</u> and management-level employees may be exposed to unacceptable health impacts. The occupational health and safety risk assessment in Chapter 3.2 will likely feed into this assessment.
3.4—Mining in Conflict-Affected or High-Risk Areas	There is often a high risk for infringement of human rights at mines operating in or sourcing minerals from <u>conflict-affected or high-risk areas</u> . If risks are identified during the conflict screening or risk assessment, the information may feed into the human rights risk and impact assessment. Strategies developed to mitigate <u>human rights risks</u> and impacts identified in the conflict risk assessment must conform with relevant human rights due diligence requirements in Criteria 1.3.3.
3.5—Security Arrangements	<u>Human rights risks</u> related to mine security may be assessed as per requirement 3.5.2.1 in Chapter 3.5, and/or assessed during the human rights risk and impact assessment in Chapter 1.3. If assessed as per Chapter 3.5, the information from the security risk assessment should feed into the <u>human rights risk</u> and impact assessment. Strategies developed to mitigate <u>human rights risks</u> and impacts related to security arrangements must conform with the relevant human rights due diligence requirements in Criteria 1.3.3.

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the [Glossary of Terms](#) at the end of the IRMA Standard document.

Actual Human Rights Impact

An adverse impact that has already occurred or is occurring.

Adverse Human Rights Impact

When an action removes or reduces the ability of an individual to enjoy his or her human rights.

Business Relationships

Relationships a business enterprise has with business partners, entities in a value chain, and any other non-State or State entity directly linked to business operations, products or services. They include indirect business relationships in its value chain, beyond the first tier, and minority as well as majority shareholding positions in joint ventures.

Competent Professionals

In-house staff or external consultants with relevant education, knowledge, proven experience, necessary skills and training to carry out the required work. Competent professionals would be expected to follow scientifically robust methodologies that would withstand scrutiny by other professionals. Other equivalent terms used may include: competent person, qualified person, qualified professional. For independent reviews (in IRMA Chapter 4.1) competent professionals must not be in-house staff.

Confidential Business Information

Material that contains trade secrets or commercial or financial information that has been claimed as confidential by its source. The information must be secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question; it must have commercial value because it is secret; and it must have been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret.

Collaboration

The process of shared decision-making in which all stakeholders constructively explore their differences and develop a joint strategy for action. It is based on the premise that, through dialogue, the provision of appropriate information, collectively defined goals, and the willingness and commitment to find a solution acceptable to all parties, it is possible to overcome the initially limited perspectives of what is achievable and to reach a decision which best meets the interests of the various stakeholders. At this level, responsibility for decision-making is shared between stakeholders.

Consultation

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. In principle, the company should take into account the concerns and views expressed by stakeholders in the final decision.

Corporate Owner(s)

The corporation(s) or other business institution(s) including any private or state-run enterprises that have complete or partial financial interest in or ownership of a mining project.

Grievance Mechanism

Any routinized, State-based or non-State-based, judicial or non-judicial process through which mining-project-related complaints or grievances, including business-related human rights abuses stakeholder complaints, and/or labor grievances, can be raised and remedy can be sought.

Human Rights Defenders

Any person or group of persons working to promote human rights and contributing to the effective elimination of all violations of human rights and fundamental freedoms of peoples and individuals. Defenders can be of any gender, of varying ages, from any part of the world and from all sorts of professional or other backgrounds, i.e., not only found within NGOs and intergovernmental organizations but might also, in some instances, be government officials, civil servants or members of the private sector and individuals working within their local communities.

Human Rights Risks

Human rights risks are understood to be the business enterprise's potential adverse human rights impacts. (May also be referred to as potential human rights impacts).

Indigenous Peoples

An official definition of "indigenous" has not been adopted by the United Nations system due to the diversity of the world's indigenous peoples. Instead, a modern and inclusive understanding of "indigenous" includes peoples who: identify themselves and are recognized and accepted by their community as indigenous; demonstrate historical continuity with pre-colonial and/or pre-settler societies; have strong links to territories and surrounding natural resources; have distinct social, economic or political systems; maintain distinct languages, cultures and beliefs; form non-dominant groups of society; and resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities. In some regions, there may be a preference to use other terms such as: tribes, first peoples/nations, aboriginals, ethnic groups, Adivasi and Janajati. All such terms fall within this modern understanding of "indigenous."

Inform

The provision of information to inform stakeholders of a proposal, activity or decision. The information provided may be designed to help stakeholders in understanding an issue, alternatives, solutions or the decision-making process. Information flows are one-way. Information can flow either from the company to stakeholders or vice versa.

Leverage

Leverage is an advantage that gives power to influence. In the context of Chapter 1.3, it refers to the ability to effect change in the wrongful practices of the party that is causing or contributing to an adverse human rights impact.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mining-Related Activities

Encompasses any activities that may occur during any phase of the mine life cycle (planning, impact assessment, exploration, mine construction, mining, mine closure), and includes all physical activities (e.g., land disturbance and clearing, sampling, airborne surveys, construction, ore removal, ore processing, waste management, reclamation, etc.).

Mitigation (including in relation to Human Rights Impacts)

Refers to actions taken to reduce the likelihood of a certain adverse impact occurring. The mitigation of adverse human rights impact refers to actions taken to reduce its extent, with any residual impact then requiring remediation.

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Potential Human Rights Impact

A potential human rights impact is an adverse impact that may occur but has not yet done so. (Also referred to as a human rights risk).

Remediation/Remedy (including in relation to Human Rights Impacts):

Remediation and remedy refer to both the processes of providing remedy for an adverse (human rights) impact and the substantive outcomes that can counteract, or make good, the adverse impact. These outcomes may take a range of forms, such as apologies, restitution, rehabilitation, financial or non-financial compensation, and punitive sanctions (whether criminal or administrative, such as fines), as well as the prevention of further harm through, for example, injunctions or guarantees of non-repetition.

Rights-Compatible

In reference to grievance mechanism, means ensuring that outcomes and remedies accord with internationally recognized human rights.

Rights Holder

Rights holders are individuals or social groups that have particular entitlements in relation to specific duty bearers (e.g., State or non-state actors that have a particular obligation or responsibility to respect, promote and realize human rights and abstain from human rights violations). In general terms, all human beings are rights-holders under the Universal Declaration of Human Rights. In particular contexts, there are often specific social groups whose human rights are not fully realized, respected or protected.

Salient Human Rights

Those human rights that are at risk of the most severe negative impacts through a company's activities or business relationships. They therefore vary from company to company.

Serious Human Rights Abuses

i) any forms of torture, cruel, inhuman and degrading treatment; ii) any forms of forced or compulsory labour, which means work or service which is exacted from any person under the menace of penalty and for which said person has not offered himself voluntarily; iii) the worst forms of child labour (as per ILO Convention 182); iv) other gross human rights violations and abuses such as widespread sexual violence; v) war crimes or other serious violations of international humanitarian law, crimes against humanity or genocide.

Vulnerable Group

A group whose resource endowment is inadequate to provide sufficient income from any available source, or that has some specific characteristics that make it more susceptible to health impacts or lack of economic opportunities due to social biases or cultural norms (e.g., may include households headed by women or children, people with disabilities, the extremely poor, the elderly, at-risk children and youth, ex-combatants, internally displaced people and returning refugees, HIV/AIDS-affected individuals and households, religious and ethnic minorities, migrant workers, and groups that suffer social and economic discrimination, including indigenous peoples, minorities and in some societies, women).

Worker

All non-management personnel.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



Chapter 1.4—Complaints and Grievance Mechanism and Access to Remedy

BACKGROUND

Mining and other large development projects inevitably raise concerns and complaints from community members and stakeholders affected by these projects. It is now expected practice for mining companies to have in place site-level processes (often referred to as “operational-level grievance mechanisms”) for systematically receiving, tracking, resolving and communicating with local communities and stakeholders, including workers, about their complaints or grievances. Grievance mechanisms should not be considered a substitute for community and stakeholder engagement processes that allow for airing of concerns. The two are complementary and should be mutually reinforcing.⁶¹

Having accessible and trusted procedures in place to receive complaints can lead to the quick resolution of many stakeholder concerns before they escalate into serious grievances or conflicts. Stakeholders are more likely to trust complaints and grievance procedures if they have some say in their design.

Operational-level complaint and grievance processes are just one option for individuals to seek justice or remediation for damages that they believe have occurred as a result of company activities. For example, traditional authorities may have conflict or dispute resolution systems in place; countries may have legal frameworks, such as court systems, to provide recourse to aggrieved parties; workers may have access to corporate-level whistle-blower procedures; and remedies may be sought through national or international human rights bodies, labor tribunals or other non-judicial mechanisms. Operational-level grievance mechanisms should neither be used to undermine the role of legitimate trade unions in addressing labor-related disputes, nor preclude any stakeholder from accessing judicial or other non-judicial grievance mechanisms.⁶²

OBJECTIVES/INTENT OF THIS CHAPTER

To provide accessible and effective means for affected communities and individuals to raise and resolve mine-related complaints and grievances at the mine operational level, while not limiting their ability to seek remedy through other mechanisms.

SCOPE OF APPLICATION

Chapter Relevance: This chapter is relevant for all mines, as all have workers and most have external stakeholders who must be provided with an effective means of raising complaints and grievances with the company, and if the grievances are not adequately addressed through the operational-level grievance mechanism, who have the right to access remedy through other channels.

TERMS USED IN THIS CHAPTER

- Accessible ■ Affected Community ■ Competent Authority ■ Contractor ■ Consultation ■ Equitable ■ Grievance ■ Grievance Mechanism ■ Inform ■ Indigenous Peoples ■ Human Rights Defenders ■ Legitimate ■ Mining Project ■ Mining-Related Activities ■ Operating Company ■ Predictable ■ Remediation/Remedy ■ Rights Holder ■ Rights-Compatible ■ Stakeholder ■ Source of Continuous Learning ■ Transparent ■

These terms appear in the text with a dashed underline, and they are explained at the end of the chapter

⁶¹ IFC. 2009. Good Practice Note: Addressing Grievances from Project-Affected Communities. p. 6. www.ifc.org/wps/wcm/connect/cbe7b18048855348ae6cfe6a6515bb18/IFC+Grievance+Mechanisms.pdf?MOD=AJPERES&CACHEID=cbe7b18048855348ae6cfe6a6515bb18

⁶² Ruggie, J. 2011. Guiding Principles on Business and Human Rights. A/HRC/17/31. Commentary for Principle 29. Available at: www.ohchr.org/Documents/Issues/Business/A-HRC-17-31_AEV.pdf

CRITICAL REQUIREMENTS IN THIS CHAPTER

Stakeholders have access to operational-level mechanisms that allows them to raise and seek resolution or remedy for complaints and grievances that may occur in relation to the mining operation (1.4.1.1).

Complaints, Grievances and Access to Remedy Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>1.4.1. Access to Operational-Level Complaints and Grievance Mechanism</p> <p>1.4.1.1. (Critical Requirement) The <u>operating company</u> shall ensure that <u>stakeholders</u>, including <u>affected community members</u> and <u>rights holders</u> (hereafter referred to collectively as “<u>stakeholders</u>”) have access to an operational-level mechanism that allows them to raise and seek resolution or <u>remedy</u> for the range of complaints and <u>grievances</u> that may occur in relation to the company and its <u>mining-related activities</u>.⁶³</p>	<p>For 1.4.1.1: Confirm with <u>operating company</u> that an operational-level complaints and <u>grievance mechanism</u> is in place. There may be more than one method made available to report complaints, such as free telephone hotlines, suggestion boxes, on-line complaints filing, regular access to a community liaison personnel, etc. Review any relevant policies, procedures or information about the complaints and <u>grievance mechanism(s)</u>.</p>	<p>For 1.4.1.1:</p> <ul style="list-style-type: none"> • Grievance policies, procedures or information about the grievance mechanism. • Documentation of communication of the grievance mechanism to stakeholders. • Documentation of training of relevant personnel on the grievance mechanism. • Documentation of any survey or review carried out to evaluate the effectiveness of the grievance mechanism. 	<p>Explanatory Note for 1.4.1.1: Grievance mechanisms are explicitly stated as requirements with regard to workers (Chapter 3.1), human rights (Chapter 1.3), mine security (Chapter 3.5), stakeholder engagement (Chapter 1.2) and resettlement (Chapter 2.4). However, even when not explicitly stated in a chapter, it is expected that access to the operational-level grievance mechanism and other remedies will be provided throughout the project’s life to grievances related to any issues of stakeholder concern with the mining project.</p> <p>Grievance is defined as “A perceived injustice evoking an individual’s or a group’s sense of entitlement, which may be based on law, contract, explicit or implicit promises, customary practice, or general notions of fairness of aggrieved communities.”</p>

⁶³ Grievance mechanisms are explicitly stated as requirements with regard to workers (Chapter 3.1), human rights (Chapter 1.3), mine security (Chapter 3.5), stakeholder engagement (Chapter 1.2) and resettlement (Chapter 2.4). However, even when not explicitly stated in a chapter, it is expected that access to the operational-level grievance mechanism and other remedies will be provided throughout the project’s life to grievances related to any issues of stakeholder concern with the mining project.

It is possible that one grievance mechanism may be suitable to address all types of grievances raised in relation to the mining project, including workers, although typically labor grievances are dealt with through a separate mechanism established through collective bargaining agreements or human resources policies. The development of workers' grievance mechanism is addressed in Chapter 3.1.

It is also possible that more than one mechanism or approach to addressing complaints and grievances may be deemed necessary to meet the needs of affected communities and stakeholders. If a company decides to create multiple grievance mechanisms, all of them shall meet the requirements of this chapter.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
			<p>Grievances may also be voiced by a stakeholder or advocate on behalf of another person, or on behalf of the natural environment.</p> <p>The words grievance and complaint are sometimes used interchangeably, but not always. Some suggest that a complaint is an isolated or event-based concern, while a grievance is a more complex or accumulated sense of wrong, or that complaints can be addressed through informal means, while grievances need a formal process. Others see the relationship in reverse.⁶⁴ For the purposes of the IRMA Standard, the words <u>grievance</u> and <u>complaint</u> will be used interchangeably.</p> <p>The United Nations Guiding Principles on Business and Human Rights have identified that business enterprises should establish or participate in effective <u>operational-level grievance mechanisms</u> for individuals and communities who may be adversely impacted by their activities.⁶⁵</p> <p><u>Grievance mechanisms</u> are explicitly stated as requirements with regard to <u>workers</u> (Chapter 3.1), human rights (Chapter 1.3), mine security (Chapter 3.5), <u>stakeholder engagement</u> (Chapter 1.2) and resettlement (Chapter 2.4). However, even when not explicitly stated in a chapter, it is expected that access to the operational-level <u>grievance mechanism</u> and other remedies will be provided throughout the <u>mining project's</u> life to <u>grievances</u> related to any issues of <u>stakeholder concern</u> with the project.</p>

⁶⁴ John F. Kennedy School of Government, Harvard Univ. 2008. Rights-Compatible Grievance Mechanisms: A Guidance Tool for Companies and Their Stakeholders. p. 12. https://sites.hks.harvard.edu/m-rcbg/CSRI/publications/Workingpaper_41_Rights-Compatible%20Grievance%20Mechanisms_May2008FNL.pdf

⁶⁵ Ruggie, J. 2011. Guiding Principles on Business and Human Rights. Principle 29. http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>1.4.2. Development of Complaints and Grievance Procedures</p> <p>1.4.2.1. The <u>operating company</u> shall <u>consult</u> with <u>stakeholders</u> on the design of culturally appropriate complaints and <u>grievance procedures</u> that address, at minimum:</p> <p>a. The effectiveness criteria outlined in Principle 31 of the United Nations <i>Guiding Principles on Business and Human Rights</i>,⁶⁶ which include the need for the mechanism to be: (a) <u>Legitimate</u>, (b) <u>Accessible</u>, (c) <u>Predictable</u>, (d) <u>Equitable</u>, (e)</p>	<p>For 1.4.2.1: Interview <u>operating company</u> and review documentation (e.g., meeting minutes, correspondence) to confirm that <u>stakeholders</u> were <u>consulted</u> in the design the operational-level <u>grievance mechanism</u> and associated procedures.</p> <p>Interview <u>stakeholders</u>, including <u>marginalized and vulnerable groups</u> or their advocates, to determine if the resultant mechanism and procedures are culturally appropriate and <u>accessible</u> (i.e., barriers to its use have been addressed).</p> <p>For 1.4.2.1.a: Interview the <u>operating company</u> regarding how the company believes it is meeting the effectiveness</p>	<p>For 1.4.2.1:</p> <ul style="list-style-type: none"> • Grievance mechanism policy, procedure and records. • Documentation of any survey or review carried out to evaluate the effectiveness of the grievance mechanism. • Grievance mechanism policy clause(s) on how potential conflicts of interest will be addressed. • Grievance register or equivalent showing how the complaints and grievances are filed, acknowledged, investigated, and resolved, including general timeframes for each phase. • Copies of grievances that have been lodged to check if how they are handled follow the set procedures. • Complaints and grievance tracking and recording system (e.g. electronic tracking and recording system). 	<p>It is possible that one <u>grievance mechanism</u> may be suitable to address all types of grievances raised in relation to the <u>mining project</u>, including <u>workers</u>, although typically labor <u>grievances</u> are dealt with through a separate mechanism established through collective bargaining agreements or human resources policies. The development of <u>workers' grievance mechanism</u> is addressed in Chapter 3.1.</p> <p>It is also possible that more than one mechanism or approach to addressing complaints and <u>grievances</u> may be deemed necessary to meet the needs of <u>affected communities</u> and <u>stakeholders</u>. If a company decides to create multiple <u>grievance mechanisms</u> all of them must meet the requirements of this chapter.</p> <p>Explanatory Note for 1.4.2.1: Measures of whether or not a mechanism meets the effectiveness criteria might include:</p> <p>(a) <u>Legitimate</u>: The mechanism has been co-designed by <u>stakeholders</u> and is trusted by them (and there are no unresolved complaints that the mechanism is unfair or biased);</p> <p>(b) <u>Accessible</u>: The mechanism is known to all stakeholder groups for whose use it is intended, it is physical accessible, available during times of day that work for all stakeholders, and the mechanism provides various means of filing complaints and does so in formats in languages that work for affected stakeholders;</p>

⁶⁶ The *Guiding Principles on Business and Human Rights* have identified that access to remedy for grievances is fundamental to ensuring respect and protection of human rights. (Ruggie, J. 2011. Guiding Principles on Business and Human Rights. A/HRC/17/31. Available at: www.ohchr.org/Documents/Issues/Business/A-HRC-17-31_AEV.pdf)

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<p>Transparent, (f) Rights-compatible, (g) A source of continuous learning, and (h) Based on engagement and dialogue;</p> <p>b. How complaints and grievances will be filed, acknowledged, investigated, and resolved, including general timeframes for each phase;</p> <p>c. How confidentiality of a complainant's identity will be respected, if requested;</p> <p>d. The ability to file anonymous complaints, if deemed necessary by stakeholders;</p> <p>e. The provision of assistance for those who may face barriers to using the operational-level grievance mechanism, including women, children, and marginalized or vulnerable groups;</p> <p>f. Options for recourse if an initial process does not result in satisfactory resolution or if the mechanism is inadequate or inappropriate for handling</p>	<p>criteria. Information related to expectations and examples of how companies may meet the effectiveness criteria will be provided in IRMA Detailed Explanatory Notes for Chapter 1.4.</p> <p>For 1.4.2.1.b, c and d: Review procedures and interview the operating company to confirm that procedures are in place for the filing, investigation and resolution of complaints, with timeframes; and also procedures to protect confidentiality, and to accommodate requests for filing of anonymous complaints (if deemed necessary by stakeholders).</p> <p>For 1.4.2.1.e: Confirm that there are procedures or processes in place that remove barriers to filing complaints and seeking remedy. For example, regular meetings with subgroups of the population to create safe spaces to raise concerns and complaints; meeting regularly with children's representatives; providing free telephone hotlines in different languages; etc.</p> <p>For 1.4.2.1.f: Confirm that there are procedures in place for appealing decisions, or seeking alternative methods of dispute resolution (e.g., through third-</p>	<ul style="list-style-type: none"> • Documentation of consultation with stakeholders (e.g. meeting minutes, attendance registers, videos of the meetings), including marginalized and vulnerable groups or their advocates • Human rights impact assessment. 	<p>(c) <u>Predictable</u>: There are known procedures and timelines/deadlines for receiving responses from the company when complaints are filed, etc.</p> <p>(d) <u>Equitable</u>: Complainants are provided with resources to understand the grievance procedures/processes and participate in an informed manner;</p> <p>(e) <u>Transparent</u>: Company provides sufficient information about the complaints received, how they were handled, and their outcomes;</p> <p>(f) <u>Rights-Compatible</u>: The mechanism can handle human rights related complaints, allows for confidentiality, and can result in suspension of certain mining project activities if there is a risk of imminent human rights abuses related to those activities;</p> <p>(g) <u>Source of continuous learning</u>: There are scheduled reviews of the mechanism that allow for input from stakeholders;</p> <p>(h) <u>Based on engagement/dialogue</u>: Stakeholders are consulted in the design and performance of mechanism, and dialogue is a primary means to try to address and resolve grievances.</p> <p>For more on designing grievance mechanisms and the UNGP effectiveness criteria, see:</p> <p>Good Practice Note: Addressing Grievances from Project-Affected Communities.⁶⁷</p> <p>UN Guiding Principles on Business and Human Rights.⁶⁸</p>

⁶⁷ IFC. 2009. Good Practice Note: Addressing Grievances from Project-Affected Communities. www.ifc.org/wps/wcm/connect/cbe7b18048855348ae6cfe6a6515bb18/IFC+Grievance+Mechanisms.pdf?MOD=AJPERES&CACHEID=cbe7b18048855348ae6cfe6a6515bb18

⁶⁸ Ibid. 33-35.

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<p>serious human rights grievances; and</p> <p>g. How complaints and grievances and their resolutions will be tracked and recorded.</p>	<p>party mediation) if the initial process for resolving complaints is unsuccessful.</p> <p>Confirm that there are procedures in place for addressing allegations of serious human rights abuses (e.g., alerting appropriate competent authorities, facilitating a complainant’s access to independent legal advice such as public defenders or legal NGOs, etc.).</p>		<p>Doing Business with Respect for Human Rights.⁶⁹</p> <p>Rights-Compatible Grievance Mechanisms: A Guidance Tool for Companies and Their Stakeholders⁷⁰</p> <p>For information on how to make operational-level grievance mechanisms sensitive to the needs of children, see:</p> <p>Operational-level Grievance Mechanisms Fit for Children.⁷¹</p>
<p>1.4.2.2. The operating company shall ensure that all complaints and grievance procedures are documented and made publicly available.</p>	<p>For 1.4.2.2: Interview relevant operating company staff to confirm that procedures are documented, and that they are publicly available.</p>	<p>For 1.4.2.2:</p> <ul style="list-style-type: none"> • Documented grievance procedures. • Grievance procedures that are publicly available (e.g., on websites, notice boards etc.). 	<p>Explanatory Note for 1.4.2.2: In this case, “publicly available” means that procedures should readily accessible on the company's website, and/or be available in hard copy at a public facility (e.g., a public library, government office, etc.) in affected communities, and/or at the operating company’s premises.</p> <p>As per Chapter 1.2, requirement 1.2.4.3 requires that communications with stakeholders, including procedures and information shared with them, be in formats (e.g., written materials/video/in person presentations, electronic/hard copy) and languages that are culturally appropriate and understood by stakeholders.</p> <p>Reasonable efforts should be made to make the grievance procedures publicly available in a manner or manners, if need be, that meet the needs of all stakeholders and affected communities. Provision(s) should be made to avail the complaints and grievance procedures to stakeholders to vulnerable groups such as those who are not able to read,</p>

⁶⁹ Global Compact Network Netherlands, Oxfam and Shift. "Doing Business With Respect for Human Rights." See, in particular, Chapter 3.8. <https://www.businessrespecthumanrights.org/en/page/349/remediation-and-grievance-mechanisms>

⁷⁰ John F. Kennedy School of Government, Harvard Univ. 2008. Rights-Compatible Grievance Mechanisms: A Guidance Tool for Companies and Their Stakeholders. <https://www.unglobalcompact.org/library/57>

⁷¹ UNICEF. 2018. Discussion Paper: Operational-level Grievance Mechanisms Fit for Children. https://www.unicef.org/csr/css/DISCUSSION_PAPER_GRIEVANCES_final.pdf

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<p>1.4.3. Access to Other Remedy Mechanisms</p> <p>1.4.3.1. No <u>remedy</u> provided by an operational-level <u>grievance mechanism</u> shall require aggrieved parties to waive their right to seek recourse from the company for the same complaint through other available mechanisms, including administrative, non-judicial or judicial <u>remedies</u>.</p>	<p>For 1.4.3.1: Interview relevant <u>operating company</u> staff to ensure that acceptance of remedy through the operational-level mechanism did not require the claimants to waive their rights to seek <u>remedy</u> on the same complaint through other non-judicial or judicial mechanisms.</p> <p>If this practice is alleged, review any relevant documentation and/or interview <u>operating company</u>, affected <u>stakeholders</u> and other relevant parties (e.g., legal advisors, <u>human rights defenders</u>).</p>	<p>For 1.4.3.1:</p> <ul style="list-style-type: none"> • Grievance mechanism procedures. • Employee new hire documentation. • Documentation of grievances filed, handled and resolved. • Documentation of remedies provided or complaint resolution agreements. 	<p>persons with disabilities, and others who may not have ready access to the information.</p> <p>Explanatory Note for 1.4.3.1: Companies sometime include waiver clauses in agreements to resolve complaints or, in the case of employees, in requiring them to sign binding arbitration agreements upon hire that restrict their ability to seek judicial <u>remedies</u> in case of a legitimate <u>grievance</u>.</p> <p>The Commentary on Principle 29 of the UN Guiding Principles on Business and Human Rights says that <u>operational level grievance mechanisms</u> “should not be used to preclude access to judicial or other non-judicial mechanisms.”⁷²</p> <p>The Office of the UN High Commissioner for Human Rights has also written that, “the presumption should be that as far as possible, no waiver should be imposed on any claims settled through a non-judicial <u>grievance mechanism</u>. Nonetheless, and as there is no prohibition per se on legal waivers in current international standards and practice, situations may arise where business enterprises wish to ensure that, for reasons of predictability and finality, a legal waiver be required from claimants at the end of a remediation process. In such instances, the legal waiver should be as narrowly construed as possible, and preserve the right of claimants to seek judicial recourse for any criminal claims.”⁷³</p>

⁷² Ruggie. 2011. UN Guiding Principles on Business and Human Rights. http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf

⁷³ Office of the High Commissioner for Human Rights. 2013. Re: Allegations regarding the Porgera Joint Venture remedy framework. <http://www.ohchr.org/Documents/Issues/Business/LetterPorgera.pdf>

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<p>1.4.4. Monitoring and Evaluation</p> <p>1.4.4.1. Complaints and <u>grievances</u> and their outcomes and <u>remedies</u> shall be documented.</p> <p>1.4.4.2. The <u>operating company</u> shall monitor and evaluate the performance of the operational-level complaints and <u>grievance mechanism</u> over time to determine:</p> <ol style="list-style-type: none"> If changes need to be made to improve its effectiveness as per 1.4.2.1.a; If changes in company activities can be implemented to prevent or <u>mitigate</u> similar <u>grievances</u> in the future; and If outcomes and <u>remedies</u> provided through the mechanism accord with internationally recognized human rights. 	<p>For 1.4.4.1: Review documentation and review procedures (if any) related complaints and <u>grievances</u> outcomes and their <u>remedies</u>.</p> <p>For 1.4.4.2.a and b: Determine how the company integrates information from its monitoring and <u>stakeholder</u> feedback to assess, and if necessary, improve the effectiveness of the <u>grievance mechanism</u> and its own activities.</p> <p>Review records of grievances received and resolved, and other documentation such as stakeholder surveys or consultations seeking feedback on the mechanism. If there have been concerns or problems with the mechanism identified through <u>stakeholder</u> feedback, especially particular trends (e.g., specific types of grievances, or grievances from particular stakeholder groups) determine if the company and <u>stakeholders</u> have been able to resolve these issues (e.g., by making changes to the mechanism or procedures).</p>	<p>For 1.4.4.1:</p> <ul style="list-style-type: none"> Grievance procedures. Documentation of grievances filed, handled and resolved. Documentation of remedies provided or complaint resolution agreements. <p>For 1.4.4.2:</p> <ul style="list-style-type: none"> Grievance procedures. Grievance monitoring and evaluation procedure. Results of monitoring and evaluation. Documentation of internal communication of results and any subsequent improvements. Documentation of remedies provided. Documentation of any survey or review carried out to evaluate the effectiveness of the grievance mechanism. 	<p>Despite there being no current prohibition on legal waivers in international law, sites that use such waivers cannot meet this requirement.</p> <p>Explanatory Note for 1.4.4.1: Ideally, there will also be procedures in place that outline how complaints and <u>grievance</u> outcomes and <u>remedies</u> are documented, and that designated personnel are aware of these procedures.</p> <p>Explanatory Note for 1.4.4.2.a and b: Monitoring and evaluation should include a periodic review of the actual handling of <u>grievances</u> as compared to the company's grievance procedures (e.g., were all grievances documented, were they responded to in a timely manner, were <u>remedies</u> provided in a rights-compatible manner).</p> <p>Monitoring and evaluation by the operating company could include surveys of local stakeholders that include questions related to the effectiveness and appropriateness of the grievance mechanism.</p> <p>Also, a review and analysis of grievance data may help to identify trends in types of grievances (E.g., a cluster of noise complaints near a particular area of the mine site), which in turn may inform where a company might want to focus <u>mitigation</u> and <u>stakeholder</u> engagement efforts.</p> <p>Explanatory Note for 1.4.4.2.c: The Corporate Social Responsibility Initiative has produced information to help companies and <u>stakeholders</u> understand why <u>grievance mechanisms</u> should be rights-compatible and more</p>

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<p>1.4.4.3. Stakeholders shall be provided with clearly communicated opportunities to submit feedback on the performance of the complaints and grievance mechanism.</p>	<p>For 1.4.4.2.c: Confirm through interviews and document review that the company reviews grievances to ensure that outcomes and remedies accord with internationally recognized human rights.</p> <p>For 1.4.4.3: Confirm with relevant operating company staff that stakeholders were provided opportunities to contribute feedback on the performance of the mechanism (including its procedures).</p>	<p>For 1.4.4.3:</p> <ul style="list-style-type: none"> • Grievance procedures. • Documentation of communications with stakeholders (e.g., meeting minutes, correspondence, etc.) related to opportunities to provide of feedback on the grievance mechanism. • Documentation of stakeholder feedback on the performance of the grievance mechanism, and company responses. • Documentation of any survey or review carried out to evaluate the effectiveness of the grievance mechanism. • Documentation of how stakeholder feedback has been used to make improvements. 	<p>information on why and how remedies can accord with international human rights.⁷⁴</p>
<p>1.4.5. Communications</p> <p>1.4.5.1. The operating company shall take reasonable steps to inform all stakeholders of the existence of the operational-level complaints and grievance mechanism, its scope, and its procedures.</p>	<p>For 1.4.5: Interview relevant operating company staff, and review any materials used to inform or educate affected communities and stakeholders of the operational-level grievance mechanism and procedures.</p> <p>Interview stakeholders, including marginalized and vulnerable groups or their advocates, to determine their level</p>	<p>For 1.4.5.1:</p> <ul style="list-style-type: none"> • Grievance mechanism procedures. • Documentation of communications with stakeholders (e.g., meeting minutes, correspondence, etc.) and other outreach (e.g., advertisements, public notices, etc.) to inform them of the grievance mechanism. • Documentation of any survey or review carried out to evaluate the effectiveness of the grievance mechanism. 	<p>Explanatory Note for 1.4.5.1: Reasonable step should include outreach to stakeholders using a variety of strategies such as: including information on the complaints and grievance mechanism in company materials that are distributed in the community, at public meetings, on the radio, on the mining project web site, etc., as well as informing key community leaders about the mechanism so that they can inform other community members.</p>

⁷⁴ Corporate Social Responsibility Initiative (CSRI). 2008. Rights-Compatible Grievance Mechanisms - A Guidance Tool for Companies and Their Stakeholders. pp. 7 to 9, 26, and 35 to 37. https://sites.hks.harvard.edu/m-rcbg/CSRI/publications/Workingpaper_41_Rights-Compatible%20Grievance%20Mechanisms_May2008FNL.pdf

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<p>1.4.5.2. The <u>operating company</u> shall neither state nor imply that participation in an operational level <u>grievance mechanism</u> precludes the <u>stakeholder</u> from seeking redress</p>	<p>of knowledge related to the grievance mechanism.</p> <p>Review documentation such as stakeholder surveys that include questions on stakeholder knowledge of a grievance mechanism.</p> <p>For 1.4.5.1: Interview a sample of <u>stakeholders</u> to confirm that they were made aware of the existence of the <u>grievance mechanism</u> and the scope of concerns/<u>grievances</u> that it is meant to handle (e.g., does it include human rights related complaints; those related to <u>resettlement</u>, if relevant; etc.); they received information on procedures in formats and languages that were <u>accessible</u> and understandable to them, and in a timely and culturally appropriate manner as per the communications requirements in IRMA Chapter 1.2; they were informed of any procedures to protect confidentiality and remove barriers to their access to using the <u>grievance mechanism</u>.</p> <p>For 1.4.5.2: Interview a sample of <u>stakeholders</u> to confirm that they were made aware of the right to use alternative mechanisms for resolving <u>grievances</u>.</p>	<p>For 1.4.5.2:</p> <ul style="list-style-type: none"> • Grievance mechanism procedures. • Documentation of communication of grievance mechanism to stakeholders. 	<p>Additionally, provision(s) should be made to avail the complaints and <u>grievance procedures</u> to <u>stakeholders</u> who are not able to read and to <u>vulnerable groups</u> such as persons with disabilities.</p> <p>As per IRMA Chapter 1.2, communications must be in formats and languages that are culturally appropriate, accessible and understandable to affected <u>stakeholders</u>. See criterion 1.2.4 for more details.</p> <p>Explanatory Note for 1.4.5.2: There may be other mechanisms that are not operated by the company through which <u>stakeholders</u> or <u>rights holders</u> can seek recourse (e.g., administrative, judicial and non-judicial <u>remedies</u>, <u>indigenous peoples'</u> traditional or customary dispute resolution processes, etc.). These alternative options should be</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>through administrative, judicial or other non-judicial remedies.</p> <p>1.4.5.3. The operating company shall inform relevant personnel who interact with stakeholders of the proper procedures for handling stakeholder complaints and grievances, and ensure that personnel directly involved in the operational-level mechanism receive instruction on the respectful handling of all complaints and grievances, including those that may appear frivolous.</p>	<p>For 1.4.5.3: Interview relevant operating company staff to confirm that procedures are in place for handling any complaints, including those that may be brought to their attention through channels that are outside of the operational-level mechanism, and that staff and contractors are aware of these procedures; and that they have been adequately trained and/or informed of the respectful handling of complaints or grievances.</p>	<p>For 1.4.5.3:</p> <ul style="list-style-type: none"> • Grievance procedures. • Personnel training materials. • Documentation of complaints and grievances filed by stakeholders. • Documentation of company responses to grievances. • Documentation of any survey or review carried out to evaluate the effectiveness of the grievance mechanism. 	<p>mentioned to stakeholders, in particular those who lodge human-rights-related grievances with the company.</p> <p>See also the Explanatory Note for 1.4.3.1.</p> <p>Explanatory Note for 1.4.5.3: Relevant personnel would include both company personnel and contractors to whom a stakeholder might want to express a concern or complaint about the mining project (E.g., community liaison personnel, management staff who give public presentations, administrative office staff who answer phones, etc.).</p> <p>As per Chapter 1.1, requirement 1.1.4.1. "The operating company shall demonstrate that it takes appropriate steps to ensure compliance with the IRMA Standard by contractors engaged in activities relevant to the mining project." So if there are contractors that may interact with mining project stakeholders, they should also be informed of the operating company's grievance procedures for handling stakeholder complaints.</p>
<p>1.4.6. Reporting</p> <p>1.4.6.1. Periodically, the operating company shall report to stakeholders on grievances received and responses provided. This shall be done in a manner that protects the confidentiality and safety of those filing grievances.</p>	<p>For 1.4.6.1: Interview relevant operating company staff to determine how they report to stakeholders on the grievances received through the operational-level grievance mechanism, and how they protect confidentiality/safety of those filing grievances. Review any documentation related to the company's reporting. Confirm with stakeholders that they are aware of the grievance reporting.</p>	<p>For 1.4.6.1:</p> <ul style="list-style-type: none"> • Grievance mechanism procedures (confidentiality clauses). • Documentation of grievances filed, handled and resolved. • Documentation of reporting to stakeholders on grievances received and responses provided (e.g., meeting minutes, correspondence, etc.). • Documents showing that the reporting of grievances received, and responses provided is being done within the set time frames. 	<p>Explanatory Note for 1.4.6.1: The period (time frame) for reporting to stakeholders on grievances received and responses provided should be defined when designing the grievance mechanism (1.4.2.1) and should be included in the grievance procedures (1.4.2.2).</p>

NOTES

This chapter uses as its basis the effectiveness criteria UN Guiding Principles on Business and Human Rights, i.e., that a grievance mechanism be: (a) Legitimate, (b) Accessible, (c) Predictable, (d) Equitable, (e) Transparent, (f) Rights-compatible, (g) A source of continuous learning, and (h) Based on engagement and dialogue.⁷⁵

This chapter does not pertain to grievances related to IRMA performance or participation. IRMA is in the process of developing its own grievance mechanism, which will enable stakeholders to raise concerns about issues pertaining to IRMA performance or participation at a particular mining project, as well as the IRMA assurance process more generally.

Cross References to Other Chapters	
CHAPTER	ISSUES
1.2—Community and Stakeholder Engagement	Engagement with <u>stakeholders</u> in the design and monitoring of the <u>grievance mechanism</u> shall conform to the requirements in Chapter 1.2 Community and Stakeholder Engagement. In particular, during the design of the mechanism (requirement 1.4.2.1) attention should be paid to conforming with Chapter 1.2, Criterion 1.2.3. Strengthening Capacity (i.e., ensuring those participating have the capacity to do so in a meaningful way); and during any communications with <u>stakeholders</u> , including reporting, the company shall adhere to the communications requirements in 1.2.4.
Multiple chapters that mention grievance mechanisms	<u>Grievance mechanisms</u> are explicitly stated as requirements with regard to <u>workers</u> (Chapter 3.1), human rights (Chapter 1.3), mine security (Chapter 3.5), <u>stakeholder engagement</u> (Chapter 1.2) and <u>resettlement</u> (Chapter 2.4). However, even when not explicitly stated in a chapter, it is expected that access to the operational-level <u>grievance mechanism</u> and other <u>remedies</u> will be provided throughout the project's life to <u>grievances</u> related to any issues of <u>stakeholder concern</u> with the <u>mining project</u> . It is possible that one <u>grievance mechanism</u> may be suitable to address all types of <u>grievances</u> raised in relation to the <u>mining project</u> , including <u>workers</u> , although typically labor <u>grievances</u> are dealt with through a separate mechanism established through collective bargaining agreements or human resources policies. Or more than one mechanism or approach to addressing complaints and <u>grievances</u> may be deemed necessary to meet the needs of <u>affected communities</u> and <u>stakeholders</u> . If a company decides to create multiple <u>grievance mechanisms</u> , all of them shall meet the requirements of this chapter.

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the Glossary of Terms at the end of the IRMA Standard document.

Accessible

Means being known to all stakeholder groups for whose use they are intended, and providing adequate assistance for those who may face particular barriers to access.

Affected Community

A community that is subject to risks or impacts from a project.

Competent Authority

The government department or other authority having power to issue and enforce regulations, orders or other instructions having the force of law in respect of the subject matter of the provision concerned.

Consultation

⁷⁵ Ruggie, J. 2011. Guiding Principles on Business and Human Rights. A/HRC/17/31. See Principle 31. Available at: www.ohchr.org/Documents/Issues/Business/A-HRC-17-31_AEV.pdf

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. In principle, the company should take into account the concerns and views expressed by stakeholders in the final decision.

Contractor

An individual, company, or other legal entity that carries out duties subject to a contractual agreement that defines, for example, work, duties or services, pay, hours or timing, duration of agreement, and that remains independent for employment, tax, and other regulatory purposes. This includes sub-contractors.

Equitable

Means seeking to ensure that aggrieved parties have reasonable access to sources of information, advice and expertise necessary to engage in a grievance process on fair, informed and respectful terms.

Grievance

A perceived injustice evoking an individual's or a group's sense of entitlement, which may be based on law, contract, explicit or implicit promises, customary practice, or general notions of fairness of aggrieved communities. For the purposes of the IRMA Standard, the words grievances and complaints will be used interchangeably.

Grievance Mechanism

Any routinized, State-based or non-State-based, judicial or non-judicial process through which mining-project-related complaints or grievances, including business-related human rights abuses stakeholder complaints, and/or labor grievances, can be raised and remedy can be sought.

Human Rights Defenders

Any person or group of persons working to promote human rights and contributing to the effective elimination of all violations of human rights and fundamental freedoms of peoples and individuals. Defenders can be of any gender, of varying ages, from any part of the world and from all sorts of professional or other backgrounds, i.e., not only found within NGOs and intergovernmental organizations but might also, in some instances, be government officials, civil servants or members of the private sector and individuals working within their local communities.

Indigenous Peoples

An official definition of "indigenous" has not been adopted by the United Nations system due to the diversity of the world's indigenous peoples. Instead, a modern and inclusive understanding of "indigenous" includes peoples who: identify themselves and are recognized and accepted by their community as indigenous; demonstrate historical continuity with pre-colonial and/or pre-settler societies; have strong links to territories and surrounding natural resources; have distinct social, economic or political systems; maintain distinct languages, cultures and beliefs; form non-dominant groups of society; and resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities. In some regions, there may be a preference to use other terms such as: tribes, first peoples/nations, aboriginals, ethnic groups, Adivasi and Janajati. All such terms fall within this modern understanding of "indigenous."

Inform

The provision of information to inform stakeholders of a proposal, activity or decision. The information provided may be designed to help stakeholders in understanding an issue, alternatives, solutions or the decision-making process. Information flows are one-way. Information can flow either from the company to stakeholders or vice versa.

Legitimate

Means enabling trust from the stakeholder groups for whose use they are intended, and being accountable for the fair conduct of grievance processes.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mining-Related Activities

Encompasses any activities that may occur during any phase of the mine life cycle (planning, impact assessment, exploration, mine construction, mining, mine closure), and includes all physical activities (e.g., land disturbance and clearing, sampling, airborne surveys, construction, ore removal, ore processing, waste management, reclamation, etc.).

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Predictable

Means providing a clear and known procedure with an indicative time frame for each stage, and clarity on the types of process and outcome available and means of monitoring implementation.

Remediation/Remedy (including in relation to human rights impacts):

Remediation and remedy refer to both the processes of providing remedy for an (adverse human rights) impact and the substantive outcomes that can counteract, or make good, the adverse impact. These outcomes may take a range of forms, such as apologies, restitution, rehabilitation, financial or non-financial compensation, and punitive sanctions (whether criminal or administrative, such as fines), as well as the prevention of harm through, for example, injunctions or guarantees of non-repetition.

Rights Holder

Rights holders are individuals or social groups that have particular entitlements in relation to specific duty bearers (e.g., State or non-state actors that have a particular obligation or responsibility to respect, promote and realize human rights and abstain from human rights violations). In general terms, all human beings are rights-holders under the Universal Declaration of Human Rights. In particular contexts, there are often specific social groups whose human rights are not fully realized, respected or protected.

Rights-Compatible

Means ensuring that outcomes and remedies accord with internationally recognized human rights.

Stakeholder

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Source of Continuous Learning

Means drawing on relevant measures to identify lessons for improving the mechanism and preventing future grievances and harms.

Transparent

Means keeping parties to a grievance informed about its progress, and providing sufficient information about the mechanism's performance to build confidence in its effectiveness and meet any public interest at stake.

Worker

All non-management personnel.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



Chapter 1.5—Revenue and Payments Transparency

BACKGROUND

Revenues derived from the extraction of a country’s mineral resources can make a major contribution to funding public services and other valuable government activities. However, where citizens have limited knowledge of revenues paid by natural resource companies the chances of theft or inappropriate usage of revenues from extractives companies grows. Increased transparency of material payments to and revenues received by the host country government is an essential step toward addressing this matter.

The Extractive Industries Transparency Initiative (EITI) is a global coalition of governments, companies and civil society working together to improve openness and accountable management of revenues from natural resources, allowing citizens to see for themselves how much their government is receiving from their country’s natural resources. The EITI is complemented and extended by mandatory transparency regimes enacted into law in the European Union and other jurisdictions. The IRMA Standard is intended to support, without duplicating, the work of the EITI and mandatory transparency regimes.

OBJECTIVES/INTENT OF THIS CHAPTER

To increase transparency of mining related payments and provide communities and the general public with the information they need to understand and assess the fairness of financial arrangements related to mining operations.

SCOPE OF APPLICATION

Chapter Relevance: This chapter is relevant for all mines assessed under IRMA.

The requirements apply to compliance at the time of assessment, and on an ongoing basis thereafter. The information provided does not have to be backdated to cover activity prior to the application, with the exception of requirement 1.5.3.1. In relation to this requirement the terms for mineral exploration, development and production for the project must be made freely and publicly accessible for the whole period of project development up to the time of application and thereafter.

CRITICAL REQUIREMENTS IN THIS CHAPTER

The operating company has developed, documented and implemented policies and procedures that prohibit bribery and other forms of corruption by employees and contractors (1.5.5.1).

Revenue and Payments Transparency Requirements

TERMS USED IN THIS CHAPTER

- Beneficial Owner ■ Confidential Business Information
- Contractors ■ Corporate Owner(s) ■ Grievance ■
- Grievance Mechanism ■ Host Country Law ■
- Indigenous Peoples ■ In Kind Payments ■
- International Accounting Standards ■ Material
- Payments ■ Mining Project ■ Operating Company ■
- Stakeholder ■ Worker ■ Workers’ Representatives ■

These terms appear in the text with a dashed underline, and

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>1.5.1. Disclosure of Country-Level Payments</p> <p>1.5.1.1. The <u>operating company</u> shall comply with 1.5.1.2 and 1.5.1.3, and/or demonstrate how it complies with equivalent reporting and disclosure requirements of the European Union Accounting Directive (2013/34/EU) and the European Union Transparency Directive (2013/50/EU), or an equivalent mandatory transparency regime.⁷⁶</p>	<p>For 1.5.1.1: Interview <u>operating company</u> and review operating company documentation to confirm compliance with EU or equivalent transparency regime, or the IRMA requirements. Sources of relevant information may include information published on <u>operating company</u> or <u>corporate owner</u> and/or relevant government website(s).</p>	<p>For 1.5.1:</p> <ul style="list-style-type: none"> • Documentation of revenue and payments reporting and disclosure for EU or other mandatory transparency regime. • Voluntary public reporting of revenue and payments that meets EU or other mandatory transparency requirements (e.g., in a sustainability report, financial report, Extractive Industry Transparency Initiative (EITI) report filed with a national government). 	<p>Explanatory Note for 1.5.1: The criterion requires that an <u>operating company</u> demonstrate how it meets the requirements specified in the referenced legislation (EU or equivalent mandatory transparency regime) whether or not that legislation is legally applicable.</p> <p>As per IRMA Chapter 1.1, if a <u>host country law</u> pertains to mandatory transparency of payments or other information covered in Chapter 1.5, the company is required to abide by that law.</p> <p>If the mandatory transparency scheme is essentially equivalent to the IRMA Standard requirements (e.g., EU, Norway, Canada) then the company will only need to meet <u>host country law</u>.</p> <p>If IRMA requirements are more stringent than a host country's mandatory transparency regime (e.g., the host country does not require reporting on a project level, etc.), the company is required to also meet the IRMA requirements, as long as such compliance would not require the <u>operating company</u> to break <u>host country law</u>.</p> <p>The onus is on the <u>operating company</u> that is applying for IRMA independent assessment and verification to demonstrate to the <u>certification body</u> compliance with 1.5.1 and/or how it meets the relevant requirements of the implementing legislation for the EU Accounting and Transparency Directives or equivalent national legislation (e.g. Canadian, UK or Norwegian rules on corporate payments transparency). A simple statement of compliance, or statement that it has not been found guilty of non-compliance would not be sufficient.</p>
<p>1.5.1.2. On a yearly basis, the <u>operating company</u> shall publish a</p>	<p>For 1.5.1.2: Confirm that the report has been made public within the 12 months of</p>	<p>For 1.5.1:</p> <ul style="list-style-type: none"> • Documentation of revenue and 	<p>Explanatory Note for 1.5.1.2: If the <u>operating company</u> is a subsidiary of a larger corporation, and the <u>mining project</u> is located in a country that is</p>

⁷⁶ The European Union Accounting Directive 2013/34/EU is available at: <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32013L0034&qid=1524171176636> and the European Union Transparency Directive 2013/50/EU is available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1415872329209&uri=CELEX:32013L0050>.

Equivalent transparency regimes include, for example: Government of Canada. 2015. Extractive Sector Transparency Measures Act. <http://laws-lois.justice.gc.ca/eng/acts/E-22.7/page-1.html>; Ministry of Finance. 2013. Regulations on country-by-country reporting. Available at: <http://www.publishwhatyoupay.no/en/node/16414>; and UK Government. 2014. The Reports on Payments to Governments Regulations 2014. http://www.legislation.gov.uk/uksi/2014/3209/pdfs/uksi_20143209_en.pdf

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<p>report that discloses all <u>material payments</u> made by itself and its <u>corporate owner</u> to the government of the country in which the <u>mining project</u> is located. The report shall be made public within 12 months after the end of each financial year.⁷⁷</p>	<p>the company's financial year. The information may be made publicly available on the company and/or appropriate government website(s).</p>	<p>payments reporting and disclosure for EU or other mandatory transparency regime.</p> <p>Voluntary public reporting of revenue and payments that meets EU or other mandatory transparency regime requirements (e.g., in a sustainability report, financial report, Extractive Industry Transparency Initiative (EITI) report filed with a national government).</p>	<p>implementing EITI or its own mandatory transparency regime, it is likely that country-level reporting is already being carried out by the <u>operating company's parent company/corporate owner</u> (not the operating company itself). If this is the case, then the <u>operating company</u> may offer its <u>corporate owner</u> country-level reporting as evidence of compliance with this requirement.</p> <p>The information may be made publicly available on the company and/or appropriate government website(s).</p>
<p>1.5.1.3. The types of payment disclosed shall include as a minimum, as applicable:</p> <ol style="list-style-type: none"> The host government's production entitlement; National state-owned enterprise production entitlement; Profits taxes; Royalties; Dividends; Bonuses, such as signature, discovery and production bonuses; Licence fees, rental fees, entry fees and other considerations for licences and/or concessions; 	<p>For 1.5.1.3: Interview <u>operating company</u> and review company documentation to confirm compliance with EU or equivalent transparency regime, or the IRMA requirements. Confirm that disclosures include, at minimum, the information in 1.5.1.3.a-i.</p>	<p>For 1.5.1:</p> <ul style="list-style-type: none"> Documentation of revenue and payments reporting and disclosure for EU or other mandatory transparency regime. Voluntary public reporting of revenue and payments that meets EU or other mandatory transparency regime requirements (e.g., in a sustainability report, financial report, Extractive Industry Transparency Initiative (EITI) report filed with a national government). 	<p>Explanatory Note for 1.5.1.3: Requirement 1.5.1.3 is meant to align with EITI Requirement 4 in the EITI Standard.⁷⁹</p> <p>There is overlap between this requirement and other IRMA chapters: Information gathered to fulfill requirements in IRMA Chapter 3.4 (e.g., 3.4.2.2.b, 3.5.3.1) may feed into the reporting requirements in 1.5.1.3 regarding payments to governments. Similarly, the security risk assessment in IRMA Chapter 3.5 may reveal information related to payments made to public security forces at the mine site or along transportation routes that will need to be disclosed as country-level payments to governments.</p> <p>Re: 1.5.3.1.g, "other considerations for licences and/or concessions" includes facilitation payments. Facilitation payments have been defined as: "A payment made to a government official to facilitate approval of some type of business transaction or activity. In some countries, small facilitation payments are considered unofficial fees rather than bribes, but most</p>

⁷⁷ The information may be made publicly available on the company and/or appropriate government website(s).

⁷⁹ The Extractive Industries Transparency Initiative (EITI). EITI Standard. 2016. Requirement 4. "Revenue Collection." <https://eiti.org/document/standard#r4>

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<p>h. Payments for infrastructure improvements; and</p> <p>i. Any other significant payments and material benefits to government, including in kind payments.⁷⁸</p>			<p>countries do not make this distinction."⁸⁰ In some countries facilitation payments are illegal, and if operating in these countries mines must refrain from making such payments (as per IRMA's Chapter 1.1 on legal compliance) Where legal, at minimum mining companies should disclose these payments. (See for example ICMM's new performance expectations⁸¹). Some organizations like Transparency International advocate for cessation of all such payments.⁸² For information on whether or not facilitation payments are legal, see, for example, the country profiles in the GAN Business Anti-Corruption Portal.⁸³</p> <p>Re: 1.5.3.1.h, according to EITI, the exploration, extraction, transformation, and transport of mineral resources often requires large scale and long-term investments. In some cases, resource rich countries with limited access to capital and credit are considering "package deals" to develop their infrastructure in exchange for their natural resources. The infrastructure projects may include railways, roads, ports, power plants, schools and hospitals. These agreements are interchangeably called: "infrastructure provisions", "barter agreements", "minerals for infrastructure".⁸⁴</p> <p>Re: 1.5.1.3.i, an example of "other significant payments" is transportation revenue. According to EITI Standard, Section 4.4, transportation revenue may include revenue from taxes, tariffs or other relevant payments related to transport of mined commodities.⁸⁵</p>

⁷⁸ An example of "other significant payments" is transportation revenue. According to EITI Standard, Section 4.4, transportation revenue may include revenue from taxes, tariffs or other relevant payments related to transport of mined commodities). Social expenditures made by companies may be an example of material payments and/or benefits to governments (see EITI requirement 6.1).

⁸⁰ Business Dictionary. "Facilitation payment." <http://www.businessdictionary.com/definition/facilitation-payment.html>

⁸¹ International Council on Mining and Metals. 2018. Performance Expectations. https://www.icmm.com/website/publications/pdfs/commitments/181126_performance-expectations.pdf

⁸² Transparency International website. "Facilitation Payments." https://www.transparency.org/glossary/term/facilitation_payments

⁸³ GAN website. Business Anti-Corruption Portal. Country Profiles. <https://www.ganintegrity.com/portal/country-profiles/>

⁸⁴ The Extractive Industries Transparency Initiative (EITI). 2015. Guidance note 15 on infrastructure provisions and barter arrangements. <https://eiti.org/document/guidance-note-on-infrastructure-provisions-barter-arrangements>

⁸⁵ The Extractive Industries Transparency Initiative (EITI). Glossary. <https://eiti.org/glossary>. See also, EITI Standard. 2016. Requirement 4.4 "Transportation Revenues." <https://eiti.org/document/standard#r4-4>

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<p>1.5.1.4. At minimum, this information shall be broken down by recipient government body (where applicable), by project (where applicable), and by payment type.</p>	<p>For 1.5.1.4: Confirm that disclosures are broken down by payments to government bodies, project and payment type. If they are not broken down, confirm that this is because it was either not required by the equivalent mandatory transparency regime, or because there was no reason to break down the numbers (e.g., payments were only made to one government body,</p>	<p>For 1.5.1:</p> <ul style="list-style-type: none"> • Documentation of revenue and payments reporting and disclosure for EU or other mandatory transparency regime. • Voluntary public reporting of revenue and payments that meets EU or other mandatory transparency regime requirements (e.g., in a sustainability report, financial report, Extractive 	<p>Social expenditures made by companies may be an example of “material payments and/or benefits” to governments. According to EITI, social expenditures are contributions made by extractive companies to regional or local governments, communities, NGOs or other third parties in the areas where they operate. These contributions are in addition to taxes levied by central, regional and local governments. Social expenditures can take multiple forms, and may involve cash payments such as donations, grants or other types of cash transfers, the transfer of assets such as the construction of roads or schools, or the provision of services like training and health care. In some cases, these social expenditures are based on legal or contractual obligations. In other cases, companies make voluntary social contributions. These transactions can also be called “corporate social responsibility”, “social payments”, or “social investments”.⁸⁶</p> <p>“In-kind payments” are payments made to a government (e.g. royalty) in the form of the actual commodity (minerals) instead of cash. In many resource-rich countries, payments by companies to the government for rights to extract resources happen in-kind, meaning through physical transfers of oil, gas and minerals, rather than transfers of money.⁸⁷</p> <p>Explanatory Note for 1.5.1.4: This requirement applies to information reported in 1.5.1.1 and 1.5.1.2.</p> <p>Recipient government bodies may be national or subnational. Where transfers occur between national and subnational government entities, the end-receiving subnational agency should be listed.</p> <p>If there is more than one <u>mining project</u> in the country, payments should be disaggregated by mining project. Payment types are listed in 1.5.1.3 (or delineated in EU or other mandatory transparency regimes).</p>

⁸⁶ The Extractive Industries Transparency Initiative (EITI). EITI Standard. 2016. Requirement 6.1. " Social expenditures by extractive companies." <https://eiti.org/document/standard#r6-1>

⁸⁷ The Extractive Industries Transparency Initiative (EITI). Glossary. <https://eiti.org/glossary>. See also, Guidance on the sale of the state’s share of production or other revenues collected in kind (4.2), including commodity trading. <https://eiti.org/guide/in-kind>

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<p>1.5.2. Disclosure of Project-Level Payments</p> <p>1.5.2.1. The <u>operating company</u> shall demonstrate its compliance with the reporting requirements specified in Chapter 10 of the European Union Directive 2013/34/EU or an equivalent mandatory transparency regime,⁸⁸ and/or shall comply with the requirements listed under 1.5.2.2 below.</p>	<p>or the company only had one project, etc.).</p> <p>For 1.5.2.1 and 1.5.2.2: Review company documentation. Sources of relevant information may include information published on <u>operating company</u> or <u>corporate owner</u> and/or relevant government website(s).</p>	<p>Industry Transparency Initiative (EITI) report filed with a national government).</p> <p>For 1.5.2:</p> <ul style="list-style-type: none"> • Documentation of project-level revenue and payments reporting and disclosure for EU or other mandatory transparency regime. • Extractive Industry Transparency Initiative (EITI) report filed with a national government that contains project-level reporting. • Other public reporting (e.g., in a sustainability report, financial report) of project-level revenues and payments. 	<p>Explanatory Note for 1.5.2.1: For the purposes of this requirement, at the present time it appears that Canada is the only country that has a mandatory transparency regime (law) with project-level payment disclosures that are equivalent to EU's 2013 Accounting Directive.⁸⁹ Additionally, jurisdictions that are members of the EU and have implemented the EU Directives would qualify as being equivalent. (This includes the UK)</p> <p>Some countries that are implementing EITI may also be considered as equivalent. For example, as of May 2017 Indonesia, Philippines and Trinidad and Tobago were three EITI implementing countries that were found to include project-level reporting consistent with the EU definition.⁹⁰ As a result, at the present time, if companies are voluntarily participating in the EITI programs in Indonesia, Philippines and Trinidad and Tobago, and are meeting the EITI project-level reporting requirements, then that will be viewed as equivalent to the project-level reporting requirements of EU.⁹¹</p> <p>IRMA participants and stakeholders are welcome to provide input to IRMA if they believe there are other mandatory transparency regimes or EITI</p>

⁸⁸The European Union Accounting Directive 2013/34/EU is available at: <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32013L0034&qid=1524171176636>.

Equivalent transparency regimes include, for example: Government of Canada. 2015. Extractive Sector Transparency Measures Act. <http://laws-lois.justice.gc.ca/eng/acts/E-22.7/page-1.html>; Ministry of Finance. 2013. Regulations on country-by-country reporting. Available at: <http://www.publishwhatyoupay.no/en/node/16414>; and UK Government .2014. The Reports on Payments to Governments Regulations 2014. http://www.legislation.gov.uk/ukxi/2014/3209/pdfs/uksi_20143209_en.pdf

⁸⁹ European Commission. 2018. Review of Country-by-country Reporting Requirements for Extractive and Logging Industries. p. 51. https://ec.europa.eu/info/sites/info/files/business_economy_euro/company_reporting_and_auditing/documents/181126-country-by-country-reporting-extractive-logging-industries-study_en.pdf

⁹⁰ Extractive Industries Transparency Initiative (EITI). May 2017. Project-Level Reporting Practices in the EITI. <https://eiti.org/document/projectlevel-reporting-practices-in-eiti>

⁹¹ See EITI Sept. 2017 for reporting templates for these three countries. (EITI. Sept. 2017. Guidance Note 29 on Project-Level Reporting, Including Reporting Templates. <https://eiti.org/GN29>)

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<p>1.5.2.2. The <u>operating company</u> shall ensure that the following information at the <u>mining project</u> level is reported on an annual basis and is readily accessible to the public:</p> <p>a. Mine production, disaggregated by product type and volume;</p> <p>b. Revenues from sales, disaggregated by product type;</p> <p>c. Material payments and other material benefits to government as listed in paragraph 1.5.1.3, disaggregated according to the</p>	<p>For 1.5.2.1 and 1.5.2.2: Review company documentation. Sources of relevant information may include information published on <u>operating company</u> or <u>corporate owner</u> and/or relevant government website(s).</p>	<p>For 1.5.2:</p> <ul style="list-style-type: none"> • Documentation of project-level revenue and payments reporting and disclosure for EU or other mandatory transparency regime. • Extractive Industry Transparency Initiative (EITI) report filed with a national government that contains project-level reporting. • Other public reporting (e.g., in a sustainability report, financial report) of project-level revenues and payments. 	<p>country programs that are essentially equivalent to the EU requirements for project-level reporting.</p> <p>The <u>operating company</u> is expected to demonstrate how it meets the requirements specified in the referenced legislation whether or not that legislation is legally applicable.</p> <p>The onus is on the operating company that is applying for IRMA independent assessment to demonstrate to the <u>certification body</u> compliance with Chapter 10 of the EU Accounting Directive or equivalent national legislation (e.g. Canadian, UK).⁹² A simple statement of compliance, or statement that it has not been found guilty of non-compliance would not be sufficient.</p> <p>Explanatory Note for 1.5.2.2: This requirement is meant to align with reporting provisions in the EITI Standard and be consistent with the EU Directive.</p> <p>Threshold of application: The EU Accounting Directive does not currently require companies to include in their reports projects for which no single payment or series of related payments reached the €100,000 reporting threshold within a financial year. So €100,000 (or its equivalent in the currency of the host country) shall apply to 1.5.2.2 also. In other words, if a <u>mining project</u> does not make payments to governments in excess of €100,000, this requirement is not relevant. Payments include those that are made in money or in kind to national, regional and local governments, and state-owned organizations.</p>

⁹² The European Union Accounting Directive 2013/34/EU is available at: <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32013L0034&qid=1524171176636>.

Equivalent transparency regimes include, for example: Government of Canada. 2015. Extractive Sector Transparency Measures Act. <http://laws-lois.justice.gc.ca/eng/acts/E-22.7/page-1.html>; and UK Government. 2014. The Reports on Payments to Governments Regulations 2014. http://www.legislation.gov.uk/uksi/2014/3209/pdfs/uksi_20143209_en.pdf and 2015. Reports on Payments to Governments (Amendment) Regulations. <http://www.legislation.gov.uk/uksi/2015/1928/contents/made>

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<p>receiving government entity (e.g. national, regional, local entity; name of government department);</p> <p>d. Social expenditures, including the names and functions of beneficiaries;</p> <p>e. Taxes, tariffs or other relevant payments related to transportation of minerals;</p> <p>f. Payments to politicians' campaigns, political parties or related organizations; and</p> <p>Fines or other similar penalties that have been issued in relation to the project.</p>			<p>Mines may, of course, opt to disclose payments even if the total payments do not add up to €100,000.</p> <p>Types of payments: EITI Guidance states that: "In addition to company (and government) reporting of payments (receipts) on a project-by-project basis, the EITI Standard has a number of provisions that include the phrase: "commensurate with the reporting of other payments and revenue streams (EITI Standard requirement 4.7)," which implies project-level disclosures. This concerns reporting of the sale of the state's share of production or other revenues collected in kind (requirement 4.2), infrastructure provisions and barter arrangements (requirement 4.3), transportation revenues (requirement 4.4), social expenditures by extractive companies (requirement 6.1), and quasi-fiscal expenditures by SOEs (requirement 6.2).⁹³</p> <p>See also Explanatory note for 1.5.1.3 for more details on what should be included in reporting on payments to governments, social expenditures, etc.</p> <p>"Readily accessible to the public" means information should be available to all interested parties without them having to make a special request for the information. For example, it should be available on a company website, or on a government website that is linked to from company materials.</p> <p>Explanatory Note for 1.5.2.2.c: If relevant, due diligence related to operating in conflict-affected or high-risk areas (see IRMA Chapter 3.4, requirements 3.4.2.2.b, 3.5.3.1) may feed into the reporting requirements 1.5.2.2 regarding project-level payments to governments.</p> <p>Similarly, the security risk assessment in IRMA Chapter 3.5 may reveal information related to payments made to public security forces at the mine site or along transportation routes that will need to be disclosed as project-level payments to governments.</p>

⁹³ Extractive Industries Transparency Initiative (EITI). Sept. 2017. Guidance Note 29 on Project-Level Reporting, Including Reporting Templates. <https://eiti.org/GN29>

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<p>g. 1.5.2.3. The operating company shall publish annual accounts following international accounting standards.</p>	<p>For 1.5.2.3: Review annual accounts. Confirm that they have been completed following international accounting standards.</p>	<p>For 1.5.2:</p> <ul style="list-style-type: none"> • Documentation of project-level revenue and payments reporting and disclosure for EU or other mandatory transparency regime. • Extractive Industry Transparency Initiative (EITI) report filed with a national government that contains project-level reporting. • Other public reporting (e.g., in a sustainability report, financial report) of project-level revenues and payments. 	<p>Explanatory Note for 1.5.2.2.d: Social expenditures include in-kind expenditures. Reporting of social expenditures does not include expenditures agreed upon with affected indigenous peoples' governing bodies (e.g., "impact and benefit" or similar agreements reached through the process of Free, Prior and Informed Consent (see IRMA Chapter 2.2). Those expenditures may be reported if agreed by the indigenous peoples.</p> <p>Explanatory Note for 1.5.2.3: The most widely used international accounting standards are probably the International Financial Reporting Standards (IFRS) developed by the International Accounting Standards Board (IASB) and International Federation of Accountants.⁹⁴ More than 90 countries now require the financial statements of publicly traded companies to be prepared in accordance with the IASB's International Financial Reporting Standards.⁹⁵ Some countries have their own national accounting standards, and at least in some cases efforts are being made to harmonize these with the IASB's standards.⁹⁶</p>
<p>1.5.3. Support for the Extractive Industries Transparency Initiative (EITI)</p> <p>1.5.3.1. If the mining project is located in a country without a mandated transparency regime, the operating company shall demonstrate support for the EITI by publishing a clear public statement</p>	<p>For 1.5.3.1: If relevant, review copy of public statement.</p>	<p>For 1.5.3.1: Public statement endorsing the EITI principles.</p>	<p>Explanatory Note for 1.5.3.1: This requirement is relevant if the company is located in a country without a mandated transparency regime, and EITI is not active in that country at the time.</p> <p>The intent of this requirement is that responsible mining companies should be generally supportive of efforts that will lead to increased revenue and payments transparency in countries that have not yet adopted mandatory transparency regimes. Support for the Extractives Industries Transparency</p>

⁹⁴ Financial Accounting Standards Board (FASB) website: "Comparability in International Accounting Standards." <https://www.fasb.org/jsp/FASB/Page/BridgePage&cid=1176166128698>

⁹⁵ Georgetown Law website: "International Accounting and Auditing Standards." <http://guides.ll.georgetown.edu/accounting/international-standards>

⁹⁶ International Financial Reporting Standards website. <https://www.ifrs.org/>

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<p>endorsing the EITI Principles on its external website.</p> <p>1.5.3.2. If the <u>mining project</u> is located in a country without a mandated transparency regime and the EITI is active in that country, the operating company shall:</p> <p>a. Commit to engage constructively with and support implementation of the EITI consistent with the multi-stakeholder process adopted in its country of operation; and</p> <p>Provide links on its external website to completed and up-to-date Company Forms for its operation, if the EITI implementing country has completed at least one validation.</p> <p>1.5.4. Operating Company Transparency</p> <p>1.5.4.1. The material terms for mineral exploration, development and production agreed between the <u>operating company</u> and government entities shall be freely and publicly</p>	<p>For 1.5.3.2: If relevant:</p> <ul style="list-style-type: none"> • Interview company to determine level of engagement with the EITI in the country of operation • Confirm that there are personnel with strategic and communications responsibility related to the EITI • Review company forms to ensure that they are up to date and publicly available <p>For 1.5.4.1: Confirm public availability of relevant agreements and contracts, e.g., concession agreements, licensing agreements, production sharing agreements, service agreements.</p>	<p>For 1.5.3.2:</p> <ul style="list-style-type: none"> • Public statement endorsing EITI principles. • Documentation of Supporting Company Form submitted to EITI. • Documentation of involvement with country-level EITI activities. <p>For 1.5.4.1:</p> <ul style="list-style-type: none"> • Publicly accessible documentation on material terms or full contract (e.g., on company or government website; in publicly available company documents). • Stakeholder requests for contracts, and 	<p>Initiative's (EITI) Principles is a clear way to demonstrate that the <u>operating company</u> is in support of increased transparency.</p> <p>Explanatory Note for 1.5.3.2: This requirement is relevant if the company is located in a country without a mandated transparency regime, and EITI is not active in that country at the time.</p> <p>The intent of this requirement is that responsible mining companies should be supportive of specific efforts that will lead to increased revenue and payments transparency in host countries that have not yet adopted mandatory transparency regimes.</p> <p>Engagement with the Extractive Industries Transparency Initiative (EITI) is a clear way to demonstrate that the <u>operating company</u> is committed to the practice of revenue and payments transparency. Additionally, according to EITI, extractive companies operating in countries implementing the EITI benefit from enhanced relations with stakeholders and local communities, better risk management, improved company reputation and the opportunity to demonstrate industry leadership.⁹⁷</p> <p>Supporting Company Forms can be found on the EITI website.⁹⁸</p> <p>Explanatory Note for 1.5.4.1: It has become the norm among EITI-implementing countries to disclose the contracts and licenses that lay out the terms for resource exploitation.¹⁰⁰</p> <p>However, as per IRMA Chapter 1.1, if host country law prohibits certain actions, such as publishing contracts, companies are not expected to</p>

⁹⁷ Extractive Industries Transparency Initiative (EITI) website: "Benefits of Becoming A Supporting Company." <https://eiti.org/benefits-for-companies-financial-institution>

⁹⁸ Extractive Industries Transparency Initiative (EITI) website: "EITI Supporting Company Form." <https://eiti.org/document/eiti-supporting-company-form>

¹⁰⁰ Extractive Industry Transparency Initiative (EITI). 2017. Past the Tipping Point? Contract Disclosure within EITI. <https://eiti.org/document/past-tipping-point-contract-disclosure-within-eiti>

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<p>accessible, with the exception of <u>confidential business information</u>,⁹⁹ in the national language(s) of the country in which the <u>mining project</u> is located.</p> <p>a. Where these terms are negotiated, rather than governed by law, the company shall make the relevant agreements, licences or contracts freely and publicly accessible.</p> <p>b. Where these terms are governed by law, free, public access to the relevant statutory documentation is deemed sufficient to meet the IRMA requirement.</p> <p>c. 1.5.4.2. The <u>beneficial ownership</u> of the <u>operating company</u> shall be publicly accessible.</p>	<p>For 1.5.4.2: Review publicly available information on <u>beneficial ownership</u> (e.g., a company register: showing company name, proof of incorporation, legal form and status, address of the registered office, basic regulating powers (e.g., memorandum and articles of association), list of directors; a register of shareholders or members: containing the number of shares held by each shareholder and</p>	<p>company responses.</p> <p>For 1.5.4.2:</p> <ul style="list-style-type: none"> • Public disclosure of beneficial ownership. • Relevant host country legislation prohibiting such disclosure. 	<p>contravene <u>host country law</u> (i.e., will not be expected to publish the information).</p> <p>Companies may choose to use platforms such as the Resource Contracts website, as long as those platforms allow free and public access to the contract information.¹⁰¹</p> <p>"Material terms" include any contract, concession, production-sharing agreement or other agreement granted by, or entered into by, the government which provides the terms attached to the exploitation (exploration, development or production) of mineral resources or any license, lease, title or permit by which a government confers on the company rights to exploit mineral resources.</p> <p><u>Confidential business information</u> that is not material to the terms for mineral exploration, development and production may be excluded or redacted from the publicly accessible documentation as necessary.</p> <p>Explanatory Note for 1.5.4.2: <u>Beneficial ownership</u> describes the 'natural' person(s) who, directly or indirectly, ultimately own(s) or control(s) a corporate entity, a license or other property.</p> <p>In the case of joint ventures, each entity within the venture should disclose its beneficial owner(s), unless it is publicly listed or is a wholly-owned subsidiary of a publicly listed company.</p> <p>According to EITI: "The identity of the real owners – the 'beneficial owners' – of the companies that have obtained rights to extract minerals is often unknown, which can affect other sectors and often helps to feed corruption and tax evasion. People who live in resource-rich countries are at particular</p>

⁹⁹ Confidential business information that is not material to the terms for mineral exploration, development and production may be excluded or redacted from the publicly accessible documentation as necessary.

¹⁰¹ Resource Contracts website: "A Directory of Petroleum & Mineral Contracts." <http://www.resourcecontracts.org/>

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<p>1.5.5. Anti-Corruption Measures</p> <p>1.5.5.1. (Critical Requirement) The operating company shall develop, document and implement policies and procedures that prohibit bribery and other forms of corruption by employees and contractors.</p>	<p>categories of shares, including the nature of the associated voting rights).</p> <p>For 1.5.5.1: Review documentation to confirm that the company has anti-corruption policies and procedures. Confirm that the policies apply to both employees and contractors.</p> <p>Confirm that the policies have been implemented. Review grievance mechanism complaints (see IRMA Chapter 1.4 for stakeholder grievances, and also Chapter 3.1 for worker grievances), as there may be complaints made related to financial matters, bribery, corruption, etc. in the records. Also, interview workers' representatives to determine if there have been complaints related to bribery/corruption. Absence of significant claims of bribery/ corruption in relation to the mining project shall be supporting evidence to demonstrate that the measures have been effectively implemented.</p>	<p>For 1.5.5.1 and 1.5.5.2:</p> <ul style="list-style-type: none"> • Corporate code of conduct or ethics. • Anti-corruption/anti-bribery policies and procedures. • Reporting mechanisms (e.g. ethics hotline etc.). • Employee/contractor anti-corruption/anti-bribery training materials. • Employee/contractor anti-corruption/anti-bribery training records. • Contractor agreements/contracts that include anti-corruption/anti-bribery provisions. • Stakeholder requests for contracts, and company responses. 	<p>risk of losing out as extractive assets are too often misallocated for corrupt reasons. By 2020, all EITI countries have to ensure that companies that apply for or hold a participating interest in a mining license or contract in their country disclose their beneficial owners.”¹⁰²</p> <p>Explanatory Note for 1.5.5.1: "Bribery" is the offering, promising, giving, accepting or soliciting of an advantage as an inducement for an action which is illegal or a breach of trust.</p> <p>"Corruption" is the abuse of entrusted power for private gain.</p> <p>Companies should develop and implement an anti-bribery program as an expression of broader ethical values and corporate responsibility. Anti-bribery programs are also part of a comprehensive risk management strategy in light of the advent of stricter domestic and foreign bribery laws and increasing enforcement, the imposition of record fines and the threat of criminal penalties for company directors and employees. Furthermore, pressures are mounting from socially responsible investment funds and indices, which are applying anti-bribery criteria to their screening procedures. As regulators and stakeholders become less tolerant of lapses, responsible companies increasingly understand that they must undertake continuous efforts to ensure that they identify and mitigate the risks of bribery effectively.</p> <p>For guidance on the components of a comprehensive anti-bribery program, see:</p> <p>Transparency International. 2013. Business Principles for Countering Bribery.¹⁰³</p> <p>UN Global Compact. 2011. Business Against Bribery: A Framework for</p>

¹⁰² Extractive Industries Transparency Initiative (EITI) website: "Beneficial Ownership." <https://eiti.org/beneficial-ownership>

¹⁰³ https://www.transparency.org/whatwedo/publication/business_principles_for_countering_bribery

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<p>1.5.5.2. Procedures shall include:</p> <p>a. A requirement to internally report and record any undue pecuniary or other advantage given to, or received from, public officials or the employees of business partners, directly or through third parties; and</p> <p>Disciplinary actions to be taken if cases of bribery or corruption are discovered.</p> <p>b. 1.5.5.3. Relevant employees and <u>contractors</u> shall be trained in the application of the <u>operating company's</u> policy and procedures.</p>	<p>For 1.5.5.2: Review documented policies and procedures related to anti-corruption.</p> <p>For 1.5.5.2.a: Review procedures to confirm that there is a requirement to internally report pecuniary or other advantages offered and/or received from public officials or the employees of business partners, directly or through third parties. Confirm with <u>workers</u> that they know this requirement exists.</p> <p>For 1.5.5.2.b: Review procedures to confirm that they include information on the disciplinary actions to be taken if bribery or corruption are discovered. Interview operating company to determine if any cases have occurred, and if they have, confirm through record review that the disciplinary actions were followed.</p> <p>For 1.5.5.3: Interview employees and <u>contractors</u> to confirm that the policies and procedures have been implemented in practice, and that the employees/<u>contractors</u> understand the material. Review training materials and any records of trainings.</p>	<p>For 1.5.5.1 and 1.5.5.2:</p> <ul style="list-style-type: none"> • Corporate code of conduct or ethics. • Anti-corruption/anti-bribery policies and procedures. • Reporting mechanisms (e.g. ethics hotline etc.). • Employee/contractor anti-corruption/anti-bribery training materials. • Employee/contractor anti-corruption/anti-bribery training records. • Contractor agreements/contracts that include anti-corruption/anti-bribery provisions. • Stakeholder requests for contracts, and company responses. <p>For 1.5.5.3:</p> <ul style="list-style-type: none"> • Employee/contractor anti-corruption/anti-bribery training materials. • Employee/contractor anti-corruption/anti-bribery training records. • Contractor agreements/contracts that 	<p>Action. 2011.¹⁰⁴</p> <p>Explanatory Note for 1.5.5.2: A "pecuniary advantage" or benefit is anything that has a monetary value such as money, property, commercial interests or anything else the primary significance of which is economic gain.</p> <p>Re: 1.5.5.2.a, when developing procedures, particular attention should be paid to the conduct of third parties acting on behalf of or as agents of the company.</p> <p>Re: 1.5.5.2.b, disciplinary actions typically include actions up to and including termination of employment or contract, and reporting of those persons to relevant regulatory and criminal authorities.</p>

¹⁰⁴ E.g., p. 12. <https://www.unglobalcompact.org/library/162>

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include anti-corruption/anti-bribery provisions.

NOTES

The EITI maintains the EITI Standard. The EITI scheme applies specifically to countries. Countries implement the EITI Standard to ensure full disclosure of taxes and other payments made by producing oil, gas and mining companies. These payments are disclosed in an annual EITI Report (to see all EITI Reports, go to: eiti.org/countries/reports). This report allows citizens to see for themselves how much their government is receiving from their country's natural resources.

This chapter of the IRMA Standard is based on EITI requirements, but is designed for application to operating companies reporting on the mine site that is being independently assessed. Requirement 1.5.1.2 of the IRMA chapter aims to complement EITI's scheme by requiring operating companies to report corporate-level information about payments made by the operating company or its corporate owner in the country where the mining project is located, allowing country and corporate reporting to be compared. As an alternative, to avoid duplication, it allows operating companies to show how their compliance with specific national or regional regulatory regimes provides an equivalent level of transparency.

Since IRMA assesses individual mine sites, most of the criteria apply specifically to the mining project level, and the chapter includes requirements related to project-level reporting of payments, accounts, mine development agreements, and anti-corruption measures.

As for all aspects of the IRMA Standard, documentation or records that are required to demonstrate conformity with this chapter of the IRMA Standard do not have to be prepared exclusively or specifically for that purpose. Documentation or records that have been prepared to meet a company's legal obligations, or to meet a company's voluntary commitments (e.g. to meet standards other than IRMA's) may also be submitted to demonstrate conformity with the requirements of the IRMA Standard. For example, with particular reference to Criteria 1.5.1 and 1.5.3, documentation prepared in order to comply with Norwegian or Canadian legislation on corporate payments transparency may be used to demonstrate compliance.

Cross References to Other Chapters	
CHAPTER	ISSUES
1.1—Legal Compliance	As per Chapter 1.1, if a <u>host country law</u> pertains to mandatory transparency of payments or other information, the company is required to abide by that law. If the mandatory transparency scheme is essentially equivalent to IRMA's requirements (e.g., EU, Norway, Canada) then the company will only need to meet <u>host country law</u> . If IRMA requirements are more stringent than a host country's mandatory transparency regime (e.g., the host country does not require reporting on a project level), the company is required to also meet the IRMA requirements, as long as such compliance would not require the <u>operating company</u> to break <u>host country law</u> . If <u>host country law</u> prohibits certain actions, such as publishing contracts (1.5.3.1), companies are not expected to break the law.
1.4—Complaints and Grievance Mechanism and Access to Remedy	Chapter 1.4 has a provision (1.4.2.1) that <u>stakeholders</u> be involved in designing a <u>grievance mechanism</u> . If it is important to <u>stakeholders</u> , the mechanism could allow for the anonymous filing of complaints, for example, in relation to financial matters, bribery, corruption, etc. Even if it does not, the company may receive complaints related to financial matter, corruption or bribery through this mechanism.

Cross References to Other Chapters	
2.2—Free, Prior and Informed Consent	Reporting of social expenditures in 1.5.2.2.d does not include expenditures agreed upon with affected indigenous peoples' governing bodies (e.g., "impact and benefit" or similar agreements reached through the process of Free, Prior and Informed Consent - See Chapter 2.2). Those expenditures may be reported if agreed by the indigenous peoples.
3.1—Fair Labor and Terms of Work	Chapter 3.1 has a provision for a grievance mechanism (3.1.5), which enables workers to file complaints anonymously, for example, in relation to financial matters, bribery, corruption, etc. without facing retribution from the company.
3.4—Mining in Conflict-Affected or High-Risk Areas	Information gathered to fulfill requirements in Chapter 3.4 (e.g., 3.4.2.2.b, 3.4.3.1) may feed into the reporting requirements in Chapter 1.5. (e.g., requirements 1.5.1.3. and 1.5.3.2.) regarding payments to governments.
3.5—Security Arrangements	The security risk assessment in Chapter 3.5 may reveal information related to payments made to public security forces at the mine site or along transportation routes that will need to be disclosed as country or project-level payments to governments.

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the [Glossary of Terms](#) at the end of the IRMA Standard document.

Beneficial Owner

The natural person(s) who ultimately owns or controls a company and/or on whose behalf a company is owned. It includes those persons who exercise ultimate effective control over a legal person or arrangement. Reference to "ultimately owns or controls" and "ultimate effective control" refer to situations in which ownership/control is exercised through a chain of ownership or by means of control other than direct control.

Certification Body

Also known as a conformity assessment body, is an entity that performs auditing and conformity assessment services to determine if specified requirements are fulfilled (in this case conformity with the IRMA *Standard for Responsible Mining*).

Confidential Business Information

Material that contains trade secrets or commercial or financial information that has been claimed as confidential by its source. The information must be secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question; it must have commercial value because it is secret; and it must have been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret.

Contractor

An individual, company, or other legal entity that carries out duties subject to a contractual agreement that defines, for example, work, duties or services, pay, hours or timing, duration of agreement, and that remains independent for employment, tax, and other regulatory purposes. This includes sub-contractors.

Corporate Owner(s)

The corporation(s) or other business institution(s) including any private or state-run enterprises that have complete or partial financial interest in or ownership of a mining project.

Grievance

A perceived injustice evoking an individual's or a group's sense of entitlement, which may be based on law, contract, explicit or implicit promises, customary practice, or general notions of fairness of aggrieved communities. For the purposes of the IRMA Standard, the words grievances and complaints will be used interchangeably.

Grievance Mechanism

Any routinized, State-based or non-State-based, judicial or non-judicial process through which mining-project-related complaints or grievances, including business-related human rights abuses stakeholder complaints, and/or labor grievances, can be raised and remedy can be sought.

Host Country Law

May also be referred to as national law, if such a phrase is used in reference to the laws of the country in which the mining project is located. Host country law includes all applicable requirements, including but not limited to laws, rules, regulations, and permit requirements, from any governmental or regulatory entity, including but not limited to applicable requirements at the federal/national, state, provincial, county or town/municipal levels, or their equivalents in the country where the mine is located. The primacy of host country laws, such as federal versus provincial, is determined by the laws of the host country.

Indigenous Peoples

An official definition of "indigenous" has not been adopted by the United Nations system due to the diversity of the world's indigenous peoples. Instead, a modern and inclusive understanding of "indigenous" includes peoples who: identify themselves and are recognized and accepted by their community as indigenous; demonstrate historical continuity with pre-colonial and/or pre-settler societies; have strong links to territories and surrounding natural resources; have distinct social, economic or political systems; maintain distinct languages, cultures and beliefs; form non-dominant groups of society; and resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities. In some regions, there may be a preference to use other terms such as: tribes, first peoples/nations, aboriginals, ethnic groups, Adivasi and Janajati. All such terms fall within this modern understanding of "indigenous."

In Kind Payments

Payments made to a government (e.g. royalty) in the form of the actual commodity (oil, gas, or minerals) instead of cash

International Accounting Standards

Several accounting standards are commonly recognized as an international accounting standard; for example, the International Financial Reporting Standards (IFRS), which are set by the International Accounting Standards Board (IASB).

Material Payments

If not defined in a mandatory transparency regime or through an EITI country-specific multi-stakeholder process, material payments are those that exceed US\$100,000 (or its equivalent in other currencies). Payments may occur as a single installment or be the aggregate of a series of related payments that are made in the same fiscal/financial year. Material payments may be monetary or in kind.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Stakeholder

A person or group or people who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Worker

All non-management personnel.

Workers' Representatives

A worker chosen to facilitate communication with senior management on matters related to working conditions, occupational health and safety or other workers' concerns. This is undertaken by the recognized trade union(s) in unionized facilities and, elsewhere, by a worker elected by non-management personnel for that purpose.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.

Planning and Managing for Positive Legacies



[flag] Issue in brief: While there is agreement among IRMA sectors that environmental and social impact assessment (ESIA) and management systems are essential for the responsible management of large scale mining projects, there is not agreement on the particular methodology that must be followed. Most countries have their own ESIA processes, and there are also globally recognized environmental and social management standards such as the International Finance Corporation’s Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts, and the ISO 14001 Standard for Environmental Management Systems, which some companies, especially larger corporations, follow.

The current version of the IRMA chapter has drawn upon national approaches and international standards to come up with criteria that reflect commonly applied best practices.

A suggestion has been made that IRMA consider adopting the IFC Performance Standard that covers this topic area, with the argument that this is a well-known and stringent standard. However, not all companies are familiar with IFC requirements, and it is unclear if all of the requirements in the IFC Performance Standard need to be included in the IRMA chapter, or if there may be certain practices that are not required by IFC that IRMA stakeholders would like to see included by IRMA.

During the Launch Phase, IRMA will encourage companies to self-assess and be scored against the current IRMA chapter requirements. We will also explore whether there are companies that would prefer to score against the IFC Performance Standard, and if so, we will carry out an alignment exercise in 2018 to determine if there are significant differences between the IRMA chapter and the requirements in the IFC Performance Standard, and based on our learnings revise this chapter prior to offering independent assessment in 2019.

Chapter 2.1—Environmental and Social Impact Assessment and Management



READ GUIDANCE NOTE

BACKGROUND

In almost all jurisdictions, mining companies are required to conduct environmental impact assessments (EIA) or environmental and social impact assessments (ESIA) prior to mine development, and some also require them prior to exploration. ESIA enable regulators and other stakeholders to participate in the identification and review of predicted impacts and mitigation measures for a mining proposal before it is finalized or approved.

When developing mitigation strategies the use of a mitigation hierarchy to avoid, or where avoidance is not possible, minimize or compensate for impacts to workers, communities and the environment is widely considered a best practice approach to managing environmental and social risks and impacts.¹⁰⁵

Impact prevention and mitigation strategies developed during the ESIA process are typically integrated into a comprehensive, documented environmental and social management plan, and an environmental and social management system (ESMS) is developed and implemented to ensure that mine site personnel remain responsive to issues as they arise, and that they continue to effectively monitor and mitigate risks and reduce impacts on the environment, workers and neighboring communities throughout the mine life cycle.

The importance of stakeholder involvement in the identification and management of environmental and social issues is increasingly recognized, as it improves the quality of the impact assessments, and helps to build community support for a project by involving local stakeholders in decisions related to mitigation and management of risk and impacts.

OBJECTIVES/INTENT OF THIS CHAPTER

To proactively anticipate and assess environmental and social impacts; manage them in accordance with the mitigation hierarchy; and monitor and adapt environmental and social management systems in a manner that protects affected communities, workers and the environment throughout the entire mine lifecycle.

SCOPE OF APPLICATION

New versus Existing Mines: ESIA's are typically undertaken to predict potential impacts from a proposed mining project, and often are mandated by host country regulatory agencies. For IRMA's purposes, existing mines that did not carry out an ESIA prior to the mine development will not be expected to subsequently carry out such an assessment. But they will be expected to demonstrate that an environmental and social management plan (or its equivalent) and monitoring programs are in place to detect impacts.

Additionally, criterion 2.1.5 requires the collection of baseline data. At existing mines, if baseline data were not collected at the appropriate time, the applicant should still attempt to collate data to provide the best possible picture of baseline conditions in order to better understand the magnitude of impacts caused by the mining project. In some IRMA chapters, existing mines are required to estimate or approximate baseline conditions. For example, in Chapter 4.2 companies are expected to establish background water quality conditions even when project baseline water quality data were not collected (See Chapter 4.2, requirement 4.2.1.1).

CRITICAL REQUIREMENTS IN THIS CHAPTER

The operating company has carried out a process to identify potential impacts (social and environmental) of the mining project (2.1.3.1).

TERMS USED IN THIS CHAPTER

Accessible ■ Affected Community ■ Artisanal and Small-Scale Mining (ASM) ■ Background Water Quality ■ Baseline ■ Biodiversity ■ Competent Professionals ■ Consultation ■ Corporate Owner ■ Cumulative Impacts ■ Direct/Indirect Impacts ■ Ecosystem Services ■ Existing Mine ■ Human Rights Risks ■ Indigenous Peoples ■ Inform ■ Mining Project ■ Mitigation ■ Mitigation Hierarchy ■ New Mine ■ Operating Company ■ Post-Closure ■ Protected Areas ■ Resettlement ■ Rights Holder ■ Stakeholder ■ Threatened Species ■ Worker ■

These terms appear in the text with a dashed underline, and they are defined at the end of the chapter.

¹⁰⁵ International Finance Corporation (IFC). 2012. *IFC Performance Standards on Environmental and Social Sustainability*. Guidance Note 1: Assessment and Management of Environmental and Social Risks and Impacts. GN62, pp. 20, 21. http://www.ifc.org/wps/wcm/connect/e280ef804a0256609709ffd1a5d13d27/GN_English_2012_Full-Documents.pdf?MOD=AJPERES

Guidance Note for Auditors and Mines on Chapter 2.1-Environmental and Social Impact Assessment and Management

HOW THIS CHAPTER IS TO BE AUDITED: SEE FULL GUIDANCE NOTE FOR MORE BACKGROUND ON WHY WE ARE TAKING THIS APPROACH ([EXTERNAL LINK](#)).

Recognizing that many existing mines will not have been subject to rigorous ESIA requirements, and recognizing that it is not reasonable to expect existing mines to undertake a new, full ESIA process, the proposal is for IRMA to take the approach that it has taken with other chapters (i.e., require that existing mines demonstrate they are meeting the intent and not the letter of the requirements). For example, where the wording of a requirement includes a no-longer reachable timeline (e.g., “stakeholder engagement shall begin prior to or during mine planning. . .”), existing mines are only expected to demonstrate that they are currently engaging with stakeholders.

As mentioned earlier, the intent of ESIA is that a mine thoroughly identifies, in a comprehensive manner, the potential environmental and social impacts that could occur as a result of the development, operation, decommissioning and closure of a mine, and that it examines scenarios to avoid significant potential impacts, and where that is not possible, develops mitigation measures for them.

In 2021, existing mines have two options related to ESIA requirements:

Option 1: Existing mines can be audited against IRMA’s original ESIA requirements (see Table 3). Some mines, especially newer ones, may want to demonstrate to the world that they have met (in full or part) these best practices in ESIA.

Option 2: Existing mines that were not subject to ESIA, or did carry out ESIA but not according to what is now considered best practice, do not need to be assessed against all of the IRMA ESIA requirements. Rather, they will be asked to demonstrate that they have implemented practices, either during ESIA (if it occurred) or subsequently, that meet the intent of a select set of IRMA’s ESIA requirements (2.1.3.1, 2.1.9.1 and 2.1.10.1) referred to as **Core ESIA Requirements**. (See Table 1).

- The **Core ESIA Requirements** expect that all existing mines determine the range of potential social and environmental impacts (or risks) of their operation, engage with stakeholders during that process, and be transparent about the potential impacts/risks.
- **Core ESIA Requirements** are based on original IRMA requirements, but the language has been adapted slightly to increase the clarity of what is being asked of existing mines.
- Table 1 also includes Notes and Examples of Evidence to further clarify expectations for mines and auditors.

In both options, all of the Chapter 2.1 requirements relating to the mine’s environmental and social management system will still be audited (see Table 2, which shows that all of the management requirements need to be scored if Option 2 is selected).

Table 1. Core ESIA Requirements for Existing Mines

Existing ESIA requirement	Wording of the Core ESIA Requirements for existing mines	Notes on the Core ESIA Requirements	Examples of evidence
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<p>2.1.3.1. Critical The operating company shall carry out a scoping process to identify all potentially significant social and environmental impacts of the mining project to be assessed in the ESIA.</p>	<p>2.1.3.1. Critical The operating company shall demonstrate that it has undertaken a comprehensive evaluation of potential environmental and social impacts associated with the mining operation.</p>	<p>The intent of this requirement is that mines demonstrate that they have made a good faith effort to identify, in a comprehensive manner, the range of potential impacts that mining activities may have on the environment, or on the health, safety, cultural heritage and livelihoods of individuals or communities.</p> <p>The evaluation should determine which potential impacts are expected to be significant.</p> <p>Mines will be audited on the comprehensiveness of their evaluations. As per ESIA requirement 2.1.3.3, any evaluation will be expected to take into consideration:</p> <ol style="list-style-type: none"> a. Social impacts (including potential impacts on communities and workers) and environmental impacts (including potential impacts on wildlife, air, water, vegetation and soils) during operation through post-closure; b. Direct, indirect and cumulative impacts; and c. Potential impacts of extreme events. <p>Potential impacts that are identified as being significant would then be included as issues to be mitigated and monitored as part of the mine’s environmental management system (see requirement 2.1.7.2).</p>	<ul style="list-style-type: none"> • An exercise, such as scoping, that has identified the potential significant impacts or risks related to the current mining operation. • An evaluation such as a comprehensive risk assessment that includes a broad range of risks/potential impacts, as well as their potential likelihood and consequence.
<p>2.1.9.1. As part of the ESIA process, the operating company shall provide for timely and effective stakeholder and rights holder (hereafter collectively referred to as stakeholder) consultation, review and comment on:</p> <ol style="list-style-type: none"> a. The issues and impacts to be considered in the proposed scope of the ESIA; 	<p>2.1.9.1. The operating company shall consult with relevant stakeholders in the identification and evaluation of potential environmental and social impacts associated with the mine.</p>	<p>The intent of this requirement is that mines take the input and opinions of relevant stakeholders into account when identifying and evaluating which potential impacts/risks are significant.</p> <p>Recognizing that some evaluations may have already taken place without stakeholder consultation, mines can demonstrate that they meet this requirement by sharing the results of any evaluation with stakeholders, providing stakeholders with an opportunity to provide feedback, and updating the evaluation if necessary.</p> <p>Note that later in the chapter there is also the expectation that stakeholders be engaged in the development of mitigation</p>	<ul style="list-style-type: none"> • Documented plan for stakeholder consultations. • Documentation of actions, such as public postings (posters, signs, handbills), letters, emails, website information, public meetings, and other outreach designed to inform stakeholders about the opportunity for stakeholder consultation. • Documentation of stakeholder participation (e.g., minutes from meetings,

<p>b. Methodologies for the collection of environmental and social baseline data (see 2.1.4);</p> <p>c. The findings of environmental and social studies relevant to the conclusions and recommendations of the ESIA (see 2.1.5.1.a and b);</p> <p>d. Options and proposals to mitigate the potential impacts of the project (see 2.1.5.1.c);¹⁰⁶</p> <p>e. Provisional conclusions and recommendations of the ESIA, prior to finalization (see 2.1.6.1); and</p> <p>f. The final conclusions and recommendations of the ESIA (see 2.1.6.1).</p>		<p>requirements as per 2.1.9.2, which says: “The operating company shall encourage and facilitate stakeholder participation, where possible, in the collection of data for the ESIA, and <u>in the development of options to mitigate the potential impacts of the project during and subsequent to the ESIA process.</u>”</p> <p>“Relevant stakeholders” include those who may be interested in or affected by the mining operation. These stakeholders should have already been identified as per Chapter 1.2, requirement 1.2.1.1, which says: “The operating company shall undertake identification and analysis of the range of groups and individuals, including community members, rights holders and others (hereafter collectively referred to as “stakeholders”) who may be affected by or interested in the company’s mining-related activities.” If stakeholder identification has not occurred, the company would be expected to have carried out a stakeholder identification process prior to engaging stakeholders in the identification and evaluation of potential environmental and social impacts associated with the mine.</p>	<p>sign-up sheets, written comments/submissions).</p>
<p>2.1.10.1. The ESIA report and any supporting data and analyses shall be made publicly available.</p>	<p>2.1.10.1. At minimum, a summary of the significant environmental and social impacts and risks associated with the mining operation shall be made public.</p>	<p>The intent of this requirement is that mine are transparent about the potential significant impacts and risks associated with their operations.</p> <p>At minimum, it is expected that a summary of the significant impacts and risks identified and evaluated be shared publicly, so that stakeholders are aware of the issues that are being considered as the most pressing to be addressed by the mine.</p>	<ul style="list-style-type: none"> • Links to websites where information is available. • Locations of community facilities where copies are available (e.g., library, public building). • Confirmation from stakeholders that the mine has provided access at public meetings, or mailed copies, etc.

Table 2. How to score requirements if assessing against the Core ESIA Requirements for existing mines

<p>2.1.1. General Requirements</p>	
<p>2.1.1.1. An Environmental and Social Impact Assessment (ESIA), appropriate to the nature and scale of the proposed <u>mining project</u> and commensurate with the level of its environmental and social risks and impacts, shall be completed prior to the commencement of any site-disturbing operations associated with the</p>	<p>Do Not Assess or Score</p>

¹⁰⁶ Note: this is required in 2.1.9.2, below, which is why it is not included in the Core requirement.

project.	
2.1.1.2. To enable a reasonable estimation of potential impacts related to the <u>mining project</u> , the ESIA process shall commence only after the project design has been sufficiently developed. Should the proposal be significantly revised a new assessment process shall be undertaken.	Do Not Assess or Score
2.1.1.3. The ESIA shall be carried out in accordance with publicly available, documented procedures.	Do Not Assess or Score
2.1.2. Provision of Preliminary Information	
2.1.2.1. Prior to the implementation of the ESIA process the <u>operating company</u> shall ensure that there has been wide, public announcement of the project proposal and the associated ESIA process, and that reasonable and culturally appropriate efforts have been made to <u>inform</u> potentially affected and interested <u>stakeholders</u> in <u>potentially affected communities</u> about the proposed project.	Do Not Assess or Score
2.1.2.2. Prior to the implementation of the ESIA process the <u>operating company</u> shall prepare a report and publish it on the <u>operating company's</u> external website, in the official national language(s) of the country in which the <u>mining project</u> is proposed to take place. The report shall provide: <ul style="list-style-type: none"> a. A general description of the proposed project, including details on the proposed location, and nature and duration of the project and related activities; b. The preliminary identification of potential significant environmental and social impacts, and proposed actions to <u>mitigate</u> any negative impacts; c. A description of the main steps of the ESIA process that will be carried out, the estimated timeline and the range of opportunities for <u>stakeholder</u> participation in the process; and d. Contact details for the person or team responsible for management of the ESIA. 	Do Not Assess or Score
2.1.3. Scoping	
CORE ESIA REQUIREMENT: 2.1.3.1. Critical The <u>operating company</u> shall carry out a scoping process to identify all potentially significant social and environmental impacts of the <u>mining project</u> to be assessed in the ESIA. demonstrate that it has undertaken a comprehensive evaluation of potential environmental and social impacts associated with the mining operation.	Assess and Score Core Requirement
2.1.3.2. During scoping, the <u>operating company</u> shall identify <u>stakeholders</u> and <u>rights holders</u> (hereafter, collectively referred to as “stakeholders”) who may be interested in and/or affected by the proposed project.	Do Not Assess or Score
2.1.3.3. Scoping shall include the consideration of: <ul style="list-style-type: none"> a. Social impacts (including potential impacts on communities and <u>workers</u>) and environmental impacts (including potential impacts on wildlife, air, water, vegetation and soils) during all stages of the project lifecycle, from pre-construction through <u>post-closure</u>; b. Direct, indirect and <u>cumulative impacts</u>; and c. Potential impacts of extreme events. 	Do Not Assess or Score

<p>2.1.3.4. Scoping shall result in the identification of:</p> <ul style="list-style-type: none"> a. Potentially significant environmental and social impacts of the proposed project; b. Alternative project designs to avoid significant adverse impacts; c. Other actions to <u>mitigate</u> identified adverse impacts; and d. Additional information and data needed to understand and assess the potential impacts. 	Do Not Assess or Score
<p>2.1.4. ESIA Data Collection</p>	
<p>2.1.4.1. <u>Baseline</u> data describing the prevailing environmental, social, economic and political environment shall be collected at an appropriate level of detail to allow the assessment of the potential impacts of the proposed <u>mining project</u>.</p>	Do Not Assess or Score
<p>2.1.4.2. Additional studies shall be carried out as necessary to fulfill the information needs of the ESIA.</p>	Do Not Assess or Score
<p>2.1.5. ESIA Impact Analysis</p>	
<p>2.1.5.1. The <u>operating company</u> shall:</p> <ul style="list-style-type: none"> a. Predict in greater detail the characteristics of the potentially significant environmental and social impacts identified during scoping; b. Determine the significance of the predicted impacts; c. Evaluate options to <u>mitigate</u> predicted significant adverse impacts in line with the <u>mitigation hierarchy</u>, prioritizing the <u>avoidance</u> of impacts through consideration of alternative project designs; and d. Determine the relative importance of <u>residual impacts</u> (i.e., impacts that cannot be mitigated) and whether significant residual adverse impacts can be addressed to the satisfaction of affected or relevant <u>stakeholders</u>. 	Do Not Assess or Score
<p>2.1.6. ESIA Report</p>	
<p>2.1.6.1. The <u>operating company</u> shall prepare an ESIA report that includes, at minimum:</p> <ul style="list-style-type: none"> a. A description of the proposed <u>mining project</u>; b. Detailed description of the direct, indirect and <u>cumulative impacts</u> likely to result from the project, and identification of significant adverse impacts; c. Description of the alternatives considered to avoid and <u>mitigate</u> significant adverse impacts in line with the <u>mitigation hierarchy</u>, and the recommended measures to avoid or mitigate those impacts; d. A review of the public <u>consultation</u> process, the views and concerns expressed by <u>stakeholders</u> and how the concerns were taken into account; and e. Names and affiliations of ESIA authors and others involved in technical studies. 	Do Not Assess or Score
<p>2.1.7. Environmental and Social Management System (ESMS)</p>	
<p>2.1.7.1. The <u>operating company</u> shall develop and maintain a system to manage environmental and social risks and impacts throughout the life of the mine.</p>	Assess and Score

<p>2.1.7.2. An environmental and social management plan (or its equivalent) shall be developed that, at minimum:</p> <ol style="list-style-type: none"> a. Outlines the specific <u>mitigation</u> actions that will be carried out to address significant environmental and social impacts identified during and subsequent to the ESIA process; b. Assigns personnel responsible for implementation of various elements of the plan; and c. Includes estimates for the resources needed to implement the plan. 	<p>Assess and Score</p>
<p>2.1.7.3. The environmental and social management plan shall be implemented and revised or updated as necessary based on monitoring results or other information.</p>	<p>Assess and Score</p>
<p>2.1.8. Environmental and Social Impact Monitoring</p>	
<p>2.1.8.1. As part of the ESMS, the <u>operating company</u> shall establish a program to monitor:</p> <ol style="list-style-type: none"> a. The significant environmental and social impacts identified during or after the ESIA process; and b. The effectiveness of <u>mitigation</u> measures implemented to address environmental and social impacts. 	<p>Assess and Score</p>
<p>2.1.8.2. The monitoring program shall be designed and carried out by <u>competent professionals</u>.</p>	<p>Assess and Score</p>
<p>2.1.8.3. If requested by relevant <u>stakeholders</u>, the <u>operating company</u> shall facilitate the independent monitoring of key impact indicators where this would not interfere with the safe operation of the project.</p>	<p>Assess and Score</p>
<p>2.1.9. Stakeholder Consultation and Participation in ESIA and Environmental and Social Monitoring</p>	
<p>CORE ESIA REQUIREMENT: 2.1.9.1. As part of the ESIA process, the <u>operating company</u> shall provide for timely and effective stakeholder and rights holder (hereafter collectively referred to as stakeholder) consultation, review and comment on: consult with relevant stakeholders in the identification and evaluation of potential environmental and social impacts associated with the mine.</p> <ol style="list-style-type: none"> a. The issues and impacts to be considered in the proposed scope of the ESIA (see 2.1.3); b. Methodologies for the collection of environmental and social baseline data (see 2.1.4); c. The findings of environmental and social studies relevant to the conclusions and recommendations of the ESIA (see 2.1.5.1.a and b); d. Options and proposals to mitigate the potential impacts of the project (see 2.1.5.1.c); e. Provisional conclusions and recommendations of the ESIA, prior to finalization (see 2.1.6.1); and f. The final conclusions and recommendations of the ESIA (see 2.1.6.1). 	<p>Score Core Requirement</p>
<p>2.1.9.2. The <u>operating company</u> shall encourage and facilitate <u>stakeholder</u> participation, where possible, in the collection of data for the ESIA, and in the development of options to <u>mitigate</u> the potential impacts of the project during and subsequent to the ESIA process.</p>	<p>Assess and Score ESMS aspect only (development of mitigation options subsequent to ESIA)</p>
<p>2.1.9.3. The <u>operating company</u> shall provide for timely and effective <u>stakeholder consultation</u>, review and comment on the scope and design of the environmental and social monitoring program.</p>	<p>Assess and Score</p>

2.1.9.4. The <u>operating company</u> shall encourage and facilitate <u>stakeholder</u> participation, where possible, in the implementation of the environmental and social monitoring program.	Assess and Score
2.1.9.5. The <u>operating company</u> shall record all <u>stakeholder</u> comments received in relation to <u>ESIA scoping; implementation; ESIA findings, conclusions and recommendations; and</u> the environmental and social monitoring program. The company shall record how it responded to <u>stakeholder</u> comments.	Assess and Score ESMS aspect only (monitoring program)
2.1.10. Environmental and Social Disclosures and Reporting	
CORE ESIA REQUIREMENT: 2.1.10.1. The ESIA report and any supporting data and analyses shall be made publicly available. Detailed assessments of some issues and impacts may be reported as stand-alone documents, but the ESIA report shall review and present the results of the full analysis in an integrated manner. At minimum, a summary of the potential significant environmental and social impacts associated with the mining operation shall be publicly available.	Assess and Score Core Requirement
2.1.10.2. The <u>operating company</u> shall make publicly available an anonymized version of the ESIA record of <u>stakeholder</u> comments and its own responses, including how each comment was taken into account.	Do Not Assess or Score
2.1.10.3. The environmental and social management plan shall be made available to <u>stakeholders</u> upon request.	Assess and Score
2.1.10.4. Summary reports of the findings of the environmental and social monitoring program shall be made publicly available at least annually, and all data and methodologies related to the monitoring program shall be publicly available.	Assess and Score
2.1.10.5. The existence of publicly available <u>ESIA and</u> ESMS information, and the means of accessing it, shall be publicized by appropriate means.	Score ESMS aspect only

Table 3. (ORIGINAL CHAPTER)

Environmental and Social Impact Assessment and Management Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>2.1.1. General Requirements</p> <p>2.1.1.1. An Environmental and Social Impact Assessment (ESIA), appropriate to the nature and scale of the proposed <u>mining project</u> and commensurate with the level of its</p>	<p>For 2.1.1.1: Review ESIA report and associated records, and interview <u>operating company</u> to confirm that the level of detail in the ESIA is consistent with the nature and scale of the project and the level of</p>	<p>For 2.1.1.1:</p> <ul style="list-style-type: none"> ESIA documents (e.g., draft and final reports and supplemental materials). 	<p>Explanatory Note for 2.1.1.1: Environmental and Social Impact Assessments (ESIA) are typically undertaken to predict potential impacts and risks from a proposed <u>mining project</u>, and often are mandated by host country regulatory agencies. For IRMA’s purposes, <u>existing mines</u> that did not carry out an ESIA prior to the mine development will not be expected to subsequently carry out such an assessment. But they will be expected to demonstrate that an environmental and social management plan (or its</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>environmental and social risks and impacts, shall be completed prior to the commencement of any site-disturbing operations associated with the project.</p> <p>2.1.1.2. To enable a reasonable estimation of potential impacts related to the <u>mining project</u>, the ESIA process shall commence only after the project design has been sufficiently developed. Should the proposal be significantly revised a new assessment process shall be undertaken.</p>	<p>environmental and social risks related to the project.</p> <p>For 2.1.1.2: Confirm that the proposal that is reviewed is reasonably close to the project that is to be implemented. If there are significant changes to the project then ensure that the ESIA process was restarted - from a reasonably appropriate point given the changes in the design.</p>	<p>For 2.1.1.2:</p> <ul style="list-style-type: none"> • ESIA documents (e.g., methodology, draft and final reports and supplemental materials). • Project design documents (original and any updated documents). • Mine plans (original and any updated documents). 	<p>equivalent) and monitoring programs are in place to detect impacts and risks (see criteria 2.1.7 - 2.1.8) and also meet relevant requirements in 2.1.9 and 2.1.10.</p> <p>The intent of including "appropriate to the nature and scale of the proposed <u>mining project</u>" is that if the project is large and complex, or located in a challenging geography or climate, or in a location likely to create social conflict, etc., it would be expected to have a very detailed ESIA. Similarly, if the potential environmental and social risks related to a project are serious (e.g., a tailings dam failure could destroy <u>critical habitat</u> or endanger communities, or the mine could be associated with security and <u>human rights risks</u> for communities or <u>workers</u>, etc.) then that mine would be expected to have a much more detailed assessment on those particular issues.</p> <p>An ESIA that meets the requirements of this chapter is a critical step in informing interested and affected <u>stakeholders</u> and <u>rights holders</u> including, where applicable, <u>indigenous peoples</u> about a proposed <u>mining project</u> and its potential impacts, prior to decision-making. The fact that an effective ESIA has been designed and implemented does not imply that a <u>mining project</u> should necessarily proceed. With effective engagement of <u>stakeholders</u>, however, it should provide a sound basis for consideration as to whether a project should or should not move forward.</p> <p>Explanatory Note for 2.1.1.2: This is an unavoidably subjective requirement but employs a "reasonable" standard to allow for this discretion. The intent is related to 2.1.1.1, i.e., the assessment should not take place until the nature and scale of the project and its risks are known and can be assessed.</p> <p>The foundational basis for this requirement is that an ESIA is meaningless unless it assesses a representative mine plan. As such, the assessment should not take place until the nature and scale of the project and its risks are sufficiently known such that their assessment can be representative, accurate, and complete.</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>2.1.1.3. The ESIA shall be carried out in accordance with publicly available, documented procedures.</p>	<p>For 2.1.1.3: Confirm that ESIA procedures are documented and publicly available.</p>	<p>For 2.1.1.3:</p> <ul style="list-style-type: none"> • ESIA documents (e.g., draft and final reports and supplemental materials). • Documentation of ESIA procedures/methodologies. • Schedule and description of ESIA public review process, which may be contained in ESIA documentation or in other materials (prepared by the operating company, or regulatory agency). • Link to websites where information is published (or records of past links that may no longer be active, or locations where information was publicly available, if ESIA was carried out too far in the past). 	<p>The requirement also recognizes that mine plans may change or evolve over time. If changes to mine plan are significant enough to create the potential for new or increased environmental or social impacts, then a new (or supplemental) assessment process should be undertaken when such changes occur.</p> <p>Explanatory Note for 2.1.1.3: The ESIA should be based on clearly established procedures to ensure that:</p> <p>The ESIA's process is understandable by participants (e.g., procedures for participating in the ESIA process are available in local languages, prior to the beginning of the ESIA process; there are announcements in media providing information on how to access information about ESIA process, etc.); and</p> <p>The ESIA's results are meaningful and that the sources of information and conclusions are clear.</p>
<p>2.1.2. Provision of Preliminary Information</p> <p>2.1.2.1. Prior to the implementation of the ESIA process the operating company shall ensure that there has been wide, public announcement of the project proposal and the associated ESIA process, and that</p>	<p>For 2.1.2.1: Interview <u>operating company</u> and review documentation (e.g., media articles or advertising spots, records of public for a, open houses, meetings with community groups, etc.) related to communications to inform affected and interested <u>stakeholders</u> and about the project proposal to confirm that reasonable</p>	<p>For 2.1.2.1:</p> <ul style="list-style-type: none"> • Documentation providing a description of the mining project proposal, preliminary analysis of potential impacts and mitigation options, and ESIA team contact information. • Schedule and description of ESIA review process, which may be contained in 	<p>Explanatory Note for 2.1.2.1: “reasonable. . . efforts” to inform stakeholders about the proposed project implies that the company’s outreach, such as advertising of informational meetings and dissemination of project information, is done in a manner likely to reach a broad-base of potentially affected <u>stakeholders</u>.</p> <p>For example, informational meetings should be held during times of year and times of day that are appropriate to reach a broad-base of members of <u>affected communities</u> (e.g., not held during harvest season or hunting</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>reasonable and culturally appropriate efforts have been made to <u>inform</u> potentially affected and interested <u>stakeholders</u> in potentially <u>affected communities</u> about the proposed project.</p>	<p>efforts have been made to <u>inform stakeholders</u> about the project. Confirm, as well, that the outreach has been culturally appropriate.</p>	<p>ESIA documentation or in other materials (prepared by the operating company, or regulatory agency).</p> <ul style="list-style-type: none"> Records of outreach to stakeholders related to the project proposal and ESIA review process. Records may include meeting minutes or notes, letters, mailed brochures, paid media spots, posters, correspondence with community members and local governments, etc. Records demonstrating that efforts are made to follow any community consultation protocols and engage with appropriate indigenous peoples or local community representatives. 	<p>season when large segments of <u>affected communities</u> might be unable to attend meetings; or not held during hours when many would be at work). Similarly, written/paper postings on flyers, posters, or mail; newspaper ads, radio or other media; and all other forms of information dissemination should be culturally appropriate and attentive to the needs of <u>stakeholders</u> potentially impacted by or interested in the mine.</p> <p>As per IRMA Chapter 1.2, “culturally appropriate” communications include interactions and conveyance of information using methods, languages, terminology and formats that are respectful of cultural differences; and can be easily understood by the <u>affected communities</u> and <u>stakeholders</u>.</p> <p>As per requirement 1.2.1.3, <u>stakeholders</u> can help to define for the company what is considered culturally appropriate. Some <u>indigenous peoples</u> have developed community <u>consultation</u> protocols or policies that outline how external actors (governments, companies, NGOs, researchers) are expected to engage with them in the context of activities that could impact their land or natural resources. In the absence of any formal protocols, <u>operating companies</u> could consult with external experts or others for suggestions of how to initiate engagement, and whom to engage in indigenous peoples' communities.</p>
<p>2.1.2.2. Prior to the implementation of the ESIA process the <u>operating company</u> shall prepare a report and publish it on the <u>operating company</u>'s external website, in the official national language(s) of the country in which the <u>mining project</u> is proposed to take place. The report shall provide:</p> <p>a. A general description of the proposed project, including</p>	<p>For 2.1.2.2: Review publicly available information (e.g., preliminary ESIA project report on external website) to confirm that requirements 2.1.2.1.a to 2.1.2.2.d have been included in the report.</p>	<p>For 2.1.2.2:</p> <ul style="list-style-type: none"> Documentation providing a description of the mining project proposal, preliminary analysis of potential impacts and mitigation options, and ESIA team contact information. Schedule and description of ESIA review process, which may be contained in ESIA documentation or in other materials (prepared by the operating company, or regulatory agency). 	<p>Explanatory Note for 2.1.2.2: The documents may be posted on a government or corporate owner's website, as long as there is a link from the <u>operating company/mine</u> site website.</p> <p>In locations where internet is not widely available or used by key stakeholders, e.g., affected communities, hard copies should be accessible to the public either at a location within the community (e.g., library, government office) or the mine site office.</p>

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<p>details on the proposed location, and nature and duration of the project and related activities;</p> <p>b. The preliminary identification of potential significant environmental and social impacts, and proposed actions to <u>mitigate</u> any negative impacts;</p> <p>c. A description of the main steps of the ESIA process that will be carried out, the estimated timeline and the range of opportunities for <u>stakeholder</u> participation in the process; and</p> <p>d. Contact details for the person or team responsible for management of the ESIA.</p>		<ul style="list-style-type: none"> • Link to websites where information is currently published, or records of past links that may no longer be active • Locations where information is publicly available (if ESIA was carried out prior to wide-scale internet use, or in locations with limited electronic forms of communication such as rural parts of developing countries). 	
<p>2.1.3. Scoping</p> <p>2.1.3.1. (Critical Requirement) The operating company shall carry out a scoping process to identify all potentially significant social and environmental impacts of the <u>mining project</u> to be assessed in the ESIA.</p>	<p>For 2.1.3.1: Review documentation to confirm that scoping occurred.</p>	<p>For 2.1.3.1:</p> <ul style="list-style-type: none"> • ESIA scoping documentation. 	<p>Explanatory Note for 2.1.3.1: “scoping” refers to the early, open and interactive process of determining the major issues and impacts that will be important in decision-making on the proposal, and need to be addressed in an ESIA. Sufficient scoping is essential to help inform and establish the foundation for the ESIA.</p> <p>For more information on scoping see, for example, IAIA.¹⁰⁷</p>
<p>2.1.3.2. During scoping, the operating company shall identify <u>stakeholders</u> and <u>rights holders</u></p>	<p>For 2.1.3.2: Interview interested and affected <u>stakeholders</u> and <u>rights holders</u> to confirm that they were consulted during</p>	<p>For 2.1.3.2:</p> <ul style="list-style-type: none"> • Records of stakeholder analysis, mapping and/or engagement plan (see 	<p>Explanatory Note for 2.1.3.2: For more information on <u>stakeholders</u>, see Explanatory Note for 2.1.9.1, below.</p>

¹⁰⁷ International Association for Impact Assessment. 2019. “Scoping”. https://www.iaia.org/uploads/pdf/Fastips_18%20Scoping.pdf

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<p>(hereafter, collectively referred to as “stakeholders”) who may be interested in and/or affected by the proposed project.</p>	<p>ESIA scoping, and interview company and review documentation to confirm that <u>stakeholder</u> identification conformed to the requirements in Chapter 1.2 –Community and Stakeholder Engagement. Review records of preliminary identification of interested and affected <u>stakeholders</u> and <u>rights holders</u>.</p>	<p>also Chapter 1.2, criterion 1.2.1).</p>	<p>Reasonable efforts should be taken to identify <u>stakeholders</u> who may have an interest in or be affected by the proposed <u>mining project</u>. "Reasonable effort" implies that the company’s <u>stakeholder</u> identification mapping or other processes include research, <u>consultations</u> with key stakeholders or community representatives and other outreach efforts that will likely lead to the identification of a broad-base of potentially interested and affected stakeholders.</p>
<p>2.1.3.3. Scoping shall include the consideration of:</p> <p>a. Social impacts (including potential impacts on communities and workers) and environmental impacts (including potential impacts on wildlife, air, water and soils) during all stages of the project lifecycle, from pre-construction through <u>post-closure</u>;¹⁰⁸</p> <p>b. <u>Direct, indirect and cumulative impacts</u>; and</p> <p>c. Potential impacts of extreme events.</p>	<p>For 2.1.3.3: Review scoping documentation and confirm that scoping included the breadth of issues in 2.1.3.3. See also the Notes at the end of the chapter for additional guidance on the types of impacts that should be considered during scoping</p> <p>In particular, for 2.1.3.3.a, confirm that impacts on wildlife have been thoroughly scoped, as this is the only chapter in the IRMA standard that addresses general impacts on wildlife. This scoping should have considered the potential risks to wildlife populations (and the ecosystems that support them) posed by:</p> <ul style="list-style-type: none"> • Mining-related noise and vibration (e.g., from machinery, traffic, blasting) • Roads and traffic • Loss of, changes to or fragmentation of habitat and availability of food sources • Changes in water quality, quantity or the 	<p>For 2.1.3.3, 2.1.3.4:</p> <ul style="list-style-type: none"> • ESIA scoping documentation. 	<p>Explanatory Note for 2.1.3.3: The chapter does not list all of the issues and impacts that are likely to be significant, as these will vary greatly depending on the scale, nature, duration and location of the particular project. It is the responsibility of the <u>operating company</u>, in <u>consultation</u> with interested and affected <u>stakeholders</u>, to ensure that all the relevant issues and impacts are identified and considered.</p> <p>Issues/impacts to be considered may include (but are not limited to) the following:</p> <p>Social and socio-economic impacts, for example: effects of mining activities such as construction, road building, traffic, noise, air and water pollution, waste and chemical management, land disturbance and use, security arrangements, and resettlement, if relevant, on housing, infrastructure, social services, poverty levels, community physical and mental health and safety, local economies, <u>livelihoods</u>, <u>ecosystem services</u>, employment, population movements. Many of these social issues are addressed in more detail in various IRMA chapters (e.g., <u>involuntary resettlement</u> in Chapter 2.4, community health and safety in Chapter 3.3; noise in Chapter 4.4, access to water in Chapter 4.2; and <u>ecosystem services</u> in Chapter 4.6). Differential and/or specific impacts on women, children, minority groups and <u>vulnerable groups</u>;</p> <p>Socio-political risks, including potential infringement of human rights,</p>

¹⁰⁸ See the Notes section at the end of the chapter for a more detailed list of the types of issues that should be included in the scoping process.

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	<p>accessibility of water</p> <ul style="list-style-type: none"> • Creation of new water sources that may contain contaminants that are hazardous to wildlife (e.g., <u>pit lakes</u>, <u>tailings impoundments</u>) • Dust and air pollution from traffic, machinery or mine processes • Spills of chemicals or processing water • Hunting or poaching due to increases in human populations or increased access to wildlife 		<p>conflict and political instability that may be caused or contributed to by the mine (see also Chapters 1.3, 3.4 and 3.5); Potential impacts on <u>indigenous peoples</u> (see also Chapter 2.2) and/or other vulnerable individuals or groups (e.g., women, ethnic minorities, youth and elderly, etc.), including impacts on culture and cultural heritage (see also Chapter 3.7); Impacts on <u>artisanal and small-scale mining</u> entities and their communities (see also Chapter 3.6); Labor and working conditions (see also Chapters 3.1 and 3.2); Environmental impacts, for example: effects of surface disturbance, traffic, noise, waste generation, air quality, water use and quality, and spills on wildlife, plants, ecosystems and overall biodiversity, including <u>threatened and protected species</u>, <u>ecosystem services</u> and <u>protected areas</u> such as <u>World Heritage Sites</u>; trans-boundary effects (e.g. air pollution, use of international waterways); and greenhouse gas emissions and contributions to climate change.</p> <p>NOTE: Chapter 2.1 is the primary location in the IRMA Standard where <u>potential impacts on wildlife</u>, in general are addressed.</p> <p>Potential impacts on threatened or protected species of wildlife (and plants and ecosystems) are considered more thoroughly in Chapter 4.2. Other environmental issues are also covered to some extent in other IRMA chapters, such as impacts on water quality and quantity, which are addressed in Chapter 4.2; impacts on air quality/climate, which are addressed in Chapters 4.3 and 4.5; impacts on soil and vegetation, which are addressed to some extent in Chapters 2.6 and 4.1.</p> <p>Similarly, many of the social issues are also covered in more detail in various IRMA chapters (e.g., impacts related to resettlement in 2.4; impacts on human rights in 1.3; on indigenous peoples' rights in 2.2; on economic opportunities in 2.3; on workers' rights, health and safety in 3.1 and 3.2; on community health and safety in 3.3; on safety and human rights related to conflict areas in 3.4 or security arrangements in 3.5; on cultural heritage in 3.7; on access to water in 4.2; on <u>ecosystem services</u> in 4.6). See Cross</p>

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<p>2.1.3.4. Scoping shall result in the identification of:</p> <ol style="list-style-type: none"> a. Potentially significant environmental and social impacts of the proposed project; b. Alternative project designs to avoid significant adverse impacts; c. Other actions to <u>mitigate</u> identified adverse impacts; and 	<p>For 2.1.3.4: Review scoping documentation and confirm that scoping resulted in the identification of the issues in 2.1.3.4.</p>	<p>For 2.1.3.3, 2.1.3.4:</p> <ul style="list-style-type: none"> • ESIA scoping documentation. 	<p>References to Other Chapters table near the end of this chapter for more information.</p> <p>Additionally, other issues may also be raised during scoping that are not otherwise covered in detail by IRMA. This underscores the importance of not only the ESIA scoping process but the operating company's educating stakeholders and general public about the ESIA process and the importance of their participation.</p> <p>Re: 2.1.3.3.b, see definitions of <u>direct/indirect impacts</u> and <u>cumulative impacts</u>.</p> <p>Re: 2.1.3.3.c, extreme events may include, for example, those related to weather (e.g., unusually high or low precipitation, high or low temperatures, hurricanes, tornadoes, etc.), earthquakes and tsunamis, and their aftermath (e.g., flooding, inundation, heatwaves, drought). Extreme events may also be social/economic/political in nature (e.g., social unrest or economic impacts caused by unexpected, sudden or violent changes in political regimes). The ESIA should predict the likelihood of such events, and evaluate the potential impacts that the events may have on mining operations and facilities, and subsequent risks posed to workers, communities and the environment.</p>

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<p>d. Additional information and data needed to understand and assess the potential impacts.</p> <p>2.1.4. ESIA Data Collection</p> <p>2.1.4.1. <u>Baseline</u> data describing the prevailing environmental, social, economic and political environment shall be collected at an appropriate level of detail to allow the assessment of the potential impacts of the proposed <u>mining project</u>.</p>	<p>For 2.1.4.1: Review ESIA and <u>baseline</u> data. Confirm through interviews with <u>operating company</u> and relevant <u>stakeholders</u> that baseline data collected and presented are sufficiently accurate and complete to be able to develop a holistic understanding of environmental, social, economic and political issues and their interactions and to carry out an effective analysis of potential impacts. Relevant <u>stakeholders</u> may include NGOs, government officials, and <u>stakeholders</u> who have participated in the ESIA process (see Criteria 2.1.9).</p>	<p>For 2.1.4.1, 2.1.4.2:</p> <ul style="list-style-type: none"> • ESIA documents (e.g., draft and final reports and supplemental materials). • Studies containing baseline data (summary data or raw data) that feed into the ESIA. 	<p>Explanatory Note for 2.1.4.1: <u>New mines</u> are required to have baseline data. It is acknowledged that <u>existing mines</u> cannot turn back the clock to collect pre-project <u>baseline</u> data. As a result, for the purposes of this chapter existing mines will not be expected to meet requirement 2.1.4.1.</p> <p>In some IRMA chapters, however, <u>existing mines</u> are required to estimate or approximate <u>baseline</u> conditions. For example, in Chapter 4.2 companies are expected to establish <u>background water quality</u> conditions even when project <u>baseline</u> water quality data were not collected (See Chapter 4.2, requirement 4.2.1.1). Similarly, in Chapter 4.6 baseline biodiversity conditions must be established for existing mines (see requirement 4.6.3.1).</p>
<p>2.1.4.2. Additional studies shall be carried out as necessary to fulfill the information needs of the ESIA.</p>	<p>For 2.1.4.2: Review ESIA and related studies. Also, review ESIA and scoping documents. (These information requirements should have been determined during scoping, and identified in the final Scoping document for the ESIA). Note that additional studies may also be necessary if information gaps are identified during the actual ESIA process (i.e., not identified in Scoping). Interview <u>operating company</u> and relevant <u>stakeholders</u> to confirm that studies necessary for carrying out a comprehensive and credible ESIA have been carried out.</p>	<p>For 2.1.4.1, 2.1.4.2:</p> <ul style="list-style-type: none"> • ESIA documents (e.g., draft and final reports and supplemental materials). • Studies containing baseline data (summary data or raw data) that feed into the ESIA. 	<p>Explanatory Note for 2.1.4.2: Additional data or information may be needed to better understand the potential impacts that the <u>mining project</u> might have on social or environmental values.</p>

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<p>2.1.5. ESIA Impact Analysis</p> <p>2.1.5.1. The operating company shall:</p> <p>a. Predict in greater detail the characteristics¹⁰⁹ of the potentially significant environmental and social impacts identified during scoping;</p> <p>b. Determine the significance of the predicted impacts;</p> <p>c. Evaluate options to mitigate predicted significant adverse impacts in line with the mitigation hierarchy, prioritizing the avoidance of impacts through consideration of alternative project designs; and</p> <p>d. Determine the relative importance of residual impacts (i.e., impacts that cannot be mitigated) and whether significant residual adverse impacts can be addressed to the satisfaction of affected or relevant stakeholders.</p>	<p>For 2.1.5.1.a, b, c and d: Review ESIA and any other documentation related to impact analysis.</p> <p>For 2.1.5.1.a: Confirm that the nature, timing, magnitude, duration, reversibility and extent of potential impacts.</p> <p>For 2.1.5.1.b: Confirm that an evaluation has taken place to establish the “significance” of the identified potential impacts. (See IRMA Explanatory Note for 2.1.5 for more details on “significance” of impacts).</p> <p>For 2.1.5.1.d: Confirm that the company has assessed whether there are options for addressing residual impacts that will be acceptable to affected or relevant stakeholders.</p>	<p>For 2.1.5.1:</p> <ul style="list-style-type: none"> ESIA documents (e.g., draft and final reports and supplemental materials). Documentation providing analyses of potential impacts, project design options to avoid impacts, and to evaluate mitigation options and residual impacts. 	<p>Explanatory Note for 2.1.5: The goal is a rigorous and robust analysis to identify/predict the significant impacts and determine if and how those impacts can be avoided, minimized, and mitigated.</p> <p>Explanatory Note for 2.1.5.1.a: “characteristics” of impacts will vary, but may include: nature (positive, negative, direct, indirect, cumulative); magnitude (severe, moderate, low); extent/location (area/volume covered, distribution); timing (during construction, operation, closure and reclamation; immediate, delayed, rate of change); duration (short or long term; intermittent or continuous); reversibility/irreversibility; likelihood (probability, uncertainty or confidence in the prediction); and extent (local, regional, global).</p> <p>Explanatory Note for 2.1.5.1.b: There is no single, accepted methodology for determining the significance of predicted impacts. Any methods used for determining significance should be documented.</p> <p>There are three broad approaches typically used in significance determination: technical, collaborative and reasoned argumentation. Combinations of these three approaches have the potential to counterbalance many of the deficiencies of any individual approach.¹¹⁰</p> <p>These approaches typically include an evaluation of the scale of potential impacts (magnitude or intensity/severity, duration, geographic extent), the values and sensitivities of resources and communities that may be affected, the probability of the impact occurring, the reversibility of impacts, acceptability of the impacts to stakeholders, the potential consequences, and others.¹¹¹</p>

¹⁰⁹ Characteristics of impacts will vary, but may include: nature (positive, negative, direct, indirect, cumulative); magnitude (severe, moderate, low); extent/location (area/volume covered, distribution); timing (during construction, operation, closure and reclamation; immediate, delayed, rate of change); duration (short or long term; intermittent or continuous); reversibility/irreversibility; likelihood (probability, uncertainty or confidence in the prediction); and extent (local, regional, global).

¹¹⁰ Lawrence, D. 2005. Significance Criteria and Determination in Sustainability-Based Environmental Impact Assessment. Final Report to the Mackenzie Gas Project Joint Review Panel. https://www.ceaa-acee.gc.ca/155701CE-docs/David_Lawrence-eng.pdf

¹¹¹ See, for example, Marttunen et al. 2013. Impact Significance Determination in Environmental Impact Assessment – Literature Review. https://jyx.jyu.fi/bitstream/handle/123456789/49484/IMPACTSIGNIFICANCEDETERMINATION_29_06_2013.pdf?sequence=1; and IAIA. 2016. Assessing Significance in Impact Assessment Projects. https://www.iaia.org/uploads/pdf/Fastips_14%20Significance_1.pdf

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			<p>When there is the potential for community conflict related to <u>mining projects</u>, it is recommended that potentially affected stakeholders be involved in the determination of significance. The decision to use or not use their input should be documented and the results of that input should be attributed as part of the final analysis.</p> <p>Explanatory Note for 2.1.5.1.c: This requirement references the “<u>mitigation hierarchy</u>” which prioritizes <u>avoidance</u>, and if that is not possible minimization of impacts. To the extent possible, impacted systems should be <u>restored/rehabilitated</u> (or with social impacts, <u>mitigated</u>). And if there are still remaining (residual) impacts, then those should be compensated for by means that are agreeable to affected individuals/communities or relevant <u>stakeholders</u> as per 2.1.5.1.d.</p> <p>If there are <u>residual impacts</u> on <u>biodiversity</u>, in particular, then the goals of <u>No Net Loss</u> and preferably <u>Net Gain</u> should be considered, and offsets managed according to IRMA Chapter 4.6. For social impacts, and other environmental impacts, it may be difficult to assess residual impacts in these terms. In such cases, compensation for impacts may be considered if agreed to by <u>affected communities/individuals</u>.</p> <p>The requirement also references the consideration of alternatives to project design as a means of avoiding or minimizing potential impacts. For more on the consideration of alternatives, see IAIA.¹¹²</p> <p>Explanatory Note for 2.1.5.1.d: “addressed to the satisfaction of . . . relevant stakeholders” refers to situations where there are direct impacts on humans, but also situation where there may not be any human stakeholders who will be directly affected. For example, in the case of mining-related impacts on ecosystems, relevant stakeholders may include people that depend on the adequate functioning of potentially impacted ecosystems for food, medicines, cultural purposes, etc. (and thus could be directly impacted by impacts on the environment), as well as stakeholders</p>

¹¹² International Association for Impact Assessment. 2015. Alternatives in Project EIA. https://www.iaia.org/uploads/pdf/FasTips_11_AlternativesinProjectEIA.pdf

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<p>2.1.6. ESIA Report</p> <p>2.1.6.1. The operating company shall prepare an ESIA report that includes, at minimum:¹¹³</p> <ol style="list-style-type: none"> A description of the proposed <u>mining project</u>; Detailed description of the <u>direct, indirect and cumulative impacts</u> likely to result from the project, and identification of significant adverse impacts; Description of the alternatives considered to avoid and <u>mitigate</u> significant adverse impacts in line with the <u>mitigation hierarchy</u>, and the recommended measures to avoid or <u>mitigate</u> those impacts; A review of the public consultation process, the views and concerns expressed by <u>stakeholders</u> and how the concerns were taken into account; and 	<p>For 2.1.6.1: Review ESIA report to confirm that it includes the elements listed in the requirement. In many countries, the information contained in government-mandated reports will be specified in legislation. Companies will be expected to publish a supplementary report if information required by regulatory agencies does not cover all of the information requirements in this chapter.</p> <p>For 2.1.6.1.b: Detailed descriptions should include the predicted characteristics analyzed in 2.1.6.1.a.</p>	<p>For 2.1.6.1:</p> <ul style="list-style-type: none"> ESIA documents (e.g., draft and final reports and supplemental materials) that contain a description of the mining project proposal, description of potential significant adverse impacts (including direct, indirect and cumulative impacts), alternatives considered to avoid, minimize, restore/rehabilitate and compensate for impacts, summary of public consultation comments and responses, and information on ESIA team and consultants that carried out the studies and analyses feeding into the ESIA. 	<p>who have an interest in protecting affected ecosystems, such as a governmental agency or academic scientists, environmental NGOs and local communities.</p> <p>Explanatory Note for 2.1.6.1: For more information on international theory and practice of environmental (and social) impact assessment, including other elements typically contained in an ESIA report, see, for example, guidance prepared by the International Institute for Sustainable Development, and the resources available through the International Association for Impact Assessment.¹¹⁴</p> <p>Re: 2.1.6.1.b, see glossary definitions of <u>direct/indirect impacts</u> and <u>cumulative impacts</u>.</p> <p>Re: 2.1.6.1.d, “a review” means that the report should include an explanation/overview of the public consultation process that took place. It is not a requirement for an external review of the effectiveness of the process.</p>

¹¹³ The UN University has developed guidance on international theory and practice of environmental (and social) impact assessment and has outlined other elements typically contained in an ESIA report. See: eia.unu.edu/course/index.html?3Fpage_id=114.html

¹¹⁴ International Institute for Sustainable Development. EIA: 7 Steps. <http://www.iisd.org/learning/eia/eia-7-steps/> and International Association for Impact Assessment. “Resources.” <https://www.iaia.org/resources.php>

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<p>e. Names and affiliations of ESIA authors and others involved in technical studies.</p> <p>2.1.7. Environmental and Social Management System (ESMS)</p> <p>2.1.7.1. The operating company shall develop and maintain a system to manage environmental and social risks and impacts throughout the life of the mine.</p>	<p>For 2.1.7.1: Review documentation to confirm that an environmental and social management system (or its equivalent) is in place and being implemented to methodically manage environmental and social risks and impacts throughout the mine life.</p> <p>Interview relevant company personnel to confirm that they are aware of their respective roles and responsibilities related to the ESMS.</p>	<p>For 2.1.7.1:</p> <ul style="list-style-type: none"> • Documentation of the environmental and social management system and its implementation. • Documentation outlining the roles of company personnel in the development and implementation of the ESMS. 	<p>Explanatory Note for 2.1.7.1: An Environmental and Social Management System (EMS) is a set of processes and practices that enable a project to manage social and environmental risks in a manner that reduces impacts, and leads to continual improvement in performance. These systems also tend to increase the operating efficiency of organizations or projects, reduce costs and improve compliance with regulatory requirements.¹¹⁵</p> <p>There are typically five main stages of an Environmental (and Social) Management System: 1) Commitment; 2) Planning; 3) Implementation; 4) Evaluation; and 5) Review.</p> <p>This is often referred to as the Plan-Do-Check-Act methodology, and is the framework adopted by the International Organization for Standardization (ISO) for the ISO 14001 standard.</p> <p>Mines can use the Plan-Do-Check-Act system or an alternative framework, as long as the system promotes both reduced impacts and continual improvement in performance.</p>
<p>2.1.7.2. An environmental and social management plan (or its equivalent) shall be developed that, at minimum:</p> <p>a. Outlines the specific mitigation actions that will be carried out to address significant environmental and social</p>	<p>For 2.1.7.2: Review the environmental and social management plan (or its equivalent).</p>	<p>For 2.1.7.2:</p> <ul style="list-style-type: none"> • Documentation of mitigation actions to be implemented, responsible personnel, and estimated resources needed to carry out the planned actions in an environmental and social management plan or its equivalent. 	<p>Explanatory Note for 2.1.7.2: A management plan completed for one IRMA chapter can satisfy the requirements for a management plan completed for another IRMA chapter, as long as the material requirements for each respective chapter are met.</p> <p>According to IFC, environmental and social management programs are centered on action plans and improved procedures to avoid, minimize or compensate for risks and impacts that have been identified. IFC provides guidance that whatever actions you decide to take, think of them as a continual improvement process - you will need to set targets, set</p>

¹¹⁵ US Environmental Protection Agency (USEPA) website: "Environmental Management Systems." <https://www.epa.gov/ems>

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<p>impacts identified during and subsequent to the ESIA process;</p> <p>b. Assigns personnel responsible for implementation of various elements of the plan; and</p> <p>c. Includes estimates for the resources needed to implement the plan.</p>			<p>deadlines, measure the results, and adjust the plans if necessary. You need to assign responsibilities and start to involve the right internal people and departments. As you develop your Action Plans, these are the key questions that you need to think about:¹¹⁶</p> <p>What – environmental and social risks you want to address</p> <p>How – related actions and procedures to be implemented to address the risk</p> <p>Why – reasons (objectives) for the actions and procedures, and the expected results (targets)</p> <p>When – timeframe and deadlines</p> <p>Who – responsible people</p>
<p>2.1.7.3. The environmental and social management plan shall be implemented, and revised or updated as necessary based on monitoring results or other information.¹¹⁷</p>	<p>For 2.1.7.3: Review documentation and/or interview company to confirm that the plan is updated occasionally based on the information gained from monitoring, or if there are changes in the operation, etc.</p>	<p>For 2.1.7.3:</p> <ul style="list-style-type: none"> Environmental and social management plan or its equivalent (original and updated versions). 	<p>Explanatory Note for 2.1.7.3: Implementation, revision, and updating will necessarily be fluid to ensure that they are modified as information becomes available to suggest that modification is appropriate. For example, revisions or updates may be necessary if monitoring indicates that effects are greater than predicted, or if there is a change in mining activities or a mine expansion that changes the scope or magnitude of potential or actual impacts.</p> <p>Information may come from any source and modifications to plans should include the same process and stakeholder participation that occurred during the development of the original plan.</p>
<p>2.1.8. Environmental and Social Impact Monitoring</p> <p>2.1.8.1. As part of the ESMS, the operating company shall establish a program to monitor:</p>	<p>For 2.1.8.1: Review documentation, including ESIA and materials related to the monitoring program.</p> <p>Confirm that monitoring program has identified indicators for key environmental</p>	<p>For 2.1.8.1:</p> <ul style="list-style-type: none"> Documentation of monitoring program (objectives, indicators, monitoring schedules, etc.). Monitoring records (summaries of data, 	<p>Explanatory note for 2.1.8.1: The breadth and depth of the monitoring program and mitigation measures should be consistent with the breadth and scope of the environmental and social impacts identified during or after the ESIA process.</p>

¹¹⁶ International Finance Corporation (IFC). 2015. Environmental and Social Management System Implementation Handbook. p. 27. <https://www.ifc.org/wps/wcm/connect/22dc7500483774689335f7299ede9589/ESMS+Handbook+General+v2.1.pdf?MOD=AJPERES>

¹¹⁷ E.g., if monitoring indicates that effects are greater than predicted; or if there is a change in mining activities that warrants an update.

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<p>a. The significant environmental and social impacts identified during or after the ESIA process; and</p> <p>b. The effectiveness of <u>mitigation</u> measures implemented to address environmental and social impacts.</p> <p>2.1.8.2. The monitoring program shall be designed and carried out by <u>competent professionals</u>.</p>	<p>and social impacts or risks identified during (or after the ESIA and/or other impact assessment processes), and that these indicators are being monitored. Review documentation and/or interview company to confirm that monitoring data are reviewed on a regular basis to evaluate whether or not <u>mitigation</u> strategies are being effective.</p> <p>If monitoring indicates that positive performance is not occurring on certain indicators, confirm that the company has plans in place to adapt mitigation measures accordingly.</p> <p>For 2.1.8.2: Review credentials of the professionals (operating company and contractors) responsible for planning and carrying out monitoring.</p>	<p>raw data).</p> <p>For 2.1.8.2:</p> <ul style="list-style-type: none"> Documentation of qualifications of operating company staff or contractors responsible for ESMS monitoring (e.g., curriculum vitae (CV), resumes, biographies, certificates of training, and/or documents demonstrating professional experience with appropriate monitoring tasks. 	<p>Explanatory note for 2.1.8.2: IRMA's definition of competent professionals is: "In-house staff or external consultants with relevant education, knowledge, proven experience, necessary skills and training to carry out the required work. Competent professionals would be expected to follow scientifically robust methodologies that would withstand scrutiny by other professionals. Other equivalent terms used may include: competent person, qualified person, qualified professional."</p> <p>All mine staff/contractors participating in the design or implementation of the monitoring program should be <u>competent professionals</u>.</p> <p>In this chapter, competent professionals should be trained in environmental and social monitoring in the ESIA and/or mining contexts. They will have been sufficiently instructed/educated to ensure their ability to understand and perform monitoring tasks at a level commensurate with modern social and ecological sciences. Indicators of sufficient training include, but are not limited to, qualification to perform their tasks, explain their outcomes, troubleshoot problems, defend results, and otherwise</p>

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<p>2.1.8.3. If requested by relevant <u>stakeholders</u>, the <u>operating company</u> shall facilitate the independent monitoring of key impact indicators where this would not interfere with the safe operation of the project.¹¹⁸</p>	<p>For 2.1.8.3: Interview <u>stakeholders</u> to confirm that independent experts have been afforded access to the mine site to carry out independent monitoring, and if deemed necessary, that funding has been provided to enable affected stakeholders to hire experts.</p>	<p>For 2.1.8.3:</p> <ul style="list-style-type: none"> • Documentation of stakeholder requests for independent monitoring. • Operating company correspondence(s) responding to requests for independent monitoring that explains what independent monitoring occurred or would occur - and/or explanation(s) why requested independent monitoring was not completed. • Results and reporting from independent monitoring. • Correspondence(s) or other evidence demonstrating that results of independent monitoring were transmitted to the requesting stakeholders, posted on the operating company's external website, etc. 	<p>perform in the environmental and social monitoring area with independent comprehension and skill.</p> <p>Additionally, although not specified in the requirement, it is strongly recommended that laboratories used to process environmental and health-related samples should be accredited to relevant ISO standards, or, at minimum, accredited through national body. (This is a requirement for laboratories processing water samples. See Chapter 4.2—Water Management, requirement 4.2.4.1)</p> <p>Explanatory note for 2.1.8.3: Independent monitoring could include, for example, allowing independent experts to have access to sites to carry out their own monitoring related to social or environmental indicators, or participation in the operating company's monitoring activities (ability to take split samples, etc.). It should also include provision of access to relevant company records/data, reports and/or documentation.</p> <p>Many <u>affected communities</u> will not have access to or the resources to hire independent experts. If requested by relevant <u>stakeholders</u> (e.g., in particular those who may be directly affected), companies may also facilitate independent monitoring by providing funding to <u>stakeholders</u> to hire experts. Such costs might include field labor, an independent expert, and sample analysis using an independent laboratory, if desired by the community. Costs related to community participation may also need to be covered by the <u>operating company</u>. If funding is requested, then a mutually acceptable agreement for covering costs should be developed.</p> <p>The <u>operating company</u> should document such requests and resolution of those requests.</p>

¹¹⁸ For example, by allowing independent experts to have access to sites for monitoring social or environmental indicators, and by allowing access to relevant company records, reports or documentation. If requested by relevant stakeholders (e.g., in particular those who may be directly affected), companies may also facilitate independent monitoring by providing funding to stakeholders to hire experts.

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<p>2.1.9. Stakeholder Consultation and Participation in ESIA and Environmental and Social Monitoring</p> <p>2.1.9.1. As part of the ESIA process, the operating company shall provide for timely and effective stakeholder and rights holder (hereafter collectively referred to as stakeholder) consultation, review and comment on:</p> <ol style="list-style-type: none"> The issues and impacts to be considered in the proposed scope of the ESIA (see 2.1.3); Methodologies for the collection of environmental and social baseline data (see 2.1.4); The findings of environmental and social studies relevant to the conclusions and recommendations of the ESIA (see 2.1.5.1.a and b); Options and proposals to mitigate the potential impacts of the project (see 2.1.5.1.c); Provisional conclusions and recommendations of the ESIA, prior to finalization (see 2.1.6.1); and 	<p>For 2.1.9.1: Interview the operating company team or person(s) responsible for ESIA, and review documentation related to stakeholder and outreach during all of the relevant stages. Review documentation related to stakeholder/rights holder engagement in the ESIA process to confirm that stakeholders were consulted and provided the opportunity to review and comment on information as required in 2.1.9.1.a through f.</p>	<p>For 2.1.9.1:</p> <ul style="list-style-type: none"> Documented plan for stakeholder consultations on the required elements in 2.1.9.1. Documentation of actions, such as public postings (posters, signs, handbills), letters, emails, website information, public meetings, and other outreach designed to inform stakeholders about both the process and opportunity for stakeholder consultation and participation. Documentation of stakeholder participation, reviews and comments on the scope of the ESIA. Documentation of stakeholder participation, review and comments on data collection methodologies for baseline data Documentation of stakeholder review and comments on ESIA conclusions and recommendations, and findings of studies Documentation of stakeholder review and comment on mitigation options. Documentation of stakeholder review and comment on final ESIA conclusions and recommendations. 	<p>Explanatory note for 2.1.9.1: According to OECD, “All people have human rights and thus all stakeholders as individuals are “rights-holders”. However, not all stakeholders will have their human rights put at risk or impacted by an extractive project or its associated activities. . . individuals living in a community whose only local water source may be polluted by an extractive operation may be rights-holders. Workers facing discrimination in the workplace are also rights-holders. In addition to individual human rights, certain groups such as indigenous and tribal peoples can have collective rights and consequently the group itself may be considered a rights-holder.”¹¹⁹</p> <p>For the purposes of this chapter, we are referring to rights holders and stakeholders collectively as stakeholders. However, when rights holders have been identified (e.g., see IRMA Chapter 1.3, requirement 1.3.2.3.e) particular effort should be made to include them in stakeholder engagement processes.</p> <p>“timely and effective stakeholder consultation” means that sufficient time is given ahead of time for stakeholders to review draft or final materials, comment on them, and get feedback on comments from the company. The time required to review various components of the ESIA process will vary based on the capacity of the stakeholders. To ensure that enough time is provided and that consultation is as effective as possible, the operating company should check in with stakeholders, and provide more time if necessary.</p> <p>As per Chapter 1.2, requirement 1.2.3.1, stakeholders from affected communities may request that companies take steps such as capacity building to facilitate effective stakeholder engagement in the ESIA, or subsequent development of management plans and monitoring efforts.</p>

¹¹⁹ OECD. 2017. *OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector*. p. 20. Available at: <http://www.oecd.org/publications/oecd-due-diligence-guidance-for-meaningful-stakeholder-engagement-in-the-extractive-sector-9789264252462-en.htm>

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<p>f. The final conclusions and recommendations of the ESIA (see 2.1.6.1).</p> <p>2.1.9.2. The operating company shall encourage and facilitate stakeholder participation, where possible, in the collection of data for the ESIA, and in the development of options to mitigate the potential impacts of the project during and subsequent to the ESIA process.¹²⁰</p>	<p>For 2.1.9.2: Interview the operating company and review documentation (e.g., stakeholder outreach communications, letters, presentations) and interview relevant stakeholders (e.g., those involved in committees established as per Chapter 1.2, requirement 1.2.2.3) to confirm that efforts have been made to involve stakeholders in data collection related to the ESIA and afterward.</p>	<ul style="list-style-type: none"> Documentation of operating company responses to stakeholder participation and input. <p>For 2.1.9.2:</p> <ul style="list-style-type: none"> Documented plan for stakeholder consultations related to data collection for the ESIA, and the development of mitigation options. Documentation of actions, such as public postings (posters, signs, handbills), letters, emails, website information, public meetings, and other outreach designed to inform stakeholders about both the process and opportunity for stakeholder participation in collection of data and development of mitigation options. Documentation of stakeholder reviews and comments about data collection or mitigation options. Documentation of operating company responses to stakeholder participation and input. Documentation of stakeholder participation in data collection and in the development of mitigation options 	<p>Stakeholders may not be interested in participating in these activities. In such cases, the operating company should be able to produce evidence good faith efforts were made to provide stakeholders with opportunities to fully participate.</p> <p>Explanatory Note for 2.1.9.2: "where possible," means that efforts should be made to engage stakeholders whenever there are some who may be impacted by the mining project. It is recognized, however, that stakeholders may not be interested in participating in the collection of data for the ESIA, or in the development of strategies to mitigate predicted impacts. In such cases, the operating company should be able to produce evidence that good faith efforts that were made to encourage stakeholders to participate (e.g., opportunities were available and outreach occurred).</p> <p>Facilitation of participation may include the provision of information and explanations in local languages, using materials and approaches designed to be accessible to local communities (see also Chapter 2.8, Criteria 2.8.3), and providing capacity building or training on data collection methods, etc.</p> <p>In both the collection of data and development and implementation of mitigation strategies, efforts should be made to include participation by relevant stakeholders, including those who may be directly affected by particular social or environmental impacts, and also competent professionals (e.g., those working on behalf of affected communities or government agencies) who have expertise in the areas of concern. For example, for environmental issues, consultations with government agencies that the environment and natural resources, as well as non-government biologists, hydrologists, geologists or other appropriate scientists should be included when mitigation strategies are being developed and reviewed. Outreach efforts should be documented.</p>

¹²⁰ Facilitation of participation may include the provision of information and explanations in local languages, using materials and approaches designed to be accessible to local communities, and providing capacity building or training on methods. See also Chapter 2.8, Criteria 2.8.3.

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<p>2.1.9.3. The operating company shall provide for timely and effective stakeholder consultation, review and comment on the scope and design of the environmental and social monitoring program.</p>	<p>For 2.1.9.3 and 2.1.9.4: Interview the operating company and review documentation (e.g., stakeholder outreach communications, letters, presentations) and interview relevant stakeholders to confirm that stakeholders were provided with the opportunity to provide input on the scope and design of the monitoring program; and that stakeholders were encouraged to participate in the monitoring program (e.g., either as observers, or enabled to carry out independent monitoring with their own experts, etc.).</p>	<p>For 2.1.9.3:</p> <ul style="list-style-type: none"> • Documented plan for stakeholder consultations on the scope and design of the environmental and social monitoring program. • Documentation of actions, such as public postings (posters, signs, handbills), mailings, website information, public meetings, and other outreach designed to inform stakeholders about the opportunity to review and comment on the scope and design of the environmental and social monitoring program • Documentation of stakeholder consultation, review and comment on the scope and design of the environmental and social monitoring program. • Documentation of operating company responses to stakeholder participation and input. 	<p>Explanatory Note for 2.1.9.3: “timely and effective stakeholder consultation” means that sufficient time is given ahead of time for stakeholders to review draft or final materials, comment on them, and get feedback on comments from the company. The time required to review various components of the ESIA process will vary based on the capacity of the stakeholders. To ensure that enough time is provided and that consultation is as effective as possible, the operating company should check in with stakeholders, and provide more time if necessary.</p> <p>Stakeholders may not be interested in participating in these activities. In such cases, the operating company should be able to produce evidence that good faith efforts that were made to provide stakeholders with opportunities to fully participate.</p>
<p>2.1.9.4. The operating company shall encourage and facilitate stakeholder participation, where possible, in the implementation of the</p>	<p>For 2.1.9.3 and 2.1.9.4: Interview the operating company and review documentation (e.g., stakeholder outreach communications, letters, presentations) and interview relevant stakeholders to confirm that stakeholders were provided with the opportunity to provide input on</p>	<p>For 2.1.9.4:</p> <ul style="list-style-type: none"> • Documented plan for stakeholder participation in the environmental and social monitoring program. • Documentation of actions, such as public postings (posters, signs, handbills), letters, emails, website 	<p>Explanatory Note for 2.1.9.4: For monitoring programs, efforts should be made to include participation by relevant stakeholders, in particular those who may be directly affected by social or environmental impacts, and, if requested as per 2.1.8.3, independent experts working on behalf of affected communities.</p> <p>"where possible," means that efforts should be made to engage stakeholders whenever there are some who may be impacted by the</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>environmental and social monitoring program.¹²¹</p> <p>2.1.9.5. The operating company shall record all stakeholder comments received in relation to ESIA scoping; implementation; ESIA findings, conclusions and recommendations; and the environmental and social monitoring program. The company shall record how it responded to stakeholder comments.</p>	<p>the implementation of the monitoring program; and that stakeholders were encouraged to participate in the monitoring program (e.g., either as observers, or enabled to carry out independent monitoring with their own experts, etc.).</p> <p>For 2.1.9.5: Review documentation (e.g., records of comments and responses) related to stakeholder input during various stages of the ESIA.</p>	<p>information, public meetings, and other outreach designed to inform stakeholders about the opportunity for stakeholder participation in the environmental and social monitoring program.</p> <ul style="list-style-type: none"> • Documentation of stakeholder participation in the implementation of the environmental and social monitoring program. <p>For 2.1.9.5:</p> <ul style="list-style-type: none"> • Documentation of stakeholder reviews and comments. • Documentation of operating company responses to stakeholder input. 	<p>mining project. It is recognized, however, that stakeholders may not be interested in providing input on how a company might improve the implementation of the mine’s environmental and social monitoring program. In such cases, the operating company should be able to produce evidence that good faith efforts that were made to encourage stakeholders to participate (e.g., opportunities were available and outreach occurred).</p> <p>Facilitation of participation may include, for example, provision of:</p> <ul style="list-style-type: none"> information and explanations in local languages, using materials and approaches designed to be accessible to local communities (See also Chapter 2.8, Criteria 2.8.3) capacity building or training on monitoring methods community access to the mine site to participate in company monitoring activities or community-based independent monitoring activities funding to enable community participation. If funding is requested, then a mutually acceptable agreement for covering costs should be developed.

¹²¹ Facilitation of participation may include the provision of information and explanations in local languages, using materials and approaches designed to be accessible to local communities, and providing capacity building or training on methods. See also Chapter 2.8, Criteria 2.8.3.

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<p>2.1.10. Environmental and Social Disclosures and Reporting¹²²</p> <p>2.1.10.1. The ESIA report and any supporting data and analyses shall be made publicly available. Detailed assessments of some issues and impacts may be reported as stand-alone documents, but the ESIA report shall review and present the results of the full analysis in an integrated manner.</p> <p>2.1.10.2. The <u>operating company</u> shall make publicly available an anonymized version of the ESIA record of <u>stakeholder</u> comments and its own responses, including how each comment was taken into account.</p> <p>2.1.10.3. The environmental and social management plan shall be made available to <u>stakeholders</u> upon request.</p>	<p>For 2.1.10.1: Confirm public availability of ESIA reports and associated documentation and records.</p> <p>For 2.1.10.2: Confirm accessibility of public record of anonymized <u>stakeholder</u> comments and <u>operating company</u> responses.</p> <p>For 2.1.10.3: Confirm, through review of any policies or interviews with relevant company personnel, that environmental</p>	<p>For 2.1.10.1:</p> <ul style="list-style-type: none"> ESIA documents (e.g., draft and final reports and supplemental materials). Evidence that, at minimum, the final ESIA report and supplemental data are publicly available (e.g., links to website, locations of public facilities where copies are available, etc.). <p>For 2.1.10.2:</p> <ul style="list-style-type: none"> Documentation of all stakeholder comments received (with names/sources removed so as to be anonymous) and company responses (including how stakeholder comments were taken into account). Evidence that anonymized stakeholder comment data and company responses are publicly available (e.g., links to website, locations of public facilities where copies are available, etc.). <p>For 2.1.10.3:</p> <ul style="list-style-type: none"> Documentation of stakeholder requests for the environmental and social management plan and documentation 	<p>Explanatory Note for 2.1.10: See also IRMA Chapter 2.8 for requirements related to Communications and Access to Information (2.8.4), which apply to a company’s communications for this and all other IRMA chapters. In particular, requirement 1.2.4.3 requires that communications be carried out and information be provided to <u>stakeholders</u> in a timely manner, and be in formats and languages that are culturally appropriate and <u>accessible</u> to <u>affected communities</u> and <u>stakeholders</u>.</p> <p>Explanatory Note for 2.1.10.2: The <u>operating company's</u> responses to comments should be sufficiently robust so that the commenter and all <u>stakeholders</u> can understand the response and why/how/if the comment influenced the ESIA process or its results.</p> <p>Where multiple commenters raise the same issue the mine may summarize these into a cumulative discussion - so long as doing so does not eliminate distinctive points/issues.</p> <p>Although the public version of comments should be anonymized, the company should maintain records of commenters and their comments (not anonymous) in case there is the need to demonstrate veracity of the submission or its content.</p>

¹²² See Chapter 2.8 for requirements related to Communications and Access to Information (2.8.4).

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<p>2.1.10.4. Summary reports of the findings of the environmental and social monitoring program shall be made publicly available at least annually, and all data and methodologies related to the monitoring program shall be publicly available.</p>	<p>and social management plans are made available to <u>stakeholders</u> if requested.</p> <p>For 2.1.10.4: If relevant, confirm public availability of summary reports and other information and data from the monitoring program.</p>	<p>of the company having provided the plan in response.</p> <ul style="list-style-type: none"> Records of stakeholder complaints or grievances, related to failure of company to provide requested information, and any company follow-up to such complaints. <p>For 2.1.10.4:</p> <ul style="list-style-type: none"> Documentation that at least annually summary reports of findings of the environmental and social monitoring program(s) were made public (e.g., links to website, locations of public facilities where copies are available, etc.). Documentation that all data and methodologies related to the monitoring program are publicly available (e.g., links to website, locations of public facilities where copies are available, etc.). 	<p>Explanatory Note for 2.1.10.4: This includes summaries, methodologies and data for any and all environmental and social monitoring completed by the <u>operating company</u> and its <u>contractors</u>.</p> <p>For the purposes of this requirement, publicly available means that data are available on the internet (e.g., via the <u>operating company/mine's website</u>), at a public location (such as a library, government office, community center, etc.), or upon request from the <u>operating company</u>.</p>
<p>2.1.10.5. The existence of publicly available ESIA and ESMS information, and the means of accessing it, shall be publicized by appropriate means.¹²³</p>	<p>For 2.1.10.5: Interview <u>stakeholders</u> to confirm that they are aware of how to access ESIA-related information.</p>	<p>For 2.1.10.5:</p> <ul style="list-style-type: none"> Records of outreach (e.g., posters, signs, handbills, mailings, website information, public meetings, correspondence, and other appropriate modes of outreach) designed to inform stakeholders of availability of ESIA and ESMS information. 	<p>Explanatory Note for 2.1.10.5: “Appropriate means” refers to the need to publish information in formats and languages that are culturally appropriate, <u>accessible</u> and understandable to affected <u>stakeholders</u> as per Chapter 1.2.</p> <p><u>Existing mines</u> are not expected to publicize the existence of a publicly available ESIA, but they are expected to inform <u>stakeholders</u> of ESMS information.</p>

¹²³ E.g., local radio, leaflets, local meetings.

NOTES

Many jurisdictions have legal requirements for undertaking ESIA. Similarly, ESIA are often mandated by organizations that provide funding for projects (e.g., International Finance Corporation (IFC)/World Bank). The requirements of Chapter 2.1 align with the good practice requirements described by IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts.

Where documents and records produced in satisfaction of legal or other organization’s requirements also meet the requirements of the IRMA standard the operating company is not required to duplicate these. A company may choose to develop summaries and explanations of such documents and records in order to facilitate the IRMA audit process and thereby reduce its cost.

An ESIA that meets the requirements of this chapter is a critical step in informing interested and affected stakeholders and rights holders including, where applicable, indigenous peoples about a proposed mining project and its potential impacts, prior to decision-making. The fact that an effective ESIA has been designed and implemented does not imply that a mining project should necessarily proceed. With effective engagement of stakeholders, however, it should provide a sound basis for consideration as to whether a project should or should not proceed.

Cross References to Other Chapters	
CHAPTER	ISSUES
1.1—Legal Compliance	As mentioned in Chapter 1.1, companies are required to abide by <u>host country law</u> . Consequently, if there is an ESIA process mandated by a regulatory agency within the host country, the company will be required to participate in that process. However, if that process does not include some of the elements of the IRMA ESIA chapter, the <u>operating company</u> will be expected to demonstrate that measures were taken to meet the IRMA requirements, as well.
1.2—Community and Stakeholder Engagement	Requirement 1.2.2.3 specifically relates to <u>stakeholder</u> oversight of the company’s environmental and social performance, and consequently, is relevant to this chapter. Capacity building or training may be needed to ensure effective participation by <u>stakeholders</u> in the ESIA process (see 2.1.9). The primary reference for that requirement is 1.2.3 Strengthening Capacity, in Chapter 1.2. Disclosure of information shall meet the requirements of Chapter 1.2. In particular, information mentioned in 2.1.9 shall be in formats and languages that are culturally appropriate, accessible and understandable to affected <u>stakeholders</u> . See criterion 1.2.4 for more details.
1.3—Human Rights Due Diligence	If the infringement of human rights is predicted during ESIA, or if human rights were infringed during exploration, a company will be expected to prevent, <u>mitigate</u> predicted impacts and <u>remediate</u> the human rights impacts as per Chapter 1.3.
2.2—Free, Prior and Informed Consent	Implementation of ESIA requirements can be integrated with the <u>free, prior and informed consent</u> process described in Chapter 2.2. However, it should be emphasized that <u>indigenous peoples’</u> participation in the ESIA process, including in the consideration of proposals to <u>mitigate</u> expected impacts does not, of itself, imply consent, even if the recommended actions to minimize impacts are fully implemented.
2.3—Obtaining Community Support and Delivering Benefits	It is possible that some initial planning of the company’s contributions to community development initiatives and benefits may have been done during the ESIA process. If so, it is important that monitoring of the effectiveness of the community investment decisions occurs, and if necessary, additional planning occurs as per chapter 2.3.
2.5—Emergency Preparedness and Response	Potential impacts related to community safety, and <u>mitigation</u> strategies identified in the ESIA should feed into the Emergency Response Plan and planning processes described in Chapter 2.5.

Cross References to Other Chapters	
4.1—Waste and Materials Management	Potential impacts of the <u>mining project</u> on mine wastes and other materials should be scoped, at least in a general manner, during the ESIA process. Additionally, Chapter 4.1 requires a more in-depth assessment of potential chemical and physical risks related to mine wastes and other materials (see 4.1.2 and 4.1.3).
4.2—Water Management	Potential impacts of the <u>mining project</u> on water quality or quantity should be scoped during the ESIA process, or in a separate scoping process as Chapter 4.2, requirement 4.2.2.2. Chapter 4.2 also requires a more in-depth assessment of potentially significant impacts on water quality and quantity if potential impacts are identified during a screening/scoping process.
4.3—Air Quality Management	Potential impacts of the <u>mining project</u> on air quality may be scoped during the ESIA process, however, or in a separate screening project as per Chapter 4.3, requirement 4.3.1.1. Chapter 4.3 also requires a more in-depth assessment of potentially significant impacts on air quality if potential impacts are identified during a screening/scoping process.
4.4—Noise	IRMA Chapter 4.4—Noise and Vibration includes screening of impacts of noise and vibrations on human receptors, and this may be screened as part of the Environmental and Social Impact Assessment process. Noise-related impacts on wildlife, however, are not addressed in Chapter 4.4, and should be screened in the ESIA process, and if there are significant impacts identified, then those impacts should be mitigated as per the ESIA process (including consultations with relevant stakeholders, such as government biologists, wildlife conservation organizations, academic experts and community members whose livelihoods or sustenance may be affected by impacts on wildlife). Any related monitoring should occur as per the Environmental and Social Monitoring program.
Multiple chapters that require risk or impact assessment	There are numerous chapters in the IRMA Standard that require risk or impact assessments. These assessments may be integrated into the ESIA, if the timing works, and the relevant information and analyses are included in the ESIA. Information produced for other assessments may also feed into the ESIA process (i.e., collection of some data may have already occurred, as well as an analysis of potential significance of some issues). Conversely, if other assessments occur later than the ESIA, the data and analysis carried out for the ESIA may feed into those assessments. The following chapters include reference to risk or impact assessment: 1.3—Human Rights Due Diligence; 3.4—Mining and Conflict-Affected or High-Risk Areas; 3.5—Security Arrangements; 3.3—Community Health and Safety; 2.3—Obtaining Community Support and Delivering Benefits; 3.7—Cultural Heritage; 2.4—Resettlement; 2.6—Reclamation and Closure; 4.1—Waste and Materials Management; 4.2—Water Management; 4.3—Air Quality; 4.4—Noise and Vibration; 4.6— Biodiversity, Ecosystem Services and Protected Areas.
Multiple chapters that require monitoring	Several IRMA chapters have their own monitoring specifications, some of which may not entirely align with all of the ESIA monitoring requirements in Chapter 2.1. Where they differ, the chapter requirements take precedence. If there are no particular requirements, then the expectation is that any significant impacts related to those chapters will be captured in the ESIA monitoring program. The following chapters include references to monitoring: 3.1—Fair Labor and Terms of Work; 3.2—Occupational Health and Safety; 1.3—Human Rights Due Diligence; 3.4—Mining and Conflict Affected Areas; 3.5—Security Arrangements; 3.3—Community Health and Safety; 2.3—Obtaining Community Support and Delivering Benefits; 2.4—Resettlement; 2.6—Reclamation and Closure; 4.1—Waste and Materials Management; 4.2—Water Management; 4.3—Air Quality; 4.4—Noise and Vibration; 4.6—Biodiversity, Ecosystem Services and Protected Areas; 4.7—Cyanide Management; and 4.8—Mercury Management.

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the Glossary of Terms at the end of the IRMA Standard document.

Accessible

In reference to grievance mechanism or engagement processes, means being known to all stakeholder groups for whose use they are intended, and providing adequate assistance for those who may face particular barriers to access.

Affected Community

A community that is subject to risks or impacts from a project.

Artisanal and Small-Scale Mining (ASM)

Formal or informal operations with predominantly simplified forms of exploration, extraction, processing and transportation. ASM is normally low capital intensive and uses high labour intensive technology. ASM can include men and women working on an individual basis as well as those working in family groups, in partnership or as members of cooperatives or other types of legal associations and enterprises involving hundreds or thousands of miners. For example, it is common for work groups of 4-10 individuals, sometimes in family units, to share tasks at one single point of mineral extraction (e.g. excavating one tunnel). At the organisational level, groups of 30-300 miners are common, extracting jointly one mineral deposit (e.g. working in different tunnels), and sometimes sharing processing facilities.

Background Water Quality

Established after mining has commenced, it is the water quality in a similarly mineralized area outside of the mine's influence (e.g., surface water quality upstream of the mine site or upgradient for groundwater).

Baseline

A description of existing conditions to provide a starting point (e.g. pre-project condition) against which comparisons can be made (e.g. post-impact condition), allowing the change to be quantified.

Biodiversity/Biological Diversity

The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems

Competent Professionals

In-house staff or external consultants with relevant education, knowledge, proven experience, necessary skills and training to carry out the required work. Competent professionals would be expected to follow scientifically robust methodologies that would withstand scrutiny by other professionals. Other equivalent terms used may include: competent person, qualified person, qualified professional. For independent reviews (in IRMA Chapter 4.1) competent professionals must not be in-house staff.

Consultation

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. In principle, the company should take into account the concerns and views expressed by stakeholders in the final decision.

Corporate Owner(s)

The corporation(s) or other business institution(s) including any private or state-run enterprises that have complete or partial financial interest in or ownership of a mining project.

Critical Habitat

Areas with high biodiversity value, including but not necessarily limited to: (i) habitat of significant importance to critically endangered, endangered species; (ii) habitat of significant importance to endemic and/or restricted-range species; (iii) habitat supporting globally significant concentrations of migratory and/or congregatory species; (iv) highly threatened and/or unique ecosystems; and/or (v) areas associated with key evolutionary processes. Other recognized high biodiversity values might also support a critical habitat designation, based on case-by-case evaluation.

Cumulative Impacts

Additive, synergistic, interactive or nonlinear outcomes of multiple development or disturbance events that aggregate over time and space. Examples of cumulative impacts (or effects) may include: reduction of water flows in a watershed due to multiple withdrawals; increases in sediment loads to a watershed over time; interference with migratory routes or wildlife movement; or more traffic congestion and accidents due to increases in vehicular traffic on community roadways.

Ecosystem Services

The benefits people obtain from ecosystems. These include provisioning services such as food, water, timber, and fibre; regulating services that affect climate, floods, disease, wastes, and water quality; cultural services that provide recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation, photosynthesis, and nutrient cycling.

Existing Mine

A mine that was operational prior to the date that the IRMA standard was published in final (June 2018).

Human Rights Risks

Human rights risks are understood to be the business enterprise's potential adverse human rights impacts. (May also be referred to as potential human rights impacts).

Indigenous Peoples

An official definition of "indigenous" has not been adopted by the United Nations system due to the diversity of the world's indigenous peoples. Instead, a modern and inclusive understanding of "indigenous" includes peoples who: identify themselves and are recognized and accepted by their community as indigenous; demonstrate historical continuity with pre-colonial and/or pre-settler societies; have strong links to territories and surrounding natural resources; have distinct social, economic or political systems; maintain distinct languages, cultures and beliefs; form non-dominant groups of society; and resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities. In some regions, there may be a preference to use other terms such as: tribes, first peoples/nations, aboriginals, ethnic groups, Adivasi and Janajati. All such terms fall within this modern understanding of "indigenous."

Inform

The provision of information to inform stakeholders of a proposal, activity or decision. The information provided may be designed to help stakeholders in understanding an issue, alternatives, solutions or the decision-making process. Information flows are one-way. Information can flow either from the company to stakeholders or vice versa.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mitigation

Refers to actions taken to reduce the likelihood of a certain adverse impact occurring.

Mitigation Hierarchy

The mitigation hierarchy is a set of prioritized steps to alleviate environmental (or social) harm as far as possible through avoidance, minimization (or reduction) and restoration of adverse impacts. Compensation/offsetting are only considered to address residual impacts after appropriate avoidance, minimization and restoration measures have been applied. (See Glossary for full definition)

New Mine

A mine that becomes operational and applies for IRMA verification after the date that the IRMA standard was published in final (June 2018).

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Post-Closure

The period after the reclamation surety holder declares the activities required by the reclamation and closure plan are complete; any significant objections raised during the public comment period on the final release of the financial surety have been resolved; and the reclamation surety has been returned to the operator, or it has been converted to a post-closure trust fund or equivalent (i.e., if there is a need to fund long-term management and monitoring of the site). This phase continues until final sign-off and relinquishment can be obtained from the regulator and stakeholders.

Protected Area / Protected Area Management Categories (IUCN)

A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values. The definition is expanded by six “protected area management categories”. (For full definition, see IRMA Glossary)

Resettlement

Voluntary Resettlement: voluntary land transactions (i.e., market transactions in which the seller is not obliged to sell and the buyer cannot resort to expropriation or other compulsory procedures sanctioned by the legal system of the host country if negotiations fail).

Involuntary Resettlement: physical displacement (relocation or loss of shelter) and to economic displacement (loss of assets or access to assets that leads to loss of income sources or other means of livelihood) as a result of project-related land acquisition and/or restrictions on land use. Resettlement is considered involuntary when affected persons or communities do not have the right to refuse land acquisition or restrictions on land use that result in physical or economic displacement. This occurs in cases of (i) lawful expropriation or temporary or permanent restrictions on land use and (ii) negotiated settlements in which the buyer can resort to expropriation or impose legal restrictions on land use if negotiations with the seller fail.

Rights Holder

Rights holders are individuals or social groups that have particular entitlements in relation to specific duty bearers (e.g., State or non-state actors that have a particular obligation or responsibility to respect, promote and realize human rights and abstain from human rights violations). In general terms, all human beings are rights-holders under the Universal Declaration of Human Rights. In particular contexts, there are often specific social groups whose human rights are not fully realized, respected or protected.

Stakeholder

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Threatened Species

Species that meet the IUCN (2001) criteria for Vulnerable (VU), Endangered (EN) or Critically Endangered (CR), and are facing a high, very high or extremely high risk of extinction in the wild. These categories may be re-interpreted for IRMA purposes according to official national classifications (which have legal significance) and to local conditions and population densities (which should affect decisions about appropriate conservation measures).

Worker

All non-management personnel.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



Chapter 2.2—Free, Prior and Informed Consent (FPIC)

BACKGROUND

For more than a quarter century, the international community has recognized that special attention needs to be paid to the individual and collective rights of indigenous peoples.¹²⁴ The following rights of indigenous peoples are especially relevant in relation to industrial-scale mining developments:¹²⁵

- the right to self-determination, by virtue of which indigenous peoples freely determine their political status and pursue their economic, social and cultural development;
- rights to property, culture, religion, and non-discrimination in relation to lands, territories and natural resources, including sacred places and objects
- rights to health and physical well-being in relation to a clean and healthy environment
- rights to set and pursue their own priorities for development
- the right to make authoritative decisions about external projects or investments

Both States and corporations should respect these rights. Corporations may demonstrate such respect by obtaining the Free, Prior and Informed Consent (FPIC) of indigenous peoples and providing culturally appropriate alternatives and adequate compensation and benefits for projects that affect indigenous peoples' rights.¹²⁶

Key elements of the requirement for consent of indigenous peoples have been recognized by international law since 1989, when the General Conference of the International Labour Organization adopted Convention 169 on Indigenous and Tribal Peoples.¹²⁷ Since 1989, FPIC has gained broader application and more widespread support in national laws and various international instruments and bodies.¹²⁸

OBJECTIVES/INTENT OF THIS CHAPTER

TERMS USED IN THIS CHAPTER

Collaboration ■ Consultation ■ Corporate Owner ■ Critical Cultural Heritage ■ Existing Mine ■ Free, Prior and Informed Consent (FPIC) ■ FPIC Scoping ■ Grievance ■ Grievance Mechanism ■ Host Country Law ■ Indigenous Peoples ■ Mining Project ■ Mining-Related Activities ■ New Mine ■ Operating Company ■ Rights Holder ■ Stakeholder ■ Vulnerable Group ■

These terms appear in the text with a dashed underline and they are explained at the end of the

¹²⁴ UN. 2008. Guidelines on Indigenous Peoples' Issues. www.un.org/esa/socdev/unpfii/documents/UNDG_guidelines_EN.pdf

¹²⁵ Anaya, J. 2013. Extractive Industries and Indigenous Peoples. Report of the Special Rapporteur on the Rights of Indigenous Peoples. UN Doc. A/HRC/24/41. Para. 28. Available at: unsr.jamesanaya.org/study/report-a-hrc-24-41-extractive-industries-and-indigenous-peoples-report-of-the-special-rapporteur-on-the-rights-of-indigenous-peoples

¹²⁶ IFC. 2012. Performance Standard 7 Indigenous Peoples. Objectives and Paras. 9 and 14. Available at: www.ifc.org/wps/wcm/connect/1ee7038049a79139b845faa8c6a8312a/PS7_English_2012.pdf?MOD=AJPERES

¹²⁷ ILO. Convention 169. Available at: www.ilo.org/indigenous/Conventions/no169/lang--en/index.htm

¹²⁸ For a detailed discussion of recent international jurisprudence related to FPIC, see: Gilbert, J. and Doyle, C. 2011. "A New Dawn over the Land: Shedding Light on Collective Ownership and Consent." pp. 24-42. Available at: roar.uel.ac.uk/2648/1/A_New_Dawn_Over_the_Land_-_Shedding_Light_on_Collective_Ownership_and_Consent.pdf

To demonstrate respect for the rights, dignity, aspirations, culture, and livelihoods of indigenous peoples, participate in ongoing dialogue and engagement, and collaborate on strategies to minimize impacts and create benefits for indigenous peoples, thereby creating conditions that allow for indigenous peoples' free, prior and informed consent and decision-making regarding mining development.

SCOPE OF APPLICATION

Chapter Relevance: Operating companies may provide evidence that this chapter is not relevant if they can prove that there are no indigenous peoples whose legal or customary rights or interests may be affected by their exploration or mining activities, or potential mine expansions. Examples of rights or interests may include lands, territories and resources that indigenous peoples possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired; livelihood, cultural or spiritual activities or places; or critical cultural heritage.

New vs. Existing Mines: New mines shall meet the requirements in this chapter. At existing mines, where FPIC was not obtained in the past, operating companies will be expected to demonstrate that they are operating in a manner that seeks to achieve the objectives of this chapter. For example, companies may demonstrate that they have the free, informed consent of indigenous peoples for current operations by providing evidence of signed or otherwise verified agreements, or, in the absence of agreements, demonstrate that they have a process in place to respond to past and present community concerns and to remedy and/or compensate for past impacts on indigenous peoples' rights and interests. In alignment with this chapter, such processes should have been agreed to by indigenous peoples and evidence should be provided that agreements are being fully implemented by the companies.

Additionally, it should be noted that if there are human-rights-related impacts on indigenous peoples that have not been mitigated or remediated at existing mines, they will need to be addressed as per Chapter 1.3; and other unremediated impacts may be addressed through the operational-level grievance mechanism as per Chapter 1.4. (See also the "Cross Reference to Other Chapters" table in the Notes Section below.)

Both new and existing mines shall obtain the free, prior and informed consent of indigenous peoples if there are proposed changes to the company's plans or activities that may significantly change the nature or degree of an existing impact, or result in additional impacts on indigenous peoples' rights, lands, territories, resources, properties, livelihoods, cultures or religions.

Overlap with National Laws: The State always holds the primary duty to protect indigenous peoples' rights. Nothing in this chapter is intended to reduce the primary responsibility of the State to consult with indigenous peoples in order to obtain their FPIC and protect their rights. However, IRMA recognizes that in the absence of national laws, or in the exercise of their right to self-determination, some indigenous peoples may wish to engage with companies without State involvement.

As per Chapter 1.1, if national FPIC laws exist, companies shall abide by those laws. Where a host government has established an existing legislative framework that requires or enables agreements between mining companies and indigenous communities (as in Australia), it may not be necessary for companies to run a parallel FPIC process based on the requirements of this chapter. It would, however, be necessary for the company demonstrate to IRMA auditors that the process whereby the agreement was reached conformed with or exceeded the IRMA FPIC requirements and the general intent of this chapter (for example, there was no express or implied threat to invoke compulsory powers if agreement could not be reached, and the community was advised at the outset that the company would not undertake an activity in the absence of community consent).

CRITICAL REQUIREMENTS IN THIS CHAPTER

New mine sites have obtained the FPIC of indigenous peoples, and existing mines either have obtained FPIC or can demonstrate that they are operating in a manner that supports positive relationships with affected indigenous peoples and provides remedies for past impacts on indigenous peoples' rights and interests (2.2.2.2 and scope of application).

Free, Prior and Informed Consent (FPIC) Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>2.2.1. Policy Commitment</p> <p>2.2.1.1. The operating company shall have a publicly available policy that includes a statement of the company’s respect for indigenous peoples’ rights, as set out in the United Nations Declaration on the Rights of Indigenous peoples.¹²⁹</p>	<p>Auditing Note for Chapter 2.2.1: For auditing purposes, “indigenous peoples’ representatives” may be representatives from the indigenous peoples’ representative bodies/governing structures/governing institutions and/or representatives chosen by the peoples themselves in accordance with their own procedures. Ideally, interviews will include indigenous peoples’ representatives and individuals from the project area, as well as those who were engaged in the FPIC process or who have knowledge of the process, and/or those responsible for monitoring FPIC implementation.</p> <p>For 2.2.1.1: Interview operating company to confirm that a policy is in place and that it is known and understood by relevant employees and contractors (e.g., those who may interact with indigenous peoples in the course of their work, those carrying out assessments or studies, those involved in stakeholder/rights holder</p>	<p>For 2.2.1.1:</p> <ul style="list-style-type: none"> • Operating company or corporate owner Indigenous Peoples' Policy (or equivalent). • Public statements or commitments expressed in company materials to respect indigenous peoples’ rights. 	<p>Explanatory Note for 2.2.1.1: It is recognized that many larger mining corporations have policies in place that include statements on respecting indigenous peoples’ rights, such as human rights policies or specific policies related to indigenous peoples. If an operating company’s corporate owner or parent has such a policy in place, it will suffice, as long as it has been communicated to the indigenous peoples potentially affected by the mining project being assessed against the IRMA standard, and relevant employees at the operations/mine-site level are aware of the policy and its implications in their work.</p>

¹²⁹ United Nations Declaration on the Rights of Indigenous Peoples. Available at: www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>2.2.1.2. The operating company shall ensure that indigenous peoples potentially affected by the company's mining-related activities are aware of the policy.</p>	<p>engagement, etc.). Also, confirm that the company has made the policy publicly available (review website, consult with company on other public availability such as at libraries, distributed at meetings, etc.).</p> <p>For 2.2.1.2: Review minutes from meetings where policy was discussed with indigenous peoples; interview indigenous peoples' representatives to confirm that they were made aware of the policy.</p>	<p>For 2.2.1.2:</p> <ul style="list-style-type: none"> Documentation of outreach efforts (e.g., advertisement of policy; distribution of policy, meetings where policy was discussed, etc.) undertaken to inform indigenous peoples of a policy that addresses indigenous peoples' rights. 	<p>Explanatory Note re: 2.2.1.2: The intent of this requirement is that a "reasonable effort" be made to inform a broad-range of members of indigenous peoples' communities that the company has a policy that includes how the company relates to indigenous peoples.</p> <p>A "reasonable effort" to inform indigenous peoples about the policy implies that the company's outreach, such as advertising of informational meetings and dissemination of the policy is done in a manner likely to reach a broad-base of potentially affected indigenous peoples.</p> <p>For example, if informational meetings are held they should occur during times of year and times of day that are appropriate to reach a broad-base of members of affected communities (e.g., not held during harvest season or hunting season when large segments of affected communities might be unable to attend meetings; or not held during hours when many would be at work). Similarly, written/paper postings on flyers, posters, or mail; newspaper ads, radio or other media; and all other forms of information dissemination should be culturally appropriate and attentive to the needs of those indigenous peoples most likely to be impacted by or interested in the mine.</p> <p>NOTE: No outreach should be made to indigenous peoples who are living in voluntary isolation. If there is the potential that new exploration or mining to affect the culture, livelihoods, territory or resources of indigenous peoples living in voluntary isolation, such activities should not proceed. The requirement that FPIC be free from external manipulation, coercion and intimidation, which is likely to occur with unwanted or uninvited contact from a company, means that an FPIC process cannot be undertaken in</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>2.2.2. General Requirements</p> <p>2.2.2.1. The operating company shall conduct due diligence to determine if the host government conducted an adequate <u>consultation</u> process aimed at obtaining <u>indigenous peoples'</u> informed consent prior to granting access to mineral resources. The key findings of due diligence assessments shall be made publicly available and shall include the company's justification for proceeding with a project if the State failed to fulfill its <u>consultation</u> and/or consent duties.¹³¹</p>	<p>For 2.2.2.1: Review company's due diligence assessment, and interview company and <u>indigenous peoples'</u> representatives to determine if the State (host country) fulfilled its own responsibility to respect FPIC. If the host government did not carry out its duties to consult with <u>indigenous peoples</u> prior to granting mineral concessions, confirm that the <u>operating company</u> made publicly available its justification, e.g., a written statement, for proceeding with a <u>mining project</u>.</p>	<p>For 2.2.2.1:</p> <ul style="list-style-type: none"> • Legal analysis of the host government (State) laws or policies related to FPIC for indigenous peoples. • Report on whether or not the host country carried out consultation and/or consent processes with potentially affected indigenous peoples prior to granting access to mineral resources (e.g., leasing minerals to private companies, offering mineral concessions, issuing exploration licenses, etc.). • Documentation of communications of findings from company due diligence research (e.g., minutes from public meetings with stakeholders and rights holders where information was shared, internet link to summary of findings, correspondence with 	<p>situations where indigenous or tribal peoples are living in voluntary isolation, as any attempt to obtain consent would be inappropriate.¹³⁰</p> <p>Related, a site cannot meet certain requirements if <u>affected communities</u> include <u>indigenous peoples</u> living in voluntary isolation. (See IRMA Chapter 3.7, requirement 3.7.5.5)</p> <p>Explanatory Note re: 2.2.2.1: The State (i.e., host government) always holds the primary duty to protect <u>indigenous peoples'</u> rights. Nothing in this chapter is intended to reduce the primary responsibility of the State to consult with <u>indigenous peoples</u> in order to obtain their <u>free, prior and informed consent</u> (FPIC) before allowing the development of mineral resources that may affect indigenous peoples' rights and interests.</p> <p>However, IRMA recognizes that in the absence of national laws, or in the exercise of their right to self-determination, some <u>indigenous peoples</u> may wish to engage with companies without State involvement, or despite the fact that the State has not upheld its responsibility to consult with the <u>indigenous peoples</u> regarding proposed mineral extraction and development.</p> <p>As noted by the UN Special Rapporteur on the rights of <u>indigenous peoples</u>, mining company due diligence: "...entails ensuring that the company is not contributing to or benefiting from any failure on the part of the State to meet its international obligations towards <u>indigenous peoples</u>. Thus, for example, extractive companies should avoid accepting permits or concessions from States when prior <u>consultation</u> and consent requirements have not been met."¹³²</p>

¹³⁰ Doyle, C. and Carino, J. 2014. Making Free Prior & Informed Consent a Reality: Indigenous Peoples and the Extractive Sector. p. 12. <http://www.ecojesuit.com/wp-content/uploads/2014/09/Making-FPIC-a-Reality-Report.pdf>, and UN Global Compact. 2012. A Business Reference Guide: UN Declaration on the Rights of Indigenous Peoples. p. 24. <http://solutions-network.org/site-fpic/files/2012/09/UN-declaration-on-IR.pdf>

¹³¹ The company shall make all documents relating to the due diligence process available to the IRMA auditor for review.

¹³² Anaya, J. 2013. *Extractive industries and Indigenous Peoples*. Report of the Special Rapporteur on the Rights of Indigenous Peoples. UN Doc. A/HRC/24/41, Para. 55. <http://unsr.jamesanaya.org/study/report-a-hrc-24-41-extractive-industries-and-indigenous-peoples-report-of-the-special-rapporteur-on-the-rights-of-indigenous-peoples>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>2.2.2.2. (Critical Requirement) <u>New mines</u> shall not be certified by IRMA unless they have obtained the <u>free, prior and informed consent (FPIC)</u> of potentially affected <u>indigenous peoples</u>.¹³³ The circumstances for obtaining FPIC include situations where <u>mining-related activities</u> may affect <u>indigenous peoples’ rights</u>¹³⁴ or interests, including</p>	<p>For 2.2.2.2: Interview <u>operating company</u> and <u>indigenous peoples’</u> representatives to determine if the company has complied with the relevant requirements in this criterion.</p>	<p>stakeholders and rights holders sharing the information, etc.).</p> <p>For 2.2.2.2:</p> <ul style="list-style-type: none"> • Written or other evidence the mine has obtained FPIC from indigenous peoples. • Legal or other analysis of the potential for the mining project to affect the rights and/or interests of indigenous peoples. • Consultation procedures. • Complaints and grievance 	<p>If the host government did not carry out its duties to consult with <u>indigenous peoples</u> prior to granting mineral concessions, must provide publicly available justification (e.g., a written statement) for proceeding with the project despite the host country's failure to exercise its duties. Justification could include, for example, that the company is committed to implementing an agreed <u>free, prior and informed consent</u> process with indigenous peoples and mutually-agreed <u>remediation</u> for past impacts (e.g., those experienced during mineral exploration or before consent was achieved from <u>indigenous peoples</u> for mineral development).</p> <p>It should be noted that even if the host government consulted with indigenous peoples there may not have been agreement between the government and indigenous peoples regarding if and how mineral development should proceed. In such cases, the operating company should carefully manage its relationships with the host government and indigenous peoples to prevent contributing to conflicts.</p> <p>Explanatory Note re: 2.2.2.2: This requirement only applies at <u>new mines</u> that have the potential to affect the interests or rights of <u>indigenous peoples</u>. If there are no <u>indigenous peoples</u> who may be affected, then there is no need to obtain FPIC. Instead, requirements in Chapter 2.3 apply.</p> <p>In situations where there are distinct groups of indigenous peoples (i.e., groups who collectively have the right to free, prior and informed consent) that may be affected by the <u>operating company’s mining-related activities</u>, each group must give its consent. (See also 2.2.4.1)</p> <p>At <u>existing mines</u>, where FPIC was not obtained in the past, <u>operating companies</u> will be expected to demonstrate that they are operating in a manner that seeks to achieve the objectives of this chapter. For example,</p>

¹³³ This requirement only applies at new mines that have the potential to affect the interests or rights of indigenous peoples. If there are no indigenous peoples who may be affected, then there is no need to obtain FPIC. Instead, requirements in Chapter 2.3 apply.

¹³⁴ Indigenous peoples’ rights include traditional rights, which are defined as “Rights which result from a long series of habitual or customary actions, constantly repeated, which have, by such repetition and by uninterrupted acquiescence, acquired the force of a law within a geographical or sociological unit. It also encompasses the rights of Indigenous and Tribal Peoples established by the ILO Convention 169.” (Source: Forest Stewardship Council)

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>those that may: impact on lands, territories and resources;¹³⁵ require the physical relocation of people; cause disruption to traditional livelihoods; impact on <u>critical cultural heritage</u>; or involve the use of cultural heritage for commercial purposes.</p>		<p>procedures.</p> <ul style="list-style-type: none"> Records of complaints or grievances. Correspondence with affected indigenous peoples related to complaints and grievance procedures, consultation procedures, individual complaints or grievances and/or proposed mitigation/remediation measures for mining-related impacts that affect indigenous peoples 	<p>companies may demonstrate that they have the free, informed consent of <u>indigenous peoples</u> for current operations by providing evidence of signed or otherwise verified agreements, or, in the absence of agreements, demonstrate that they have a process in place to respond to past and present community concerns and to <u>remedy</u> and/or compensate for past impacts on <u>indigenous peoples'</u> rights and interests. In alignment with this chapter, such processes should have been agreed to by <u>indigenous peoples</u> and evidence should be provided that agreements are being fully implemented by the companies.</p> <p><u>FPIC</u>, in the context of this standard, requires that:</p> <ul style="list-style-type: none"> Engagement with <u>indigenous peoples</u> be free from external manipulation, coercion and intimidation; Potentially affected <u>indigenous peoples</u> be notified that their consent will be sought, and that notification occur sufficiently in advance of commencement of any <u>mining-related activities</u>; There is full disclosure of information regarding all aspects of the proposed <u>mining project</u> in a manner that is accessible and understandable to the <u>indigenous peoples</u>; and <u>Indigenous peoples</u> can fully approve, partially or conditionally approve, or reject a project or activity, and companies will abide by the decision. <p>NOTE: Because of the requirement that <u>FPIC</u> be free from external manipulation, coercion and intimidation, an <u>FPIC</u> process cannot be undertaken in situations where indigenous or tribal peoples are living in voluntary isolation. Related, a site cannot meet certain requirements if <u>affected communities</u> include <u>indigenous peoples</u> living in voluntary isolation. (See IRMA Chapter 3.7, requirement 3.7.5.5).</p> <p>Re: "The circumstances for obtaining <u>FPIC</u> include situations where <u>mining-related activities</u> may affect <u>indigenous peoples'</u> rights." Indigenous</p>

¹³⁵ These include lands, territories and resources that indigenous peoples possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired.

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<p>2.2.2.3. For new and existing mines, the operating company shall obtain FPIC from indigenous peoples for proposed changes to mining-related activities that may result in new or increased impacts on indigenous peoples' rights or interests.</p>	<p>For 2.2.2.3: Interview company and indigenous peoples to determine if there have been any changes to the mining project since FPIC was first obtained that were deemed significant enough to warrant a subsequent FPIC process. If so, confirm that another FPIC process was initiated, that a mutually-agreed process was followed, and that consent from the indigenous peoples was obtained prior to proceeding with the changes.</p>	<p>For 2.2.2.3:</p> <ul style="list-style-type: none"> • Written or other evidence the mine has obtained FPIC from indigenous peoples for proposed changes to mining operations. 	<p>peoples' rights include traditional rights, which are defined as, "Rights which result from a long series of habitual or customary actions, constantly repeated, which have, by such repetition and by uninterrupted acquiescence, acquired the force of a law within a geographical or sociological unit."¹³⁶ Rights also encompasses the rights of Indigenous and Tribal Peoples established by the ILO Convention 169, and rights recognized in the UN Declaration on the Rights of Indigenous Peoples.¹³⁷</p> <p>Re: "...situations mining-related activities may. . . impact lands, territories and resources" include lands, territories and resources that indigenous peoples possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired.</p> <p>Explanatory Note re: 2.2.2.3: There may be a desire on the part of indigenous peoples to establish different FPIC processes for different stages of development (e.g., exploration, mining, mine closure and reclamation) or based on various triggers (e.g., major expansion of the mine).</p> <p>The original FPIC process (see 2.2.4) or FPIC agreement may have included some thresholds/triggers for when future FPIC might be required, i.e., outlined what sorts of new impacts or changes might trigger FPIC, and what sort of processes might be followed for different types/severity of impacts, e.g., perhaps low-impact changes involve only information-sharing, while large-impacts like mine expansions initiate full FPIC process). If these details were not included, then the operating company should consult with indigenous peoples prior to any change that may result in new or increased impacts on indigenous peoples' rights or interests to see if the indigenous peoples expect a new FPIC process to be initiated.</p>

¹³⁶ Forest Stewardship Council. Principles and Criteria. <https://ic.fsc.org/preview.fsc-principles-and-criteria-for-forest-stewardship-fsc-std-01-001-v5-2-en-print-version.a-4843.pdf>

¹³⁷ ILO Convention 169 – Indigenous and Tribal Peoples Convention, 1989 (No. 169). http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C169; and United Nations Declaration on the Rights of Indigenous Peoples. http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf

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<p>2.2.2.4. If indigenous peoples' representatives clearly communicate, at any point during engagement with the operating company, that they do not wish to proceed with FPIC-related discussions, the company shall recognize that it does not have consent, and shall cease to pursue any proposed activities affecting the rights or interests of the indigenous peoples. The company may approach indigenous peoples to renew discussions only if agreed to by the indigenous peoples' representatives.</p>	<p>For 2.2.2.4: Interview from the indigenous peoples' representatives to determine if they put a stop to an FPIC process. If so, and the company proceeded with the mining project without FPIC, then this requirement is not met. If the company respected the indigenous peoples' request to stop the process, but later sought re-engagement and it was agreed by the indigenous peoples, then this requirement can be granted if the company meets the requirements in the remainder of this chapter.</p>	<p>For 2.2.2.4:</p> <ul style="list-style-type: none"> • Communications from indigenous peoples requesting or demanding that FPIC discussions relating to the mining project not proceed. • Evidence that the operating company ceased pursuing the proposed mining project after receiving communications from indigenous peoples requesting that FPIC process be stopped. • Communications from indigenous peoples expressing that they are open to renewing FPIC discussions related to the proposed mining project. 	<p>If indigenous peoples express in writing (or through other means that can be verified by an auditor) that the operating company does not require their consent, then this requirement may be waived.</p> <p>Explanatory Note re: 2.2.2.4: "indigenous peoples' representatives" may be representatives from the indigenous peoples' representative bodies/governing structures/governing institutions and/or representatives chosen by the peoples themselves in accordance with their own procedures.</p> <p>Indigenous peoples are not under any obligation to participate in free, prior and informed consent (FPIC) processes if they have already determined they do not wish for extractive projects to go forward.</p> <p>NOTE: No outreach should be made to indigenous peoples who are living in voluntary isolation, regardless of whether or not they themselves have communicated that to the company. (See also Chapter 3.7, requirement 3.7.5.5).</p> <p>A 2013 report by former UN Special Rapporteur on Indigenous Peoples, James Anaya, states:</p> <p>"States should not insist, or allow companies to insist, that indigenous peoples engage in consultations about proposed extractive projects to which they have clearly expressed opposition. As is now well understood, States have the obligation to consult with indigenous peoples about decisions that affect them, including decisions about extractive projects. In complying with this obligation States are required to make available to indigenous peoples adequate consultation procedures that comply with international standards and to reasonably encourage indigenous peoples to engage in the procedures. . . In the view of the Special Rapporteur, however, when States make efforts to consult about projects and, for their part, the indigenous peoples concerned unambiguously oppose the proposed projects and decline to engage in consultations, as has happened in several countries, the States' obligation to consult is discharged. In such</p>

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<p>2.2.3. Free, Prior and Informed Consent (FPIC) Scoping</p>	<p>For 2.2.3.1.a: Review company documentation regarding identification of indigenous peoples potentially affected by the proposed activities.</p>	<p>For 2.2.3.1:</p> <ul style="list-style-type: none"> Records of meetings and other forms of consultations with indigenous 	<p>cases, neither States nor companies need or should insist on consultations, while, at the same time, they must understand that the situation is one in which indigenous peoples have affirmatively withheld their consent." ¹³⁸</p> <p>In some cases, indigenous peoples may be open to re-examining a mining project and re-initiating an FPIC process with a company after a period of time, or if changes have been made to the company's original plans, etc. In other cases, however, the indigenous peoples may never wish to re-open FPIC discussions for a proposed project. Companies should be respectful of the indigenous peoples' wishes regarding if and how soon after an unsuccessful FPIC process they may approach the indigenous peoples about initiating a new FPIC process.</p> <p>In the Philippines, if an Indigenous Peoples (IP) community rejects a mining exploration proposal, they may "state in the document of rejection whether or not they shall entertain alternative proposals of similar nature. Any alternative proposal shall be subject to another FPIC of the IP. However, no FPIC process shall be repeated once a particular proposal has already been rejected by the IP." ¹³⁹</p> <p>If there are requirements that are part of a host-county's regulatory regime, such as those mentioned for the Philippines, above, then a company would be expected to adhere to that country's requirements, unless the indigenous peoples specifically communicate a divergent opinion – in which case, IRMA would expect the company to respect the indigenous peoples' wishes.</p> <p>Explanatory Note for 2.2.3.1: Free, Prior and Informed Consent (FPIC) scoping refers to the identification of the indigenous peoples that need to be involved in an FPIC process, and an evaluation of the information and</p>

¹³⁸ Anaya, J. 2013. Extractive Industries and Indigenous Peoples. Report of the Special Rapporteur on the Rights of Indigenous Peoples. UN Doc. A/HRC/24/41. Para. 25. <http://unsr.jamesanaya.org/study/report-a-hrc-24-41-extractive-industries-and-indigenous-peoples-report-of-the-special-rapporteur-on-the-rights-of-indigenous-peoples>

¹³⁹ International Finance Corporation (IFC) Office of Compliance Advisor. 2012. Ombudsman Assessment Report - Regarding Community and Civil Society Concerns in Relation to IFC's Mindoro Resources Project. p. 9. http://www.cao-ombudsman.org/cases/document-links/documents/AssessmentReport_MRL_May2012_ENG.pdf

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<p>2.2.3.1. The <u>operating company</u> shall:</p> <p>a. Consult with <u>indigenous peoples</u> and others, and review other relevant data to identify <u>indigenous peoples</u> that own, occupy or otherwise use land, territories or resources that may be affected by the <u>mining project</u>;</p> <p>b. Disclose to <u>indigenous peoples</u>, in a culturally appropriate manner, the preliminary project concepts and/or proposed activities, and the <u>indigenous peoples'</u> right to <u>FPIC</u>.</p>	<p>Documentation may include the company's methodology or criteria for defining <u>indigenous peoples</u>; a list of studies undertaken or information reviewed to identify <u>indigenous peoples</u> in the project area. Confirm through review of meeting minutes or other records that there were <u>consultations</u> with <u>indigenous peoples</u> and potentially others (e.g., civil society, academics, government officials and others with expertise on <u>indigenous peoples'</u> populations in the area of interest).</p> <p>For 2.2.3.1.b, interview company representatives and <u>indigenous peoples'</u> representatives to confirm that information about the project was conveyed by the operating company in a culturally appropriate manner (e.g., in languages and using terminology and formats that could be understood by the <u>indigenous peoples</u>).</p>	<p>peoples or others who were consulted to help identify potentially affected indigenous peoples.</p> <ul style="list-style-type: none"> • Lists of documents reviewed during the identification of potentially affected indigenous peoples. • Documents, websites or other materials used by the operating company to disclose/inform indigenous peoples about the mining project concepts and proposed activities. • Records of meetings, presentations or other venues where the operating company disclosed to indigenous peoples any project information and/or discussed or provided information about indigenous peoples' right to FPIC. 	<p>capacity needs that must be addressed in order for <u>indigenous peoples</u> to make a <u>free, prior and informed consent</u> decision. The scoping process may be integrated into the <u>free, prior and informed consent (FPIC)</u> process (see 2.2.4).</p> <p>During the identification of <u>indigenous peoples</u>, companies should be aware that:</p> <p>There may be more than one population of community of <u>indigenous peoples</u> who may be affected by the company's activities. Efforts should be made to identify all groups of <u>indigenous peoples</u> that may be affected by a proposed <u>mining project</u>. If efforts are not made to tap into the local knowledge of <u>indigenous peoples</u> and other resources, there is a chance that the <u>operating company</u> may miss some groups of <u>indigenous peoples</u> that own, occupy or otherwise use the land, territories or resources that may be affected by the <u>mining project</u> (e.g., those living in remote areas, those who only seasonally occupy or use lands or resources).</p> <p>There may be existing conflicts within or between groups of indigenous peoples. Companies should carry out due diligence to understand potential divisions and conflicts between indigenous peoples' groups (or within a group of indigenous peoples) and take care to avoid exacerbating conflicts during the scoping process.</p> <p>There may be <u>indigenous peoples</u> who are not recognized as such by the state. For example, very few African states officially recognize <u>indigenous peoples</u> in their constitutions and domestic laws, yet there are dozens of groups within Africa who self-identify as indigenous peoples.¹⁴⁰ As expressed in the IRMA definition of <u>indigenous peoples</u>, the IRMA Standard follows the lead of the United Nations' Permanent Forum on Indigenous Peoples, the ILO Convention 169, and others that hold the view that self-identification by a peoples, rather than the State, is a fundamental criterion (although not sufficient in itself) for the identification of indigenous and</p>

¹⁴⁰ Working Group on Indigenous Populations/Communities in Africa (WGIP/CA). Oct. 2012. Intersession Report of the Working Group. 52nd Ordinary Session of the African Commission on Human and Peoples' Rights. Para.46. <http://www.achpr.org/sessions/52nd/intersession-activity-reports/indigenous-populations/> and African Commission on Human and Peoples' Rights (ACHPR). 2006. Indigenous People in Africa: The Forgotten Peoples? pp. 15, 16. <http://www.achpr.org/mechanisms/indigenous-populations/wg-report-summary/>

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			<p>tribal peoples.</p> <p>There may be <u>indigenous peoples</u> who do not hold formal legal title to land and resources, however, <u>indigenous peoples'</u> rights to lands and resources need to be respected whether or not they are explicitly recognized by a national government. For example:</p> <p>In 2004, the Inter-American Commission on Human Rights acknowledged that property rights are not only those that are already recognized by states or defined by their internal legislation; the right of indigenous and tribal peoples and their members to property has an autonomous meaning and foundation in International Human Rights Law.</p> <p>In 2010, the African Commission on Human and Peoples' Rights concluded that, "traditional possession of land by indigenous peoples has the equivalent effect as that of a state-granted full property title."</p> <p>The International Finance Corporation requires companies to obtain FPIC from indigenous peoples under various situations including if there are impacts on lands and natural resources subject to traditional ownership or under customary use. "Customary use of land and resources refers to patterns of long-standing community land and resource use in accordance with Indigenous Peoples' customary laws, values, customs, and traditions, including seasonal or cyclical use, rather than formal legal title to land and resources issued by the state."¹⁴¹</p> <p>As per IRMA Chapter 1.2, conveyance of information in a "culturally appropriate" manner refers to using methods, languages, terminology and formats that are respectful of and aligned with communication styles and cultural norms of the <u>affected communities</u>. <u>Indigenous peoples</u> can help to define for the company what is considered culturally appropriate. Some <u>indigenous peoples</u> have developed <u>community consultation</u> protocols or policies that outline how external actors (governments, companies, NGOs, researchers) are expected to engage with them in the context of activities that could impact their land or natural resources. In the absence of any formal protocols, <u>operating companies</u> could <u>consult</u> with external experts</p>

¹⁴¹ International Finance Corporation (IFC). 2012. Guidance Note on Performance Standard 7: Indigenous Peoples. GN42. https://www.ifc.org/wps/wcm/connect/50eed180498009f9a89bfa336b93d75f/Updated_GN7-2012%20pdf?MOD=AJPERES

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<p>2.2.3.2. The operating company shall collaborate with indigenous peoples' representatives and other relevant members of affected communities of indigenous peoples to:</p> <ol style="list-style-type: none"> Identify the appropriate means of engagement for each group of indigenous peoples (e.g., tribe, nation, population); Identify indigenous peoples' rights and interests that may be affected by the proposed activities; Identify additional studies or assessments needed to determine the range and degree of potential impacts on indigenous peoples' rights or interests; and Identify if there are capacity issues that may prevent full and informed participation of indigenous peoples. If issues are identified, the operating 	<p>For 2.2.3.2: Interview operating company representatives and indigenous peoples' representatives to confirm that there was collaboration (e.g., through meetings, discussions, community forums, workshops, technical working groups, etc.) to:</p> <ul style="list-style-type: none"> Identify the appropriate means of engagement for each group of indigenous peoples. Note that there may be different engagement approaches for different distinct groups, or even sub-groups. There may also be different engagement processes for different tasks (e.g., there may be different indigenous peoples' representatives involved in the FPIC negotiations than in identifying the rights and interests of the indigenous peoples; and/or there may be broad community participation in certain aspects of the process. Interview indigenous peoples' representatives to determine if the company inquired about or was informed about any existing indigenous peoples' engagement procedures (i.e., a formal protocol) or how preferred engagement was otherwise conveyed to the company and agreement reached with the company. 	<p>For 2.2.3.2:</p> <ul style="list-style-type: none"> Records of meetings and other forums with indigenous peoples' representatives and other indigenous community members where the issues in 2.2.3.2.a through d were discussed. Records of input provided by indigenous peoples on the issues in 2.2.3.2.a through d. Records of various types of outreach undertaken to create meaningful opportunities for engagement for all affected indigenous community members (including those who are vulnerable or marginalized). 	<p>or others for suggestions of how to initiate engagement, and whom to engage in indigenous peoples' communities.</p> <p>Explanatory Note for 2.2.3.2: Free, Prior and Informed Consent (FPIC) scoping refers to the identification of the indigenous peoples that need to be involved in an FPIC process, and an evaluation of the information and capacity needs that must be addressed in order for indigenous peoples to make a free, prior and informed consent decision. The scoping process may be integrated into the free, prior and informed consent (FPIC) process (see 2.2.4).</p> <p>Explanatory Note for 2.2.3.2.a: There may be more than one distinct group of indigenous peoples potentially affected by mining-related activities. These distinct groups may be set apart from others in the same region by language, cultural traditions, social norms, political organization, territories and/or through self-identification as such, and may sometimes be referred to as nations, tribes, peoples, populations, communities or some other grouping.</p> <p>Each indigenous peoples' group is likely to have its own preferred means of engagement. As described by the UN Special Rapporteur on the Rights of Indigenous Peoples: "A defining characteristic of indigenous peoples is the existence of their own institutions of representation and decision-making, and it must be understood that this feature makes consultations with indigenous peoples very different from consultations with the general public or from ordinary processes of State or corporate community engagement."¹⁴²</p> <p>Some indigenous peoples have developed community consultation protocols or policies that outline how external actors (other governments, companies, NGOs, researchers) are expected to engage with them in the</p>

¹⁴² Anaya, J. 2013. Extractive Industries and Indigenous Peoples. Report of the Special Rapporteur on the Rights of Indigenous Peoples. UN Doc. A/HRC/24/41. <http://unsr.jamesanaya.org/study/report-a-hrc-24-41-extractive-industries-and-indigenous-peoples-report-of-the-special-rapporteur-on-the-rights-of-indigenous-peoples>

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<p>company shall provide funding or facilitate other means to enable indigenous peoples to address capacity issues in their preferred manner; and</p> <p>e. Ensure that the community as a whole/collective has meaningful opportunities to be involved in these processes.</p>	<ul style="list-style-type: none"> Identify the scope of indigenous peoples' rights and interests affected by the project. Collaboration may have taken the form of meetings, participatory mapping of territories and resources, etc. Rights and interests may include but are not limited to lands, territories and resources that indigenous peoples possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired; indigenous peoples' livelihood or spiritual activities; and their critical cultural heritage; <p>For 2.2.3.2.e: Interview operating company to determine if it conducted due diligence on whether or not the indigenous peoples' engagement and decision-making processes involve women and vulnerable/marginalized groups; and if they do not, whether attempts were made to develop some mutually acceptable processes with indigenous peoples' representative institutions to foster greater engagement of the broader community. Interview indigenous peoples' representatives, including, if possible, women and representatives of vulnerable groups or minority groups (e.g., the elderly, youth, children, economically disadvantaged, etc.) to confirm that efforts have been made to engage them.</p>		<p>context of activities that could impact their land or natural resources. Some consultation protocols include provisions that establish representative organizations and procedures for those seeking FPIC. (For examples, see Natural Justice website and Weitzner, 2006.¹⁴³) If the indigenous peoples indicate that they wish to develop a consultation protocol prior to engaging with the company their wishes should be respected.</p> <p>In the absence of any formal protocols, the appropriate indigenous peoples' representatives with whom to engage may not be clear. In some situations, representation may be contested or there may be a range of complementary or competing institutions. In those situations, International Fund for Agricultural Development (IFAD) recommends that a company "ensure that all institutions with a legitimate claim to representation are consulted and have the possibility to influence decision-making." IFAD also notes that, "representation should be determined by the concerned peoples or communities themselves to avoid misrepresentation or manipulation."¹⁴⁴</p> <p>Explanatory Note for 2.2.3.2.b: The phrase "identify indigenous peoples that . . . use resources that may be affected by the operating company's mining-related activities" could include communities that border or are even located at some distance from the mining project area but whose resources (e.g., water, food sources, medicinal plants, cultural sites) may be affected. It may also include communities that seasonally use lands or resources that may be impacted by the mining project.¹⁴⁵</p> <p>Explanatory Note for 2.2.3.2.d: This sub-requirement is relevant if the indigenous peoples are interested in funding or other forms of assistance from the operating company to be used for the purposes of capacity building. Not all communities of indigenous peoples will have the</p>

¹⁴³ Natural Justice: Lawyers for Communities and the Environment web site: "Community Protocols." <http://www.community-protocols.org/community-protocols> and Weitzner, V. 2006. Dealing Full Force: Lutsel K'e Dene First Nation's Experience Negotiating with Mining Companies. <http://www.nsi-ins.ca/wp-content/uploads/2012/10/2006-Dealing-full-force-Lutsel-ke-Dene-first-nations-experience-negotiating-with-mining-companies.pdf>

¹⁴⁴ International Fund for Agricultural Development (IFAD). 2015. How to do – Seeking free, prior and informed consent in IFAD investment projects. p. 6. <https://www.ifad.org/web/knowledge/publication/asset/39181253>

¹⁴⁵ See FAO. 2014. Respecting Free, Prior and Informed Consent. Practical guidance for governments, companies, NGOs, indigenous peoples and local communities in relation to land acquisition, p. 16. <http://www.fao.org/3/a-i3496e.pdf>

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	<p>Information may also be gained by determining if any FPIC-related grievances regarding the company's lack of engagement or consultation were filed with the company's project-level grievance mechanism. Or by interviewing indigenous peoples' representatives to determine if any FPIC-related grievances have been filed through another grievance mechanism available to community members, including customary-law-based mechanisms, that related to lack of engagement of the broader community.</p>		<p>immediate capacity to fully engage in the scoping process (e.g., they may not have the in-house technical expertise to be able to identify particular environmental studies could help them better understand the nature and degree of potential impacts; not all community members may be fully aware of their right to FPIC or understand their rights under international law; it may be difficult for some community members to participate in scoping because they live in remote areas; etc.).</p> <p>Not all indigenous peoples' communities will want to receive such assistance. Indigenous peoples may wish to develop this capacity themselves, without any assistance from the company.</p> <p>However, some may need and want some assistance. For example:</p> <ul style="list-style-type: none"> • Communities without in-house technical expertise may desire funding to hire independent experts or advisors to identify and/or carry out studies and explain the nature and degree of potential impacts. • Legal assistance to hold workshops or training on FPIC and indigenous peoples' rights under international law. • Logistical assistance to enable community members to participate in scoping and FPIC processes, e.g., coverage of travel costs or hosting of meetings in various times and locations to enable broad participation by community members. • Support for capacity building (e.g., funding or access to experts to train community members to carry out mapping of traditional territories) <p>Unless otherwise requested by the indigenous communities in question, the company should document any agreement on funding or support to be provided by the company.</p> <p>Explanatory Note for 2.2.3.2.e: Indigenous peoples' customary approaches to engagement may not always include participation of women, vulnerable groups or marginalized groups within indigenous communities.</p>

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<p>2.2.3.3. The operating company shall collaborate with the indigenous peoples' representatives to design and implement plans to address the information gaps and needs identified through the scoping process.</p>	<p>For 2.2.3.3: Interview operating company representatives and indigenous peoples' representatives to confirm that the company undertook good faith efforts to collaborate (e.g., through meetings, discussions, community forums, workshops, technical working groups, etc.) with indigenous peoples to:</p> <ul style="list-style-type: none"> • Identify any additional information (e.g., studies, assessments) necessary to fully understand the potential impacts of the proposed activities; • Identify capacity needs, and confirm that if 	<p>For 2.2.3.3:</p> <ul style="list-style-type: none"> • Records of meetings and other forums with indigenous peoples' representatives and other indigenous community members where the issues in 2.2.3.3 were discussed. • Documented plans to address information gaps, and the results of the implementation of those plans (e.g., additional studies carried out, etc.) • Documentation that indigenous 	<p>The UN Rapporteur on indigenous peoples has written that: "Indigenous peoples should be encouraged to include appropriate gender balance within their representative and decision making institutions. However, such gender balance should not be dictated or imposed upon indigenous peoples by States or companies, any more than indigenous peoples should impose gender balance on them."¹⁴⁶</p> <p>Women, men youth, elders, etc. may have different needs, priorities and interests that should be considered and factored into the company's understanding of the mining project's full impacts, and its own subsequent decision-making processes. It is recommended that any efforts undertaken by the company to find other ways of facilitating involvement of women, vulnerable or marginalized indigenous peoples be carried out in coordination with and/or through mutual agreement with the indigenous peoples' representative institutions (as suggested by the UN Rapporteur, above, under no conditions should a company impose such processes on indigenous peoples).</p> <p>Explanatory Note for 2.2.3.3: If data are not trusted or credible to indigenous peoples, they may be less willing to consent to the development of a mining project. The intent of this requirement is that if information gaps exist (e.g., the need for a better understanding of the lands and resources that are being owned, occupied or used by indigenous peoples) that the operating company and the potentially affected indigenous peoples work together to determine how best to obtain the data, and how that data may be used and shared (e.g., some indigenous peoples may want certain data to remain confidential).</p> <p>There may be cases where the indigenous peoples are not interested in participating in developing and implementing plans to address the information gaps or needs identified during scoping. In such cases, the</p>

¹⁴⁶ Anaya, J. 2013. Extractive Industries and Indigenous Peoples. Report of the Special Rapporteur on the Rights of Indigenous Peoples. UN Doc. A/HRC/24/41. Para.70. <http://unsr.jamesanaya.org/study/report-a-hrc-24-41-extractive-industries-and-indigenous-peoples-report-of-the-special-rapporteur-on-the-rights-of-indigenous-peoples>

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	relevant, <u>indigenous peoples</u> were offered access to resources necessary to participate in an informed manner (e.g., funding to hire independent legal, technical experts, or other capacity support).	peoples were not interested in collaborating on the design and implementation of plans to address information gaps and needs identified during the scoping process.	operating company should be able to demonstrate that they made good faith efforts to include indigenous peoples' participation. Unless otherwise requested by the indigenous communities in question, the company shall document any agreement on the process to be followed to obtain additional information.
<p>2.2.4. Determine FPIC Processes¹⁴⁷</p> <p>2.2.4.1. If there is more than one distinct <u>indigenous peoples'</u> group (e.g., tribe, nation, population) that may be affected by the <u>operating company's mining-related activities</u>, they may be included in a coordinated process or separate FPIC processes, as desired by the <u>indigenous peoples</u>.</p> <p>2.2.4.2. If the potentially affected <u>indigenous peoples</u> have an FPIC protocol in place or under</p>	<p>For 2.2.4.1: Interview the <u>operating company</u> to determine the steps taken to understand the <u>indigenous peoples'</u> consent process (or processes, if there was more than one population of potentially affected <u>indigenous peoples</u>, or if the <u>indigenous peoples'</u> desire different processes at different stages of development, etc.).</p> <p>As mentioned in 2.2.4.2, if the potentially affected <u>indigenous peoples</u> have an FPIC protocol in place or under development, the <u>operating company</u> shall abide by it unless changes are agreed to by the <u>indigenous peoples'</u> group(s). Grounds for seeking changes to a protocol could include, for example, requirements stated elsewhere in this chapter or the IRMA standard (e.g., inclusivity of women in engagement processes).</p> <p>For 2.2.4.2: Interview <u>indigenous peoples'</u> representatives to confirm that the company followed the <u>indigenous peoples'</u> FPIC process</p>	<p>For 2.2.4.1:</p> <ul style="list-style-type: none"> Records of meetings or other forms of communication with indigenous peoples' representatives to determine whether they preferred a coordinated FPIC process or a separate process for their particular group. <p>For 2.2.4.2:</p> <ul style="list-style-type: none"> Copy of the indigenous peoples' FPIC protocol. 	<p>Explanatory Note for 2.2.4.1: Determining the FPIC process may be carried out concurrent with 2.2.3.</p> <p>Whether or not there is coordinated process or separate FPIC processes will be determined through discussions with the distinct <u>indigenous peoples'</u> groups.</p> <p>Indigenous peoples' groups are not always a homogeneous or united, and proposed mining projects may create conflict both within and between groups of indigenous peoples. Operating companies should carry out due diligence to understand potential divisions and conflicts between indigenous peoples' groups (or within a group of indigenous peoples) and take care to avoid exacerbating conflicts.</p> <p>Explanatory Note for 2.2.4.2: During the FPIC process companies should engage with representatives chosen by the peoples themselves in accordance with their own procedures. The work done in 2.2.3.2.a may</p>

¹⁴⁷ This may be carried out concurrent with 2.2.3. Also, there may be a desire to establish different FPIC processes for different stages of development (e.g., exploration, mining, closure) or based on various triggers (e.g., major expansion of the mine). For example, a process to obtain FPIC during the exploration stage may be less onerous than a process established to obtain FPIC for a mine development proposal, as the mining stage will likely have greater potential impacts on Indigenous Peoples' rights and interests, require more assessment, more dialogue around impact mitigation, remediation compensation, project benefits, etc.

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<p>development, the <u>operating company</u> shall abide by it unless changes are agreed to by the <u>indigenous peoples' group(s)</u>. Otherwise, the <u>operating company</u> shall jointly develop and document, in a manner agreed to by <u>indigenous peoples' representatives</u>, the <u>FPIC process</u> or processes to be followed.</p>	<p>(i.e., a formal protocol, if it exists) or that they jointly developed and agreed to a protocol with the company, or agreed to amend an existing protocol or <u>FPIC process</u> to be followed. There may be reasons that specific protocol provisions may pose challenges for an <u>operating company</u>, such as a conflict with their own transparency provisions, internal codes of conduct related to inclusive engagement, etc. In such cases, <u>indigenous peoples</u> may agree to amend their protocols or <u>FPIC processes</u>. When such situations exist, confirm with <u>indigenous peoples' representatives</u> that any amendments have been agreed by the <u>indigenous peoples</u>.</p>	<ul style="list-style-type: none"> • Copy of report, document or recording that outlines the <u>FPIC process</u> to be followed. 	<p>have identified the appropriate representatives with whom to engage on the development of the <u>FPIC process</u>. If not, the company should reach out to the <u>indigenous peoples' representative bodies</u> (sometimes referred to representative institutions, governing institutions, governance structures, governments, etc.) to determine how to proceed.</p> <p>If the potentially affected <u>indigenous peoples</u> have an <u>FPIC protocol</u> in place or under development, the <u>operating company</u> shall abide by it unless changes are agreed to by the <u>indigenous peoples' group(s)</u>. Grounds for seeking changes to a protocol could include, for example, requirements stated elsewhere in this chapter or the IRMA standard (e.g., inclusivity of women in engagement processes).</p> <p>Regardless of whether there is an existing <u>FPIC protocol</u> or not, the expectation is that the <u>FPIC process</u> will be largely determined by the <u>indigenous peoples</u>. In particular, the <u>indigenous peoples</u> should be the ones determining:</p> <ul style="list-style-type: none"> • How the <u>indigenous peoples</u> will make a collective decision regarding whether or not to provide consent • Who may legitimately represent the <u>indigenous peoples</u> in negotiations with the company, and who may sign off on an <u>FPIC agreement</u> • The conditions, if any, under which the <u>operating company</u> may return to seek <u>FPIC</u> for the same or similar activities in the event that consent is not obtained through the initial <u>FPIC process</u> • Also, there may be a desire to establish different <u>FPIC processes</u> for different stages of development (e.g., exploration, mining, closure) or based on various triggers (e.g., major expansion of the mine). For example, a process to obtain <u>FPIC</u> during the exploration stage may be less onerous than a process established to obtain <u>FPIC</u> for a mine development proposal, as the mining stage will likely have greater potential impacts on <u>indigenous peoples' rights and interests</u>, require more assessment, more dialogue around impact <u>mitigation</u>, <u>remediation</u> compensation,

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			<p>project benefits, etc.</p> <p>Additionally, the FPIC process might include factors such as: ¹⁴⁸</p> <ul style="list-style-type: none"> • Capacity and information needs that must be addressed before the FPIC process can take place • Whether the process will involve a facilitator and, if so, who it should be • Where and how the FPIC discussions will take place • A timeline for the proposed process • The appropriate language(s), methods and media for information sharing and distribution • How decisions will be taken by the community in accordance with their traditions and customs, and whether special measures will be adopted to ensure the participation of women and other vulnerable groups within the community • The geographical territory and communities that the decision will cover • How FPIC will be given, recognized and recorded • The role of others in the process (if any), including local government officials, UN agencies, institutions, donors, independent observers, independent legal and/or technical experts, and other stakeholders • Methods of verifying the process including, where relevant, participatory monitoring arrangements • Terms and frequency of review of the agreement(s) to ensure that conditions are being upheld • Process or mechanism for voicing complaints and seeking recourse on the FPIC process and proposed policy or activity <p>There may be some elements of the process that may involve input from the company such as: where and when meetings will take place; provision</p>

¹⁴⁸ UN REDD Programme. 2013. Guidelines on Free, Prior and Informed Consent. p. 33. <https://unredd.net/documents/un-redd-partner-countries-181/templates-forms-and-guidance-89/un-redd-fpic-guidelines-2648/8717-un-redd-fpic-guidelines-working-final-8717.html?path=un-redd-partner-countries-181/templates-forms-and-guidance-89/un-redd-fpic-guidelines-2648>

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<p>2.2.4.3. The operating company shall make information on the mutually-agreed FPIC processes publicly available, unless the indigenous peoples' representatives have explicitly requested otherwise.</p>	<p>For 2.2.4.3: Review documented FPIC process document or FPIC protocol. Determine if the FPIC process/protocol to be followed has been made publicly available. If not available, confirm through interviews with indigenous peoples and/or review of documentation that it was because the indigenous peoples explicitly requested that it not be made public.</p>	<p>For 2.2.4.3:</p> <ul style="list-style-type: none"> • Copy of report, document or recording that outlines the FPIC process to be followed. • Record of communication from indigenous peoples' representatives requesting that FPIC process not be made publicly available. 	<p>of resources to fulfill capacity needs during the FPIC process; the scope of what is being discussed; etc. Consequently, it is important that a shared understanding of the process be reached.</p> <p>Ideally, the process to be followed would be documented and agreed to by the company and the indigenous peoples' representatives.</p> <p>Explanatory Note for 2.2.4.3: Documentation of the agreed process is recommended in the UN REDD Programme¹⁴⁹ and in the International Finance Corporation's Performance Standard for Indigenous Peoples, which says:</p> <p>"For successful outcomes to be achieved for the mutual benefit of all parties, it is important that the parties have a shared view of the process . . . This should ideally be done through a framework document or plan that identifies representatives of Affected Communities of Indigenous Peoples, the agreed consultation process and protocols, the reciprocal responsibilities of parties to the engagement process and agreed avenues of recourse in the event of impasses occurring . . . Where appropriate, it should also define what would constitute consent from Affected Communities of Indigenous Peoples. The client should document support for the agreed process from the affected population."¹⁵⁰</p>
<p>2.2.5. Implement FPIC Process</p> <p>2.2.5.1. The operating company shall document, in a manner agreed to by the indigenous</p>	<p>For 2.2.5.1: Review company materials that document the FPIC process that was followed.</p>	<p>For 2.2.5.1:</p> <ul style="list-style-type: none"> • Copy of report, document or recording that outlines the FPIC process that was followed. • Record of communication from 	<p>Explanatory Note for 2.2.5.1: Documentation may be through meeting minutes, a report on the free, prior and informed consent (FPIC) process, videos of meetings, or other means.</p> <p>As described by UN-REDD Programme, "it is important to document the whole FPIC process, including ideas, questions and concerns raised, so that</p>

¹⁴⁹ UN REDD Programme. 2013. Guidelines on Free, Prior and Informed Consent. p. 33. <https://unredd.net/documents/un-redd-partner-countries-181/templates-forms-and-guidance-89/un-redd-fpic-guidelines-2648/8717-un-redd-fpic-guidelines-working-final-8717.html?path=un-redd-partner-countries-181/templates-forms-and-guidance-89/un-redd-fpic-guidelines-2648>

¹⁵⁰ International Finance Corporation (IFC). 2012. Guidance Note on Performance Standard 7: Indigenous Peoples. GN22. http://www.ifc.org/wps/wcm/connect/50eed180498009f9a89bfa336b93d75f/Updated_GN7-2012.pdf?MOD=AJPERES

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<p>peoples, the FPIC process that was followed.</p>		<p>indigenous peoples' representatives requesting that FPIC process not be documented/recorded.</p>	<p>it is possible to review the whole process in the event a grievance or dispute arises. However, documenting sensitive issues can be difficult. The rights-holders should be asked what is sensitive and what is not, and what it is permissible to document.”¹⁵¹</p> <p>And while it is strongly recommended that the FPIC documentation be made publicly available, it is acknowledged that there may be some indigenous peoples who do not wish to make any documentation or certain portions of documentation of the process available publicly.</p>
<p>2.2.5.2. The operating company shall publicly report, in a manner agreed to by the indigenous peoples, on the FPIC process that was followed and its outcome.</p>	<p>For 2.2.5.2: Confirm that information on the process followed and the outcome (including withholding of consent) of the process was made publicly available (if publicly release of information was agreed by the indigenous peoples).</p>	<p>For 2.2.5.2:</p> <ul style="list-style-type: none"> Publicly available copy of report, document or recording that outlines the FPIC process that was followed. Publicly available copy of report, document or recording that discloses the outcome of the FPIC process. Record of communication from indigenous peoples' representatives requesting that FPIC process not be disclosed publicly. 	<p>Explanatory Note for 2.2.5.2: One reason for making information on free, prior and informed consent (FPIC) processes publicly available is that it enables others to understand the FPIC process to be followed, and apply that learning in future FPIC situations. Additionally, it provides the opportunity for both indigenous communities and civil society to hold the company and indigenous peoples' representatives accountable for the actions taken during the FPIC processes. Furthermore, not all members of indigenous peoples' communities will have been involved in the FPIC process, so it will be important to inform them of the outcome (e.g., was consent granted or not).</p> <p>It is recognized, however, that some indigenous peoples may not want information on its FPIC process widely distributed. If this is the case, companies would still be expected to demonstrate to IRMA that it made efforts to reach agreement with the indigenous peoples to at least distribute information on the process to members of the indigenous community, to keep them informed.</p> <p>If agreed by the indigenous peoples, the operating company should publish both the outcomes of the FPIC process and, at minimum, a summary of the FPIC process that was followed.</p>

¹⁵¹ UN REDD Programme. 2013. Guidelines on Free, Prior and Informed Consent. pp. 33 and 46. <https://unredd.net/documents/un-redd-partner-countries-181/templates-forms-and-guidance-89/un-redd-fpic-guidelines-2648/8717-un-redd-fpic-guidelines-working-final-8717.html?path=un-redd-partner-countries-181/templates-forms-and-guidance-89/un-redd-fpic-guidelines-2648>

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<p>2.2.5.3. If the process results in consent being given by <u>indigenous peoples</u> to certain mining-related activities, an agreement outlining the terms and conditions shall be signed or otherwise validated by the <u>operating company</u> and the representative(s) of the <u>indigenous peoples</u>. The agreement shall be binding and shall be made publicly available unless the <u>indigenous peoples'</u> representatives explicitly request otherwise.</p>	<p>For 2.2.5.3: Interview <u>operating company</u> representatives and <u>indigenous peoples'</u> representatives to confirm that FPIC process was carried out according to the agreed-to process. Review signed (or otherwise validated) agreement. If auditor does not have access to all or relevant parts of the agreement, interview <u>operating company</u> representatives and <u>indigenous peoples'</u> representatives to confirm the outcome of the consent process, and that the agreement is binding. Also, confirm with <u>indigenous peoples'</u> representatives that any agreements were in languages that the <u>indigenous representatives</u> and peoples could understand.</p> <p>Create opportunities for potentially affected <u>indigenous peoples</u> not directly involved in FPIC negotiations or discussions to provide feedback to IRMA regarding whether or not they have been kept <u>informed</u> of the FPIC process and proposed project, and if their concerns and views were heard and taken into consideration by their representatives involved in as part of the process. Also determine if they believed the process to be free of coercion, intimidation and manipulation.</p> <p>Determine if any <u>grievances</u> regarding the FPIC process were filed with the company's project-level <u>grievance mechanism</u> (see Chapter 1.4) or</p>	<p>For 2.2.5.3:</p> <ul style="list-style-type: none"> Publicly available copy of signed document or other evidence of indigenous peoples' consent to the development of the mining project and the terms and conditions of that consent, e.g., verbal attestation from indigenous peoples' representatives if there is no written documentation. Publicly available copy of documentation indicating that the agreement is binding. Record of communication from indigenous peoples' representatives requesting that FPIC agreement not be legally binding. Record of communication from indigenous peoples' representatives requesting that FPIC agreement not be disclosed publicly. 	<p>Explanatory Note for 2.2.5.3: The terms and conditions may include factors such as:</p> <ul style="list-style-type: none"> Duration/term of agreement Confidentiality of certain information Conditions for renewal or renegotiation of consent Transferability of FPIC agreement Local employment targets Local procurement targets Impact monitoring arrangements Impact <u>avoidance / mitigation / remediation / compensation</u> plans Benefit-sharing Methods of verifying that terms and conditions are being upheld including, where relevant, independent or participatory monitoring arrangements Terms and frequency of review of the agreement to ensure that conditions are being upheld Process or <u>grievance mechanism</u> for voicing complaints and seeking recourse if there is a failure to uphold the terms and conditions of the FPIC agreement <p>"Otherwise validated" means that there may be other forms of agreement used by <u>indigenous peoples</u> other than signed documents. For example, some may prefer verbal agreements, some may have ceremonies to demonstrate agreement.</p> <p>As described by the UN REDD-Programme Guidelines on Free, Prior and Informed Consent, "Documenting FPIC decisions can be challenging, and rights-holders may fear submitting written statements or signing documents. However, only relying on verbal agreements leaves open the possibility of future disagreements. A compromise may be needed."¹⁵²</p>

¹⁵² UN REDD Programme. 2013. Guidelines on Free, Prior and Informed Consent p. 49. <https://unredd.net/documents/un-redd-partner-countries-181/templates-forms-and-guidance-89/un-redd-fpic-guidelines-2648/8717-un-redd-fpic-guidelines-working-final-8717.html?path=un-redd-partner-countries-181/templates-forms-and-guidance-89/un-redd-fpic-guidelines-2648>

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<p>2.2.6. Failure to Obtain Indigenous Peoples' Consent</p> <p>2.2.6.1. For <u>new mines</u>, IRMA certification is not possible if a <u>mining project</u> does not obtain <u>free, prior and informed consent</u> from <u>indigenous peoples</u>.</p>	<p>any other <u>grievance mechanism</u> available to community members, including customary-law-based mechanisms.</p> <p>Auditing Note for 2.2.6: No verification necessary. The results of 2.2.5 will reveal whether or not consent for the project was granted by the <u>indigenous peoples</u>. This also applies to expansions at <u>existing mines</u>.</p>		<p>It is expected that most <u>FPIC</u> agreements will be legally binding, however, IRMA has built in some flexibility here, as there may be cases where the <u>indigenous peoples</u> themselves do not want a legally-binding agreement. While others strongly recommend that FPIC agreements be made publicly available, IRMA recognizes that <u>indigenous peoples</u> may not want to make the agreement public available, or may only feel comfortable making certain parts of the agreement public.</p> <p>Explanatory Note for 2.2.6.1: The results of 2.2.5 will reveal whether or not consent for a new <u>mining project</u> was granted by the <u>indigenous peoples</u>. This also applies to expansions at <u>existing mines</u>.</p> <p>Note that as per requirement 2.2.2.4 if consent is not given, the company may approach <u>indigenous peoples</u> to renew or re-initiate <u>free, prior and informed consent (FPIC)</u> discussions only if agreed to by <u>indigenous peoples'</u> representative institutions.</p> <p>Additionally, because of the requirement that FPIC be free from external manipulation, coercion and intimidation, an <u>FPIC</u> process cannot be undertaken in situations where indigenous or tribal peoples are living in voluntary isolation (see also Chapter 3.7, requirement 3.7.5.5). Related, a site cannot meet certain requirements if <u>affected communities</u> include <u>indigenous peoples</u> living in voluntary isolation. (See IRMA Chapter 3.7, requirement 3.7.5.5).</p> <p>Even though mines cannot achieve IRMA 100 if they do not obtain <u>FPIC</u>, companies can, carry out benchmarking against this and other chapters of the IRMA Standard and demonstrate continuing improvement in their relationships with <u>indigenous peoples</u> over time.</p>
<p>2.2.7. Implementation and Ongoing Engagement</p> <p>2.2.7.1. The <u>operating company</u> shall collaborate with <u>indigenous</u></p>	<p>For 2.2.7.1: Confirm with the <u>operating company</u> and <u>indigenous peoples'</u> representatives that there is an agreed system in place for monitoring</p>	<p>For 2.2.7.1:</p> <ul style="list-style-type: none"> • Documentation of commitments made in the FPIC agreement, and information on the status of those 	<p>Explanatory Note for 2.2.7.1: Any agreement that includes actions and commitments should be monitored to ensure that it is being effectively implemented. The company and <u>indigenous peoples</u> should decide how best to monitor the implementation of the agreement. It may be through a joint monitoring committee, or each party may wish to do its own</p>

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<p>peoples to monitor implementation of the FPIC agreement, and document the status of the commitments made in the agreement.</p>	<p>and documenting the status of the FPIC agreement and commitments made therein.</p> <p>Determine, through interviews with operating company representatives and indigenous peoples' representatives if there have been any complaints or grievances about the implementation of the agreement, and whether or not they have been resolved to the satisfaction of all parties.</p>	<p>commitments (e.g., have they been met, are they being implemented as expected, has there been some or no progress made, etc.).</p> <ul style="list-style-type: none"> Records of any efforts undertaken by indigenous peoples to monitor the implementation of the FPIC agreement. Records of summary reports or verbal updates given on progress being made with regards to implementation of any of the terms and conditions in the FPIC agreement. Records of any meetings held to discuss implementation of the FPIC agreement or status of implementation of various terms and conditions in the agreement. 	<p>monitoring and discuss the results with the other, or have a third party carry out the monitoring.</p> <p>Collaboration here implies that whatever approach is taken, it is agreed by the indigenous peoples and company.</p>
<p>2.2.7.2. Engagement with indigenous peoples shall continue throughout all stages of the mining project.</p>	<p>For 2.2.7.2: Interview operating company and indigenous peoples' representatives to determine if on-going engagement is occurring (other than through monitoring of FPIC implementation).</p>	<p>For 2.2.7.2:</p> <ul style="list-style-type: none"> Records of meetings, consultations, forums, communications with indigenous peoples regarding the mining project. Records of any complaints or grievances from indigenous peoples and the company's responses and remedies. 	<p>Explanatory Note for 2.2.7.2: Ongoing engagement may include sharing of information with indigenous peoples' representatives and the broader community on mining-related impacts, mitigation measures, environmental or social monitoring results, reporting on any unanticipated problems and their resolutions, reporting on complaints and their resolutions, or other information that indigenous peoples have indicated may be of interest or importance. It may include participation of indigenous peoples in commenting on or developing management plans or strategies, or in carrying out monitoring activities.</p> <p>Engagement may be through company support of community training, capacity building, events, or community development initiatives, etc.</p>

NOTES

FPIC, in the context of this standard, requires that engagement with indigenous peoples be free from external manipulation, coercion and intimidation; that potentially affected indigenous peoples be notified that their consent will be sought sufficiently in advance of commencement of any mining-related activities; that there be full disclosure of information regarding all aspects of the proposed mining project in a manner that is accessible and understandable to the indigenous peoples; and that indigenous peoples can approve, partially or conditionally approve, or reject a project or activity, and companies abide by the decision.

Because of the requirement that FPIC be free from external manipulation, coercion and intimidation, an FPIC process cannot be undertaken in situations where indigenous or tribal peoples are living in voluntary isolation (See also Chapter 3.7, requirement 3.7.5.5). Consequently, a mine cannot achieve IRMA 100 if affected communities include indigenous peoples living in voluntary isolation.

The chapter uses the term indigenous peoples, recognizing that there may be peoples for whom this chapter applies who prefer to use other terms such as tribal, aboriginal, First Nations, *Adivasi*, etc., but who have the right to FPIC according to international and/or host country laws. For the purposes of interpreting this standard IRMA proposes the definition presented in the Glossary, adopted from guidance published by the UN Permanent Forum on indigenous peoples.

Cross References to Other Chapters	
CHAPTER	ISSUES
1.1—Legal Compliance	As per Chapter 1.1, if there are <u>host country laws</u> related to <u>free, prior and informed consent</u> , the company is required to abide by those laws. If IRMA requirements are more stringent than <u>host country law</u> , the company is required to also meet the IRMA requirements, as long as complying with them would not require the <u>operating company</u> to violated <u>host country law</u> .
1.2—Community and Stakeholder Engagement	Chapter 1.2 applies to engagement with <u>stakeholders</u> , including <u>rights holders</u> such as <u>indigenous peoples</u> . Therefore, in addition to meeting the requirements above, engagement with <u>indigenous peoples</u> shall conform to the requirements in Chapter 1.2. In particular, criterion 1.2.3 is important to ensure that <u>indigenous peoples</u> have the capacity to fully understand their rights and <u>collaborate</u> effectively in FPIC process, including in the collection of relevant information. Also, 1.2.4 ensures that communications and information are in culturally appropriate languages and formats that are <u>accessible</u> and understandable to affected <u>indigenous peoples</u> , and that information is provided in a timely, manner.
1.3—Human Rights Due Diligence	If <u>indigenous peoples'</u> human rights have been infringed upon at <u>existing mines</u> , a company will be expected to <u>mitigate</u> and <u>remediate</u> the impacts as per Chapter 1.3. This includes human-rights-related impacts on <u>indigenous peoples</u> from past activities at <u>existing mines</u> that have not been adequately <u>mitigated</u> or <u>remediated</u> .
1.4—Complaints and Grievance Mechanism and Access to Remedy	<u>Grievances</u> or concerns related to the implementation of FPIC and any related agreements may be addressed through the operational-level <u>grievance mechanism</u> , or other mechanisms for handling <u>grievances</u> as long as those mechanisms have been agreed to by the <u>indigenous peoples</u> and the company. Complaints or <u>grievances</u> related to unremediated or unsatisfactory <u>mitigation</u> of impacts from past <u>mining-related activities</u> may also be raised through the operational-level <u>grievance mechanism</u> as per Chapter 1.4.
2.1—Environmental and Social Impact Assessment and Management	Some of the aspects of <u>FPIC scoping</u> may be carried out as part of the ESIA (e.g., relevant data collection and studies), however, it is likely that engagement with <u>indigenous peoples</u> will take place before the ESIA process begins, since it would be in the company's best interest to know prior to undertaking the significant step of ESIA whether or not potentially affected <u>indigenous peoples</u> are even interested in pursuing an FPIC process related to mineral development.
2.4—Resettlement	As per requirement 2.4.6.3, if a <u>mining project</u> requires the displacement of <u>indigenous peoples</u> , the <u>operating company</u> shall not proceed with resettlement unless it obtains FPIC from affected <u>indigenous peoples</u> .

Cross References to Other Chapters	
2.6—Reclamation and Closure	As per requirement 2.6.6.1, if there is the potential that the <u>mining project</u> will require <u>long-term water treatment</u> , this must be explicitly addressed as part of the free, prior and informed consent process.
3.7—Cultural Heritage	As per requirement 3.7.5.1, where impacts may occur to <u>indigenous peoples’ critical cultural heritage</u> , negotiation shall take place through the <u>FPIC</u> process, unless otherwise specified by the <u>indigenous peoples</u> . Chapter 3.7 (requirement 3.7.5.5) also prohibits new exploration or mining in areas where <u>indigenous peoples</u> are known to live in voluntary isolation, both to respect those peoples’ right to self-determination and recognizing that <u>FPIC</u> is not possible when <u>indigenous peoples</u> reject contact and the presence of persons who do not belong to their people in their lands and ancestral territories.

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the Glossary of Terms at the end of the IRMA Standard document.

Collaboration

The process of shared decision-making in which all stakeholders constructively explore their differences and develop a joint strategy for action. It is based on the premise that, through dialogue, the provision of appropriate information, collectively defined goals, and the willingness and commitment to find a solution acceptable to all parties, it is possible to overcome the initially limited perspectives of what is achievable and to reach a decision which best meets the interests of the various stakeholders. At this level, responsibility for decision-making is shared between stakeholders.

Consultation

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. In principle, the company should take into account the concerns and views expressed by stakeholders in the final decision.

Corporate Owner(s)

The corporation(s) or other business institution(s) including any private or state-run enterprises that have complete or partial financial interest in or ownership of a mining project.

Critical Cultural Heritage

Consists of: (i) the internationally recognized heritage of communities who use, or have used within living memory the cultural heritage for long-standing cultural purposes, (ii) legally protected cultural heritage areas, including those proposed by host governments for such designation; or (iii) natural areas with cultural and/or spiritual value such as sacred groves, sacred bodies of water and waterways, sacred trees, and sacred rocks.

Existing Mine

A mine that was operational prior to the date that the IRMA standard was published in final (June 2018).

Free, Prior and Informed Consent (FPIC)

A process and an outcome that is based on: engagement that is free from external manipulation, coercion and intimidation; notification, sufficiently in advance of commencement of any activities, that consent will be sought; full disclosure of information regarding all aspects of a proposed project or activity in a manner that is accessible and understandable to the people whose consent is being sought; acknowledgment that the people whose consent is being sought can collectively approve or reject a project or activity, and that the entities seeking consent will abide by the decision.

Free, Prior and Informed Consent (FPIC) Scoping

Identification of the indigenous peoples that need to be involved in an FPIC process, and an evaluation of the information and capacity needs that must be addressed in order for indigenous peoples to make a free, prior and informed consent decision.

Grievance

A perceived injustice evoking an individual's or a group's sense of entitlement, which may be based on law, contract, explicit or implicit promises, customary practice, or general notions of fairness of aggrieved communities. For the purposes of the IRMA Standard, the words grievances and complaints will be used interchangeably.

Grievance Mechanism

Any routinized, State-based or non-State-based, judicial or non-judicial process through which mining-project-related complaints or grievances, including business-related human rights abuses stakeholder complaints, and/or labor grievances, can be raised and remedy can be sought.

Host Country Law

May also be referred to as national law, if such a phrase is used in reference to the laws of the country in which the mining project is located. Host country law includes all applicable requirements, including but not limited to laws, rules, regulations, and permit requirements, from any governmental or regulatory entity, including but not limited to applicable requirements at the federal/national, state, provincial, county or town/municipal levels, or their equivalents in the country where the mine is located. The primacy of host country laws, such as federal versus provincial, is determined by the laws of the host country.

Indigenous Peoples

A modern and inclusive understanding of "indigenous" includes peoples who: identify themselves and are recognized and accepted by their community as indigenous; demonstrate historical continuity with pre-colonial and/or pre-settler societies; have strong links to territories and surrounding natural resources; have distinct social, economic or political systems; maintain distinct languages, cultures and beliefs; form non-dominant groups of society; and resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities. In some regions, there may be a preference to use other terms such as: tribes, first peoples/nations, aboriginals, ethnic groups, Adivasi and Janajati. All such terms fall within this modern understanding of "indigenous."

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mining-Related Activities

Encompasses any activities that may occur during any phase of the mine life cycle (planning, impact assessment, exploration, mine construction, mining, mine closure), and includes all physical activities (e.g., land disturbance and clearing, sampling, airborne surveys, construction, ore removal, ore processing, waste management, reclamation, etc.).

New Mine

A mine that becomes operational and applies for IRMA verification after the date that the IRMA standard was published in final (June 2018).

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Rights Holder

Rights holders are individuals or social groups that have particular entitlements in relation to specific duty bearers (e.g., State or non-state actors that have a particular obligation or responsibility to respect, promote and realize human rights and abstain from human rights violations). In general terms, all human beings are rights-holders under the Universal Declaration of Human Rights. In particular contexts, there are often specific social groups whose human rights are not fully realized, respected or protected.

Stakeholder

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Vulnerable Group

A group whose resource endowment is inadequate to provide sufficient income from any available source, or that has some specific characteristics that make it more susceptible to health impacts or lack of economic opportunities due to social biases or cultural norms (e.g., may include households headed by women or children, people with disabilities, the extremely poor, the elderly, at-risk children and youth, ex-combatants, internally displaced people and returning refugees, HIV/AIDS-affected individuals and households, religious and ethnic minorities, migrant workers, and groups that suffer social and economic discrimination, including indigenous peoples, minorities and in some societies, women).

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



Chapter 2.3—Obtaining Community Support and Delivering Benefits

BACKGROUND

There is widespread acknowledgement from extractive industries that efforts spent on building respectful relationships, responding to community and indigenous peoples' concerns, minimizing project-related impacts can be beneficial to both companies and affected communities.

Mining companies typically contribute national and local economic benefits through payments in taxes and royalties, and can contribute even more by procuring goods and services from the host country. Leading companies also recognize the need for delivering additional benefits to affected communities, and that benefits are best defined by the communities themselves. When communities' needs and aspirations are not at the forefront of mining company investments, experience shows that efforts often fail to deliver long-lasting benefits. Increasingly, efforts are being made to ensure that community investments made by mining companies provide both immediate and ongoing benefits that last beyond the life of the mining operation.

In addition to providing tangible benefits to affected communities, there is a growing need for mining companies to obtain and maintain broad community support for their projects and operations.¹⁵³ A high level of community support can provide reassurance to a company's shareholders and investors, and steps taken by a company to earn community support can foster the development and maintenance of strong relationships with affected communities.

OBJECTIVES/INTENT OF THIS CHAPTER

To obtain and maintain credible broad support from affected communities; and produce tangible and equitable benefits to communities that are in alignment with their needs and aspirations and sustainable over the long term.

SCOPE OF APPLICATION

Chapter Relevance: Operating companies may provide evidence that this chapter is not relevant if they can demonstrate that there are no communities that may be affected by their mining activities or potential mine expansions.

New vs. Existing Mines: The chapter applies to new mines and existing mines. With respect to obtaining broad community support, new mines are expected to demonstrate that they obtained it prior to the construction of a new mine while existing mines shall demonstrate that they have broad community support when they apply for independent assessment. This approach recognizes that existing mines may not have had broad community support at the time they were constructed, but that through the building and maintenance of strong relationships with affected communities and stakeholders they have been able to earn this support over time.

TERMS USED IN THIS CHAPTER

Affected Community ■ Broad Community Support ■ Collaboration ■ Consultation ■ Existing Mine ■ Grievance ■ Inclusive ■ Mine Closure ■ Mining Project ■ New Mine ■ Operating Company ■ Post-Closure ■ Stakeholder ■ Vulnerable Group ■

These terms appear in the text with a dashed underline, and they are explained at the end of the

¹⁵³ For example, ICMM members recognize that: "Successful mining and metals projects require the support of a range of interested and affected parties. This includes both the formal legal and regulatory approvals granted by governments and the broad support of a company's host communities." (ICMM. 2013. Indigenous Peoples and Mining. Position Statement. p. 3), and ICMM materials mention to the need to "gain and maintain the broad community support of the communities on which operations are located." (ICMM. 2008. Sustainable Development Framework: Assurance Procedure. p. 18).

Obtaining Community Support and Delivering Benefits Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>2.3.1. Commitments to Affected Communities</p> <p>2.3.1.1. The operating company shall publicly commit to:</p> <ol style="list-style-type: none"> Maintaining or improving the health, social and economic wellbeing of affected communities; and Developing a mining project only if it gains and maintains broad community support.¹⁵⁴ 	<p>For 2.3.1.1: Interview operating company representatives, and review the operating company website or other materials to ensure that a public commitment has been made.</p>	<p>For 2.3.1.1:</p> <ul style="list-style-type: none"> Records of public statements (e.g., in the media, in company written materials that are publicly available, on the company's website, etc.) expressing commitments outlined in 2.3.1.1. Publicly available company policies that include these commitments. 	<p>Explanatory Note for 2.3.1.1: International Council on Mining and Metals (ICMM) members recognize that: "Successful mining and metals projects require the support of a range of interested and affected parties. This includes both the formal legal and regulatory approvals granted by governments and the broad support of a company's host communities."¹⁵⁵</p> <p>Broad support from a community is often called <u>broad community support</u> (BCS), but may also be referred to as social licence to operate, or community support, etc. IRMA has decided to use the term "<u>broad community support</u>" to reflect this concept, as it is a term used in the International Finance Corporation's 2012 Policy on Environmental and Social Sustainability.¹⁵⁶ The IRMA definition has been adapted from IFC to fit IRMA's purposes.</p> <p>BCS is defined in the IRMA Glossary as:</p> <p>"A collective expression by the community in support of the mining project. Support may be demonstrated through credible (i.e., transparent, inclusive, informed, democratic) local government processes or other processes/methods agreed to by the community and company. There may be BCS even if some individuals or groups object to the business activity."</p> <p>This requirement applies to non-indigenous communities. If the only affected communities are <u>indigenous peoples'</u> communities, the operating company is required instead to have a policy statement that demonstrates respect for <u>indigenous peoples'</u> rights, as per</p>

¹⁵⁴ This also may be referred to as social licence to operate, or community support, etc.

¹⁵⁵ International Council on Mining and Metals (ICMM). 2013. Indigenous Peoples and Mining. Position Statement. <https://www.icmm.com/en-gb/members/member-commitments/position-statements/indigenous-peoples-and-mining-position-statement>

¹⁵⁶ IFC. 2012. IFC Sustainability Framework: Policy on Environmental and Social Sustainability. p. 7. https://www.ifc.org/wps/wcm/connect/b9dadb004a73e7a8a273fff998895a12/IFC_Sustainability_Framework.pdf?MOD=AJPERES

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>2.3.2. Obtaining Community Support</p> <p>2.3.2.1. For <u>new mines</u>, the <u>operating company</u> shall demonstrate that it obtained <u>broad community support</u> from <u>communities affected by the mining project</u>, and that this support is being maintained.</p>	<p>For 2.3.2.1 and 2.3.2.2: For <u>new mines</u>, interview company representatives, and review the <u>operating company</u> documentation to determine if <u>broad community support</u> has been obtained, and to confirm that the process followed conformed to requirements 2.3.2.1 and 2.3.2.2. (See Means of Verification for 2.3.2.3 for more on <u>broad community support</u> being maintained).</p> <p>Examples of 2.3.2.2 might include recorded votes or resolutions by community or local government decision-making bodies (e.g., local government bodies such as town councils or boards, county commissions, etc.), or a referendum held by a local government to gauge community support.</p> <p>Documentation may include minutes from meetings with <u>stakeholders</u>, records of <u>grievances</u> or <u>complaints</u> made to the company (see IRMA Chapter 1.4) or to government agencies about the mining activities; letters of support for the <u>mining project</u> issued by community decision-making bodies and others.</p> <p>For <u>new mines</u>, confirm by interviewing a representative sample of <u>affected community</u> members to determine if support from the community has been obtained and is generally being maintained. Efforts should be made to confirm that those interviewed have the mandate</p>	<p>For 2.3.2.1:</p> <ul style="list-style-type: none"> • Letters of support or resolutions from local governments expressing support or lack of support for the mining project. • Documented methods of an alternative mechanism (e.g., referendum, surveys, etc.) agreed by the company and community for determining broad community support. • Results of community opinion surveys related to the mining project. • Results of community referendum related to the mining project. • Expressions of continued support (or lack of support) for the mining project from local governments, community organizations, affected community members or other stakeholders (e.g., letters, videos, resolutions, media statements, etc.). • Records of complaints and grievances, and the company's responses/remedies. • Media accounts of community protests, and the company's response to them. 	<p>Chapter 2.2, and meet the rest of the requirements in that chapter. For more guidance on maintaining BCS see the note for 2.3.2.2.</p> <p>Explanatory Note for 2.3.2: The concept that mining development should not proceed without a high degree of support from <u>affected communities</u> is widely agreed among IRMA stakeholders.</p> <p>The requirements in 2.3.2 apply to non-indigenous communities. If an <u>affected community</u> is an <u>indigenous peoples'</u> community, the <u>operating company</u> is required to obtain the <u>free, prior and informed consent</u> of that community (as per Chapter 2.2). A company may, however, need to obtain <u>FPIC</u> from indigenous peoples and also demonstrate that it has <u>broad community support</u> for the same project (i.e., if there are communities or populations of <u>indigenous peoples</u> and non-indigenous peoples affected by the mine).</p> <p>The concept of broad community support is supported by the International Finance Corporation (IFC). In cases where business activities to be financed by IFC are likely to generate potential significant impacts on communities, IFC expects its clients' community engagement to lead to broad community support. IFC says that broad community support is "a collection of expressions by Affected Communities, through individuals or their recognized representatives, in support of the proposed business activity. There may be BCS even if some individuals or groups object to the business activity."¹⁵⁷</p> <p>Explanatory Note for 2.3.2.1: See note for 2.3.2.3 regarding maintenance of <u>broad community support</u>.</p>

¹⁵⁷ IFC. 2012. Policy on Environmental and Social Sustainability. https://www.ifc.org/wps/wcm/connect/7141585d-c6fa-490b-a812-2ba87245115b/SP_English_2012.pdf?MOD=AJPERES&CVID=kilrw0g

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>2.3.2.2. For new mines, broad community support shall be determined through local democratic processes or governance mechanisms, or by another process or method agreed to by the company and an affected community (e.g., a referendum). Evidence of broad community support shall be considered credible if the process or method used to demonstrate support:</p> <p>a. Occurred after the operating company carried out</p>	<p>to represent the views of the community or subsets of the community, or if there is no mandate, to understand the segment of community perspectives that may be reflected by the opinions or comments of those being interviewed.</p> <p>Note: “representative sample” is not meant to imply a statistically significant sample. It means that efforts are made to include a cross-section of the community (men and women of different ages, economic status, occupations, and interests, as well as individuals from vulnerable and marginalized groups or their advocates).</p> <p>For 2.3.2.2.a: Confirm that the company has consulted with relevant affected community stakeholders, including men, women, vulnerable groups (children, the elderly, ethnic or other minority groups) or their representatives, and others who might be affected by the mine. As per IRMA Chapter 1.2, consultations should have been accessible and culturally appropriate.¹⁵⁸ (See requirement 1.2.4.4)</p> <p>For 2.3.2.2.b: Confirm that the process has been transparent, e.g., by looking for documentation on how the local government makes decisions, evidence that procedures are made public,</p>	<ul style="list-style-type: none"> Stakeholder engagement plan Policies and other documents reflecting commitments to and mechanism for collaborating with community beneficiaries, NGOs, government and other stakeholders. <p>For 2.3.2.2:</p> <ul style="list-style-type: none"> Letters of support or resolutions from local governments expressing support or lack of support for the mining project. Documentation of rules or procedures followed by local governments to make a determination of whether or not the community should express support for the mining project. Documentation of alternative processes/methods agreed by the company and community to determine if there is broad community support for 	<p>Explanatory Note for 2.3.2.2: The intent of this requirement is that mines be able to show that good faith efforts were made to determine whether or not there is broad community support for a project before a mine is developed.</p> <p>There will almost always be groups within communities that oppose a mining project, so it is not expected that there be unanimous support from communities. (See also the explanatory note for 2.3.2.3)</p> <p>To gauge the level of support mines may rely on existing mechanisms such as local government resolutions or approval processes, or newly creates ones such as community referenda, as long as the processes meet the sub-requirements in 2.3.2.2.</p> <p>Mining companies should undertake due diligence to understand if existing mechanisms used by local government institutions are</p>

¹⁵⁸ "Culturally appropriate": communication includes interactions and conveyance of information using methods, languages, terminology and formats that are respectful of cultural differences (e.g., in some cultures, it is disrespectful to look directly into a person's eyes); and can be easily understood by the affected communities and stakeholders. As per requirement 1.2.1.3, stakeholders can help to define for the company what is considered culturally appropriate.

"Accessible": In reference to engagement processes, means being known in an understandable manner to all stakeholder groups for whose use they are intended, and providing adequate assistance for those who may face particular barriers to access.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>consultations with relevant stakeholders regarding potential impacts and benefits of the proposed operation;</p> <p>b. Was transparent;</p> <p>c. Was free from coercion or manipulation; and</p> <p>d. Included the opportunity for meaningful input by all potentially affected community members, including women, vulnerable groups and marginalized members, prior to any decision or resolution.</p>	<p>triangulating with affected community members to make sure procedures were followed.</p> <p>For 2.3.2.2.c: Interview affected community members and other relevant stakeholders (e.g., civil society or third-party observers to a vote or referenda), and review media reports to determine if there have been any complaints of coercion or manipulation in any decision-making process.</p> <p>For 2.3.2.2.d: If the process followed was a community or local government process (e.g., a decision made by elected officials or other selected representatives) confirm that the process allowed for input from all potentially affected community members before a decision was made.</p>	<p>a project (e.g., referendum, surveys, town hall votes, etc.).</p> <ul style="list-style-type: none"> • Documented results from any alternative mechanism for determining broad community support. 	<p>viewed by a significant proportion of the community as adequately reflecting the opinions of a broad cross-section of the population. If that is not the case, then mines may want to undertake efforts to collaborate with communities to create mechanisms that better reflect the overall sentiment of the community. Otherwise, the so-called broad community support may not prove to exist in reality, and may result in ongoing challenges and conflicts for the company and community moving forward.</p> <p>Explanatory Note for 2.3.2.2.b: “transparent” means that the rules or procedures are shared publicly, so that everyone knows how decisions are made.</p>
<p>2.3.2.3. For existing mines, the operating company shall demonstrate that the mine has earned and is maintaining broad community support.¹⁵⁹</p>	<p>For 2.3.2.3: For existing mines (and new mines), confirm by interviewing a representative sample of affected community members to determine if support from the community is generally being maintained. Efforts should be made to confirm that those interviewed have the mandate to represent the views of the community or subsets of the community, or if there is no mandate, to understand the segment of community perspectives that may be reflected by the opinions or comments of those being interviewed.</p>	<p>For 2.3.2.3:</p> <ul style="list-style-type: none"> • Expressions of continued support (or lack of support) for the mining project from local governments, community organizations, affected community members or other stakeholders. • Records of complaints and grievances, and the company's responses/remedies. • Media accounts of community protests, and the company's response to them. 	<p>Explanatory Note for 2.3.2.3: The following guidance may help to make the determination that broad community support is being maintained:</p> <p>The presence of absence of complaints or protests, alone, should not be the basis of the determination. Occasional complaints or opposition from individuals does not necessarily mean that broad community support is not being maintained. But if there are similar complaints from several different complainants, and/or valid complaints remain unresolved over an extended period of time, it may indicate that the company is not making good faith efforts to address community concerns, reduce conflict and maintain broad community support.</p>

¹⁵⁹ If the affected community is an indigenous peoples' community, the operating company is required to obtain the free, prior and informed consent of that community (as per Chapter 2.10). If the company obtains FPIC, they will have met this requirement also. A company may need to obtain FPIC from Indigenous Peoples and also demonstrate that it has broad community support for the same project, if there is a community of non-Indigenous Peoples also affected by the mine.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>2.3.3. Planning and Delivering Community Benefits</p> <p>2.3.3.1. The operating company, in collaboration with affected communities and other relevant stakeholders (including workers and local government), shall develop a participatory planning process to guide a company's contributions to community development initiatives and benefits in affected communities.</p>	<p>Note: "representative sample" is not meant to imply a statistically significant sample. It means that efforts are made to include a cross-section of the community (men and women of different ages, economic status, occupations, and interests, as well as individuals from vulnerable and marginalized groups or their advocates).</p> <p>For 2.3.3.1: Determine, through interviews with the operating company and review of documents (e.g., community investment framework, action plans, correspondence between company and stakeholders, meeting minutes), that a participatory planning process is in place.</p> <p>Confirm that community and other relevant stakeholders involved in the process, and as per Chapter 1.2 (requirement 1.2.4.3) confirm that they had timely access to the operating company documents and information in appropriate formats necessary to participate in the planning process.</p>	<ul style="list-style-type: none"> Results of community opinion surveys related to the mining project. Results of community referendum related to the mining project. <p>For 2.3.3.1:</p> <ul style="list-style-type: none"> Records from meetings with affected community members and stakeholders, or correspondence pertaining to planning/designing the participatory process to guide the company's community contributions. Documentation of any procedures or rules governing the process (e.g., who is involved, why, when, how, etc.). 	<p>Sustained and widespread disapproval of company practices, or significant or frequent community protests, could potentially be an indication that broad community support is not being maintained. However, they do not definitively prove that it is not being maintained.</p> <p>Consideration should be given to how the complaints, concerns and protest(s) are handled by the company (e.g., does the company immediately take the concerns seriously, offer to open up a dialogue on the issues, work with the community to resolve the issues, collaborate to develop mechanisms for working together to try to prevent similar issues from escalating, etc.?). If the source of a conflict or a protest has been resolved to the general satisfaction of affected community members, or the company is clearly making a good faith effort to resolve the source of the conflict, or there has been a process put in place for moving forward with discussions or dialogue that communities agree to, then the weight of evidence may lead the auditor to determine that broad community support is generally being maintained.</p> <p>Explanatory Note for 2.3.3.1: "Relevant stakeholders" may include, for example, local economic planning entities, community service groups, social services agencies, land-use focused groups, chambers of commerce, artisanal and small-scale mining representatives, faith-based groups, school boards, conservation organizations, etc.).</p> <p>"Community initiatives" may include any projects or undertakings that support the community, such as infrastructure, training programs, social programs, scholarships, mentorships, grants, etc.</p> <p>The agreed planning process should be documented so that both the mine and the community understand exactly what is meant by participation and what was agreed to in terms of the process itself (who is involved, what the process looks like, who participates, etc.).</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>2.3.3.2. The planning process shall be designed to ensure local participation, social inclusion (including both women and men, <u>vulnerable groups</u> and traditionally marginalized community members, e.g., children, youth, the elderly, or their representatives), good governance and transparency.</p>	<p>For 2.3.3.2 and 2.3.3.3: Interview <u>operating company</u> and <u>affected community</u> and other relevant <u>stakeholders</u> to determine if the participatory planning process included local participation, was socially <u>inclusive</u> (i.e., included women and men, and if relevant, <u>vulnerable groups</u> and/or traditionally marginalized community members or their representatives, for example advocates for children, youth, the elderly, etc.), provided access to experts, if needed (as per 2.3.3.3), and operated according to good governance and transparency.</p> <p>Not every single group listed above need be included in the planning process, but the company should have a credible rationale for why certain groups are not involved in the process.</p>	<p>For 2.3.3.2:</p> <ul style="list-style-type: none"> • Records from meetings with affected community members and stakeholders, or correspondence pertaining to planning/designing the participatory process to guide the company's community contributions. • Minutes or sign-in sheets from meetings. • Documentation of any procedures or rules governing the process. 	<p>Explanatory Note for 2.3.3.2: The intent of 2.3.3.2 is that discussions related to how a community can best benefit from mining company contributions should occur through participatory processes.</p> <p>The World Bank recognizes that such “Community-Driven Development” (CDD) processes can be an effective poverty-reduction and sustainable development strategy.¹⁶⁰ In this approach, the foundations of good governance and transparency in the development of community development projects or initiatives include: (i) a clear and well-articulated set of community accepted rules; (ii) effective social mobilization and information dissemination to ensure that rules are well understood; and (ii) a robust and transparent system to identify and target the project beneficiaries. For more information see: CDD Toolkit.¹⁶¹</p> <p>“Social inclusion” means that efforts should be made to include women and men, and if relevant, <u>vulnerable groups</u> and/or traditionally marginalized community members or their representatives, for example advocates for children, youth, the elderly, etc.). The purpose of including a broad range of stakeholders is to ensure that benefits to communities are not confined to a few, but rather are shared throughout the community.</p> <p>“Good governance and transparency” means that the rules or procedures are ... and that the rules are shared publicly, so that everyone knows how decisions are made.</p>
<p>2.3.3.3. If requested by the community and not provided by the appropriate public authorities, the</p>	<p>For 2.3.3.2 and 2.3.3.3: Interview <u>operating company</u> and <u>affected community</u> and other relevant <u>stakeholders</u> to determine if the</p>	<p>For 2.3.3.3:</p> <ul style="list-style-type: none"> • Stakeholder engagement plan. • Stakeholder engagement procedure. 	<p>Explanatory Note for 2.3.3.3: There are different types of expert assistance that may be useful to the process, such as professional facilitators, or experts that can guide the community through a</p>

¹⁶⁰ World Bank website: “Community-Driven Development.” <http://www.worldbank.org/en/topic/communitydrivendevelopment>

¹⁶¹ World Bank website: “Community-Driven Development Toolkit: Governance and Accountability Dimensions.” <http://www.worldbank.org/en/topic/communitydrivendevelopment/publication/community-driven-development-toolkit-governance-and-accountability-dimensions>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
operating company shall provide funding for mutually agreed upon experts to aid in the participatory process.	participatory planning process included local participation, was socially inclusive (i.e., included women and men, and if relevant, vulnerable groups and/or traditionally marginalized community members or their representatives, for example advocates for children, youth, the elderly, etc.), provided access to experts, if needed (as per 2.3.3.3), and operated according to good governance and transparency.	<ul style="list-style-type: none"> Records of requests made by stakeholders, and company responses. Records of stakeholder complaints related to participatory planning process. 	process to help them identify community development options and priorities. Also, community participants may benefit from experts who can provide legal advice, economic or financial advice, assistance with project planning and management, etc., during the process.
<p>2.3.3.4. Efforts shall be made to develop:</p> <p>a. Local procurement opportunities;</p> <p>b. Initiatives that benefit a broad spectrum of the community (e.g., women, men, children, youth, vulnerable and traditionally marginalized groups); and</p> <p>c. Mechanisms that can be self-sustaining after mine closure (including the building of community capacity to oversee and sustain any projects or initiatives agreed upon through negotiations).</p>	<p>For 2.3.3.4: Review documentation related to the planning process. Interview operating company management and staff and representative sample of affected community and other relevant stakeholders to determine if community development initiatives were implemented as planned, and that measures were taken to create local procurement opportunities and sustainable initiatives designed to deliver and maintain post-closure benefits to communities.</p> <p>Note: “representative sample” is not meant to imply a statistically significant sample. It means that efforts are made to include a cross-section of the community (men and women of different ages, economic status, occupations, and interests, as well as individuals from vulnerable and marginalized groups or their advocates).</p>	<p>For 2.3.3.4:</p> <ul style="list-style-type: none"> Records of correspondence or meetings (e.g., minutes) that include suggestions from the operating company that its contributions include the sub-requirements 2.3.3.4.a, b and c. <p>For 2.3.3.4.a:</p> <ul style="list-style-type: none"> A local procurement policy, local procurement contracts or other documentation related to the operating company's local procurement practices. See Explanatory notes. Public reporting on the how much local procurement spending from a given mine site goes to local suppliers, e.g., via the Mining Local Procurement Reporting Mechanism (LPRM) <p>For 2.3.3.4.b:</p>	<p>Explanatory Note for 2.3.3.4: The intent of 2.3.3.4 is that any contributions made by mining companies to local communities benefit a broad spectrum of the community rather than a few, and that the investments being made in the community has long-lasting effects well beyond the life of the mine.</p> <p>Re: 2.3.3.4.a, local procurement by mining projects can create opportunities for further industrialization and economic development, and is seen as a means of achieving a number of Sustainable Development Goals.¹⁶² Investment in local procurement is included in the Global Reporting Initiative (GRI), and more recently, the Mining Local Procurement Reporting Mechanism has been developed to increase transparency about the contributions that mining makes to host countries through local procurement, both to highlight positive outcomes and deter problematic practices.¹⁶³</p> <p>Ideally, a local procurement initiative would include capacity-building support for host country businesses; there would be clear, practical and easily accessible information for current and potential suppliers on how to supply the mine site (e.g. contact information, information</p>

¹⁶² Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and Engineers Without Borders. 2017. Mining Local Procurement Reporting Mechanism. <https://static1.squarespace.com/static/54d667e5e4b05b179814c788/t/59f0f6beccc5c58e5e884d5c/1508964041682/ewb-msv-mining-lprm.pdf>

¹⁶³ Ibid. p. 10.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
		<ul style="list-style-type: none"> • Documentation of the community initiatives that are being supported by the operating company. • Documentation, e.g., meeting minutes from the participatory planning process, that mechanisms or projects that are expected to continue after mine closure have been agreed to by the community. 	<p>on tendering process, information sessions); and procurement processes used at the mine site would be tailored to support local suppliers, such as faster payment for small suppliers, and preference or extra points given to local suppliers during the bidding process.</p> <p>As part of any local procurement initiative, mines should develop a local procurement policy (either as a standalone or part of another, e.g., Supply Chain Policy) that lays out the company’s vision and procedures for local procurement by the mine site, as well as the duties and responsibilities for those overseeing the policy.</p> <p>Re: 2.3.3.4.b and c, it is widely recognized that an important part of community development is investing in local residents, and that this can be done through job training programs (within and external to the mining project), and by building the capacity and supporting the development and growth of local businesses.</p> <p>Mines may also contribute to sustainable community development by contributing to infrastructure, such as roads, health facilities, schools, or sponsoring health and education programs delivered by external providers. However, as described by ICMM, “Often, these efforts, although appreciated as generous gifts to local communities, have not lasted beyond the life of the mine. . . because often the projects:¹⁶⁴</p> <ul style="list-style-type: none"> • Were chosen by the mining company people and/or the local elites • Were built or run by outsiders, with little management involvement from local community members and limited capacity building to allow a handover of responsibility over time • Required technology, resources of knowledge not locally available to maintain them. <p>To avoid such an outcome, as per 2.3.3.4.c any initiatives supported by the mine must include consideration of how projects,</p>

¹⁶⁴ International Council on Mining and Metals (ICMM). 2012. Community Development Toolkit. p. 18. <https://www.commddev.org/pdf/publications/ICMM-Community-Development-Toolkit.pdf>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>2.3.3.5. The planning process and any outcomes or decisions shall be documented and made publicly available.</p>	<p>For 2.3.3.5: Review documentation related to the planning process. Interview <u>operating company</u> and representative sample of <u>affected community</u> and other relevant <u>stakeholders</u> to determine if community development initiatives were implemented as planned, and that measures were taken to create sustainable initiatives designed to deliver and maintain <u>post-closure benefits</u> to communities.</p>	<p>For 2.3.3.5:</p> <ul style="list-style-type: none"> • Documentation of any procedures or rules governing the process. • Minutes from meetings held as part of the planning process. • Signed or otherwise validated agreements between the operating company and community that include terms and conditions of operating company support for community projects or initiatives, or other forms of community benefits supported by the company. • Documentation of the community initiatives being supported by the operating company. 	<p>infrastructure or services can be maintained beyond the life of the mine.</p>
<p>2.3.3.6. In <u>collaboration</u> with the community, the <u>operating company</u> shall periodically monitor the effectiveness of any mechanisms or agreements developed to deliver community benefits, based on agreed upon indicators, and evaluate if changes need to be made to those mechanisms or agreements.</p>	<p>For 2.3.3.6: Review monitoring and evaluation of results of community development programs.</p>	<p>For 2.3.3.6:</p> <ul style="list-style-type: none"> • Signed or otherwise validated agreements between the operating company and community that include terms and conditions of operating company support for community projects or initiatives, or other forms of community benefits supported by the company. • Documentation of any processes to develop indicators to measure the effectiveness of agreements or 	<p>Explanatory Note for 2.3.3.6: Periodically, the <u>operating company</u> and <u>affected community</u> members should evaluate whether or not the community initiatives that are being supported by the <u>operating company</u> are delivering benefits to a broad-base of the community, and also whether or not benefits to communities are likely to be sustained after the life of the mine.</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
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- mechanisms designed to deliver community benefits.
- Records of evaluations of agreements or mechanisms designed to deliver community benefits (e.g., initiatives and projects) to determine the effectiveness of company-supported initiatives.
 - Records of any updates to agreements that have occurred as a result of evaluations.

Cross References to Other Chapters	
CHAPTER	ISSUES
1.2—Community and Stakeholder Engagement	See Chapter 1.2 for requirements relating to engagement and communication with <u>stakeholders</u> . In particular, criterion 1.2.3 is important to ensure that <u>stakeholders</u> have the capacity to fully understand their rights and <u>collaborate</u> effectively in community planning processes. Also, 1.2.4 ensures that communications and information are in formats and languages that are <u>accessible</u> and understandable to affected communities and <u>stakeholders</u> , and provided in a timely, culturally appropriate manner.
2.2—Free, Prior and Informed Consent	Chapter 2.2 is relevant for <u>mining projects</u> that may affect communities of <u>indigenous peoples</u> . Rather than obtaining <u>broad community support</u> as per this chapter, when there are <u>indigenous peoples</u> whose land, resources, cultural heritage or rights may be impacted by mining activities, <u>operating companies</u> must adhere to the requirements of Chapter 2.2.
3.6—Artisanal and Small-Scale Mining	If ASM entities are present and are affected by the <u>mining project</u> , they should be included in the process to plan and determine benefits in 2.3.3.

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the [Glossary of Terms](#) at the end of the IRMA Standard document.

Affected Community

A community that is subject to risks or impacts from a project.

Broad Community Support (BCS)

A collective expression by the community in support of the mining project. Support may be demonstrated through credible (i.e., transparent, inclusive, informed, democratic) local government processes or other processes/methods agreed to by the community and company. There may be BCS even if some individuals or groups object to the business activity.

Collaboration

The process of shared decision-making in which all stakeholders constructively explore their differences and develop a joint strategy for action. It is based on the premise that, through dialogue, the provision of appropriate information, collectively defined goals, and the willingness and commitment to find a solution acceptable to all parties, it is possible to overcome the initially limited perspectives of what is achievable and to reach a decision which best meets the interests of the various stakeholders. At this level, responsibility for decision-making is shared between stakeholders.

Consultation

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. In principle, the company should take into account the concerns and views expressed by stakeholders in the final decision.

Existing Mine

A mine that was operational prior to the date that the IRMA standard was published in final (June 2018).

Inclusive

In the context of stakeholder engagement, means that engagement includes men, women, the elderly, youth, displaced persons, vulnerable and disadvantaged persons or groups.

Mine Closure

A period of time when ore-extracting and processing activities of a mine have ceased, and final decommissioning and mine reclamation are occurring. It typically includes pre-closure (detailed closure design and planning), closure (actual activities of closure of mine workings and construction/decommissioning) and post-closure (mainly long-term reclamation, monitoring, and treatment) periods, each with its own specific activities.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

New Mine

A mine that becomes operational and applies for IRMA verification after the date that the IRMA standard was published in final (June 2018).

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Post-Closure

The period after the reclamation surety holder declares the activities required by the reclamation and closure plan are complete; any significant objections raised during the public comment period on the final release of the financial surety have been resolved; and the reclamation surety has been returned to the operator, or it has been converted to a post-closure trust fund or equivalent (i.e. if there is a need to fund long-term management and monitoring of the site). This phase continues until final sign-off and relinquishment can be obtained from the regulator and stakeholders.

Stakeholders

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Vulnerable Group

A group whose resource endowment is inadequate to provide sufficient income from any available source, or that has some specific characteristics that make it more susceptible to health impacts or lack of economic opportunities due to social biases or cultural norms (e.g., may include households headed by women or children, people with disabilities, the extremely poor, the elderly, at-risk children and youth, ex-combatants, internally displaced people and returning refugees, HIV/AIDS-affected individuals and households, religious and ethnic minorities, migrant workers, and groups that suffer social and economic discrimination, including indigenous peoples, minorities and in some societies, women).

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.

Chapter 2.4—Resettlement

READ GUIDANCE NOTE

BACKGROUND

There are well-documented economic, social and environmental impacts and risks related to resettlement. People may be economically displaced from their livelihoods as well as physically displaced from their lands, homes, communities, and social and cultural ties. If planned or executed poorly resettlement may lead to increased impoverishment of affected households.

Resettlement is considered involuntary when people do not wish to move but do not have the legal right to refuse land acquisition that results in their displacement.¹⁶⁵ The International Finance Corporation's (IFC) Performance Standard 5 on Land Acquisition and Involuntary Resettlement states that involuntary resettlement should be avoided where possible.

The IFC encourages its clients to use negotiated settlements, even if they have the legal means to acquire land without the seller's consent.¹⁶⁶ Negotiated settlements typically give affected persons a greater role in planning the resettlement, help avoid expropriation and eliminate the need to use governmental authority to remove people forcibly.¹⁶⁷

When deemed unavoidable, involuntary resettlement, like other evictions, must only be carried out under exceptional circumstances and in accordance with international human rights law.¹⁶⁸

OBJECTIVES/INTENT OF THIS CHAPTER

To avoid involuntary resettlement, and when that is not possible, equitably compensate affected persons and improve the livelihoods and standards of living of displaced persons.

SCOPE OF APPLICATION

Chapter Relevance: This chapter applies if mining-related activities could result or have resulted in the physical or economic displacement and involuntary resettlement of people.

TERMS USED IN THIS CHAPTER

Affected Community ■ Associated Facilities ■ Baseline ■ Collaboration ■ Competent Professionals ■ Consultation ■ Displacement ■ Economic Displacement ■ Existing Mine ■ Forced Eviction ■ Free, Prior and Informed Consent (FPIC) ■ Grievance ■ Grievance Mechanism ■ Host Community ■ Indigenous Peoples ■ Involuntary Resettlement ■ Livelihood Restoration Plan (LRP) ■ Mining Project ■ Mining-Related Activities ■ Mitigation ■ New Mine ■ Operating Company ■ Remediation ■ Replacement Cost ■ Resettlement Action Plan (RAP) ■ Stakeholder ■ Vulnerable Group ■

These terms appear in the text with a dashed underline, and they are

¹⁶⁵ According to the International Finance Corporation, "This occurs in cases of (i) lawful expropriation or temporary or permanent restrictions on land use and (ii) negotiated settlements in which the buyer can resort to expropriation or impose legal restrictions on land use if negotiations with the seller fail." (IFC. 2012. IFC Performance Standards on Environmental and Social Sustainability. Performance Standard 5: Land Acquisition and Involuntary Resettlement. Para. 1)

¹⁶⁶ IFC Performance Standard 5. Para. 3

¹⁶⁷ European Bank for Reconstruction and Development. 2014. Performance Requirement 5. Land Acquisition, Involuntary Resettlement and Economic Displacement. p. 30. www.ebrd.com/news/publications/policies/environmental-and-social-policy-esp.html

¹⁶⁸ See Kothari, M. 2007. "Basic Principles and Guidelines on Development-based Evictions and Displacement". A/HRC/4/18. www.ohchr.org/Documents/Issues/Housing/Guidelines_en.pdf

This chapter does not apply to voluntary resettlement (i.e., market transactions in which the seller is not obliged to sell and the buyer cannot resort to expropriation or other compulsory procedures sanctioned by the legal system of the host country if negotiations fail). As with involuntary resettlement, however, there are risks such as impoverishment that accompany voluntary resettlement. IRMA therefore encourages companies to implement measures to maximize benefits for any household resettled as a result of project activities.

New vs. Existing Mines: New mines shall meet the requirements in this chapter. And all new and existing mines shall apply the requirements of this chapter if there are proposed changes to mining-related activities that may require resettlement, or if direct impacts become significantly adverse, such that communities or individuals have no alternative other than physical and/or economic displacement. In such cases, requirements of this chapter shall apply even where no initial project-related land acquisition or resettlement was involved.

At existing mines, where resettlement occurred in the past, operating companies are not required to demonstrate compliance with all of the requirements in this chapter, however, it is possible, even years after a resettlement program occurs, to evaluate the outcomes of resettlement projects and, if necessary, take steps to restore or improve the living conditions and livelihoods of those affected. Therefore, IRMA expects that any mine applying for IRMA independent assessment that carried out a resettlement project after April 30, 2006¹⁶⁹ will have carried out an evaluation (see 2.4.7.3) of its resettlement activities to demonstrate that the outcomes align with the objectives of the IRMA Standard. If the evaluation demonstrates that the objectives of this chapter have not been met, the company is expected to develop and implement mitigation strategies in collaboration with the affected peoples until the objectives have been met. The relevant requirements have now been more clearly outlined in the table below “Resettlement Requirements for Existing Mines (where resettlement occurred after April 30, 2006).”

For mines that involved resettlement prior to April 30, 2006, IRMA will not require evidence of such evaluations. It should be noted, however, that if, in interviewing stakeholders, there is evidence of human-rights-related impacts associated with historic resettlement programs that have not been mitigated or remediated, they will need to be addressed as per Chapter 1.3; and other unremediated impacts may be raised by stakeholders and addressed through the operational-level grievance mechanism as per Chapter 1.4. (See the table “Cross Reference to Other Chapters” in the Notes Section of this Chapter for more information.)

CRITICAL REQUIREMENTS IN THIS CHAPTER

If resettlement has occurred, the mine monitors and evaluates its implementation and takes corrective actions until the provisions of resettlement action plans and/or livelihood restoration plans have been met (2.4.7.1).

¹⁶⁹ This chapter is largely based on IFC’s Sustainability Framework, and in particular, Performance Standard 5 on Land Acquisition and Involuntary Resettlement. In 2006, IFC adopted the Sustainability Framework, which articulated IFC’s strategic commitment to sustainable development. http://www.ifc.org/wps/wcm/connect/9fb7150048855c138af4da6a6515bb18/2007%2BUpdated%2BGuidance%2BNotes_full.pdf?MOD=AJPERES&attachment=true&id=1322804281925)

Guidance Note for Auditors and Mines on Chapter 2.4-Resettlement



[flag] Issue in Brief: In some cases, by virtue of the location of a mineable ore body, proposed mining projects are located in close proximity to where people live. The situation where those affected do not have the legal right to refuse land acquisition and displacement is referred to as involuntary resettlement.

The current approach of the IRMA resettlement chapter does not prohibit involuntary resettlement, although it encourages mines to avoid it if possible. When avoidance is not possible, IRMA, like other internationally recognized standards on resettlement (e.g., IFC Performance Standard 5) requires that companies strive to minimize impacts on affected people, implement mitigation measures such as fair compensation and improvements to livelihoods and living conditions that are discussed ahead of time with affected peoples. Active engagement of affected peoples and their advisors is required throughout the process, from the earliest stages of resettlement risk and impact assessment through the monitoring of resettlement outcomes.

IRMA encourages all mines that have been through resettlement processes to help test this chapter, and determine if the metrics used are robust and comprehensive enough to ensure that if the displacement of individuals and communities occurs, it can be carried out in a fair and respectful way that leads to improvements in quality of life and economic opportunities for affected peoples.

HOW THIS CHAPTER IS TO BE AUDITED:

If resettlement at an existing mine was completed prior to April 30, 2006:

Mines are not required to be audited against this chapter. Mines may mark the chapter as not relevant. However, auditors must still confirm the dates that resettlement occurred, understand the context of the resettlements, and understand the outcomes. Auditors must also carry out interviews mine staff and stakeholders, including resettled people, to understand if there may be ongoing human rights concerns related to resettlement such as unremediated impacts related to forced evictions, impacts to the rights of indigenous peoples, or impacts on rights to food, water, work, housing, health and well-being or others.¹⁷⁰ If there are impacts on human rights that persist from pre-2006 resettlements, remediation should be taking place as per IRMA Chapter 1.3 (see requirement 1.3.3.3).

If resettlement at an existing mine was completed after April 30, 2006:

NEW FEB 2022. Existing mines that have proposed must be scored against the Chapter 2.4 requirements that are not greyed out (see requirements, below). If there were several resettlements related to the mine, only those that occurred after April 30, 2006 need to be evaluated and scored.

¹⁷⁰ Although not an exhaustive list, van der Ploeg and Vanclay (2017) list a number of human rights that should be considered in resettlement actions: Right to an adequate standard of living and to continuous improvement in living conditions; Right to culture; Right to education; Right to food; Right to freedom from cruel inhumane or degrading treatment or punishment; Right to freedom of movement and choice of residence; Right to freedom of opinion and expression; Right to health and well-being; Right to housing; Right to information; Right to life; Right to participation; Right to peaceful assembly and association; Right to private and family life; Right to property; Right to religion; Right to remedy; Right to self determination; Right to water and sanitation; Right to work; Rights of the child; The equal rights of women and men to the enjoyment of their human rights. (van der Ploeg, L. and Vanclay, F. 2017. "A human rights based approach to project induced displacement and resettlement," *Impact Assessment and Project Appraisal*. 2017. Vol. 35, No. 1, 34-52. <https://www.tandfonline.com/doi/full/10.1080/14615517.2016.1271538>)

Mines must be scored against the Chapter 2.4 requirements that are not greyed out (see requirements, below). If there were several resettlements related to the mine, only those that occurred after April 30, 2006 need to be evaluated and scored. It is recognized that existing mines may not have followed all of the best practices laid out in Chapter 2.4, e.g., because resettlement occurred before these practices were well defined or widely applied, or they may not have kept the data or documentation or have institutional knowledge to demonstrate that certain practices took place. Consequently, certain requirements will either not be able to be verified, or can no longer be met (or is of little or no value to do so) by some existing mines. These requirements have been greyed out. Mines/auditors may mark greyed-out requirements as “not relevant,” which means the requirements will not be factored into the chapter score.

- **If mines are able to demonstrate to auditors that the objectives of this chapter have been met**, then the mine will score 100% on this chapter. Auditors must confirm the dates that resettlement occurred, understand the context of the resettlements, and understand and review evidence of the outcomes. Auditors must also carry out interviews mine staff and stakeholders, including resettled people, to understand if there may be ongoing human rights concerns related to resettlement such as unremediated impacts related to forced evictions, impacts to the rights of indigenous peoples, or impacts on rights to food, water, work, housing, health and well-being or others.¹⁷¹ If there are impacts on human rights that persist from resettlements, remediation should be taking place as per IRMA Chapter 1.3 (see requirement 1.3.3.3).
- **If mines are not yet able to demonstrate that the objectives have been met** then the mines must be scored against the requirements that have not been greyed out, below. Auditors should also review the Auditor Notes in the Means of Verification column, regardless of whether or not the requirement has been greyed out.

OPTIONAL: All existing mines are welcome to include as many of the IRMA Chapter requirements in their assessments as they want. **Auditors should discuss this with the mine during Stage 1.**

We recognize that there may be some existing mines that carried out resettlement according to good or best practices at the time when resettlement took place, and they have the documentation and records to provide as evidence. Consequently, mines may opt to be assessed and scored against any requirements if they want their audit results and public summary audit reports to reflect that they implemented certain best practices.

<p>Resettlement completed prior to April 30, 2006</p> <p>Chapter can be marked “not relevant”</p>	<p>Resettlement completed after April 30, 2006</p> <p>Select requirements must be evaluated and scored.</p>
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¹⁷¹ Ibid.

Auditors must still determine if there are unremediated human rights impacts related to resettlement, and if there are, determine if they are being remediated as per Chapter 1.3 (1.3.3.3)

Auditors must evaluate the following:

Determine if the mine has a plan in place to deliver outcomes that align with IRMA Chapter objectives (2.4.3.3), if resettlement actions and transactions are being documented (2.4.6.7), and if resettlement actions are being monitored and evaluated as necessary (2.4.7.1, 2.4.7.3, 2.4.7.4)

Determine if communities have opportunity to be meaningfully engaged in and express concerns about resettlement actions (2.4.2.1, 2.4.2.2, 2.4.2.3), and the mine is reporting to affected persons on progress being made on resettlement actions (2.4.7.2)

Determine if there are unremediated human rights impacts related to forced evictions, indigenous peoples' rights or other human rights (2.4.6.1, 2.4.6.2, 2.4.6.5), and if there are, determine if they are being remediated as per Chapter 1.3 (1.3.3.3)

If resettlement was the responsibility of government, determine if the mine collaborates with government to achieve outcomes consistent with the IRMA Chapter (2.4.8.1, 2.4.8.2)

Resettlement Requirements for Existing Mines (if resettlement occurred after April 30, 2006) AND there are no currently proposed changes to mining operations that may require resettlement.¹⁷² (If there are proposed changes at existing mines that may require resettlement, then all requirements must be assessed).

¹⁷² Mines that carried out all resettlements prior to April 30, 2006 may mark this chapter as "Not Relevant". See section on "How this Chapter is to be Audited," above, for more details.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>2.4.1. Risk and Impact Assessment</p> <p>2.4.1.1. If there is the potential that a new mine (including associated facilities) or the expansion of an existing mine or associated facilities may require land acquisition that could result in the involuntary resettlement (for the remainder of this chapter, referred to as resettlement) of people, the operating company shall undertake an assessment process to evaluate the potential direct and indirect risks and impacts related to the physical and/or economic displacement of people.</p>	<p>AUDITING NOTE FOR 2.4.1.1: The default is to mark this as not relevant UNLESS there is a current proposed change to the mining operation (e.g., an expansion) that may lead to resettlement. In such cases, companies are expected to undertake an assessment so this requirement would be relevant.</p> <p>Even if there are no current proposed changes that may lead to resettlement, if requested by the mine, auditors may score this requirement (e.g., in relation to past resettlements).</p> <p>If an assessment was undertaken to identify potential risks or actual impacts related to resettlement, auditors may want to review the documentation as it may provide useful history and context.</p> <p>For 2.4.1.1: Confirm, through interviews with relevant operating company employees and review of relevant documentation, that alternative designs for the mining project were considered to avoid or minimize physical and/or economic displacement, and that special attention was given to impacts on women, marginalized and vulnerable</p>	<p>For 2.4.1.1:</p> <ul style="list-style-type: none"> Documentation related to resettlement risk/impact assessment process (e.g., methodology, scoping documents, draft and final risk assessment reports). 	<p>Explanatory Note for 2.4.4.1: “Physical displacement” occurs when affected people are required to move from their homes to another location.</p> <p>The term “economic displacement” includes the loss of assets or access to assets that leads to loss of income sources or other means of livelihood, regardless of whether or not affected people are physically displaced.¹⁷³</p> <p>“Direct risks” would be associated with activities that are undertaken, and facilities that are owned and managed by the mining company. “Indirect risks” would be those stimulated by the mining project’s presence (e.g., an influx of workers or others seeking economic opportunities due to the mine development), but the potential impacts would be caused by other parties (e.g., increased influx could put pressures on environmental and social resources). See also definition of direct/indirect impacts.</p> <p>Depending on timing and other factors, the resettlement risk and impact assessment may be done as a stand-alone process, or the assessment of risks and impacts from resettlement may occur as part of a broader environmental and social impact assessment for the mining project.¹⁷⁴ If undertaken as part of a broader impact assessment process the assessment of resettlement risks and impacts will be expected to meet the requirements of this chapter (in particular 2.4.1.2 to 2.4.1.5, 2.4.2.1, and 2.4.2.2). If resettlement assessment and planning is carried out but a project is subsequently delayed (e.g., due to permitting issues, or for economic reasons, etc.), there may be the need update parts of the assessment (e.g., census data) and the resettlement and/or livelihood restoration action plans prior to resettlement implementation.</p>

¹⁷³ *ibid.* Para.26.

¹⁷⁴ International Finance Corporation (IFC). 2012. Performance Standard 5: Land Acquisition and Involuntary Resettlement. Para.26. https://www.ifc.org/wps/wcm/connect/4b976700498008d3a417f6336b93d75f/GN5_English_2012.pdf?MOD=AJPERES

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
	groups in potentially displaced communities, and potential host/receiving communities.		
<p>2.4.1.2. The assessment shall:</p> <ol style="list-style-type: none"> Be undertaken during the early stages of mining project planning; Include identification of alternative mining project designs to avoid, and if that is not possible, minimize the displacement of people; Identify and analyze the social, cultural, human rights, conflict, environmental and economic risks and impacts to displaced persons and host communities for each project design alternative, paying particular attention to potential impacts on women, children, the poor and vulnerable groups; and Identify measures to prevent and mitigate risks and impacts, and estimate the costs of implementing the measures. 	<p>AUDITING NOTE FOR 2.4.1.2: The default is to mark this as not relevant UNLESS there is a current proposed change to the mining operation that may lead to resettlement (See auditing note for 2.4.1.1).</p> <p>Even if there are no current proposed changes that may lead to resettlement, if requested by the mine, auditors may score this requirement (e.g., in relation to past resettlements).</p> <p>If any sort of assessment was undertaken to identify potential risks or actual impacts related to resettlement, auditors may still want to review the documentation as it may provide useful history and context.</p> <p>For 2.4.1.2: Review the assessment to confirm that it conforms with the aspects listed in 2.4.1.2.</p>	<p>For 2.4.1.2:</p> <ul style="list-style-type: none"> Documentation related to resettlement risk/impact assessment process (e.g., methodology, scoping documents, draft and final risk assessment reports). Documentation of alternative mining project designs considered, and the potential for each to result in resettlement. Documentation of methodology for accepting/rejecting various project designs Documentation of methodology for identifying potentially affected people, and for collecting census/socio-economic baseline data. Documentation of efforts to minimize resettlement. Resettlement Action Plan. Livelihood Restoration Plan. 	<p>Explanatory Note for 2.4.1.2: World Bank experience indicates that, “involuntary resettlement under development projects, if unmitigated, often gives rise to severe economic, social and environmental risks: productive systems are dismantled; people face impoverishment when their productive assets or income sources are lost; people are relocated to environments where their productive skills may be less applicable and the competition for resources greater; community institutions and social networks are weakened; kin groups are dispersed; and cultural identity, traditional authority, and the potential for mutual help are diminished or lost.”¹⁷⁵</p> <p>Additionally, resettlement or relocation of affected communities may result in impacts on the environment, biodiversity, ecosystems services or protected areas, as new areas are developed for communities and livelihood activities.</p> <p>Social disintegration and severe impoverishment are some of the immediate consequences of resettlement that affect not only the displaced community but also the host community.¹⁷⁶</p> <p>Re: 2.4.1.2.c: Host communities, with respect to resettlement, are any communities receiving displaced persons. They may also be called “receiving communities.” According to IFC, “Host communities may be affected adversely by new settlement and should therefore be identified as a category of persons affected by the project. The sponsor must</p>

¹⁷⁵ World Bank. 2001. Operational Manual. OP 4.12 – Involuntary Resettlement. <https://policies.worldbank.org/sites/ppf3/PPFDocuments/090224b0822f89db.pdf>

¹⁷⁶ Sridarran et al. 2018. "Acceptance to be the Host of a Resettlement Programme: A literature review," Procedia Engineering. 212:962-969. <https://www.sciencedirect.com/science/article/pii/S1877705818301474>

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<p>2.4.1.3. The assessment shall be undertaken by competent professionals with experience in resettlement related to large-scale development projects.</p>	<p>AUDITING NOTE FOR 2.4.1.3: The default is to mark this as not relevant UNLESS there is a current proposed change to the mining operation that may lead to resettlement (See auditing note for 2.4.1.1).</p>	<p>For 2.4.1.3:</p> <ul style="list-style-type: none"> • Documented evidence of the qualification of the company employees or external experts who conducted the resettlement assessment. 	<p>address and mitigate any adverse effects associated with resettlement in host communities including increased pressure on land, water, natural vegetation. . . common property resources, public infrastructure, and services.¹⁷⁷</p> <p>The full range of risks to human rights, and potential social and environmental impacts on potentially displaced communities and also potential host communities should be assessed during the resettlement risk and impact assessment process (2.4.1.1 and 2.4.1.2). As mentioned in the note for 2.4.1.1, this assessment may be carried out as a stand-alone process, or as part of a broader environmental and social impact assessment for the mining project.</p> <p>A case study on risks to human rights posed by resettlement can be found in the IFC’s Guide Human Rights Impact Assessment and Management.¹⁷⁸ Risks to human rights related to resettlement must be assessed and addressed in a manner that is consistent with IRMA Chapter 1.3. If the timing works out, the assessment of risks related to resettlement may be done as part of a larger human rights risk assessment for the entire mining project proposal. Otherwise risks to human rights posed by resettlement can be determined during a risk and impact assessment process that is specific to resettlement.</p> <p>Explanatory Note for 2.4.1.3: As defined in the IRMA Glossary, competent professionals are “In-house staff or external consultants with relevant education, knowledge, proven experience, necessary skills and training to carry out the required work. Competent professionals would be expected to follow scientifically robust methodologies that would withstand scrutiny by other professionals. Other equivalent terms used</p>

¹⁷⁷ International Finance Corporation (IFC). 2002. Handbook for Preparing a Resettlement Action Plan. p. 12. <https://commdev.org/userfiles/ResettlementHandbook.pdf>

¹⁷⁸ IFC. 2011. Guide to Human Rights Impact Assessment and Management. pp. 87 – 93. https://www.globalgovernancewatch.org/docLib/20140206_hriam-guide-092011.pdf

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<p>2.4.1.4. The operating company shall document decision-making regarding alternative mining project designs and efforts to minimize resettlement.</p>	<p>Even if there are no current proposed changes that may lead to resettlement, if requested by the mine, auditors may score this requirement (e.g., in relation to past resettlements).</p> <p>For 2.4.1.3: Interview relevant company representatives, and review the experience and qualifications of the company employees or external experts that carried out the resettlement assessment to confirm that they had experience in resettlement.</p> <p>AUDITING NOTE FOR 2.4.1.4: The default is to mark this as not relevant UNLESS there is a current proposed change to the mining operation that may lead to resettlement (See auditing note for 2.4.1.1).</p> <p>Even if there are no current proposed changes that may lead to resettlement, if requested by the mine, auditors may score this requirement (e.g., in relation to past resettlements).</p> <p>If any sort of documentation exists related to efforts to avoid or minimize resettlement auditors want to review the it, as it may provide useful history and context.</p> <p>For 2.4.1.4: Review assessment documentation to confirm that the</p>	<p>For 2.4.1.4:</p> <ul style="list-style-type: none"> • Documentation related to resettlement risk/impact assessment process (e.g., methodology, scoping documents, draft and final risk assessment reports). • Documentation of alternative project designs considered, and the potential for each to result in resettlement. • Documentation of methodology for accepting/rejecting various project designs • Documentation of rationale for accepting/rejecting various project designs • Documentation of efforts to minimize resettlement. 	<p>may include: competent person, qualified person, qualified professional.”</p> <p>Explanatory Note for 2.4.1.4: The operating company is expected to consider different project designs in order to avoid involuntary resettlement, if possible, and otherwise to minimize the number of people who will be physically displaced and/or economically displaced as a result of a particular project design.</p> <p>Companies should establish a methodology for comparing various project designs, so that the decision-making framework is clearly understood, such as establishing what factors need to be considered for each alternative project design (e.g., likely number of people to be physically and/or economically displaced, potential equivalent land/livelihood opportunities for displaced people, environmental impacts, social impacts, human rights, cost, technical feasibility, etc.), and how different factors are valued or weighted in the analysis of the alternatives.</p> <p>The different project design ideas, as well as the potential for physical and economic displacement of affected community members should be documented, as should the rationale for why various alternatives were rejected.</p>

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<p>2.4.1.5. The assessment shall be made public, or, at minimum, be made available to potentially affected people and their advisors.</p>	<p>company provided rationale for decisions related to alternative mining project designs in relation to how they prevented or minimized the need for resettlement.</p> <p>AUDITING NOTE FOR 2.4.1.4: The default is to mark this as not relevant UNLESS there is a current proposed change to the mining operation that may lead to resettlement (See auditing note for 2.4.1.1).</p> <p>Even if there are no current proposed changes that may lead to resettlement, if requested by the mine, auditors may score this requirement (e.g., in relation to past resettlements).</p> <p>For 2.4.1.5: Confirm that the risks and impacts assessment was made public, or was made available to potentially affected people and their advisors.</p> <p>As per IRMA Chapter 2.1, materials need to be provided in formats and languages that are culturally appropriate and accessible to affected communities and stakeholders (see requirement 1.2.4.3).</p>	<p>For 2.4.1.5:</p> <ul style="list-style-type: none"> Record of communication with stakeholders, e.g., providing them with copies of the assessment or informing them how to obtain a copy. Documented evidence that assessments that have been made public (e.g., links to websites); evidence of availability of reports in public locations. Documented evidence that reports have been provided Records of meetings with people specifically being relocated and host communities to present findings. 	<p>Explanatory Note for 2.4.1.5: In this case, "be made public" means that the assessment should either be available on the operating company's website, or available in hard copy or digitally at a public facility (e.g., a public library, government office, etc.) within affected communities (including host communities).</p> <p>Alternatively, if not made publicly available the operating company should inform potentially affected people that they have the ability to access the assessment upon request, if they are so interested.</p> <p>Some communities may prefer to have results presented to them by the company, e.g., a community forum or meeting. Even if this occurs, companies should inform communities that the assessment report is publicly available or available upon request, in a language that is understandable to the community members.</p> <p>Companies are not expected to include in public reports information that is culturally inappropriate, that compromises the safety of any individual, or legitimate confidential business information. Culturally inappropriate information may include that which is sensitive to particular groups or communities, and therefore should not be freely released to all requesting parties (e.g., locations of indigenous peoples' sacred sites). Stakeholders can help to define what is considered culturally inappropriate.</p>
<p>2.4.2. Community Engagement</p>	<p>AUDITING NOTE FOR 2.4.2: This requirement must be evaluated and</p>	<p>For 2.4.2.1:</p> <ul style="list-style-type: none"> Documentation related to 	<p>Explanatory Note for 2.4.2.1: "Potentially affected persons and communities" include but are not necessarily limited to physically and/or</p>

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<p>2.4.2.1. The operating company shall disclose relevant information and consult with potentially affected persons and communities, including host communities, during:</p> <p>a. The assessment of displacement and resettlement risks and impacts, including the consideration of alternative mining project designs to avoid or minimize resettlement;</p> <p>b. The development of resettlement and livelihood options; and</p> <p>c. The development, implementation, monitoring and evaluation of a Resettlement Action Plan (RAP) and/or Livelihood Restoration Plan (LRP).</p>	<p>scored. However, if there were several resettlements related to the mine, only those that occurred after April 30, 2006 need to be evaluated and scored. Any that occurred prior to that date may be scored at the request of the mine.</p> <p>Confirm the following through interviews with relevant operating company employees, and affected persons and representatives from affected communities, including host communities, and review of documentation.</p> <p>AUDITING NOTE FOR 2.4.2.1.a: Given that existing mines are not expected to have carried out a risk and impact assessment, auditors should not factor this sub-requirement into the score UNLESS there is a current proposed change to the mining operation that may lead to resettlement. In such cases, an assessment would be expected to be occurring, and so would community engagement related to the assessment.</p> <p>However, if risk/impact assessments were disclosed to affected persons auditors should make a note to indicate that the mine did carry out this best practice.</p> <p>AUDITING NOTE FOR 2.4.2.1.b and c: In the past, existing mines may not have</p>	<p>resettlement risk/impact assessment process (e.g., methodology, scoping documents, draft and final risk assessment reports).</p> <ul style="list-style-type: none"> Records of meetings with potentially affected community members and issues discussed during those meetings. Records of other communications with potentially affected community members (e.g., written correspondence). Records of input received from affected community members during the assessment of resettlement risks and impacts, or during the development of resettlement and livelihood options, or the development of Resettlement Action Plan (RAP) and/or Livelihood Restoration Plan (LRP) or other action plan. Records of participation of affected community members in Monitoring and Evaluation of the RAP and/or LRP or other action plan. 	<p>economically displaced persons and their advisors, and stakeholders in host communities and their advisors.</p> <p>As per IRMA Chapter 1.2, engagement with stakeholders (in particular, potentially affected persons who may be displaced or located in host communities, as well as rights holders such as indigenous peoples or any person whose human rights may be infringed upon during resettlement) shall conform to the requirements in IRMA Chapter 1.2. In particular, criterion 1.2.3 is important to ensure that stakeholders have the capacity to fully understand their rights and engage effectively in the resettlement assessment and the development of prevention and mitigation options, plans and resettlement monitoring and evaluation processes.</p> <p>Also, criterion 1.2.4 ensures that communications and information are provided in a timely manner and are in culturally appropriate formats and languages that are understandable to stakeholders. "Culturally appropriate" engagement processes would be those that are aligned with the cultural norms and communication styles of the affected communities and stakeholders. (For more on culturally appropriate communications see IRMA Chapter 1.2)</p> <p>Companies are not expected to disclose any information that is culturally inappropriate, that compromises the safety of any individual, or legitimate confidential business information. Culturally inappropriate information may include that which is sensitive to particular groups or communities, and therefore should not be freely disclosed. Affected persons and community representatives can help to define information that is considered culturally inappropriate or that may create safety issues for them.</p> <p>Re: 2.4.2.1.a, if a risk assessment was undertaken companies are encouraged to release it to stakeholders, but will not be penalized if this has not been done.</p>

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	<p>consulted with affected persons to develop resettlement or livelihood options or RAP/LRP. If this was not done there will be no penalty for that.</p> <p>But as per 2.4.3.3 below, it is expected that existing mines now have a plan in place for how they will implement actions or mitigation measures to achieve IRMA Chapter objectives, and mines should be able to demonstrate at the time of the audit that existing mitigation options and plans, including plans related to monitoring and evaluation, have been discussed with affected persons and communities.</p> <p>For 2.4.2.1: Confirm that there has been disclosure of relevant information (e.g., plans, monitoring results) to affected communities.</p> <p>Confirm that mine has engaged with affected persons/communities in the implementation, monitoring and evaluation of <u>mitigation</u> measures to reach the objectives of IRMA Chapter.</p> <p>If measures are not producing outcomes, confirm that affected persons/communities are being consulted in the development of additional measures to deliver outcomes that align with the objectives of this chapter.</p>		<p>Re: 2.4.2.1.b and c, options to address or mitigate the impacts of resettlement may include, for example, compensation and/or livelihood restoration projects and activities.</p>

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<p>2.4.2.2. The operating company shall facilitate access, if desired by potentially affected persons and communities, including <u>host communities</u>, to independent legal or other expert advice from the earliest stages of project design and assessment, through monitoring and evaluation of the resettlement process.</p>	<p>Confirm that the views of affected households, included women and men, <u>vulnerable groups</u>, and <u>host communities</u>, are incorporated into decision-making related to <u>mitigation</u>, implementation, monitoring and evaluation.</p> <p>AUDITING NOTE FOR 2.4.2.2: Existing mines may not have offered to help <u>communities access expert advice during the earliest stages of project design and assessment</u>. If it was not done during those stages there will be no penalty for that.</p> <p>But if existing mines are not meeting the IRMA Chapter objectives, it is expected that they will have offered this type of assistance to affected communities to facilitate the effective participation of communities in the planning, monitoring and evaluation of actions or mitigation measures to improve their livelihoods.</p> <p>For 2.4.2.2: Confirm that the <u>operating company</u> has offered to provide affected people and <u>host communities</u> with access to independent experts (e.g., in the development, implementation, monitoring and evaluation of actions or mitigation measures).</p>	<p>For 2.4.2.2:</p> <ul style="list-style-type: none"> • Records of communications with potentially affected stakeholders involving requests for expert assistance related to resettlement. • Documented evidence of provision of access to independent legal or other expert advice to potentially affected persons and communities, including host communities. 	<p>Explanatory Note for 2.4.2.2: “facilitate access to independent experts” may involve providing funding to enable affected people to select and consult with experts; work with government agencies and/or non-governmental organizations to provide free legal and other services to affected people; or other means.</p> <p><u>Existing mines</u> will not be expected to have offered assistance from the earliest stages of project design and assessment, but if resettlement monitoring and evaluation are ongoing then they would be expected to meet the intent of this requirement.</p>

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<p>2.4.2.3. Persons from <u>affected communities</u>, including <u>host communities</u>, shall have access to an effective mechanism to raise and seek recourse for concerns or <u>grievances</u> related to <u>displacement</u> and <u>resettlement</u>.</p>	<p>For 2.4.2.3: The operational-level <u>grievance mechanism</u> developed as per IRMA Chapter 1.4 may be used to handle resettlement-related complaints. If it is not, confirm that any resettlement-specific <u>grievance mechanism</u> is consistent with the requirements of IRMA Chapter 1.4, which includes a requirement that grievance mechanisms be designed to address the effectiveness criteria outlined in UN Guiding Principles on Business and Human Rights.¹⁷⁹</p> <p>Confirm that a mechanism was in place early enough to be able to receive and address specific concerns related to compensation and relocation raised by displaced persons and <u>host communities</u>, and that affected persons were aware of the <u>grievance mechanism</u>, that it was culturally appropriate, and enabled stakeholder participation in its design.</p> <p>"Culturally appropriate" engagement processes would be those that are aligned with the cultural norms and communication styles of the <u>affected communities</u> and <u>stakeholders</u>. (For more on culturally appropriate communications see IRMA Chapter 1.2)</p>	<p>For 2.4.2.3:</p> <ul style="list-style-type: none"> • Documented complaints and grievance procedures. • Documentation on how the grievance mechanism and its procedures align with the effectiveness criteria outlined in UN Guiding Principles on Business and Human Rights. • Records of communications with potentially affected stakeholders informing them of the grievance mechanism and its procedures. • Records of lodged complaints and grievances. • Records of resolved grievances and steps taken to resolve them, including records of communications with those filing grievances. 	<p>Explanatory Note for 2.4.2.3: The operational-level <u>grievance mechanism</u> developed as per Chapter 1.4 may be used as a mechanism to receive and address resettlement related <u>grievances</u>, or a mechanism may be created to handle only resettlement-related concerns. If a separate mechanism is developed, it shall be done in a manner that is consistent with IRMA Chapter 1.4. In particular, it shall be developed in a manner that meets the United Nations Guiding Principles on Business and Human Rights effectiveness criteria for <u>grievance mechanisms</u>.</p> <p>Measures of whether or not a mechanism meets the effectiveness criteria include that the mechanism is:</p> <p>(a) <u>Legitimate</u>: the mechanism has been co-designed by stakeholders and is trusted by them (and there are no unresolved complaints that the mechanism is unfair or biased);</p> <p>(b) <u>Accessible</u>: The mechanism provides various means of filing complaints and does so in formats in language that work for affected stakeholders;</p> <p>(c) <u>Predictable</u>: There are known procedures and timelines/deadlines for receiving responses from the company when complaints are filed, etc.</p> <p>(d) <u>Equitable</u>: Complainants are provided with resources to understand the grievance procedures/processes and participate in an informed manner;</p> <p>(e) <u>Transparent</u>: Company provides sufficient information about the complaints received, how they were handled, and their outcomes;</p> <p>(f) <u>Rights-Compatible</u>: The mechanism can handle human rights related complaints, allows for confidentiality, and can result in suspension of</p>

¹⁷⁹ Ruggie, J. 2011. Guiding Principles on Business and Human Rights. A/HRC/17/31. Principles 31. Available at: www.ohchr.org/Documents/Issues/Business/A-HRC-17-31_AEV.pdf

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<p>2.4.3. Resettlement and Livelihood Restoration Planning and Preparation</p> <p>2.4.3.1. When project-related displacement is deemed unavoidable, a census shall be carried out to collect appropriate socio-economic baseline data to identify the persons who will be physically or economically displaced by the project and determine who will be eligible for compensation and assistance.</p>	<p>AUDITING NOTE FOR 2.4.3.1: The default is to mark this as not relevant UNLESS there is a current proposed change to the mining operation that may lead to resettlement. In such cases, a risk and impact assessment would have to be undertaken, as per 2.4.1.1, and this requirement would be relevant if physical displacement is deemed unavoidable and a decision is made to proceed with the proposed changes.</p> <p>Even if there are no current proposed changes that may lead to resettlement, if requested by the mine, auditors may</p>	<p>For 2.4.3.1:</p> <ul style="list-style-type: none"> • Documentation of methodology for identifying potentially affected people, and for collecting census/socio-economic baseline data. • Report or other documentation containing socio-economic baseline data (e.g., census results). • Documented compensation eligibility criteria. 	<p>certain mining project activities if there is a risk of imminent human rights abuses related to those activities;</p> <p>(g) <u>Source of continuous learning</u>: There are scheduled reviews of the mechanism that allow for input from stakeholders;</p> <p>(h) Based on engagement/dialogue: Stakeholders are consulted in the design and performance of mechanism, and dialogue is a primary means to try to address and resolve grievances.</p> <p>For more on effectiveness criteria, see:</p> <p>UN Guiding Principles on Business and Human Rights.¹⁸⁰ Doing Business with Respect for Human Rights.¹⁸¹</p> <p>Explanatory Note for 2.4.3.1: This requirement comes from IFC (PS 5, Para. 12).</p> <p>Effective resettlement planning entails conducting a detailed socio-economic census of displaced persons and an inventory of affected land and assets at the household, enterprise, and community level. The date of completion of the census and assets inventory represents a cut-off date.¹⁸²</p> <p>According to IFC, the census serves five interrelated functions:¹⁸³</p> <p>Enumerating and collecting basic information on the affected population Registering the affected population by residence or locality Establishing a list of legitimate beneficiaries before the project's onset that counters spurious claims from those moving into the project area solely in anticipation of benefits</p>

¹⁸⁰ Ibid. 33-35.

¹⁸¹ Global Compact Network Netherlands, Oxfam and Shift. "Doing Business With Respect for Human Rights." See, in particular, Chapter 3.8. <https://www.businessrespecthumanrights.org/en/page/349/remediation-and-grievance-mechanisms>

¹⁸² International Finance Corporation (IFC). 2012. Performance Standard 5: Land Acquisition and Involuntary Resettlement. GN32. https://www.ifc.org/wps/wcm/connect/4b976700498008d3a417f63336b93d75f/GN5_English_2012.pdf?MOD=AJPERES

¹⁸³ International Finance Corporation (IFC). 2002. Handbook for Preparing a Resettlement Action Plan. p. 15. <https://commdev.org/userfiles/ResettlementHandbook.pdf>

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	<p>score this requirement (e.g., in relation to past resettlements).</p> <p>Regardless of whether this is scored, if baseline information is available it should be reviewed by auditor, as it could help support the mine's rationale for who is considered an affected person and therefore be included in actions to improve livelihood outcomes.</p> <p>For 2.4.3.1: Interview relevant operating company staff and stakeholders and review documentation to confirm that the operating company carried out a census to collect appropriate socio-economic baseline data to identify potentially displaced persons.</p> <p>Confirm that the collection of census and socio-economic baseline data followed credible methodologies.</p>		<p>Laying a framework for subsequent socioeconomic research needed to establish fair compensation rates and to design, monitor, and evaluate sustainable income restoration or development interventions Providing a baseline for monitoring and evaluation.</p> <p>According to IFC, the baseline situation—to be established prior to resettlement—may include a socio-economic survey, census and enumeration of household assets. Socio-economic baseline studies should be conducted in the early stages of project preparation and with the involvement of potentially displaced people. The studies may include the information on vulnerable groups, information on livelihoods and standards of living, land tenure and transfer systems, use of natural resources, patterns of social interaction, social services and public infrastructure.¹⁸⁴ The results of socioeconomic studies and household and census survey will be used to inform the Resettlement Action Plan or Livelihood Restoration plan.</p> <p>Efforts should be made to gather qualitative baseline data, as this will assist with later determination of appropriate compensation rates and measures, and to ensure that adequate budget is set aside to carry out required mitigation and compensation.</p> <p>Re: "determine who will be eligible for compensation and assistance," IFC recommends that: "Documentation of ownership or occupancy and compensation arrangements should be issued in the names of both spouses or heads of households. Where national law and tenure systems do not recognize the rights of women to hold or contract in property, measures should be considered to provide women as much protection as possible with the objective to achieve equity with men."¹⁸⁵</p> <p>The purpose of the census, concepts such as "inventory of assets" and "eligibility cut-off dates" and assistance should be communicated to the</p>

¹⁸⁴ International Finance Corporation (IFC). 2012. Performance Standard 5: Land Acquisition and Involuntary Resettlement. GN39 and p. 28. https://www.ifc.org/wps/wcm/connect/4b976700498008d3a417f6336b93d75f/GN5_English_2012.pdf?MOD=AJPERES

¹⁸⁵ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. Para.12, Footnote 17. https://www.ifc.org/wps/wcm/connect/4b976700498008d3a417f6336b93d75f/GN5_English_2012.pdf?MOD=AJPERES

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<p>2.4.3.2. In the absence of host government procedures, the operating company shall establish compensation eligibility criteria and a cut-off date for eligibility. Information regarding the cut-off date shall be well documented, and disseminated along with eligibility information throughout the mining project area.</p>	<p>AUDITING NOTE FOR 2.4.3.2: The default is to mark this as not relevant UNLESS there has been a proposed change to the existing mining operation, and a decision to proceed with the change despite the need for resettlement.</p> <p>Even if there are no current proposed changes that may lead to resettlement, if requested by the mine, auditors may score this requirement (e.g., in relation to past resettlements).</p> <p>Regardless of whether this is scored, if compensation eligibility criteria exist, they should be reviewed by auditor, and could help support the mine’s rationale for who is considered an affected person and therefore be included in actions to improve livelihood outcomes.</p> <p>For 2.4.3.2: If relevant, interview relevant operating company staff and stakeholders and review documentation to confirm that the company, as per 2.4.3.2, developed criteria for eligibility</p>	<p>For 2.4.3.2:</p> <ul style="list-style-type: none"> • Documented cut-off date and eligibility information. • Documented compensation eligibility criteria. • Record of communications with potentially affected stakeholders informing them of the eligibility criteria and cut-off date. • Records of outreach activities undertaken to disseminate eligibility criteria (e.g., advertisements, mailings, radio spots, distribution of flyers, public meetings, etc.) and information on the cut-off date. 	<p>potentially affected/displaced persons before or while the census is occurring (see also 2.4.3.2).</p> <p>The data gathered during this step should feed into the assessment of risks and impacts on human rights (IRMA Chapter 1.3), as the potential risks for infringement of human rights when people are displaced is greatly heightened.</p> <p>Explanatory Note for 2.4.3.2: The requirement is always relevant if the host country does not have regulations/procedures in place for compensation eligibility.</p> <p>If the host country has regulations/procedures in place for compensation eligibility and a cut-off date for eligibility that do not conform with other requirements in this chapter (e.g., if the government does not allow compensation for physically displaced person who don’t have any formal legal rights to their current land or assets (see 2.4.4.3)) then, as per requirement 2.4.8.1 the operating company is expected to collaborate with the responsible government agency to strive to achieve outcomes that are consistent with this chapter. For example, the company may be able to provide assistance to ensure the dissemination of eligibility information throughout the project area, or the company may be allowed to provide housing, compensation, training, livelihood opportunities, etc. to those who fall outside government eligibility requirements in a manner that does not conflict with host country law.</p> <p>Eligibility criteria and cut-off dates may have impacts on human rights and livelihoods, e.g., the law of the country might require that no improvements (including agricultural activities) may happen on land after the cut-off date, which could have food security implications and impacts on standards of living. As a result, operating companies should assess the potential impacts of these factors when establishing their own eligibility criteria, or when assessing the impacts on human rights from the resettlement (as required in 2.4.1.1 and 2.4.1.2).</p>

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	<p>for compensation and assistance; and disseminated cut-off date and eligibility criteria throughout the project area.</p> <p>If government criteria exist, confirm that offers have been made by the company to assist the government to ensure the wide dissemination of eligibility information throughout the mining project area.</p>		

2.4.3.3. In the case of physical displacement, the operating company shall develop a Resettlement Action Plan. If the project involves economic displacement only, a Livelihood Restoration Plan shall be developed. In either case, these plans shall, at a minimum:

- a. Describe how affected persons will be involved in an ongoing process of consultation throughout the resettlement/livelihood restoration planning, implementation and monitoring phases;
- b. Describe the strategies to be undertaken to mitigate the negative impacts of displacement and improve or restore livelihoods and standards of living of displaced persons, paying particular attention to the needs of

AUDITING NOTE for 2.4.3.3: This requirement must be evaluated and scored. However, if there were several resettlements related to the mine, only those that occurred after April 30, 2006 need to be evaluated and scored against this requirement. Any that occurred prior to that date may be scored at the request of the mine.

At existing mines where resettlement has already occurred, mines may not have developed RAP or LRP. If RAP/LRP were not developed during earlier stages to guide the resettlement or livelihood restoration process, there will be no penalty for that.

But if it is clear that the objectives of this chapter have not been met, mines are expected to have developed and implemented a plan to achieve the

For 2.4.3.3:

- Resettlement Action Plan.
- Livelihood Restoration Plan.
- Other action plan.

Explanatory Note for 2.4.3.3:

For existing mines:

If no RAP/LRP exist, but the objectives of this chapter have not yet been met, mines are expected to have developed and implemented a plan to achieve the objectives. Such a plan might involve actions such as further compensation, livelihood restoration/improvement strategies, or strategies to ensure that living conditions are improved over what existed pre-resettlement.

Mines could be working with affected households on security of tenure (including working with those who were physically displaced but had no legal right to lands or assets). And if replacement land was not of same quality as what was lost during resettlement efforts could be made to create livelihood opportunities to mitigate for lost opportunities and income (including food grown for subsistence) that the land would have provided.

It is acknowledged that in some cases it may be difficult to verify pre-resettlement conditions. If that is the case, mines should work with affected people to develop and agree on what some indicators might be

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<p>women, the poor and <u>vulnerable groups</u>;</p> <p>c. Describe development-related opportunities and benefits for affected persons and communities;</p> <p>d. Describe the methods used for valuing land and other assets;</p> <p>e. Establish the compensation framework (i.e., entitlements and rates of compensation for all categories of affected persons, including <u>host communities</u>) in a transparent, consistent, and equitable manner;</p> <p>f. Include a budget and implementation schedule; and</p> <p>g. Be publicly available.</p>	<p>objectives. The name of the plan is not important, as long as a plan is in place and being implemented.</p> <p>If there are existing RAP and/or LRP, they may need to be supplemented to include the required elements in 2.4.3.3.</p> <p>AUDITING NOTE for 2.4.3.3.a: If consultation did not happen in the past, e.g., during the planning stages of resettlement, that does not need to be considered in the score.</p> <p>However, if the mine is still in the process of trying to achieve the objectives of this chapter then the mine must be scored on whether or not consultation is occurring now. In particular, mines should be working in good faith with those who were physically and economically displaced to develop agreed mitigation measures.</p> <p>AUDITING NOTE for 2.4.3.3.d and e: It is recognized that at existing mines, methodologies for valuing land and assets (d), and compensation frameworks (e) may not have been developed or documented in a robust way. So mines shall not be scored on</p>	<p>For adequate compensation, livelihood opportunities, and living conditions moving forward.</p> <p>For those who lost commercial structures and venture, mines should be working with them in good faith to provide fair compensation and create new economic opportunities.</p> <p>Re: 2.4.3.3.d and e, it is recognized that there may be a lack of documentation related to the socioeconomic status, land and assets of those who were physically and/or economically displaced by the mine. In situations where it is not possible to determine the fairness of compensation paid in the past, mines could focus more on livelihood improvement, rather than compensation. And/or mines could work in good faith with affected persons to come up with additional compensation that seems fair to all parties. If compensation is paid, a framework should be established that is transparent, equitable and consistently applied.</p> <p>For new mines:</p> <p>The sub-requirements a through outline the minimum requirements for <u>Resettlement Action Plans and Livelihood Restoration Plans at new mines</u>.</p> <p>In addition to Annex A of IFC Performance Standard 5, there are several good resources available that provide additional information on developing such plans. For additional guidance on developing a <u>Resettlement Action Plan and/or Livelihood Restoration Plan</u> see:¹⁸⁶</p> <p>IFC. 2002. Handbook on Resettlement. World Bank. Resettlement Plan generic template. UNDP. Resettlement Action Plan Template.</p>	

¹⁸⁶ IFC. 2002. Handbook on Resettlement. https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/publications/publications_handbook_rap_wci_1319577659424 and World Bank. Resettlement Plan generic template. http://www.rhd.gov.bd/Documents/ExternalPublications/WorldBank/Resettlement/generic/plan_rap.htm and UNDP. Resettlement Action Plan Template. https://info.undp.org/sites/bpps/SES_Toolkit/_layouts/15/WopiFrame.aspx?sourcedoc=/sites/bpps/SES_Toolkit/SES%20Document%20Library/Uploaded%20October%202016/Resettlement%20Action%20Plan%20-%20Template.docx&action=default and Bankwatch. Resettlement Action Plan outline. https://bankwatch.org/documents/Outline_RAP.pdf

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	<p>early-stage compensation methodologies and framework (unless requested by the mine).</p> <p>If methodology or compensation frameworks were documented, they should be reviewed, as these items could provide insight to mines and auditors as to whether or not compensation provided to those displaced was adequate, or whether additional compensation should be considered.</p> <p>Finally, if the mine is still in the process of trying to achieve the objectives of this chapter, and new compensation is being proposed, then d and e should be carried out to the best of the mine's abilities (and scored).</p> <p>For 2.4.3.3: Interview relevant <u>operating company</u> staff and <u>stakeholders</u> and review documentation to confirm that the company has developed a plan in <u>consultation</u> with <u>affected communities</u> that meets the sub-requirements in 2.4.3.3.</p>		<p>Bankwatch. Resettlement Action Plan outline.</p> <p>Re: 2.4.3.3.b., in addition to paying attention to the needs of women, the poor and vulnerable groups, attention should be paid to the situations (e.g., housing, assets, cultural and social support systems, food security, etc.) that should be addressed to mitigate negative impacts.</p> <p>Re: 2.4.3.3.e., compensation for land and other assets should be calculated at the market value plus the transaction costs related to restoring the assets. In practice, those who suffer negative social and economic impacts as a result of the acquisition of land for a project and/or restrictions on land use, may include those having legally recognized rights or claims to the land; those with customary claims to land; and those with no legally recognized claims, as well as seasonal natural resource users such as herders, fishing families, hunters and gatherers who may have interdependent economic relations with communities located within the project area. The potential variety of land and land use claimants renders the calculation of full replacement cost in the above-mentioned situations difficult and complex.¹⁸⁷</p> <p>Re: 2.4.4.3.f, companies are not expected to include in public budget and implementation reports any information that is culturally inappropriate, that compromises the safety of any individual, or legitimate confidential business information. Culturally inappropriate information may include that which is sensitive to particular groups or communities, and therefore should not be freely released publicly. Affected persons and community representatives can help to define what is considered culturally inappropriate or that may create safety issues for them.</p>

¹⁸⁷ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. GN8.

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<p>2.4.4. Mitigation Measures Related to Physical Displacement</p> <p>2.4.4.1. In all cases, when people are physically displaced as a result of the development or expansion of a mine or its associated facilities:</p> <ol style="list-style-type: none"> The operating company shall provide relocation assistance that is suited to the needs of each group of displaced persons and is sufficient for them to improve or at least restore their standard of living at an alternative site; New resettlement sites built for displaced persons shall offer improved living conditions; and Displaced persons’ preferences with respect to relocating in pre-existing communities and groups shall be taken into consideration and existing social and cultural institutions of the displaced persons and any <u>host communities</u> shall be respected. 	<p>AUDITING NOTE FOR 2.4.4: The default is to mark all requirements in this criterion as not relevant UNLESS there has been a proposed change to the existing mining operation, and a decision to proceed with the change despite the need for resettlement that will result in physical displacement.</p> <p>Even if there are no current proposed changes that may lead to resettlement, if requested by the mine, auditors may score the requirements in this criterion (e.g., in relation to past resettlements).</p> <p>For 2.4.4.1: Interview relevant operating company staff and affected persons, and review documentation to confirm that the company:</p> <ul style="list-style-type: none"> Classified, within the census, each physically displaced person according to the categories laid out in 2.4.4.2 and 2.4.4.3. Offered relocation assistance to all groups of physically displaced persons sufficient to restore their standards of living; offered improved living conditions if any resettlement sites were built for displaced persons; considered displaced persons’ preferences with respect to 	<p>For 2.4.4.1:</p> <ul style="list-style-type: none"> Resettlement Action Plan. Report or other documentation containing socio-economic baseline data and census results. Records of lodged grievances related to compensation. Records of communications with affected people regarding alternative relocation options, preferences and process for obtaining security of tenure. 	<p>Explanatory Note for 2.4.4.1: 2.4.4.1 aligns with IFC Performance Standard 5, Paragraph 20. For more explanation and guidance see IFC, 2012.</p> <p>Physical displacement is when the acquisition of land associated with a project requires the affected person(s) to move to another location. It may lead to the loss of shelter and assets (including productive assets such as (such as land, water, and forests).</p> <p>Re: 2.4.4.1.a, in addition to paying attention to the needs of each group, attention should be paid to their situations (e.g., housing, land tenure, assets, cultural and social systems, food security, etc.).</p> <p>Re: 2.4.4.1.c, “existing social and cultural institutions of the displaced persons and any <u>host communities</u> shall be respected,” IFC provides guidance that:</p> <p>Social disarticulation is, as noted in GN1 above, a significant risk to consider in many resettlement scenarios. Identifying and respecting the existing social and cultural institutions and bonds of the displaced and those of host communities is often a key component of successful resettlement planning and implementation, especially in rural contexts. The social bonds affected by resettlement may be kinship, neighborly ties, or village-specific ties (i.e., people who know and trust each other wanting to remain together); leadership arrangements (so that people know who to turn to in resettlement areas); religious or ethnic ties and so forth.¹⁸⁸</p> <p>Additionally, as per requirement 2.4.2.1, potentially affected persons and communities, including <u>host communities</u>, need to be consulted regarding the development of resettlement and livelihood options, and the development of Resettlement Action Plans.</p>

¹⁸⁸ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. GN54. https://www.ifc.org/wps/wcm/connect/4b976700498008d3a417f6336b93d75f/GN5_English_2012.pdf?MOD=AJPERES

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<p>2.4.4.2. In cases where physically displaced persons have formal legal rights to the land or assets they occupy or use, or do not have formal legal rights but have a claim to land that is recognized or recognizable under national (host country) law:</p> <p>a. The operating company shall offer the choice of replacement property (land and assets) of at least equal value and characteristics, security of tenure, and advantages of location; and</p> <p>b. If cash compensation is appropriate and preferred by the affected persons, compensation shall be sufficient to replace lost land and other assets at full replacement cost in local markets.</p>	<p>relocating in pre-existing communities; and respected existing social and cultural institutions of the displaced persons and host communities.</p> <p>For 2.4.4.2: If relevant, confirm that the operating company offered (a) a choice of replacement property of equal or higher value, security of tenure, equivalent or better characteristics, and advantages of location, or (b) cash compensation sufficient to replace the lost land and other assets at full replacement cost in local markets to physically displaced persons having formal legal rights to the land or assets they occupy or use, or a claim to land recognized or recognizable under national law.</p>	<p>For 2.4.4.2:</p> <ul style="list-style-type: none"> • Report or other documentation containing socio-economic baseline data (e.g., census results). • Documented compensation framework or equivalent. • Documentation related to market value of land and other assets. • Documentation of determination of what is “sufficient” cash compensation. • Documentation of available relocation options. • Resettlement Action Plan. • Records of lodged grievances related to compensation. • Records of communications with affected people regarding alternative relocation options, preferences regarding cash versus 	<p>Explanatory Note for 2.4.4.2: 2.4.4.2 aligns with IFC Performance Standard 5, Paragraphs 20 and 21. For more explanation and guidance see IFC, 2012.¹⁸⁹</p> <p>This requirement is relevant if persons who may be physically displaced have formal legal rights to the land or assets they occupy or use, or do not have formal legal rights but have a claim to land that is recognized or recognizable under national law.</p> <p>As described in IFC's Performance Standard 5:¹⁹⁰</p> <p>Displaced persons may have formal legal rights to the land; Displaced persons may have recognized but not formal legal rights to land (e.g., through traditional customary claim to the land or communal possession of community land); or Displaced persons may have no recognizable legal right to the land they occupy (e.g., informal or opportunistic settlers).</p> <p>Re: 2.4.4.2.b, according to IFC: “Payment of cash compensation for lost assets may be appropriate where (i) livelihoods are not land-based; (ii) livelihoods are land-based but the land taken for the project is a small fraction of the affected asset and the residual land is economically viable; or (iii) active markets for land, housing, and labor exist, displaced</p>

¹⁸⁹ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. https://www.ifc.org/wps/wcm/connect/4b976700498008d3a417f6336b93d75f/GN5_English_2012.pdf?MOD=AJPERES

¹⁹⁰ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. GN14.

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<p>2.4.4.3. In cases where physically displaced persons have no recognizable legal right or claim to the land or assets they occupy or use, the operating company shall:</p> <ol style="list-style-type: none"> Offer options for adequate housing with security of tenure; and Compensate for the loss of assets other than land at full replacement cost, provided that the persons had been occupying the project area prior to the cut-off date for eligibility. 	<p>For 2.4.4.3: If relevant, confirm that the operating company offered a choice of options for adequate housing with security of tenure; provided compensation for the loss of assets other than land at full replacement cost; and offered assistance to physically displaced persons without a recognizable legal right or claim to the land or assets they occupy or use that was sufficient to restore their standard of living at an adequate alternative site.</p>	<p>land compensation, and process for obtaining security of tenure.</p> <ul style="list-style-type: none"> Records of compensation payments, including transition assistance. <p>For 2.4.4.3:</p> <ul style="list-style-type: none"> Report or other documentation containing socio-economic baseline data (e.g., census results). Documented compensation framework or equivalent. Documentation related to market value of land and other assets. Resettlement Action Plan. Records of lodged grievances related to compensation. Records of communications with affected people regarding alternative relocation options and process for obtaining security of tenure. Records of compensation payments, including transition assistance. 	<p>persons use such markets, and there is sufficient supply of land and housing.”¹⁹¹</p> <p>Explanatory Note for 2.4.4.3: 2.4.4.3 aligns with IFC Performance Standard 5, Paragraphs 22 and 23. For more explanation and guidance see IFC, 2012.¹⁹²</p> <p>As described in IFC's Performance Standard 5:¹⁹³</p> <p>Displaced persons may have formal legal rights to the land; Displaced persons may have recognized but not formal legal rights to land (e.g., through traditional customary claim to the land or communal possession of community land); or Displaced persons may have no recognizable legal right to the land they occupy (e.g., informal or opportunistic settlers).</p> <p>This requirement is relevant if persons who may be physically displaced have no recognizable legal right or claim to the land or assets they occupy or use.</p> <p>In some cultures or countries, women may not have formal legal rights to land ownership. In such cases, IFC suggests that: “The Resettlement Action Plan should include measures to ensure that documentation of ownership or occupancy, such as title deeds and lease agreements, and compensation (including the bank accounts established for payment of compensation), are issued in the names of both spouses or of single women heads of households, as relevant to each situation. Under circumstances in which national law and local customary tenure systems</p>

¹⁹¹ International Finance Corporation (IFC). 2012. Performance Standard 5: Land Acquisition and Involuntary Resettlement. Footnote 21.

¹⁹² International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. https://www.ifc.org/wps/wcm/connect/4b976700498008d3a417f6336b93d75f/GN5_English_2012.pdf?MOD=AJPERES

¹⁹³ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. GN14.

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<p>2.4.5. Mitigation Measures Related to Economic Displacement</p> <p>2.4.5.1. If project-related land acquisition or restrictions on land use result in economic displacement, regardless of whether or not the affected people are physically displaced, the operating company shall apply the following measures:</p> <p>a. When commercial structures are affected, the business owners shall be compensated for the cost of re-establishing commercial activities elsewhere, for lost net income during the period of transition, and for the costs of the transfer and reinstallation of the plant, machinery, or other equipment, and the</p>	<p>AUDITING NOTE FOR 2.4.5: The default is to mark this as not relevant UNLESS there has been a proposed change to the existing mining operation, and a decision to proceed with the change despite the need for resettlement that will result in economic displacement.</p> <p>Even if there are no current proposed changes that may lead to resettlement, if requested by the mine, auditors may score the requirements in this criterion (e.g., in relation to past resettlements).</p> <p>For 2.4.5.1: Interview relevant operating company staff and economically displaced persons and review documentation to confirm that the company:</p> <ul style="list-style-type: none"> • Compensated business owners for 	<p>For 2.4.5.1:</p> <ul style="list-style-type: none"> • Report or other documentation containing socio-economic baseline data (e.g., census results). • Documented compensation framework or equivalent. Livelihood Restoration Plan. • Documentation related to market value of land, buildings and other commercial assets. • Records of lodged grievances related to compensation. • Records of communications with affected people regarding alternative relocation options, preferences and process for obtaining security of tenure. • Records of compensation payments, 	<p>do not give women equal opportunities or rights with regard to property, provision should be made to ensure that the access of women to security of tenure is equivalent to that of men and does not further disadvantage women.”¹⁹⁴</p> <p>In the case of tenants, IFC does not specify a particular outcome. IFC’s guidance document states that, “In some cases, tenants may qualify for replacement housing and in other cases they will be resettled in similar housing under similar or improved tenure arrangements.”¹⁹⁵</p> <p>Explanatory Note for 2.4.5.1: Economic displacement is the loss of income streams or means of livelihood resulting from land acquisition or obstructed access to resources (land, water, or forest) resulting from the construction or operation of a project or its associated facilities. Economic displacement results from an action that interrupts or eliminates people’s access to productive assets even without physically relocating the people themselves.¹⁹⁶</p> <p>As per requirement 2.4.2.1, potentially affected persons and communities, including host communities, need to be consulted regarding the development of resettlement and livelihood options, and the development of Resettlement Action Plans and Livelihood Restoration Plans.</p>

¹⁹⁴ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. GN46.

¹⁹⁵ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. p. 6.

¹⁹⁶ IFC. 2002. Handbook on Resettlement. p. 5. https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/publications/publications_handbook_rap_wci_1319577659424

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<p>employees shall be compensated for lost income;</p> <p>b. When affected persons have legal rights or claims to land that are recognized or recognizable under national law, replacement property of equal or greater value shall be provided, or, where appropriate, cash compensation at full replacement cost; and</p> <p>c. Economically displaced persons who are without legally recognizable claims to land shall be compensated for lost assets other than land at full replacement cost.</p> <p>2.4.5.2. All economically displaced persons whose livelihoods or income levels are adversely affected shall be provided opportunities to improve, or at least restore, their means of income-earning capacity, production levels, and standards of living, and transitional support shall be provided based on a reasonable estimate of the time required to restore their income-earning capacity,</p>	<p>the full cost of establishing business elsewhere, as well as losses during transition time, including employee compensation;</p> <ul style="list-style-type: none"> • Provided affected persons with legal rights or claims to land recognizable under national law with replacement property (e.g., agricultural or commercial) of equal or greater value or cash compensation at full replacement cost; • Provided affected persons without legally recognized claims to land with compensation for lost assets other than land (e.g., crops, irrigation infrastructure and other improvements) at full replacement cost. <p>For 2.4.5.2: Confirm that the operating company provided affected persons whose livelihoods or income levels were adversely affected with:</p> <ul style="list-style-type: none"> • Transitional support, as necessary, based on a reasonable estimate of the time required to restore their income-earning capacity, production levels and standards of living • Provided replacement land of equal or higher productive potential and 	<p>including transition assistance.</p> <p>For 2.4.5.2:</p> <ul style="list-style-type: none"> • Report or other documentation containing socio-economic baseline data and census results • Documented compensation framework or equivalent. • Livelihood Restoration Plan. • Documentation related to market value of land, buildings and other commercial assets. • Records of lodged grievances related 	<p>Explanatory Note for 2.4.5.2: Re: 2.4.5.2.a, IFC (2012, GN12) provides guidance on measures that can improve and/or restore livelihoods:¹⁹⁷</p> <p>Land-based livelihoods: Depending on the type of economic displacement and/or the site to which affected women and men are relocated, they may benefit from: (i) assistance in acquiring or accessing replacement land, including access to grazing land, fallow land, forest, fuel and water resources; (ii) physical preparation of farm land (e.g., clearing, leveling, access routes and soil stabilization); (iii) fencing for pasture or cropland; (iv) agricultural inputs (e.g., seeds, seedlings, fertilizer, irrigation); (v) veterinary care; (vi) small-scale credit, including rice banks, cattle banks and cash loans; and (vii) access to markets (e.g.,</p>

¹⁹⁷ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. GN14.

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<p>production levels, and standards of living. Additionally:</p> <p>a. For persons whose livelihoods are land-based, replacement land that has a combination of productive potential, locational advantages, and other factors at least equivalent to that being lost shall be offered as a matter of priority;</p> <p>b. For persons whose livelihoods are natural resource-based and where project-related restrictions on access apply, continued access to affected resources or access to alternative resources with at least equivalent livelihood-earning potential and accessibility shall be provided; and</p> <p>c. If circumstances prevent the operating company from providing land or similar resources as described above, alternative income earning opportunities shall be provided to restore livelihoods.</p> <p>2.4.6. Resettlement and Livelihood Restoration Agreements and Implementation</p>	<p>other beneficial characteristics to persons whose land-based livelihoods were adversely affected</p> <ul style="list-style-type: none"> • Provided replacement land of equal or higher productive potential and other beneficial characteristics to persons whose land-based livelihoods were adversely affected • Provided continued access to affected resources or access to alternative resources of equal or higher livelihood potential to persons whose natural-resource-based livelihoods were adversely affected • Provided alternative income earning opportunities as needed, for example, access to credit facilities, training, cash, or employment opportunities. <p>AUDITING NOTE FOR 2.4.6.1: The default is to mark this as not relevant for existing mines UNLESS there has been a</p>	<p>to compensation.</p> <ul style="list-style-type: none"> • Records of communications with affected people regarding alternative relocation/replacement land options, and/or continued access to affected resources. • Records of compensation payments, including transition assistance. • Records of communications with affected people regarding alternative livelihood opportunities. <p>For 2.4.6.1:</p> <ul style="list-style-type: none"> • Documented Free, Prior and Informed Consent (FPIC) agreement. 	<p>through transportation means and improved access to information about market opportunities).</p> <p>Wage-based livelihoods: Wage earners in the affected households and affected communities may benefit from skills training and job placement, provisions made in contracts with project contractors for temporary or longer-term employment of local workers, and small-scale credit to finance start-up enterprises. Wage earners whose income is interrupted during physical displacement should receive a resettlement allowance that covers these and other hidden costs. Affected women and men should be given equal opportunities to benefit from such provisions. Careful consideration must be given to the ability of wage earners to continue to access their place(s) of work during and after resettlement; if this ability is impaired then mitigation measures need to be implemented to ensure continuity and avoid a net loss in welfare for affected households and communities.</p> <p>Enterprise-based livelihoods: Established and start-up entrepreneurs and artisans may benefit from credit or training (e.g., business planning, marketing, inventory and quality control) to expand their business and generate local employment. Clients can promote local enterprise by procuring goods and services for their projects from local suppliers.</p> <p>As per requirement 2.4.2.1, potentially affected persons and communities, including host communities, need to be consulted regarding the development of resettlement and livelihood options, and the development of Resettlement Action Plans and Livelihood Restoration Plans.</p> <p>Re: 2.4.5.2.c, "alternative income earning opportunities" include, for example, access to credit facilities, training, cash, or employment opportunities.</p> <p>Explanatory Note for 2.4.6.1: This requirement is similar to a provision in IFC Performance Standard 7 (Para 15), which states that: "The client will consider feasible alternative project designs to avoid the relocation of</p>

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<p>2.4.6.1. In order to be certified by IRMA, if a new project will require the displacement of indigenous peoples the operating company shall obtain the free, prior and informed consent (FPIC) of affected indigenous communities before proceeding with the resettlement and mine development (as per IRMA Chapter 2.2).</p>	<p>proposed change to the existing mining operation that will result in the displacement of indigenous peoples.</p> <p>Even if there are no current proposed changes that may lead to resettlement, if requested by the mine, auditors may score the requirements in this criterion (e.g., in relation to past resettlements).</p> <p>AUDITORS MUST GATHER INFORMATION TO INFORM OTHER CHAPTERS.</p> <p>Determine if physical or economic displacement of indigenous peoples occurred.</p> <p>If existing mines caused the displacement of indigenous peoples auditors must request details from the mines and affected peoples (e.g., what information was provided, did consultation take place, did indigenous peoples have the opportunity to participate in decision-making related to the terms and conditions of resettlement, was resettlement carried out in a manner that respected their human rights, are there any lingering impacts human rights from resettlement, etc.).</p>	<ul style="list-style-type: none"> • Resettlement Action Plan. • Livelihood Restoration Plan 	<p>Indigenous Peoples from communally held lands and natural resources subject to traditional ownership or under customary use. If such relocation is unavoidable the client will not proceed with the project unless FPIC has been obtained as described above. Any relocation of Indigenous Peoples will be consistent with the requirements of Performance Standard 5."¹⁹⁸</p> <p>For mines to comply with this requirement, any resettlement of indigenous peoples must be agreed to through a process of free, prior and informed consent. The requirements in IRMA Chapter 2.4 on Resettlement should be used as a guide, but ultimately, the terms of the resettlement must be agreed to by the indigenous peoples. Ideally, the terms for resettlement will not be less than what is required in IRMA Chapter 2.4, and in some cases may be stronger.</p>

¹⁹⁸ International Finance Corporation (IFC). 2012. Guidance Notes 7. Indigenous Peoples. Paragraph 15. p. 15. https://www.ifc.org/wps/wcm/connect/50eed180498009f9a89bfa336b93d75f/Updated_GN7-2012%20pdf?MOD=AJPERES

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<p>2.4.6.2. If a new mine will require the displacement of non-indigenous peoples, the operating company shall make a good faith effort to negotiate agreements with all households that will be physically or economically displaced by the mining project before proceeding with the resettlement, even if the company has the legal means to acquire land or restrict land use without their consent.</p>	<p>If there is evidence that there are unremediated human rights impacts related to the resettlement of indigenous peoples, these must be captured in Chapter 1.3, requirement 1.3.3.3 (not scored here), and the potential for remedy should be explored with affected persons as per Chapter 1.3, requirement 1.3.3.3.</p> <p>For 2.4.6.1: Confirm with indigenous peoples that if resettlement occurred it was only after obtaining their free, prior and informed consent, and that FPIC was carried out as per IRMA Chapter 2.2.</p> <p>AUDITING NOTE FOR 2.4.6.2: The default is to mark this as not relevant for existing mines UNLESS there has been a proposed change to the existing mining operation that will result in displacement of non-indigenous peoples.</p> <p>Even if there are no current proposed changes that may lead to resettlement, if requested by the mine, auditors may score the requirements in this criterion (e.g., in relation to past resettlements).</p> <p>AUDITORS MUST GATHER INFORMATION TO INFORM OTHER CHAPTERS.</p>	<p>For 2.4.6.2:</p> <ul style="list-style-type: none"> • Resettlement Action Plan. • Records of communication and meetings with all households that will be physically or economically displaced by the mining project. • Copies of agreements. • Consultation reports. • Records of lodged grievances. 	<p>Explanatory Note for 2.4.6.2: For this section, a “good faith effort” means that if an affected household rejects the company’s initial offer, that the company continues to try to work with the household to find an acceptable resolution.</p> <p>Operating companies may want to collaborate with potentially affected people to establish an agreed process for mediation prior to beginning the negotiation process.</p>

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	<p>Determine if physical or economic displacement of non-indigenous peoples occurred.</p> <p>If existing mines caused the displacement of non-indigenous peoples auditors must request details from the mines and affected persons (e.g., what information was provided, did consultation take place, did affected persons have the opportunity to participate in decision-making related to the terms and conditions of resettlement, was resettlement carried out in a manner that respected their human rights, are there any lingering impacts human rights from resettlement, etc.).</p> <p>If there is evidence that there are unremediated human rights impacts related to the resettlement of non-indigenous peoples, these must be captured in Chapter 1.3, requirement 1.3.3.3 (not scored here), and the potential for remedy should be explored with affected persons as per Chapter 1.3, requirement 1.3.3.3.</p> <p>For 2.4.6.2: Interview <u>operating company</u> and review documentation demonstrating that good faith efforts were made to negotiate agreements with affected households (e.g., potential agreements were discussed with</p>		

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<p>2.4.6.3. Prior to negotiating with affected people, the operating company shall provide or facilitate access to resources necessary to participate in an informed manner. This shall include, at minimum:</p> <ol style="list-style-type: none"> Copies of RAP and/or LRP; Details on what to expect at various stages of the resettlement or livelihood restoration process (e.g., when an offer will be made to them, how long they will have to respond, how to access the grievance mechanism if they wish to appeal property or asset valuations, legal procedures to be followed if negotiations fail); and Independent legal experts or others to ensure that affected persons understand the content of any proposed agreement and associated information. 	<p>affected households at public meetings or other venues, and if agreements were not reached initially, additional outreach efforts were made, such visits with individual households and/or with legal experts supporting those households). Review documentation (e.g., copies of signed agreements, data on number of households identified versus the number who signed agreements).</p> <p>AUDITING NOTE FOR 2.4.6.3: The default is to mark this as not relevant for existing mines UNLESS there has been a proposed change to the existing mining operation that will result in displacement of indigenous or non-indigenous peoples.</p> <p>Even if there are no current proposed changes that may lead to resettlement, if requested by the mine, auditors may score the requirements in this criterion (e.g., in relation to past resettlements).</p> <p>For 2.4.6.3: Confirm with affected people that they were provided with timely information throughout the resettlement process, that they were made aware of the steps in the process and the availability of a grievance mechanism, and also were provided access to independent legal or other experts.</p>	<p>For 2.4.6.3:</p> <ul style="list-style-type: none"> Resettlement Action Plan. Livelihood Restoration Plan. Records of communications with affected peoples regarding provision of RAP/LRP and information on what to expect in the resettlement/livelihood restoration process. Documented evidence of provision of access to independent legal experts or other experts. Records of lodged grievances that relate to lack of access to information, resources or experts, or poor information sharing about the resettlement process. Documentation that confirms that the grievance mechanism is deemed legitimate (as per IRMA Chapter 1.4) 	<p>Explanatory Note for 2.4.6.3: As per IRMA chapter 1.2, requirement 1.2.4.3, information must be provided to stakeholders in a timely manner, and shall be in formats and languages that are culturally appropriate and accessible to affected communities and stakeholders</p> <p>Re: 2.4.6.3 b, as mentioned in requirement 2.4.2.3, above, any grievance mechanism, whether it be a general operational-level (e.g., for all grievances related to a mining project) or a specific mechanism for the resettlement phase, must be developed in a manner that is consistent with IRMA Chapter 1.4. For example, as per requirement 1.4.2.1 operating companies must consult with affected community members and rights holders to design grievance mechanisms that are culturally appropriate and that are consistent with the effectiveness criteria outlined in Principle 31 of the United Nations Guiding Principles on Business and Human Rights. These criteria include the need for the mechanism to be: (a) Legitimate, (b) Accessible, (c) Predictable, (d) Equitable, (e) Transparent, (f) Rights-compatible, (g) A source of continuous learning, and (h) Based on engagement and dialogue. (See Explanatory Note for 2.4.2.3 for more information)</p>

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<p>2.4.6.4. In cases where affected persons reject compensation offers that meet the requirements of this chapter and, as a result, expropriation or other legal procedures are initiated, the operating company shall explore opportunities to collaborate with the responsible government agency, and, if permitted by the agency, play an active role in resettlement planning, implementation, and monitoring to mitigate the risk of impoverishment of those affected persons.</p>	<p>AUDITING NOTE FOR 2.4.6.4: The default is to mark this as not relevant for existing mines UNLESS there has been a proposed change to the existing mining operation that will result in displacement of indigenous or non-indigenous peoples.</p> <p>Even if there are no current proposed changes that may lead to resettlement, if requested by the mine, auditors may score the requirements in this criterion (e.g., in relation to past resettlements).</p> <p>For 2.4.6.4: If affected persons reject compensation offers and, as a result, expropriation or other legal proceedings were initiated, confirm through interviews with <u>operating company</u> and affected persons and other relevant <u>stakeholders</u>, that the company sought to <u>collaborate</u> with relevant responsible government agencies to the extent allowed.</p>	<p>For 2.4.6.4:</p> <ul style="list-style-type: none"> • Resettlement Action Plan. • Risk planning, implementation, and monitoring reports. • Records of communications or other documentation demonstrating collaboration with responsible government agency. • Records of lodged grievances related to compensation. • Documentation that confirms that the grievance mechanism is deemed legitimate (as per IRMA Chapter 1.4) 	<p>Explanatory Note for 2.4.6.4: This requirement aligns with expectations in IFC Performance Standard 5.</p> <p>IFC guidance on this point says that: "If the affected households or communities reject an offer of compensation from the client that meets the requirements of Performance Standard 5 and, as a result, expropriation or other legal procedures are initiated, the responsible government agencies may offer affected households or communities compensation based on the assessed value of the land. The matter may proceed to litigation and may take a number of years to be resolved. The court's final determination may confirm compensation based on assessed value.</p> <p>Because there is a risk of impoverishment from loss of the income base or livelihood of the affected people or communities from a protracted process and depressed compensation, the client will ascertain whether government or court assessed value in cases of such expropriation is consistent with Performance Standard 5 by requesting information on the level of compensation offered by the government and the procedures used to estimate these values under such expropriation. The client may be asked to verify that these rates reflect the current market replacement values for the assets in question.</p> <p>Compensation payments for those affected by resettlement could be held in an escrow account set up by the client for earmarking the funds until a decision is made regarding the payment timing and amount owed. The client should be engaged during these expropriation processes and support outcomes that are consistent with the objectives of Performance Standard 5. Whether the client will be permitted to play an active role will depend in part on the applicable national law and the judicial and administrative processes and practices of the responsible government agency."¹⁹⁹</p>

¹⁹⁹ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. GN14.

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<p>2.4.6.5. Forced evictions shall not be carried except in accordance with law and international best practice,²⁰⁰ and the requirements of this chapter.</p>	<p>AUDITING NOTE FOR 2.4.6.5: The default is to mark this as not relevant for existing mines UNLESS there has been a proposed change to the existing mining operation that will result in displacement of indigenous or non-indigenous peoples.</p> <p>Even if there are no current proposed changes that may lead to resettlement, if requested by the mine, auditors may score the requirements in this criterion (e.g., in relation to past resettlements).</p> <p>AUDITORS MUST GATHER INFORMATION TO INFORM OTHER CHAPTERS.</p> <p>Determine if forced evictions were carried out. If so, determine if there were impacts on human rights that have not been adequately remediated.</p> <p>If unremediated impacts exist, these must be captured in Chapter 1.3, requirement 1.3.3.3 (not scored here). And as per Chapter 1.3, If there is evidence that forced evictions occurred in the past in a manner that impacted human rights, the appropriate remedy</p>	<p>For 2.4.6.5:</p> <ul style="list-style-type: none"> • Resettlement Action Plan. • Risk planning, implementation, and monitoring report. • Documentation related to evictions (when and how they took place, the conditions such as weather and time of day) • Communications with affected people on proposed evictions (e.g., notice of evictions, information on when and how evictions are to take place, access to legal aid and remedies). • Documentation of legal aid or other assistance provided to affected peoples. • Records of lodged grievances related to the eviction process. • Documentation that confirms that the grievance mechanism is deemed legitimate (as per IRMA Chapter 1.4) 	<p>Explanatory Note for 2.4.6.5: There is no specific definition of "international best practice" when it comes to forced evictions. However, the IFC in its Guidance says that in addition to conforming to the law and relevant requirements of its Performance Standard, forced evictions should follow the procedural protections enumerated by the UN Office of High Commissioner for Human Rights, such as:²⁰²</p> <ul style="list-style-type: none"> (a) an opportunity for genuine consultation with those affected; (b) adequate and reasonable notice for all affected persons prior to the scheduled date of eviction; (c) information on the proposed evictions, and, where applicable, on the alternative purpose for which the land or housing is to be used, to be made available in reasonable time to all those affected; (d) especially where groups of people are involved, government officials or their representatives to be present during an eviction; (e) all persons carrying out the eviction to be properly identified; (f) evictions not to take place in particularly bad weather or at night unless the affected persons consent otherwise; (g) provision of legal remedies; and (h) provision, where possible, of legal aid to persons who are in need of it to seek redress from the courts. <p>IFC cautions that even when evictions carried out by force are in accordance with the law and in conformity with the provisions of the International Covenants on Human Rights, "clients should avoid direct involvement in implementing evictions and should exercise caution and monitor the implementation of evictions carefully in order to manage the associated reputational and operational risks. The use of</p>

²⁰⁰ See: UN Committee on Economic, Social and Cultural Rights (CESCR). 1997. General Comment No. 7: The right to adequate housing (Art. 11.1): forced evictions. In particular, see Paragraph 15. Available at: www.refworld.org/docid/47a70799d.html

²⁰² International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. GN55.

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<p>2.4.6.6. The operating company shall take possession of acquired land and related assets only after compensation has been made available, and, where applicable, resettlement sites and moving allowances</p>	<p>should be developed as per requirement 1.3.3.3.</p> <p>For 2.4.6.5: Confirm that if forced evictions were carried out that procedures were consistent with international human rights law as per the procedures outlined in the UNCESCR Right to Adequate Housing,²⁰¹ that government or court-assessed compensation/mitigation for evicted persons was consistent with mitigation measures required in this chapter (as listed in 2.4.4. and 2.4.5), and that monitoring of these affected persons occurred as part of the general monitoring of the resettlement program.</p> <p>AUDITING NOTE FOR 2.4.6.6: The default is to mark this as not relevant for existing mines UNLESS there has been a proposed change to the existing mining operation that will result in</p>	<p>For 2.4.6.6:</p> <ul style="list-style-type: none"> Records of payment of moving allowances and compensation made. Communications with affect people on potential delayed payment of compensation and/or moving 	<p>independent third party monitors is recommended in such situations, in order to ensure independent oversight and effective risk management.”²⁰³</p> <p>If forced evictions are carried out, they must be done in a manner that respects the human rights of all involved, but special attention may be needed to ensure the safety and security of vulnerable groups. Those carrying out forced evictions should be trained on human rights and the appropriate use of force, and procedures should be in place so that it is clear what should be done in the case of conflicts or violent opposition to the evictions.</p> <p>For more information on how forced evictions can be carried out in accordance with international best practice see: UN Committee on Economic, Social and Cultural Rights (CESCR). 1997. General Comment No. 7: The right to adequate housing (Art. 11.1): forced evictions. In particular, see Paragraph 15.²⁰⁴</p> <p>Explanatory Note for 2.4.6.6: There Re: 2.4.6.6, according to IFC, "in certain cases it may not be feasible to pay compensation to all those affected before taking possession of the land, for example when the ownership of the land in question is in dispute. Such circumstances shall be identified and agreed on a case-by-case basis, and compensation</p>

²⁰³ Ibid.

²⁰⁴ Available at: www.refworld.org/docid/47a70799d.html

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<p>have been provided to the displaced persons.</p>	<p>displacement of indigenous or non-indigenous peoples.</p> <p>Even if there are no current proposed changes that may lead to resettlement, if requested by the mine, auditors may score the requirements in this criterion.</p> <p>For 2.4.6.6: Review documents related to payment of moving allowances and compensation, and transactions whereby the operating company acquired land rights, and those associated with compensation measures and relocation activities and those associated with compensation measures and relocation activities; and confirm through interviews with affected persons and other relevant stakeholders that possession of land and assets by the company occurred after compensation and other assistance was provided to them.</p>	<p>allowances.</p> <ul style="list-style-type: none"> • Documented agreements between the operating company and affected people related to delays in compensation payments. • Documented compensation framework or equivalent. • Records of lodged grievances related to possession of land and assets, resettlement sites and moving allowances. 	<p>funds shall be made available for example through deposit into an escrow account before displacement takes place."²⁰⁵</p> <p>IFC Guidance further elaborates that: "Compensation for lost land and assets should be paid prior to the client taking possession of this land or assets and where possible people should have been resettled at their new sites and moving allowances paid to them. However, there may be circumstances where delayed payment of compensation may be justified or beyond the client's control. In addition, certain activities, for example seismic surveys, may lead to temporary disruption of economic activities and damage or destruction of property which can only be assessed and compensated for after the surveys are completed, once the damage is measurable. In such cases, compensation after the fact is acceptable. There are also instances in which economic effects must necessarily be measured over time, for example the re-establishment of croplands and crop yields after temporary disruption caused by pipeline laying; again, staggered compensation payments based on measured impacts may be acceptable."²⁰⁶</p> <p>The compensation payment process, including timing of payments, should be included in the Resettlement Action Plan/ Livelihood Restoration Plan (see 2.4.3.3), as this transparency and clarity will foster trust and enable affected individuals to prepare for the transition.</p>

2.4.6.7. The operating company shall document all transactions to acquire land rights, and all compensation measures and relocation activities.

AUDITING NOTE FOR 2.4.6.7: If documentation of transactions, compensation measures and relocation activities did not happen in the past, e.g., during the early/initial stages of

For 2.4.6.7:

- Resettlement Action Plan.
- Documented transactions to acquire land rights, and all compensation measures and relocation activities.

²⁰⁵ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. Para.7, Footnote 14.

²⁰⁶ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. GN24.

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<p>2.4.7. Resettlement and Livelihood Restoration Monitoring and Evaluation</p> <p>2.4.7.1. (Critical Requirement) The operating company shall establish and implement procedures to monitor and evaluate the implementation of a <u>Resettlement Action Plan (RAP)</u> or <u>Livelihood Restoration Plan (LRP)</u>, and take corrective action as necessary until the provisions of the <u>RAP/LRP</u> and the objectives of this chapter have been met.</p>	<p>resettlement, those activities do not need to be considered in the score.</p> <p>However, if the mine is still in the process of providing compensation to achieve the objectives of this chapter then the mine must be scored on whether or not documentation is occurring now.</p> <p>For 2.4.6.7: Review documents to confirm that recent transactions, compensation and relocation measures have been recorded.</p> <p>AUDITING NOTE for 2.4.7: This criterion must be evaluated and scored. However, if there were several resettlements related to the mine, only those that occurred <u>after</u> April 30, 2006 need to be evaluated and scored. Any that occurred prior to that date may be scored at the request of the mine.</p> <p>AUDITING NOTE for 2.4.7.1: As per requirement 2.4.3.3, in cases where it is clear that the objectives of this chapter have not yet been met mines are expected to develop and implement a plan to achieve the objectives. This may or not be called a RAP/LRP (the name is not important).</p> <p>The plan will include information on how the mine will track progress and</p>	<ul style="list-style-type: none"> • Documented compensation framework or equivalent. <p>For 2.4.7.1:</p> <ul style="list-style-type: none"> • Resettlement Action Plan (RAP), Livelihood Restoration Plan (LRP), or equivalent plan that outlines actions to be taken to meet objectives that align with IRMA Chapter objectives • Procedures for conducting monitoring and evaluation of the RAP/LRP or other plan (including methodology, timelines, budget, etc.). • Documented evidence of the qualification of the company employees or external experts who designed and are implementing the monitoring. • Monitoring reports. • Evaluation reports related to the 	<p>Explanatory Note for 2.4.7.1: This requirement aligns with expectations in IFC Performance Standard 5 (Para 14).</p> <p>IFC's Handbook for Preparing a Resettlement Action Plan explains that: "IFC requires project sponsors to monitor and report on the effectiveness of RAP implementation, including the physical progress of resettlement and rehabilitation activities, the disbursement of compensation, the effectiveness of public consultation and participation activities, and the sustainability of income restoration and development efforts among affected communities. The objective of monitoring is to provide the sponsor with feedback on RAP implementation and to identify problems and successes as early as possible to allow timely adjustment of implementation arrangements. For these reasons, RAP monitoring and evaluation activities should be adequately funded, implemented by qualified specialists, and integrated into the overall project management process.</p> <p>The RAP must provide a coherent monitoring plan that identifies the organizational responsibilities, the methodology, and the schedule for monitoring and reporting. The three components of a monitoring plan</p>

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	<p>evaluate the effectiveness of its actions to know when objectives have been met.</p> <p>For 2.4.7.1: Review procedures related to monitoring and evaluation of the implementation of the RAP/LRP (or an equivalent, newer plan). Interview affected persons to confirm that they were consulted during the monitoring and evaluation process. Interview operating company and review relevant documentation to confirm that corrective actions were taken, as necessary, based on monitoring feedback.</p>	<p>effectiveness of implementation of the RAP/LRP or other plan.</p> <ul style="list-style-type: none"> • Documented corrective actions. 	<p>should be performance monitoring, impact monitoring, and completion audit. The scope of the monitoring plan should be commensurate with the scale and complexity of the RAP.²⁰⁷</p> <p>The handbook provides much more detailed information on monitoring and evaluation.</p>
<p>2.4.7.2. Periodically, the operating company shall report to affected persons and other relevant stakeholders on progress made toward full implementation of the RAP or LRP.</p>	<p>AUDITING NOTE FOR 2.4.7.2: If the objectives of the chapter have not been met then it is expected that mines periodically report to affected people and stakeholders on their progress in meeting the objectives laid out in their action plan (which may or may not be called a RAP or LRP).</p> <p>For 2.4.7.2: Interview the operating company and stakeholders, and review relevant documentation to confirm that the company reported to affected persons and other relevant stakeholders on progress being made toward</p>	<p>For 2.4.7.2:</p> <ul style="list-style-type: none"> • Documentation of meetings or correspondence with relevant stakeholders where the operating company has reported on the progress of the implementation of the RAP, LRP or other plan. 	<p>Explanatory Note for 2.4.7.2: Examples of "relevant stakeholders" include but are not necessarily limited to:</p> <ul style="list-style-type: none"> Physically or economically displaced/affected persons Government agencies Financial institutions funding the project Affected persons' advisors Stakeholders in host communities Civil society organizations/non-governmental organizations that work on resettlement issues <p>The reporting frequency should be defined in the Resettlement Action Plan (RAP).</p>

²⁰⁷ IFC. 2002. Handbook on Resettlement. pp. 49, 50. https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/publications/publications_handbook_rap_wci_1319577659424

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<p>2.4.7.3. Where resettlement is deemed to pose a risk of significant adverse social impacts the <u>operating company</u>:</p> <p>a. Shall retain competent professionals to verify the <u>operating company's</u> monitoring information and provide advice on additional steps needed to achieve compliance with the requirements of this chapter; and</p> <p>b. Shall commission a completion audit that:</p> <p>i. Occurs after the company deems that its <u>RAP/LRP</u> has been fully and successfully implemented;</p> <p>ii. Is carried out by external resettlement experts;</p> <p>iii. Includes, at a minimum, a review of the <u>mitigation</u> measures implemented by the <u>operating company</u>, a comparison of implementation outcomes against the requirements of this chapter, and a determination as to whether the commitments made in the <u>RAP/LRP</u> have been delivered and the monitoring process can therefore be terminated; and</p>	<p>implementation of the <u>RAP/LRP</u> or other plan.</p> <p>AUDITING NOTE FOR 2.4.7.3: In order to mark this as not relevant, mines must be able to provide sound rationale for why resettlement did not pose a significant risk of adverse social impacts.</p> <p>AUDITING NOTE FOR 2.4.7.3.a: If relevant, mines are expected to show that competent professionals have advised on steps to be taken to achieve the objectives of this chapter.</p> <p>AUDITING NOTE FOR 2.4.7.3.b: Completion audits are not expected to take place until objectives of this chapter are believed by the mine to have been met. Until such time, 2.4.7.3.b may be considered not relevant.</p> <p>For 2.4.7.3: If significant risks associated with resettlement were identified during the risk assessment or through other sources, confirm through review of documentation (e.g., report of experts reviewing monitoring program; completion audit) and interviews with the <u>operating company</u> and affected persons that:</p> <ul style="list-style-type: none"> Expert review of monitoring program and provide recommendations, if 	<p>For 2.4.7.3:</p> <ul style="list-style-type: none"> Documentation of qualifications of those carrying out completion audits. Completion audit report that addresses requirements in 2.4.7.3.b.i-iv. Recommendations of competent professionals on steps or corrective actions necessary to fulfill implementation of the <u>RAP/LRP</u> or other plan. Evidence that the report was made available to affected persons and their advisors. 	<p>Explanatory Note for 2.4.7.3: This requirement aligns with the following expectations in IFC Performance Standard 5:</p> <p>Para.14. The client will establish procedures to monitor and evaluate the implementation of a <u>Resettlement Action Plan</u> or <u>Livelihood Restoration Plan</u> (see paragraphs 19 and 25) and take corrective action as necessary. The extent of monitoring activities will be commensurate with the project's risks and impacts. For projects with significant <u>involuntary resettlement</u> risks, the client will retain competent resettlement professionals to provide advice on compliance with this Performance Standard and to verify the client's monitoring information. Affected persons will be <u>consulted</u> during the monitoring process.</p> <p>Para. 15. Implementation of a <u>Resettlement Action Plan</u> or <u>Livelihood Restoration Plan</u> will be considered completed when the adverse impacts of resettlement have been addressed in a manner that is consistent with the relevant plan as well as the objectives of this Performance Standard. It may be necessary for the client to commission an external completion audit of the <u>Resettlement Action Plan</u> or <u>Livelihood Restoration Plan</u> to assess whether the provisions have been met, depending on the scale and/or complexity of physical and <u>economic displacement</u> associated with a project. The completion audit should be undertaken once all <u>mitigation</u> measures have been substantially completed and once <u>displaced</u> persons are deemed to have been provided adequate opportunity and assistance to sustainably restore their <u>livelihoods</u>. The completion audit will be undertaken by competent resettlement professionals once the agreed monitoring period is concluded. The completion audit will include, at a minimum, a review of the totality of <u>mitigation</u> measures implemented by the Client, a comparison of implementation outcomes against agreed objectives,</p>

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<p>iv. Is made available to affected persons and their advisors.</p>	<p>needed, to determine changes to monitoring program needed to ensure compliance with the requirements of this chapter.</p> <ul style="list-style-type: none"> A completion audit was undertaken (after the company perceived that resettlement had been successfully implemented); the audit was carried out by external experts; the review compared resettlement outcomes to objectives, and determined if the company's efforts to restore the living standards and livelihood opportunities of the affected population were properly executed and whether or not monitoring can be terminated. That the report was made available to affected persons and their advisors 		<p>and a conclusion as to whether the monitoring process can be ended.²⁰⁸</p> <p>For <u>existing mines</u>, it is not expected that completion audits show that there is full compliance with the IRMA Standard (as specified in 2.4.7.3.a) as these requirements may not have been in existence when resettlements took place. Rather, <u>competent professionals</u> should have verified that the implementation of the RAP/LRP met the goals or objectives set out in the RAP/LRP and also achieved the following objective set out in the IFC Resettlement Standard: To improve, or restore, the livelihoods and standards of living of <u>displaced persons</u>.</p> <p>Completion audits must also confirm that any human rights impacts related to past resettlement have been remedied (as per IRMA Chapter 1.3).</p> <p>If completion audits demonstrate that objectives have not been met, then corrective actions should be developed and implemented until such time as the objectives are met.²⁰⁹ Another completion audit may be necessary to needed to verify that objectives are eventually met.</p> <p>IFC provides additional guidance on completion audits.²¹⁰</p>
<p>2.4.8. Private Sector Responsibilities Under Government-Managed Resettlement</p> <p>2.4.8.1. Where land acquisition and resettlement are the responsibility of the government, the <u>operating company</u> shall collaborate with the responsible government agency, to the extent permitted by the agency, to achieve</p>	<p>AUDITING NOTE FOR 2.4.8.1: This requirement is relevant if past resettlements were the responsibility of the government, and if the objectives of the chapter have not yet been met.</p> <p>It is recognized that at existing mines, this cooperation may not have occurred</p>	<p>For 2.4.8.1:</p> <ul style="list-style-type: none"> Documented evidence of collaboration with the responsible government agency (e.g., meeting minutes, correspondence, memorandum of understanding, etc.). Documentation of efforts made by 	<p>Explanatory Note for 2.4.8: This section applies to situation where resettlement projects are largely controlled and managed by host country government agencies.</p> <p>While not specifically required, even when the company, not the government is responsible for managing a resettlement project government should be considered a key partner in any successful resettlement process. Operating companies should encourage relevant government agencies to contribute and participate in the company-led</p>

²⁰⁸ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. pp. 13, 14.

²⁰⁹ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. Para. 15, Footnote 18.

²¹⁰ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. See GN35 and Annex B: Completion Audit Table of Contents.

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<p>outcomes that are consistent with this chapter.</p>	<p>in the past. Mines will not be penalized for that.</p> <p>However, if the objectives of the chapter have not yet been met then mines are expected to undertake good faith efforts to work with the government to restore and improve the livelihoods of those who were resettled as a result of the mine being developed.</p> <p>For 2.4.8.1: Where resettlement and land acquisition are or were the responsibility of the government, and the objectives of this chapter have not yet been met, interview relevant <u>operating company</u> staff and review documentation to confirm that the company <u>collaborated</u> or is undertaking good faith efforts to collaborate with the responsible government agency, to the extent permitted by the agency, to achieve outcomes consistent with this chapter. For example, if the objectives of this chapter have not been met, confirm that the company is facilitating or advocating for additional actions to be taken to produce outcomes that are consistent with the objectives of this chapter.</p>	<p>the company to have processes and measures integrated into government processes that would enable outcomes similar to those expressed in the IRMA Chapter.</p>	<p>process, and roles and responsibilities should be clearly defined from the outset.</p> <p>In either scenario, the company may want to sign a Memorandum of Understanding or other agreement with the government that clearly delineates role and responsibilities with respect to resettlement.</p> <p>Explanatory Note for 2.4.8.1: As per IRMA Chapter 1.1, operating countries are not expected to violate host country law in order to meet IRMA requirements. So if <u>host country law</u> largely controls the resettlement process, companies will only be expected to fulfill IRMA requirements to the extent that is possible within the law. If the law is silent on aspects addressed in the IRMA chapter, then companies will be expected to advocate for their inclusion in government processes or plans, or the company should include those provisions in their own supplemental resettlement plan.</p>
<p>2.4.8.2. The <u>operating company</u> shall identify government resettlement and compensation measures. If these</p>	<p>AUDITING NOTE FOR 2.4.8.2: This requirement is relevant if past resettlements were the responsibility of</p>	<p>For 2.4.8.2:</p> <ul style="list-style-type: none"> • Report or other documentation containing socio-economic baseline 	<p>Explanatory Note for 2.4.8.2: According to IFC, "While government agencies are often mandated to lead resettlement efforts, experience indicates that there are generally opportunities for clients to either</p>

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<p>measures do not meet the relevant requirements of this chapter, the <u>operating company</u> shall prepare a supplemental plan that, together with the documents prepared by the responsible government agency, shall address the relevant requirements of this chapter. The company shall include in its supplemental plan, at a minimum:</p> <ol style="list-style-type: none"> Identification of affected people and impacts; A description of regulated activities, including the entitlements of physically and economically displaced persons provided under applicable national laws and regulations; The supplemental measures to achieve the requirements of this chapter in a manner that is permitted by the responsible agency and implementation time schedule; and The financial and implementation responsibilities of the <u>operating company</u> in the execution of its supplemental plan. 	<p>the government, and if the objectives of the chapter have not yet been met.</p> <p>It is recognized that at existing mines, the development and implementation of plans to supplement government compensation and livelihood restoration actions may not have occurred in the past. Mines will not be penalized for that.</p> <p>However, unless the government completely rejects the operating company's efforts, mines are expected to develop a plan to achieve the objectives of the chapter.</p> <p>For 2.4.8.2: Confirm that the <u>operating company</u> identified and described government resettlement measures undertaken; and if the measures did not meet the relevant requirements in this chapter, confirm that a supplemental resettlement plan was developed, that it included, at minimum, the aspects listed in 2.4.8.2, and that the plan was implemented.</p>	<p>data and census results.</p> <ul style="list-style-type: none"> Risk assessment or other documentation of potential risks and impacts (social, human rights, economic) to displaced persons from resettlement. Documented government resettlement and compensation measures, RAP and/or LRP. Documented supplemental plan for company-led actions related to resettlement (including specific actions, budgets, etc.). 	<p>influence or supplement the planning, implementation and monitoring of government-led resettlement..."²¹¹</p> <p>IFC provides general guidance to companies on practices that should be implemented when resettlement is largely controlled by the government. In particular, they state that:</p> <p>Under government-managed resettlement, the client should <u>collaborate</u> with the appropriate agencies to establish methods for determining and providing adequate compensation to the affected people in the <u>Resettlement Action Plan</u> or Framework. Where national law or policy does not provide for compensation at full replacement cost, or where other gaps exist between national law or policy and the requirements with respect to displaced people detailed in Performance Standard 5, the client should apply alternative measures to achieve outcomes consistent with the objectives of Performance Standard 5. Such measures could range from making or arranging for the payment of supplementary allowances in cash or in kind, to arranging for the provision of dedicated support services. These gaps and measures should be addressed in a Supplemental Action Plan.²¹²</p> <p>Where the responsible government agency will allow the client to participate in the ongoing monitoring of affected persons, the client should design and carry out a program of monitoring with particular attention to those who are poor and vulnerable so as to track their standards of living and effectiveness of resettlement compensation, assistance, and livelihood restoration. Because resettlement can be stressful on individuals, households and communities, it may have gender-differentiated consequences on nutrition and health status, particularly of children. The client and the responsible agency should agree to an appropriate allocation of responsibilities with respect to completion audits and corrective actions. Where the client is prevented</p>

²¹¹ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. GN74.

²¹² International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. GN71.

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			from adequately monitoring the implementation of the Resettlement Plan and there exists a risk that the Plan will not be monitored according to Performance Standard 5, the client may choose not to proceed with the project. ²¹³

NOTES

This chapter uses, as its basis, the International Finance Corporation’s (IFC) Performance Standard 5 (PS 5) Land Acquisition and Involuntary Resettlement, which applies to physical displacement and/or economic displacement resulting when land rights or land use rights are acquired by the operating company: through expropriation or other compulsory procedures in accordance with the legal system of the host country; or through negotiated settlements with property owners or those with legal rights to the land if failure to reach settlement would have resulted in expropriation or other compulsory procedures.

Cross References to Other Chapters	
CHAPTER	ISSUES
1.1—Legal Compliance	As addressed in criterion 2.4.8, in some jurisdictions governments may oversee resettlement projects. As per Chapter 1.1, if there are <u>host country laws</u> that pertain specifically to land acquisition and resettlement, a company is required to abide by those laws. If IRMA requirements are more stringent than <u>host country law</u> , the company is required to also meet the IRMA requirements, as long as complying with them would not require the operating company to break the host country law.
1.2—Community and Stakeholder Engagement	Engagement with <u>stakeholders</u> (including <u>rights holders</u>) regarding resettlement shall conform to the requirements in Chapter 1.2. In particular, criterion 1.2.3 is important to ensure that <u>stakeholders</u> have the capacity to fully understand their rights and engage effectively in the resettlement assessment and the development of prevention/mitigation plans and monitoring processes. Also, 1.2.4 ensures that communications and information are in culturally appropriate formats and languages that are <u>accessible</u> and understandable to affected <u>stakeholders</u> , and are provided in a timely manner. (See Chapter 1.2 for explanations of these terms)
1.3—Human Rights Due Diligence	If the timing works, the resettlement risk assessment required in 2.4.1 may be done in coordination with or as part of the assessment of <u>human rights risks</u> and impacts in Chapter 1.3, rather than as a stand-alone assessment. If the infringement of human rights is predicted, or actually occurs as a result of a resettlement program, a company will be expected to prevent, <u>mitigate</u> and <u>remediate</u> the impacts as per Chapter 1.3. This includes the <u>mitigation</u> or <u>remediation</u> of human-rights-related impacts from past resettlement programs at <u>existing mines</u> .

²¹³ International Finance Corporation (IFC). 2012. Guidance Notes 5. Land Acquisition and Involuntary Resettlement. GN73.

Cross References to Other Chapters	
1.4—Complaints and Grievance Mechanism and Access to Remedy	Requirement 2.4.2.3 requires that a mechanism be available for affected persons to raise <u>grievances</u> related to resettlement. If appropriate, <u>grievances</u> or concerns during resettlement may be addressed through the operational-level <u>grievance mechanism</u> as outlined in Chapter 1.4. If a <u>grievance mechanism</u> is developed for the specific purpose of resettlement, it shall conform to the requirements of Chapter 1.4, which requires that any such mechanism meet the effectiveness criteria outlined in the UN Guiding Principles on Business and Human Rights. There may be impacts related to past resettlement programs that have not been <u>remediated</u> . Complaints or <u>grievances</u> related to unremediated or unsatisfactory <u>mitigation</u> of impacts may be addressed through the operational-level <u>grievance mechanism</u> as per Chapter 1.4.
2.2—Free, Prior and Informed Consent	Resettlement of <u>indigenous peoples</u> shall only occur if the requirements of Chapter 2.2 <u>free, prior and informed consent</u> have been followed.
3.6—Artisanal and Small-Scale Mining	When artisanal and small-scale mining (ASM) activities are occurring in the same area as proposed large-scale mining projects, ASM entities should be engaged by the company, included as part of the resettlement risk assessment and baseline studies, and should be afforded mitigation, compensation and livelihood opportunities in the Resettlement Action Plan and/or Livelihood Restoration Plan.
4.6—Biodiversity, Ecosystem Services and Protected Areas	Resettlement may lead to impacts on <u>biodiversity</u> , <u>ecosystem services</u> , or <u>protected areas</u> depending on the location of resettled communities. The potential impacts of resettlement impacts on <u>biodiversity</u> , <u>ecosystem services</u> , or <u>protected areas</u> should be identified during the Resettlement Risk and Assessment Process (See 2.4.1.2.c), and any necessary mitigation developed accordingly to Chapter 4.5, criteria 4.6.4.

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the [Glossary of Terms](#) at the end of the IRMA Standard document.

Affected Community

A community that is subject to risks or impacts from a project.

Associated Facility

Any facility managed by the operating company that would not have been constructed, expanded or acquired but for the exploration or development of the mine (including ore processing facilities, stationary physical property such as power plants, port sites, roads, railroads, borrow areas, fuel production or preparation facilities, parking areas, shops, offices, housing facilities, storage facilities, etc.).

Baseline

A description of existing conditions to provide a starting point (e.g. pre-project conditions) against which comparisons can be made (e.g. post-impact conditions), allowing the change to be quantified.

Collaboration

The process of shared decision-making in which all stakeholders constructively explore their differences and develop a joint strategy for action. It is based on the premise that, through dialogue, the provision of appropriate information, collectively defined goals, and the willingness and commitment to find a solution acceptable to all parties, it is possible to overcome the initially limited perspectives of what is achievable and to reach a decision which best meets the interests of the various stakeholders. At this level, responsibility for decision-making is shared between stakeholders.

Competent Professionals

In-house staff or external consultants with relevant education, knowledge, proven experience, necessary skills and training to carry out the required work. Competent professionals would be expected to follow scientifically robust methodologies that would withstand scrutiny by other professionals. Other equivalent terms used may include: competent person, qualified person, qualified professional. For independent reviews (in IRMA Chapter 4.1) competent professionals must not be in-house staff.

Consultation

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. In principle, the company should take into account the concerns and views expressed by stakeholders in the final decision.

Displacement

A process by which projects cause people to lose land or other assets, or access to resources. This may result in physical dislocation, loss of income, or other adverse impacts.

Economic Displacement

The loss of assets or access to assets that leads to a loss of income sources or other means of livelihood (i.e., the full range of means that individuals, families, and communities utilize to make a living, such as wage-based income, agriculture, fishing, foraging, other natural resource-based livelihoods, petty trade, and bartering). Economic displacement results from an action that interrupts or eliminates people's access to jobs or productive assets, whether or not the affected persons must move to another location.

Existing Mine

A mine that was operational prior to the date that the IRMA standard was published in final (June 2018).

Forced Eviction

The permanent or temporary removal against their will of individuals, families and/or communities from the homes and/or land which they occupy, without the provision of, and access to, appropriate forms of legal or other protection
Host Communities: With respect to resettlement, any communities receiving displaced persons.

Free, Prior and Informed Consent (FPIC)

Consent based on: engagement that is free from external manipulation, coercion and intimidation; notification, sufficiently in advance of commencement of any activities, that consent will be sought; full disclosure of information regarding all aspects of a proposed project or activity in a manner that is accessible and understandable to the people whose consent is being sought; acknowledgment that the people whose consent is being sought can approve or reject a project or activity, and that the entities seeking consent will abide by the decision.

Grievance

A perceived injustice evoking an individual's or a group's sense of entitlement, which may be based on law, contract, explicit or implicit promises, customary practice, or general notions of fairness of aggrieved communities. For the purposes of the IRMA Standard, the words grievances and complaints will be used interchangeably.

Grievance Mechanism

Any routinized, State-based or non-State-based, judicial or non-judicial process through which mining-project-related complaints or grievances, including business-related human rights abuses stakeholder complaints, and/or labor grievances, can be raised and remedy can be sought.

Host Communities

With respect to resettlement, any communities receiving displaced persons.

Host Country Law

May also be referred to as national law, if such a phrase is used in reference to the laws of the country in which the mining project is located. Host country law includes all applicable requirements, including but not limited to laws, rules, regulations, and permit requirements, from any governmental or regulatory entity, including but not limited to applicable requirements at the federal/national, state, provincial, county or town/municipal levels, or their equivalents in the country where the mine is located. The primacy of host country laws, such as federal versus provincial, is determined by the laws of the host country.

Indigenous Peoples

A modern and inclusive understanding of “indigenous” includes peoples who: identify themselves and are recognized and accepted by their community as indigenous; demonstrate historical continuity with pre-colonial and/or pre-settler societies; have strong links to territories and surrounding natural resources; have distinct social, economic or political systems; maintain distinct languages, cultures and beliefs; form non-dominant groups of society; and resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities. In some regions, there may be a preference to use other terms such as: tribes, first peoples/nations, aboriginals, ethnic groups, Adivasi and Janajati. All such terms fall within this modern understanding of “indigenous.”

Involuntary Resettlement

Physical displacement (relocation or loss of shelter) and to economic displacement (loss of assets or access to assets that leads to loss of income sources or other means of livelihood) as a result of project-related land acquisition and/or restrictions on land use. Resettlement is considered involuntary when affected persons or communities do not have the right to refuse land acquisition or restrictions on land use that result in physical or economic displacement. This occurs in cases of (i) lawful expropriation or temporary or permanent restrictions on land use and (ii) negotiated settlements in which the buyer can resort to expropriation or impose legal restrictions on land use if negotiations with the seller fail.

Livelihood Restoration Plan (LRP)

A plan that establishes the entitlements (e.g., compensation, other assistance) of affected persons and/or communities who are economically displaced, in order to provide them with adequate opportunity to reestablish their livelihoods.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mining-Related Activities

Physical activities (e.g., land disturbance and clearing, road building, sampling, airborne surveys, facility construction, ore removal, ore processing, waste management, reclamation, etc.) carried out during any phase of the mine life cycle (planning, impact assessment, exploration, mine construction, mining, mine closure, post-closure).

Mitigation (including in relation to Human Rights Impacts)

Refers to actions taken to reduce the likelihood of a certain adverse impact occurring. The mitigation of adverse human rights impacts refers to actions taken to reduce its extent, with any residual impact then requiring remediation.

New Mine

A mine that becomes operational and applies for IRMA verification after the date that the IRMA standard was published in final (June 2018).

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Remediation/Remedy (including in relation to Human Rights Impacts):

Remediation and remedy refer to both the processes of providing remedy for an (adverse human rights) impact and the substantive outcomes that can counteract, or make good, the adverse impact. These outcomes may take a range of forms, such as apologies, restitution, rehabilitation, financial or non-financial compensation, and punitive sanctions (whether criminal or administrative, such as fines), as well as the prevention of harm through, for example, injunctions or guarantees of non-repetition.

Replacement Cost

The market value of the assets plus transaction costs. In applying this method of valuation, depreciation of structures and assets should not be taken into account. Market value is defined as the value required to allow affected communities and persons to replace lost assets with assets of similar value.

Resettlement Action Plan (RAP)

A plan designed to mitigate the negative impacts of displacement; identify development opportunities; develop a resettlement budget and schedule; and establish the entitlements of all categories of affected persons (including host communities). Such a plan is required when resettlement involves physical displacement of persons.

Stakeholder

Persons/ groups directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, positively or negatively.

Voluntary Resettlement

Voluntary land transactions (i.e., market transactions in which the seller is not obliged to sell and the buyer cannot resort to expropriation or other compulsory procedures sanctioned by the legal system of the host country if negotiations fail) that lead to the relocation of willing sellers.

Vulnerable Group

A group whose resource endowment is inadequate to provide sufficient income from any available source, or that has some specific characteristics that make it more susceptible to health impacts or lack of economic opportunities due to social biases or cultural norms (e.g., may include households headed by women or children, people with disabilities, the extremely poor, the elderly, at-risk children and youth, ex-combatants, internally displaced people and returning refugees, HIV/AIDS-affected individuals and households, religious and ethnic minorities, migrant workers, and groups that suffer social and economic discrimination, including indigenous peoples, minorities and in some societies, women).

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



Chapter 2.5—Emergency Preparedness and Response

BACKGROUND

Modern mines are large industrial facilities and have operational risks. These risks are common to industries that make, handle, transport and use fuels and chemical substances and include the potential for explosions, fires, releases of gas, ventilation failures, rock falls, avalanches, water or slurry inundation, radiation exposures, seismic events and environmental incidents.

Mining companies have direct responsibility for both minimizing risks (through prevention, mitigation, and preparedness) and developing effective and thoughtful emergency response plans for emergencies or major accidents. Mining companies must also work with joint venture partners, contractors and suppliers providing bulk and dangerous materials to put adequate emergency response plans in place to deal with both on-site and off-site accidents. It is also very important to coordinate and communicate with communities that could be affected by these accidents, both to protect health and safety in these communities, and so that the emergency resources in the communities are available if needed.

OBJECTIVES/INTENT OF THIS CHAPTER

To plan for and be prepared to respond effectively to industrial emergency situations that may affect offsite resources or communities, and minimize the likelihood of accidents, loss of life, injuries, and damage to property, environment, health and social well-being.

SCOPE OF APPLICATION

Chapter Relevance: This chapter applies to the operating company and to its on-site contractors (and subcontractors) involved with dangerous and bulk materials and wastes at all mines assessed under IRMA.

CRITICAL REQUIREMENTS IN THIS CHAPTER

All operations related to the mining project shall have an emergency response plan (2.5.1.1) and there is community participation in emergency response planning exercises (2.5.2.1).

TERMS USED IN THIS CHAPTER

- Affected Community ■ Consultation ■
- Mine Waste Facility ■ Mining Project ■
- Operating Company ■ Stakeholder ■
- Subsidence ■ Worker ■ Workers' Representative ■

These terms appear in the text with a dashed underline, and they are explained at the end of

Emergency Preparedness and Response Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTE
<p>2.5.1. Emergency Response Plan</p> <p>2.5.1.1. (Critical Requirement) All operations related to the <u>mining project</u> shall have an emergency</p>	<p>Auditing Note for 2.6.2.1: IRMA chapters on Waste and Materials Management (Chapter 4.1), and Water management (Chapter 4.2) contain requirements related to emergency</p>	<p>For 2.5.1.1:</p> <ul style="list-style-type: none"> • Emergency response plan(s). • Emergency response procedures(s). 	<p>Explanatory Note for 2.5.1.1: There may be several different components of an emergency response plan maintained by different functional areas of the <u>operating company</u>, such as safety, environmental and social responsibility, security, and communications/external affairs. Or separate emergency</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTE
<p>response plan conforming to the guidelines set forth in <i>United Nations Environment Programme, Awareness and Preparedness for Emergencies at the Local Level (APELL) for Mining</i>.²¹⁴</p>	<p>preparedness and response. See requirements 4.1.7.2, 4.1.7.3 and 4.2.5.2.</p> <p>These requirements may be evaluated simultaneously with this chapter.</p> <p>For 2.5.1.1: Review the APELL for Mining, Appendix 1, for recommendations on components of an emergency response. Review the <u>operating company's</u> emergency response plan. Confirm that emergency response plans are consistent with the components outlined in Appendix I and the 10 Steps in the APELL process.</p>		<p>response plans for each operation/facility within the mining project.</p> <p>Emergency response plans that cover different operations and/or parts of a mine site should be combined into or integrated with a site-wide emergency response plan. But if they are not integrated, then at minimum, each plan must be consistent with <i>APELL for Mining</i> (see Appendix I: Components of an emergency response plan). IRMA expects emergency response plans to meet intent, not the letter, of the components outlined in that Appendix.</p> <p>In general terms, the APELL Process aims at creating a cohesive and resilient community in the face of technological or natural hazards through raising awareness and agreement on roles and responsibilities of all community stakeholders in potential preparedness and response measures. The specific goals of the implementation of the APELL Process are to:²¹⁵</p> <ul style="list-style-type: none"> • Provide information to concerned members of the community on the hazards involved with nearby industrial operations, and the measures taken to reduce these risks • Review, update, or establish emergency response plans in local areas • Increase local industry involvement in community awareness and emergency response planning • Integrate industry emergency plans with local emergency response plans into one overall plan for the community to handle all types of emergencies

²¹⁴ United Nations Environment Programme. 2001. Awareness and Preparedness for Emergencies at the Local Level (APELL) for Mining, (Technical Report 41). www.unep.fr/shared/publications/pdf/WEBx0055xPA-APELLminingEN.pdf See Appendix 1 for Components of an emergency response plan. See also, http://apell.eecentre.org/Modules/GroupDetails/UploadFile/APELL_Handbook_2016_-_Publication.pdf

²¹⁵ United Nations Environment Programme website: "Awareness and Preparedness for Emergencies at the Local Level (APELL)." <https://www.unenvironment.org/explore-topics/disasters-conflicts/what-we-do/preparedness-and-response/awareness-and-preparedness>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTE
			<ul style="list-style-type: none"> • Involve members of the local community in the development, testing and implementation of the overall emergency response plan. <p>The <i>APELL for Mining</i> Appendix I goes into greater detail, but the categories of components that should be addressed in the mine’s emergency preparedness activities and plan include:</p> <p>Purpose/Objectives/Scope Emergency Scenarios and Risks Mine Emergency Coordination Centre Media and Crisis Communications Centre Emergency Notification Procedures and Communications Systems Emergency Equipment and Resources Emergency Scenarios and Emergency Response Procedures Clean-up, Remediation, Procedure for Returning to Normal Operations Training and Drills.</p> <p>Additionally, the Ten Steps in the APELL process should be followed. These include:</p> <ul style="list-style-type: none"> • Step 1: Identification of participants and their roles • Step 2: Evaluation of reduction of risks offsite • Step 3: Review of existing plans and their weaknesses • Step 4: Task identification • Step 5: Matching of tasks and resources • Step 6: Integration of individual plan into overall plan, and reaching agreement • Step 7: Drafting and endorsement of final plan • Step 8: Communication and training (See 2.5.1.2)

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTE
<p>2.5.1.2. The operating company shall:²¹⁶</p> <p>a. Conduct an exercise to test the plan, with key participants describing how they would respond to a variety of different emergency scenarios, at least every 12 – 24 months; and</p> <p>b. Update the communications contacts of the emergency response plan at least annually.</p>	<p>For 2.5.1.2: Interview <u>operating company</u> and review documentation related to testing of emergency scenarios. Confirm that exercises take place annually and that that efforts are made to update communications contacts in the emergency response plan annually.</p> <p>Review lists of participants. Contact a sample of participants and confirm that they have been contacted to update their information.</p>	<p>For 2.5.1.2:</p> <ul style="list-style-type: none"> • Emergency response plan. • Records (e.g., minutes, attendance records) from emergency response planning exercises. • Records of communications contacts included in emergency response plans (most recent and prior years). 	<ul style="list-style-type: none"> • Step 9: Testing review and updating (See 2.4.1.2) • Step 10: Community Education <p>Explanatory Note for 2.5.1.2: This requirement is consistent with the APELL for Mining, Section 4, Step 3.</p> <p>See also ICMM’s Good Practice in Emergency Preparedness and Response.²¹⁷</p>
<p>2.5.2. Community and Worker Consultation</p> <p>2.5.2.1. (Critical Requirement)</p> <p>The emergency response plan shall be developed in <u>consultation</u> with <u>potentially affected communities</u> and <u>workers</u> and/or <u>workers’ representatives</u>,²¹⁸ and the <u>operating company</u> shall incorporate their input</p>	<p>For 2.5.2.1: Interview <u>community stakeholders</u>, <u>workers</u> and <u>workers’ representatives</u> to confirm that they were consulted in the development and updating of emergency response plans.</p> <p>Review documentation showing that community members and <u>workers</u> have been involved in the development of emergency response plans (e.g.,</p>	<p>For 2.5.2.1:</p> <ul style="list-style-type: none"> • Emergency response plans(s) and procedure(s). • Communications with community members and/or representatives and workers and/or their representatives related to the development of emergency response plans. • Records of meetings related to the development of emergency response plans. 	<p>Explanatory Note for 2.5.2.1: The requirement for <u>consultation</u> with <u>workers</u> on emergency preparedness plans is based on ILO Conventions 174 and 176.²¹⁹</p> <p><u>Consultation</u> with communities is part of the APELL for Mining. For example, participants in planning process should include local community agencies such as fire departments, police, emergency health services, hospitals, public health</p>

²¹⁶ This is in accordance with the APELL for Mining, Section 4, Step 3. See also ICMM. Good practice in emergency preparedness and response. p. 15. www.icmm.com/document/8

²¹⁷ ICMM. 2005. Good Practice in Emergency Preparedness and Response. p. 15. www.icmm.com/document/8

²¹⁸ This is based on ILO Conventions 174 and 176, OHSAS 18001. See IRMA Guidance for more details.

²¹⁹ International Labour Organization (ILO). 1993. Prevention of Major Industrial Accidents Convention, 1993 (Convention No. 174). https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312319 and ILO. 1995. Safety and Health in Mines Convention, 1995 (Convention No. 176). http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C176

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTE
into the emergency response plan, and include their participation in emergency response planning exercises.	advertisements, meeting minutes, sign-in sheets).	<ul style="list-style-type: none"> Written or other comments from community members/representatives or workers/representatives providing input on emergency response plans. Records (e.g., minutes, attendance records) from emergency response planning exercises. 	authorities, public information authorities and media organizations, and others. ²²⁰
<p>2.5.3. Public Liability Accident Insurance</p> <p>2.5.3.1. All operations related to the <u>mining project</u> shall be covered by a public liability accident insurance policy that provides financial insurance for unplanned accidental events.</p> <p>2.5.3.2. The public liability accident insurance shall cover unplanned accidental events such as flood damage, landslides, subsidence, <u>mine waste facility</u> failures, major spills of process solutions, leaking tanks, or others.</p> <p>2.5.3.3. The accident insurance coverage shall remain in force for as long as the <u>operating company</u>, or any successor, has legal responsibility for the property.</p>	<p>For 2.5.3.1: Confirm, through interviews with <u>operating company</u> and review of documentation that a public liability accident insurance policy is in force.</p> <p>For 2.5.3.2: Review coverage to confirm that it covers a breadth of possible unplanned accidental events that may be related to mining. Confirm that insurance (one or more policies) will cover both short and long-term events.</p> <p>For 2.5.3.3: Review coverage during every audit to confirm that it is still in force.</p>	<p>For 2.5.3:</p> <ul style="list-style-type: none"> Public liability insurance policy. 	<p>Explanatory Note for 2.5.3.1:</p> <p>Public liability insurance is designed to protect businesses from the financial risk of damages to people or property, due to actions or negligence of the business. Damages resulting from illegal or deliberate acts are not covered.</p> <p>Public liability insurance covers holders for the cost of a claim made by a member of the public that has suffered injury or property damage as a result the business activities.</p>

NOTES

²²⁰ United Nations Environment Programme. 2001. Awareness and Preparedness for Emergencies at the Local Level (APELL) for Mining, (Technical Report 41). p.21. www.unep.fr/shared/publications/pdf/WEBx0055xPA-APELLminingEN.pdf

The requirements in this chapter largely follow the guidance from the *United Nations Environment Programme, Awareness and Preparedness for Emergencies at the Local Level (APELL)* for Mining Technical Report No. 41 (2001). Additional guidance is also taken from: Part III of International Labour Organization (ILO) *Convention 176 on the Safety and Health in Mines, 1995*; Part III and Part V of ILO *Convention 174 on Prevention of Major Industrial Accidents, 1993*; and, the Occupational Health and Safety Assessment Series (OHSAS) 18001/2.

The chapter does not require a separate emergency response plan from those already prepared for mining projects, contractors, suppliers, and transportation companies, provided it can be demonstrated that the plan is in compliance with the chapter requirements. There may be several different components of an emergency response plan maintained by different functional areas of the operating company, such as safety, environmental and social responsibility, security, and communications/external affairs. Emergency response plans that cover different operations and/or parts of a mine site should be combined into or integrated with a site-wide emergency response plan. A single reference document should exist that identifies the location(s), responsible person(s) and contact information for each of the separate emergency response plans or supplements to those plans. And a crisis management/communications, rapid response, or other incident command system should be developed in conjunction with the emergency response plans.

Cross References to Other Chapters	
CHAPTER	ISSUES
1.1— Legal Compliance	As per Chapter 1.1, mine contractors and subcontractors must be IRMA compliant. So the <u>operating company</u> should be able to demonstrate that either contractors and subcontractors are aware of the company's emergency response plan, and/or have their own plan in place.
1.2—Community and Stakeholder Engagement	Engagement with stakeholders during the development and updating of the Emergency Response Plan shall conform with the stakeholder engagement requirements in Chapter 1.2. In particular, communications shall be in formats and languages that are culturally appropriate, accessible and understandable to potentially <u>affected communities</u> and <u>stakeholders</u> .
2.1—Env and Social Impact Asst and Mgmt	Information from the environment and social impact assessment may feed into the Emergency Response Plan.
3.2— Occupational Health and Safety	Chapter 3.2 provides additional requirements related to worker safety, which may be partially addressed in the Emergency Response Plan. Conversely, emergency-related procedures may also be included in occupational health and safety procedures or plans.
3.3—Community Health and Safety	Information from the community health and safety risk and impact assessment may feed into the emergency response plan.
4.1—Waste and Materials Management	Chapter 4.1 requires that the Emergency Response Plan include provisions related to catastrophic failure of <u>mine waste facilities</u> , that the emergency action provisions be developed with potentially <u>affected communities</u> and local agencies, and that evacuation drills related to catastrophic failures are held on a regular basis. (See 4.1.7.2 and 4.1.7.3)
4.2—Water Management	Chapter 4.2 requires that the <u>operating company</u> develop and implement procedures for rapidly communicating with <u>stakeholders</u> in the event that there are changes in water quantity or quality that pose an imminent threat to human health or safety, or commercial or natural resources. (See 4.2.5.2). These procedures should be incorporated into the emergency response plan.

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the [Glossary of Terms](#) at the end of the IRMA Standard document.

Affected Community

A community that is subject to risks or impacts from a project.

Consultation

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. In principle the company should take into account the concerns and views expressed by stakeholders in the final decision.

Mine Waste Facility

Facilities that contain, store, are constructed of, or come in contact with wastes that are generated or created during mining (e.g., waste rock, pit walls, pit floors or underground workings, runoff or discharge from exposed mined areas) and mineral processing (e.g., tailings, spent ore, effluent). These facilities include, but are not limited to open pits, underground mine workings and subsidence areas, waste rock facilities, tailings storage facilities, heap leach facilities, process water facilities, stormwater facilities, borrow areas for construction and/or reclamation, water treatment facilities, and water supply dams/impoundments.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Stakeholder

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Subsidence

Subsidence is a sinking of the ground surface that results in a fracture of the surface, which could change surface water hydrology, or pose a threat to human health or property.

Worker

All non-management personnel.

Workers' Representative

A worker chosen to facilitate communication with senior management on matters related to working conditions, occupational health and safety or other workers' concerns. This is undertaken by the recognized trade union(s) in unionized facilities and, elsewhere, by a worker elected by non-management personnel for that purpose.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



Chapter 2.6—Planning and Financing Reclamation and Closure

READ GUIDANCE NOTE

BACKGROUND

Reclamation refers to the process of rehabilitation and stabilization such that disturbed land is returned to its former or other beneficial uses.²²¹ Closure refers to the activities that are required to maintain compliance with environmental regulations during and following completion of reclamation.

Discussions over the adequacy of reclamation and closure include: (1) the final use that is appropriate for reclaimed mine lands; (2) how re-contoured mine lands should be stabilized, re-vegetated and ecosystem functionality restored; (3) the timing of reclamation processes; (4) whether open pits should be backfilled with waste in a way that does not degrade the environment; and (5) how much money should be set aside to guarantee that reclamation is accomplished, how should that money be invested or valued in terms of discount rate, and what form of financial surety is required for this guarantee to be effective in practice.

It is now widely recognized that the objectives and impacts of reclamation and closure must be considered from project inception. A reclamation and closure plan should define a vision of the end result of the process and set concrete objectives to implement that vision. Future changes to the reclamation plan can be anticipated, but the use of new technologies, while countenanced, cannot be relied upon until they have been proven. The reclamation and closure plan must include only techniques that rely on proven technologies. This forms an overall framework to guide all actions and decisions taken during the mine’s life.

OBJECTIVES/INTENT OF THIS CHAPTER

To protect long-term environmental and social values, and ensure that the costs of site reclamation and closure not borne by affected communities or the wider public.

SCOPE OF APPLICATION

Chapter Relevance: This chapter is relevant for all mines assessed under IRMA.

TERMS USED IN THIS CHAPTER

- Acid Rock Drainage ■ Affected Community ■
- Biodiversity ■ Confidential Business Information ■
- Conservation Values ■ Consultation ■ Contractor ■
- Corporate Owners ■ Ecosystem Services ■ Existing
- Mine ■ Exploration Activity ■ Facility ■ Financial
- Surety ■ Free, Prior and Informed Consent ■
- Holding Costs ■ Host Country Law ■ Landscape ■
- Long-term Water Treatment ■ Metals Leaching ■
- Mine Closure ■ Mining Project ■ Mitigation ■ New
- Mine ■ Operating Company ■ Pit Lake ■ Post-
- Closure ■ Practicable ■ Process Water ■ Restoration
- Revegetation ■ Stakeholder ■ Stormwater ■
- Subsidence ■

²²¹ Powter, Chris. 2002. Glossary of Reclamation and Remediation Terms used in Alberta. Government of Alberta. Available at: <http://environment.gov.ab.ca/info/library/6843.pdf>

New vs. Existing Mines: This chapter applies to new mines and existing mines, as it affects existing and future requirements. For existing mines the chapter requirements are not applicable if the mining project has progressed to a stage where meeting the requirement is no longer possible. For example, existing mines may qualify for IRMA achievement without strict compliance to the following requirements: Backfilling of Open Pits and Underground Mines (2.6.3); and Post-Closure Water Treatment (2.6.6).

CRITICAL REQUIREMENTS IN THIS CHAPTER

Reclamation and closure plans are compatible with protection of human health and the environment, and are available to stakeholders (2.6.2.1 and 2.6.2.6).

Financial surety instruments are in place for mine closure and post-closure (including reclamation, water treatment and monitoring) (2.6.4.1).

Guidance Note for Auditors and Mines on Chapter 2.6- Planning and Financing Reclamation and Closure

HOW THIS CHAPTER IS TO BE AUDITED:

Critical requirement 2.6.4.1 and associated explanatory requirements 2.6.4.2 and 2.6.4.3 will not be scored for sites where there is not possible path in their country for obtaining financial surety instruments for mine reclamation and closure. These requirements will also be removed from the calculation of possible points to properly adjust the chapter score. For clarification, although this relates to a critical requirement of the standard, this is not a revision to the standard but rather a revision to the assurance process.

All other requirements will be scored. Requirements that presume financial surety instruments are in place will be applicable even if a site cannot obtain a financial surety instrument unless it is not relevant for other reasons. Sites where financial surety is not supported by government oversight, and where sites do not have financial surety, will likely not meet certain requirements.

These changes will be reflected in the next version of the manual but will be effective immediately and will be applicable for audits currently underway. This change will also be announced via the IRMA monthly newsletter, and website update notices.

Planning and Financing Reclamation and Closure Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
<p>2.6.1. Exploration Reclamation</p> <p>2.6.1.1. The <u>operating company</u> shall guarantee that the cost of implementing reclamation for <u>exploration activities</u> related to the</p>	<p>For 2.6.1.1: Review any <u>financial surety</u> or other forms of guarantee to confirm that the costs of reclamation for <u>exploration activities</u> are covered.</p>	<p>Explanatory Note 2.6.1.1: <u>Reclamation</u> should take place on all disturbed areas including drill pads, trenching and road construction. It should also address removal of any materials and/or supplies and mitigation of any drilling fluids or products that may contain hazardous chemicals or result in <u>mining-impacted waters</u> (MIW).</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
<p>mining development will be met by the company.</p>		<p>security documentation (e.g. bank/financial guarantees, deposits or contributions to trusts).</p>
<p>2.6.1.2. The operating company shall implement exploration-related reclamation in a timely manner.</p>	<p>For 2.6.1.2: Confirm that exploration-related reclamation has been implemented, or that there is a reasonable rationale for why certain measures have not yet been completed.</p>	<p>For 2.6.1.2:</p> <ul style="list-style-type: none"> Plan for exploration-related reclamation. Documentation (e.g., reports, memos, photographs, etc.) of exploration areas being reclaimed.
<p>2.6.1.3. Any stakeholder complaints of incomplete or inadequate exploration reclamation, if not resolved by other means, shall be discussed and resolved through the operational-level grievance mechanism (see Chapter 1.4).</p>	<p>For 2.6.1.3: Interview operating company and review documentation to establish whether there have been any complaints related to exploration reclamation associated with the mine, and if so, confirm that actions were taken to resolve the issues.</p>	<p>For 2.6.1.3:</p> <ul style="list-style-type: none"> Records of stakeholder communications, public comment, other dialogue (e.g., meeting minutes or notes, emails or written correspondence, etc.) related to exploration reclamation. Records of complaints and grievances related to exploration reclamation filed with the operational-level grievance mechanism.
<p>2.6.2. Reclamation and Closure Planning</p> <p>2.6.2.1. (Critical Requirement) Prior to the commencement of mine construction activities the operating company shall prepare a reclamation</p>	<p>Auditing Note for 2.6.2.1: Review IRMA guidance materials for Reclamation and Closure Plan Elements.</p> <p>For 2.6.2.1: Review the reclamation and closure plan.</p>	<p>For 2.6.2.1:</p> <ul style="list-style-type: none"> Reclamation and closure plan. <p>Explanatory Note 2.6.2.1: For existing mines, if the reclamation and closure plan was not in place prior to construction, mines must be able to demonstrate that there is a plan in place at the time of the mine site assessment.</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
<p>and closure plan that is compatible with protection of human health and the environment, and demonstrates how affected areas will be returned to a stable <u>landscape</u> with an agreed post-mining end use.</p>		<p>In most jurisdictions operators will be required to complete mine <u>reclamation</u> and closure plans in accordance with regulatory requirements that are similarly intended to be protective of human health and the environment and provide for stability and achievement of a post mining land use. If there are no regulatory requirements or the regulatory requirements are not consistent with the IRMA requirements, then the <u>reclamation</u> and closure plan should be supplemented to provide for those requirements. (See also IRMA Chapter 1.1, which requires that companies are required to comply with <u>host country law</u> and the IRMA Standard, unless meeting IRMA's requirements would require the company to break <u>host country law</u>).</p> <p>For requirements related to planning for retrenchment of workers (both during operations and prior to mine closure), see Chapter 3.1. And for requirements related to planning for sustainable communities post-mining see Chapter 2.3.</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION		EXPLANATORY NOTES
<p>2.6.2.2. At a minimum, the reclamation and closure plan shall contain:</p> <ol style="list-style-type: none"> A general statement of purpose; Site location and background Information; A description of the entire <u>facility</u>, including individual site features; The role of the community in reviewing the reclamation and closure plan; Agreed-upon (after-ESIA) post-mining land use and facility use; Source and pathway characterization including geochemistry and hydrology to identify the potential discharge of pollutants during closure; Source <u>mitigation</u> program to prevent the degradation of water resources; Interim operations and maintenance, including <u>process water</u> management, water treatment, and mine site and waste site geotechnical stabilization; 	<p>For 2.6.2.2: Confirm that the elements of the reclamation and closure plan conform with the guidance elements, or encompass their equivalents, as described in IRMA guidance for Chapter 2.6, 2.6.2. Reclamation and Closure Plan Elements.</p> <p>All documentation should be up-to-date.</p>	<p>For 2.6.2.2:</p> <ul style="list-style-type: none"> Reclamation and closure plan. Supplemental documentation, if certain required information is not included in the reclamation and closure plan. A figure showing the mine site layout and identifying all disturbed area boundaries and proposed or existing disturbance types within each area. Survey maps and aerial photographs indicating all infrastructure and surface disturbances. List of all relevant mine tenements (areas under lease or licence for prospecting, exploration, mining or other mining-related activities). Maps showing tenement boundaries, nearby sensitive receptors and the location of the mine in relation to the local and regional setting. 	<p>Explanatory Note 2.6.2.2: IRMA recognizes that in jurisdictions with modern mining regulations there are existing <u>reclamation</u> and closure requirements that must be met. In those cases the information required by IRMA should be similar, but where it is not the reclamation and closure plan should be supplemented to address the information required by IRMA, or supplementary documentation should be provided addressing how the requirements of IRMA for this section will otherwise be met.</p> <p>In cases where <u>reclamation</u> and closure regulations do not exist companies may also want to refer to ICMM (2008) for guidance.²²²</p> <p>All items in 2.6.2.2 should be addressed in the <u>reclamation</u> and closure plan. It is expected that details on particular aspects of the plan will change or become more detailed as the mine life cycle progresses.</p> <p>Re: 2.6.2.2.a, this sub-requirement should include or otherwise address the requirement for 2.6.2.1.</p> <p>Re: 2.6.2.2.b and 2.6.2.2.c, the site location and background information and a description of the entire <u>facility</u> and site features should be informed by IRMA Chapter 4.1, requirements 4.1.3.1 and 4.1.3.2.</p> <p>Re: 2.6.2.2.d, engagement of the community in reviewing the <u>reclamation</u> and closure plan should be consistent with engagement requirements IRMA Chapter 1.2.</p> <p>Re: 2.6.2.2.e, the agreed upon post-mining land use and facility use should be informed by the environmental and social impact assessment (ESIA) process in IRMA Chapter 2.1. During the ESIA <u>stakeholders</u> provide input on potential impacts, and <u>mitigation</u> of impacts. <u>Stakeholder</u> preferences and</p>

²²² E.g., ICMM, 2008. Planning for Integrated Closure: Toolkit. p. 37. Available at: www.icmm.com/document/310

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
<ul style="list-style-type: none"> i. Plans for concurrent or progressive reclamation and <u>revegetation</u>, which should be employed wherever <u>practicable</u>; j. Earthwork: <ul style="list-style-type: none"> i. Stabilization and final topography of the reclaimed mine lands; ii. <u>Stormwater</u> runoff/run-on management; iii. Topsoil salvage to the maximum extent <u>practicable</u>; iv. Topsoil storage in a manner that preserves its capability to support plant regeneration; and, k. <u>Revegetation/Ecological Restoration</u>: <ul style="list-style-type: none"> i. Plant material selection, prioritizing native species as appropriate for the agreed post-mine land use; ii. Quantitative <u>revegetation</u> standards with clear measures to be implemented if these standards are not met within a specified time; and; iii. A defined period, no longer than 10 years, when planned <u>revegetation</u> tasks shall be completed; iv. Measures for control of noxious weeds; 		<p>expectations of post-mining land uses will influence the types of <u>mitigation</u> being discussed.</p> <p>Stakeholder consultation during the ESIA process should be used as an indication of post-mining land uses. However, separate stakeholder consultation processes must be conducted during the development and updating of the mine reclamation and closure plan as the time period may be significant between the ESIA and reclamation and closure planning processes, and during the time lag there may have been changes in the opinions of affected peoples.</p> <p>Re: 2.6.2.2.f, source and pathway characterization should be informed by IRMA Chapter 4.1, requirement 4.1.3.2. and Chapter 4.2, requirement 4.2.2.3.</p> <p>Re: 2.6.2.2.g, source <u>mitigation</u> programs should be informed by IRMA Chapter 4.1, requirement 4.1.5.2 and Chapter 4.2, requirement 4.2.2.4.</p> <p>Re: 2.6.2.2.h, information on interim operations and maintenance may be included in an <u>interim operations and maintenance plan</u> or its equivalent (e.g., as a section of the reclamation and closure plan). The purpose of such a plan is to provide information on how <u>process water</u> systems, interceptor wells, seepage collection systems and <u>stormwater</u> management systems as well as stability monitoring programs are operated and maintained to prevent discharges in the event that regulators must assume management of a mine facility. An <u>operating company</u> should include in the plan process water flow charts showing electrical system requirements, pump operations, seepage collection and interceptor well operations and applicable operation and maintenance requirements. The interim <u>process water</u> management plan shall be updated as major <u>process water</u> system changes occur that would affect the interim emergency water management plan. The interim water management plan shall be maintained on site and be available for regulatory and public review.</p> <p>Re: 2.6.2.2.i, concurrent or progressive <u>reclamation</u> and <u>revegetation</u> is the act of reclaiming land that is no longer required for operations while mining</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
<ul style="list-style-type: none"> v. Planned activities to <u>restore natural habitats</u> (as well as <u>biodiversity, ecosystem services</u> and other <u>conservation values</u> as per Chapter 4.6); l. Hazardous materials disposal; m. Facility demolition and disposal, if not used for other purposes; n. Long-term maintenance; o. <u>Post-closure</u> monitoring plan; p. The role of the community in long-term monitoring and maintenance (if any); and q. A schedule for all activities indicated in the plan. 		<p>or other operations continue on other areas. Instead of waiting until all mining is finished, concurrent <u>reclamation</u> occurs within the same year or at most within two years of it no longer being used and it is accessible for <u>reclamation</u>.</p> <p>Re: 2.6.2.2.j:</p> <p>(i) The plan should describe how stabilization of the reclaimed mined lands will occur such as moving, resloping or otherwise stabilizing mine slopes to appropriate factors of safety or other suitable criteria. The plan should include a map that provides the final individual facility as well as overall site topography;</p> <p>(ii) <u>Stormwater</u> run-on/runoff management is typically included with earthwork activities. Run-on features are intended to divert water around a facility or site. Runoff features are intended to address water that falls onto the facility or site that has the potential to be contaminated and is also referred to as contact water. The plan should provide the design criteria (100 to 500-year 24-hr storm event or Probable Maximum Precipitation (or Flood) event) for both run-on prevention and contact water runoff and demonstrate for the facility that they represent current best practice.</p> <p>(iii) Soil covers in most cases consist of natural earth materials including salvaged topsoil and mined rock of suitable quality. Unless otherwise justified, the expectation for fully meeting this requirement would be that all available topsoil or other suitable growth medium as required to support the <u>reclamation</u> plan in terms of soil cover will be salvaged or otherwise clearly identified.</p> <p>(iv), Topsoil, once stockpiled, should not be re-disturbed until final reclamation. Wide, shallow soil stockpiles crossed as little as possible by earthmoving equipment will be the least compacted and will retain more microflora, bacteria, earthworms and viable seeds for plant reestablishment. Incorporate plant materials on the surface with the topsoil into the topsoil piles, including grasses, shrubs, and chipped woody materials. Topsoil piles should be placed in a manner that minimizes sun exposure, maximizes</p>

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		<p>surface area and minimizes soil depth. They should also be isolated from dust and weeds, as well as seeded promptly because plants and their residue control wind and water erosion, and maintain microbial activity.</p> <p>Re: 2.6.2.2.k:</p> <p>(i) Vegetation maps are of value in designing approximate original contour (AOC), in selecting/applying seed mixes, in planning the post-mining land use, and in establishing success standards for landscape (gamma) diversity. The plan should include a proposed seed/plant mix that includes identification of all native species as well as any introduced species, and provide justification for any introduced species as well as the approach to support native species succession.</p> <p>(ii) The success of <u>revegetation</u> on reclaimed lands is measured against either an unmined reference area or technical (numeric) standards, and any other regulatory <u>revegetation</u> requirements. A reference area is a land unit maintained under appropriate management for the purpose of measuring vegetation ground cover, productivity and plant species composition that are produced naturally or by crop production methods. Reference areas must be representative of geology, soil, slope, and vegetation in the permit area. Technical standards are numeric values developed using vegetation data from several sources: pre-mine baseline studies, historical data, and range site descriptions. Both reference areas and technical standards must be field validated. If technical success standards rather than reference areas are proposed, a minimum of five years of data must be collected for validation.</p> <p>(iii) Recontouring, topsoil placement and revegetation should all occur within the same reclamation period unless otherwise justified.</p> <p>(iv) The <u>reclamation</u> and closure plan should include measures to control noxious weeds consistent with applicable regulatory requirements or based on demonstrated best practices. Use of chemical means to control weeds should only be proposed if no other effective means can be demonstrated.</p>

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		<p>(v) Planned activities to restore <u>natural habitats</u> are highly site-specific and may include: wetlands replacement, enhancement or construction; stream restoration; stream flow augmentation; fisheries <u>habitat</u> enhancement; wildlife habitat enhancement; correcting <u>subsidence</u>-related damage; replacing contaminated or diverted water supplies; supplemental water (e.g., for pit backfilling).Re: 2.2.5.2.l, see also IRMA Chapter 4.1, requirement 4.1.2.1 for requirements related to hazardous materials disposal.</p> <p>Re: 2.6.2.2.m, demolition and disposal includes the demolition, removal and disposal of all mine facilities, equipment and materials including the following: mine, process, administration and ancillary buildings; building foundations and containment structures; mining, process and ancillary equipment; storage and water tanks; utility (power, gas, water) lines and stations; materials and supplies; explosives storage facilities; general site debris; fences and cattle guards; culverts, bridges, road signs.</p> <p>Re: 2.6.2.2.n, the plan should describe the long-term maintenance tasks for the site such as: periodic cleanout, repair and replacement of <u>stormwater</u> ditches; repair and/or replacement of covers; periodic repair and replacement of public safety items; periodic reseeding, nutrient addition and weed control; periodic (yearly in most cases where applicable) road maintenance and snow removal; evaluation and maintenance or other <u>mitigation</u> as necessary to maintain structural stability.</p> <p>2.6.2.2.o, the plan should describe the monitoring purpose, locations, frequency, and reporting for: surface water quality and flow monitoring; groundwater quality and level monitoring; <u>revegetation</u> performance monitoring; stability and erosion monitoring; wildlife monitoring; other site-specific monitoring; reporting.</p> <p>2.6.2.2.p, the role of the community in the long-term monitoring and maintenance plan should be described if community involvement, in particular community responsibility, is planned. This should address the need for institutional controls to protect <u>reclamation</u> and other <u>mitigation</u> measures and to address future land development if that is to be allowed.</p>

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<p>2.6.2.3. The reclamation and closure plan shall include a detailed determination of the estimated costs of reclamation and closure, and <u>post-closure</u>, based on the assumption that reclamation and closure will be completed by a third party, using costs associated with the reclamation and closure plan as implemented by a regulatory agency. These costs shall include, at minimum:</p> <ol style="list-style-type: none"> Mobilization/demobilization; Engineering redesign, procurement, and construction management; Earthwork; <u>Revegetation/Ecological Restoration</u>; Disposal of hazardous materials; Facility demolition and disposal; <u>Holding costs</u> that would be incurred by the regulatory agency following a bankruptcy in the first two years before actual reclamation begins, including: 	<p>Auditing Note for 2.6.2.3: Review IRMA guidance for Chapter 2.6, 2.6.2.3. Reclamation and Closure Financial Assurance Cost Estimate.</p> <p>For 2.6.2.3: Review <u>financial surety</u> calculations in the reclamation and closure plan to ensure the specified categories are included, and that reasonable assumptions have been utilized in calculating the financial surety.</p> <p>Re: Subpart (g) Estimates of <u>holding costs</u> should include a minimum of one-year funding, but two years is recommended.</p>	<p>2.6.2.2.q, the <u>reclamation</u> and closure plan should include a schedule that shows when the various reclamation and closure activities will occur for each facility and for the site overall. The schedule should include proposed ending and beginning dates and duration. Time critical items and milestones should be indicated.</p> <p>Explanatory Note for 2.6.2.3: This information will feed into the <u>financial surety</u> calculations for <u>mine closure</u> in 2.6.4 and the <u>post-closure financial surety</u> calculations in 2.6.5</p> <p>Re: 2.6.2.3.a, see 2.6.2.3.i. "Indirect Costs: i. Mobilization/Demobilization."</p> <p>Re: 2.6.2.3.b, see 2.6.2.3.i. "Indirect Costs: ii. Engineering redesign, procurement, and construction management."</p> <p>Re: 2.6.2.3.c, earthwork financial security includes, but is not limited to the cost of, roads, <u>reclamation</u> material stockpiles, low grade ore or sulfidic stockpiles, <u>waste rock</u> dumps, <u>tailings</u>, spent ore and other constructed features; closure of mine openings; material source development for covers; drainage or armor layers; backfilling (diversions, ditches, sediment ponds, etc.); and placement of topsoil or other growth medium. Construction of <u>facilities</u> like diversions channels and drains, stream channels, wetlands and special purpose facilities is also considered to be earthwork.</p> <p>Re: 2.6.2.3.d, <u>revegetation</u> financial security must include the cost of obtaining the seed mix specified in the reclamation plan and the cost of soil preparation, such as ripping or harrowing, soil amendments such as mulching or fertilizer, application of the seed mix, noxious weed control, and placement of tree and shrub seedlings, if required in the plan.</p> <p>Re: 2.6.2.3.e, hazardous materials costs to be considered include the following: maintenance shop chemicals and petroleum products; mill buildings, labs, vehicle maintenance and wash <u>facilities</u>; mill reagents, chemicals and petroleum products; laboratory reagents, chemicals and waste products; mine explosives and petroleum products; chemicals and reagents in storage areas; residues and other contents in storage tanks and</p>

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<ul style="list-style-type: none"> i. Interim <u>process water</u> and site management; and ii. Short-term water treatment; h. Post-closure costs for: <ul style="list-style-type: none"> i. <u>Long-term water treatment</u>; and ii. Long-term monitoring and maintenance; i. Indirect Costs: <ul style="list-style-type: none"> i. Mobilization/demobilization; ii. Engineering redesign, procurement and construction management; iii. <u>Contractor overhead and profit</u>; iv. Agency administration; v. Contingency; and j. Either: <ul style="list-style-type: none"> i. A multi-year inflation increase in the financial surety; or ii. An annual review and update of the financial surety. 		<p>barrels; water treatment plant sludge and residues; contaminated soils or other materials.</p> <p>Re: 2.6.2.3.f, demolition and disposal includes the demolition, removal and disposal of all mine <u>facilities</u>, equipment and materials including the following: mine, process, administration and ancillary buildings; building foundations and containment structures; mining, process and ancillary equipment; storage and water tanks; utility (power, gas, water) lines and stations; materials and supplies; explosives storage facilities; general site debris; fences and cattle guards; culverts, bridges, road signs.</p> <p>Re: 2.6.2.3.g, this sub-requirement assumes all reclamation costs/financial assurances are current, and that it will take the government two years from the date of bankruptcy to get reclamation underway in the event of an unplanned/immediate mine closure. <u> Holding costs</u>, which may also be identified in the financial assurance as "Interim Operations" or "Emergency Operations" (or similar), can be calculated by assuming that the next category, interim process water and site management, is for a two-year period.</p> <p>(i) Interim <u>process water</u> and site management costs should include the following tasks: provide labor (operations, security, maintenance, monitoring); provide electrical power and other utilities; supply replacement pumps, piping and maintenance materials and supplies; purchase necessary chemicals and reagents; replace security items; supply vehicles and equipment. Additional operations and maintenance tasks may include: develop/update and implement Health and Safety Plan; develop/update and implement <u>interim operations and maintenance plan</u> or its equivalent; recirculation (pumping) of process fluids 24/7 to prevent overtopping of process ponds during a shutdown (no routing of fluids to <u>tailings</u> impoundments); impoundment dewatering or drain-down; ongoing treatment of any existing water treatment operations related to groundwater or surface water discharges; interim monitoring; sludge management; and explosives management.</p>

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		<p>(ii) Short-term, or closure water management and treatment describe any additional water treatment required to address water quality issues over a finite predicted time, typically no greater than 50 years. Examples include <u>dewatering</u> of tailings facilities and treatment of reactive and mobile contaminants such as nitrates or cyanide in groundwater. This may also include treatment of contaminants associated with <u>acid rock drainage</u> (sulfates and metals) and neutral mine drainage (arsenic and selenium) which are predicted to require relatively short-term treatment only.</p> <p>Re: 2.6.2.3.h:</p> <p>(i) Long-term, or <u>post-closure</u> water management and treatment includes any additional water treatment required to address water quality issues over an indefinite predicted time, typically that exceeding 50 years and often times based on 100-year predictions. In most cases <u>post-closure</u> water management and treatment is predicted to be required for 1,000 years or more and may be described as “in perpetuity” treatment. It most often involves the treatment of contaminants associated with <u>acid rock drainage</u> (sulfates and metals) and neutral mine drainage (arsenic and selenium), and may also involve mercury and other site-specific contaminants.; and</p> <p>(ii) Long-term monitoring and maintenance costs should be included for the following tasks. The tasks for monitoring include: Surface water quality and flow monitoring; Groundwater quality and level monitoring; Vegetation performance monitoring; Stability and erosion monitoring; Wildlife monitoring; Other site-specific monitoring; Reporting. The tasks for maintenance include: Periodic cleanout, repair and replacement of storm water ditches; Repair and/or replacement of covers; Periodic repair and replacement of public safety items; Periodic reseeding, nutrient addition and weed control; Periodic (yearly in most cases where applicable) road maintenance and snow removal; Evaluation and maintenance or other <u>mitigation</u> as necessary to maintain structural stability.</p> <p>Re: 2.6.2.3.i, indirect costs are typically calculated as a percentage of the direct costs as follows:</p>

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		<p>(i) Mobilization and demobilization are indirect costs for moving personnel, equipment, supplies and incidentals to and from the reclamation site. These costs will be incurred by the engineering, construction and operations <u>contractors</u>. It also includes the establishment of field offices, shop buildings, warehouses, sanitary <u>facilities</u>, utilities and other facilities needed to proceed with the project work. Important factors influencing these costs are the remoteness of the site, availability of equipment, road use restrictions and permits. Unusual time constraints, a need for special equipment, the presence of non-standard features or conditions that hinder equipment mobility, or a remote location may require actual cost estimates that could result in the use of a higher percentage.</p> <p>(ii) Engineering Design/Redesign costs are for the following tasks: Prepare maps and plans to show the extent of required reclamation; Survey of topsoil and growth medium stockpiles to determine amount of material available; Sample and analyze <u>waste rock</u>, tails, heap material, surface and ground water, etc.;; Sample and analyze topsoil and waste piles to determine whether special handling or treatment is necessary; Evaluate structures to determine requirements for demolition and removal; Evaluate <u>stormwater</u> facilities and process solutions or water impoundments to determine if treatment, clean out, or other improvements are necessary; Prepare an environmental analysis or site studies before reclamation may commence. Engineering redesign costs typically range between 2% and 10% of the total direct costs.</p> <p>(iii) <u>Contractor</u> overhead and profit: <u>Contractor's</u> profit and overhead is a large portion of cost when contracting for mine <u>reclamation</u>. It will therefore make up a large portion of the indirect costs to be included in every bond estimate and should account for: <u>Contractor</u> Profit – Government contracts generally include a line item for prime contractor's profit over and above the estimated reclamation O&M costs; Liability Insurance – the cost of obtaining</p>

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<p>2.6.2.4. The <u>operating company</u> shall review and update the reclamation and closure plan and/or financial assurance when there is a significant change to the mine plan, but at least every 5 years,²²³ and at the request of</p>	<p>For 2.6.2.4: Review the most recent version of reclamation and closure plan and confirm that the previous version was written fewer than five years before the current version.</p>	<p>For 2.6.2.4:</p> <ul style="list-style-type: none"> • Reclamation and closure plan and updates. • Financial assurance reviews and updates (covering immediate/unplanned closure). • Records of stakeholder communications with the company, public comment, 	<p>contractor’s liability insurance; Payment and Performance Bonds. <u>Contractors</u> overhead and profit cost typically range between 15% and 25% of the total direct costs.</p> <p>(iv) Agency administration: Agency contract administration costs include the agencies labor and operations costs for the offices to administer the contract. These costs must be included in the FA, and the amount required to cover the contract administration costs will depend to a great extent on the specifics, including <u>reclamation complexities</u>, of the proposed operation. Estimate the agency’s contract administration and inspection cost for <u>reclamation</u> and closure contracts use 6-10 percent of the direct costs.</p> <p>(v) Contingency: The contingency allowance is for cost overruns that regularly occur but cannot be ascertained when an operation is being reviewed. Contingency costs generally reflect the level of detail and completeness of the cost estimate, as well as the level of uncertainty in the assumptions used for the reclamation plan and FA. Calculate the contingency allowance as a percentage of the total direct costs. New operations with conceptual plans and cost estimate should use a 20% contingency allowance. Plans not yet prepared for final implementation should use a 10% contingency allowance. Plans prepared for final implementation should use a 5% contingency allowance.</p> <p>Explanatory Note for 2.6.2.4: The five-year review period comes from ICMM.²²⁴ Interim progress reports to <u>stakeholders</u> could be delivered verbally, e.g., in community meetings, or could be written reports, as agreed with <u>stakeholders</u>. Interim reports need not be updated more frequently than annually.</p>

²²³ ICMM, 2008. Planning for Integrated Closure: Toolkit. p. 37. Available at: www.icmm.com/document/310

²²⁴ International Council on Mining and Metals (ICMM), 2008. Planning for Integrated Closure: Toolkit. p. 37. Available at: www.icmm.com/document/310

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<p>stakeholders provide them with an interim reclamation progress report.</p> <p>2.6.2.5. If not otherwise provided for through a regulatory process, prior to the commencement of the construction of the mine and prior to completing the final reclamation plan the operating company shall provide stakeholders with at least 60 days to comment on the reclamation plan. Additionally:</p> <p>a. If necessary, the operating company shall provide resources for capacity building and training to enable meaningful stakeholder engagement;²²⁵ and</p>	<p>For 2.6.2.5: Interview operating company and relevant stakeholders, and review documentation to confirm that stakeholders were consulted in the revision of the reclamation and closure plan, and that any relevant capacity building, training or access to independent experts occurred.</p>	<p>other dialogue (e.g., meeting minutes or notes, emails or written correspondence, etc.) requesting information on interim reclamation progress.</p> <ul style="list-style-type: none"> Records of meetings held by the company (e.g., public presentations, smaller meetings with stakeholders) or correspondence (e.g., emails, letters) with stakeholders where company provides them with an update on interim reclamation progress. Records of complaints and grievances related lack of access to information filed with the operational-level grievance mechanism. <p>For 2.6.2.5:</p> <ul style="list-style-type: none"> Records of meetings held by the company (e.g., meeting minutes, attendee lists), correspondence (e.g., emails, letters) with stakeholders and public notices (e.g. newspaper advertisements) where company invites them to comment on the reclamation plan. Records of stakeholder communications with the company, (e.g., meeting minutes or notes, emails or written correspondence, etc.) providing comments on the reclamation plan.
		<p>Explanatory Note for 2.6.2.5: If there is no regulatory process in place, there should be explicit outreach to stakeholders inviting them to comment on the reclamation plan, and letting them know they have at least 60 days to do so. If the regulatory process provides a stakeholder comment period that is shorter than 60 days, the operating company should still take stakeholder feedback on the plan for up to 60 days.</p> <p>As per Chapter 1.2 (criterion 1.2.3), companies are required to collaborate with stakeholders from affected communities to assess their capacity to effectively engage in consultations, assessments, etc., and where capacity gaps are identified, the operating company shall offer appropriate assistance to facilitate effective stakeholder engagement. This could be through provision of training or access to independent experts, etc.</p> <p>As per Chapter 1.2, “meaningful engagement” includes a two-way exchange of information between the company and stakeholders, with stakeholders’</p>

²²⁵ For more on meaningful stakeholder engagement see Chapter 1.2, requirement 1.2.2.2.

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<p>b. Prior to completing the final reclamation plan, the <u>operating company</u> shall provide <u>affected communities</u> and interested <u>stakeholders</u> with the opportunity to propose independent experts to provide input to the <u>operating company</u> on the design and implementation of the plan and on the adequacy of the completion of reclamation activities prior to release of part or all of the financial surety.</p>		<ul style="list-style-type: none"> Records of stakeholder requests to the company for capacity building or training to enable meaningful participation. Records of stakeholder complaints and grievances related to the comment period or lack of ability to engage meaningfully in the comment process.
<p>2.6.2.6. (Critical Requirement) The most recent version of the reclamation and <u>mine closure</u> plan, including the results of all reclamation and closure plan updates, shall be publicly available or available to <u>stakeholders</u> upon request.</p>	<p>For 2.6.2.6: Confirm that the reclamation and closure plan for the mine is available on the company website, and if not, confirm that it is made available to <u>stakeholders</u> upon request.</p>	<p>For 2.6.2.6:</p> <ul style="list-style-type: none"> Records of where and how the reclamation plan is made available to stakeholders/the public.
<p>2.6.3. Backfilling as a Part of Reclamation</p> <p>2.6.3.1. Open pits shall be partially or completely backfilled if:</p> <p>a. A <u>pit lake</u> is predicted to exceed the <u>water quality criteria</u> in IRMA Chapter 4.2;²²⁷</p>	<p>Auditing Note for 2.6.3.1: For more discussion on this evaluation see IRMA Guidance for Chapter 2.6, 2.6.3.1. Open Pits.</p> <p>For 2.6.3.1: Review the plans for new or expanded open pits. To verify whether a thorough evaluation of the</p>	<p>For 2.6.3.1:</p> <ul style="list-style-type: none"> Reclamation and closure plan that includes information on and plan for backfilling open pits (e.g., material that will be used to backfill pits, the volume of material needed, where it will be obtained from, backfilling schedule, and
		<p>Explanatory Note for 2.6.2.6: In this case, “publicly available” means that the reclamation and closure plan should either be readily accessible on a regulatory agency website (some host countries/jurisdictions publish these plans) or on the <u>operating company/corporate owner</u> website, or be available in hard copy at a public facility (e.g., a public library, government office, etc.) within <u>affected communities</u>, or upon request at the <u>operating company’s</u> premises.</p> <p>Explanatory Note for 2.6.3.1: Re: 2.6.3.1.a, see Chapter 4.2, requirement 4.2.2.2 and 4.2.2.3 for prediction of water quality, and requirement 4.2.3.3 for requirements related to maintaining water quality at <u>water quality/background water quality</u>, or at levels protective of current and future end uses of water (i.e., IRMA <u>Water Quality Criteria</u> by End-Use Tables. (View Tables).</p>

²²⁶ OECD. 2017. *OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector*. p. 18. Available at: <http://www.oecd.org/publications/oecd-due-diligence-guidance-for-meaningful-stakeholder-engagement-in-the-extractive-sector-9789264252462-en.htm>

²²⁷ See Chapter 4.2, requirement 4.2.2.2 and 4.2.2.3 for prediction of water quality, and requirement 4.2.3.3 for requirements related to maintaining water quality at baseline/background or at levels protective of current and future end uses of water.

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<p>b. The company and key <u>stakeholders</u> have agreed that backfilling would have socioeconomic and environmental benefits; and</p> <p>c. It is economically viable.</p>	<p>potential for the backfill of open pits has been conducted in a socially, environmentally, and economically <u>practicable</u> manner, at a minimum the following factors should be examined:</p> <ul style="list-style-type: none"> • Are there environmental advantages and/or environmental liabilities associated with backfilling? • Is there an opportunity for sequential backfill of multiple open pits to return the area to usable post-mine land use; • Would backfilling enhance the stability of pit walls required to ensure protection of human health and the environment? • What are the potential impacts on wildlife? • What are the potential impacts on surface or groundwater quality? If relevant, confirm that a risk assessment was undertaken that analyzed the alternatives for minimizing long-term impacts such as <u>acid rock drainage/metals leaching</u> from exposed rock in pit walls. • What are the potential greenhouse gas emissions associated with backfilling? • Is backfilling economically viable? • In locations where 	<p>annual cost estimates).</p> <ul style="list-style-type: none"> • Documentation in the closure plan of costs of backfilling. • Records of pit backfilling. • Documentation of analysis to determine if pit lake will form, and pit lake water quality (e.g., conceptual site model, numerical modeling results/predictions). • Documentation of risk assessment or analysis that determines potential risks, benefits and cost estimates of backfilling pits. • Records of meetings (e.g., meeting minutes or notes) or correspondence (e.g., email exchanges, letters) with key stakeholders on the topic of backfilling open pits, and the potential risks and benefits of the practice. 	<p>Re: 2.6.3.1.b, “key <u>stakeholders</u>” should include community representatives (e.g., local governments, but also interested members of <u>affected communities</u> or their technical advisers), representatives of governmental agencies that regulate mining in the host country, and potentially NGOs, academics or others that have expertise related to backfilling.</p> <p>This requirement assumes that a risk assessment or equivalent analysis is undertaken to determine the potential risks, benefit and cost estimates of backfilling pits. That analysis should be shared with key <u>stakeholders</u> so that they are informed of the potential risks and can then discuss with the company whether or not the socioeconomic and environmental benefits outweigh the risks.</p>

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<p>2.6.3.2. Underground mines shall be backfilled if:</p> <p>a. <u>Subsidence</u> is predicted on lands not owned by the mining company; and</p> <p>b. If the mining method allows.</p>	<p>evapotranspiration exceeds precipitation, either backfilling to the water table level or agreed-upon compensation to affected users for the water being lost to evaporation should be ensured.</p> <p>For 2.6.3.1.c: Determine if a company has done cost calculations for backfilling to determine whether or not backfilling is an economically viable option.</p> <p>For 2.6.3.2: Review documentation, e.g., closure and reclamation plan or other analyses that predict whether or not subsidence is expected on lands not owned by the company. If it is predicted, interview <u>operating company</u> to determine if backfilling is technically feasible based on mining method, and if so, confirm that it is occurring or is planned to occur.</p>	<p>For 2.6.3.2: Documentation of risk assessment or some similar analysis that determines potential risks, benefits and cost estimates of backfilling pits.</p>	<p>Explanatory Note for 2.6.3.2: This applies to new or expanded underground mines.</p> <p>The requirement is only relevant if <u>subsidence</u> is predicted.</p>
<p>2.6.4. Financial Surety for Mine Closure</p> <p>2.6.4.1. (Critical Requirement) <u>Financial surety</u> instruments shall be in place for <u>mine closure</u> and <u>post-closure</u>.</p>	<p>For 2.6.4.1: Confirm that <u>financial surety</u> instruments exist for closure and <u>post-closure</u>.</p>	<p>For 2.6.4.1:</p> <ul style="list-style-type: none"> Documentation for the financial surety instruments that are in place (e.g., form of financial surety, initial date when surety instruments were put in place, etc.). 	<p>Explanatory Note for 2.6.4: NOTE: Although this criterion heading says Financial Surety for Mine Closure, these requirements are applicable to <u>financial surety for mine closure and post-closure</u>. Additional requirements that apply only during <u>post-closure</u> can be found in 2.6.7. We will more clearly reflect this in the next version of the Standard.</p> <p>Until further notice (likely after revision of IRMA Standard, unless Assurance Committee revises this current decision), auditors will not score the critical requirement (2.6.4.1, and explanatory 2.6.4.2 and 2.6.4.3) in countries without state-hosted financial surety. Auditors will be required to document why it cannot be applied in the site's country.</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
<p>2.6.4.2. <u>Financial surety</u> instruments shall be:</p> <ol style="list-style-type: none"> Independently guaranteed, reliable, and readily liquid; Reviewed by third-party analysts, using accepted accounting methods, at least every five years or when there is a significant change to the mine plan; In place before ground disturbance begins; and Sufficient to cover the reclamation and closure expenses for the period until the next <u>financial surety</u> review is completed. 	<p>For 2.6.4.2.a: Review documentation for <u>financial surety</u> instruments to confirm they are independently guaranteed, and readily liquid.</p> <p>For 2.6.4.2.b: Review documentation from third-party reviews of <u>financial surety</u> instruments to confirm dates of reviews. Review documentation of reviewer credentials.</p> <p>For 2.6.4.2.c: Review documentation for <u>financial surety</u> instruments to determine the commencement date.</p> <p>For 2.6.4.2.d: Review documentation for <u>financial surety</u> instruments and compare with estimated costs in the</p>	<p>Auditors will review and score the other requirements in the chapter that pertain to financial surety, even if those can't be met because of the absence of state-hosted financial surety.</p> <p>Auditors will daylight in the audit report the lack of state-hosted financial surety and the risk presented by the lack of an independently managed reclamation and closure bonding process, noting that while this isn't the company's fault, it is still a risk to the environment and impacted communities.</p> <p>Mining companies are encouraged to share with auditors how they are dealing with the issue in the absence of state-hosted system: mining companies can present what the site has in place relative to alternative means of financial assurance or other partial means of surety for reclamation and closure; however, the report will clarify whether auditors have vetted/approved that content or if it has been reviewed by independent financial auditors.</p> <p>Explanatory Note for 2.6.4.2: Re: 2.6.4.2.a, <u>financial surety</u> instruments that are independently guaranteed, reliable, and readily liquid include forms of cash (commercial deposits, trusts), irrevocable letters of credit from an established bank, and surety bonds and insurance policies from bonded insurers. Self-bonding or corporate guarantees are not independently guaranteed, reliable, and readily liquid.</p> <p>Re: 2.6.4.2.b, use of a qualified third-party consultant is anticipated for the analysis. Government agency review is also acceptable if the agency has a registered professional that has placed their credential on the review document.</p> <p>Re: 2.6.4.2.d, the <u>financial surety</u> should be sufficient to cover the maximum estimated <u>reclamation</u> and closure expenses for the period until the next <u>financial surety</u> review is completed. These costs are required to be estimated in 2.6.2.3 and 2.6.2.4.</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION		EXPLANATORY NOTES
<p>2.6.4.3. Self-bonding or corporate guarantees shall not be used.</p>	<p>reclamation and closure plans (see 2.6.2.3 and 2.6.2.4).</p> <p>For 2.6.4.3: Confirm that the <u>financial surety</u> is not in the form of a self-bond or corporate guarantee.</p>	<p>For 2.6.4.3:</p> <ul style="list-style-type: none"> • Documentation for the financial surety instruments that are in place (e.g., form of financial surety, initial date when surety instruments were put in place, etc.) 	<p>Explanatory Note for 2.6.4.3: Self-bonding or corporate guarantees—also called a company guarantee, corporate financial test, a balance sheet test, or a self-guarantee—is based on an evaluation of the assets and liabilities of the company and its ability to pay the total rehabilitation costs. ICMM refers to self-bonding and corporate guarantees as soft options.²²⁸</p> <p>Many jurisdictions no longer accept corporate guarantees as a form of financial surety due to public concerns that even very large mining companies can fail, not matter what their financial health when the mining project started.²²⁹</p> <p>Acceptable forms of financial assurance may include, for example: Insurance policies; letters of credit (i.e., bank guarantee), surety bonds, cash deposits, and trust funds.²³⁰ These are referred to by ICMM as hard forms of assurance, which provide a higher level of security than soft forms.²³¹</p>
<p>2.6.4.4. The results of all approved <u>financial surety reviews</u>, with the exception of <u>confidential business information</u>, shall be made available to <u>stakeholders</u> upon request.</p>	<p>For 2.6.4.4: Determine if approved surety reviews are available on the company website or if not publicly accessible, confirm that they are available to <u>stakeholders</u> upon request.</p>	<p>For 2.6.4.4:</p> <ul style="list-style-type: none"> • Where financial surety reviews are made public by the competent authority the operating company can reference that availability as conformance with this requirement. • Records of stakeholder requests for copies of approved financial surety 	<p>Explanatory Note for 2.6.4.4: Approved <u>financial surety reviews</u> means that reviews have been undertaken and approved by <u>competent authorities</u> (i.e., relevant government regulatory agencies).</p>

²²⁸ ICMM. 2006. Financial Assurance for Mine Closure and Reclamation: Guidance Paper. p. 7. <https://www.icmm.com/website/publications/pdfs/mine-closure/23.pdf>

²²⁹ Sasoan, M. 2009. Financial Surety: Guidelines for the Implementation of Financial Surety for Mine Closure. (World Bank Group's Oil, Gas, and Mining Policy Division). pp. 7, 9, 10 and 41. http://siteresources.worldbank.org/INTOGMC/Resources/7_eifd_financial_surety.pdf

²³⁰ See Sasoan (ibid) for more details on each of these types of financial assurance instruments.

²³¹ See ICMM. 2006. p. 7, above.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION		EXPLANATORY NOTES
<p>2.6.4.5. Prior to the commencement of the construction of the mine, prior to any renewal of the financial surety, and prior to final release of the financial surety the operating company shall provide the public with at least 60 days to comment on the adequacy of the financial surety. Additionally:</p> <p>a. Where the company deems certain financial surety information to be confidential business information it shall make the data available to the IRMA auditor and satisfy the auditor that the grounds for confidentiality are reasonable. If certain information is not included for confidential reasons, the fact that the information has been withheld shall be disclosed along with the financial surety.²³²</p> <p>b. If necessary, the operating company shall provide resources for capacity building and training to</p>	<p>For 2.6.4.5: Interview operating company and relevant stakeholders, and review documentation to confirm that stakeholders were consulted in the revision of the financial surety, and that any relevant capacity building, training or access to independent experts occurred.</p>	<p>reviews, and company responses to such requests.</p> <ul style="list-style-type: none"> • Policy or procedures on disclosure or provision of information to stakeholders. <p>For 2.6.4.5:</p> <ul style="list-style-type: none"> • Where competent authorities provide for public review of financial surety proposals, and those periods are at least 60 days, the operating company can reference that process. • Records of meetings held by the company (e.g., meeting minutes, attendee lists) or correspondence (e.g., emails, letters) with stakeholders where company invites them to comment on financial sureties. • Records of stakeholder communications with the company, (e.g., meeting minutes or notes, emails or written correspondence, etc.) providing comments on the adequacy of financial sureties. • Records of stakeholder requests to the company for capacity building or training to enable meaningful participation. • Records of stakeholder complaints and 	<p>Explanatory Note for 2.6.4.5: Re: 2.6.4.5.a, as per IRMA Chapter 1.4, companies are required to have an operational-level grievance mechanism, which would provide a means for stakeholders to initiate dialogue and seek a resolution with a company if the withholding of confidential business information makes it difficult or impossible for stakeholders to adequately review the company’s calculations.</p> <p>Re: 2.6.4.5.b, as per Chapter 1.2 (criteria 1.2.3), companies are required to collaborate with stakeholders from affected communities to assess their capacity to effectively engage in consultations, assessments, etc., and where capacity gaps are identified, the operating company shall offer appropriate assistance to facilitate effective stakeholder engagement. This could be through provision of training or access to independent experts, etc.</p> <p>“meaningful engagement” includes a two-way exchange of information between the company and stakeholders, with stakeholders’ views being taken into account in decision-making; engagement is conducted in good faith (i.e., the company genuinely intends to understand how stakeholder interests are affected by their actions and to address adverse impacts, and stakeholders honestly represent their interests, intentions and concerns); and companies are responsive to stakeholder input and follow through on commitments.²³³</p>

²³² As per IRMA Chapter 1.4, companies are required to have an operational-level grievance mechanism, which would provide a means for stakeholders to initiate dialogue and seek a resolution with a company if the withholding of confidential information makes it difficult or impossible for stakeholders to adequately review the company’s calculations.

²³³ OECD. 2017. *OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector*. p. 18. Available at: <http://www.oecd.org/publications/oecd-due-diligence-guidance-for-meaningful-stakeholder-engagement-in-the-extractive-sector-9789264252462-en.htm>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
<p>enable meaningful <u>stakeholder engagement</u>; and</p> <p>c. Prior to the beginning of closure reclamation activities the <u>operating company</u> shall provide <u>affected communities</u> and interested <u>stakeholders</u> with the opportunity to propose independent experts to review the <u>financial surety</u>.</p> <p>2.6.4.6. The terms of the <u>financial surety</u> shall guarantee that the surety is not released until:</p> <p>a. <u>Revegetation/ecological restoration</u> and reclamation of mine and waste sites and have been shown to be effective and stable; and</p> <p>b. Public comment has been taken before partial or <u>final surety</u> release.</p>	<p>For 2.6.4.6: Review financial surety terms and conditions. Partial bond releases are anticipated, but with public comment.</p>	<p>grievances related to the comment period or lack of ability to engage meaningfully in the comment process.</p> <ul style="list-style-type: none"> • Policy or procedures on disclosure or provision of information to stakeholders. <p>For 2.6.4.6:</p> <ul style="list-style-type: none"> • Regulatory requirements or company policy or statement that the surety will not be released until the requirements are met.
<p>2.6.5. Post-Closure Planning and Monitoring</p> <p>2.6.5.1. Monitoring of closed mine facilities for geotechnical stability and routine maintenance is required in <u>post-closure</u>. The reclamation and closure plan shall include specifications for the <u>post-closure</u> monitoring and maintenance of all mine facilities, including, but not limited to:</p>	<p>Auditing Note for 2.6.5: Review IRMA Guidance for Chapter 2.6, Long-Term Maintenance.</p> <p>For 2.6.5.1: Review reclamation and closure plan for <u>post-closure</u> mine facility monitoring requirements and funding provisions.</p>	<p>For 2.6.5.1:</p> <ul style="list-style-type: none"> • Reclamation and closure plan. • Annual closure cost estimate report (sections: post-closure monitoring and residual costs, contingency) <p>Explanatory Note for 2.6.5.1: The requirements described in this section should be included as part of the <u>reclamation</u> and closure tasks and activities mentioned in requirement 2.6.2.2 (see sub-requirements 2.6.2.2.n. Long-term maintenance and 2.6.2.2.o. Post-closure monitoring plan).</p> <p>The <u>post-closure</u> monitoring plan may be a standalone plan, or it may be integrated into the <u>reclamation</u> and closure plan.</p> <p>Re: 2.6.5.1.c, mechanisms could include a plan for what actions to take if reclamation activities are not effective (e.g., adaptive management strategies), and are funds available for the planning and potential response actions.</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
<p>a. Inspection of surface (open pits) and underground mine workings;</p> <p>b. Inspection and maintenance of <u>mine waste facilities</u> including effectiveness of cover and any seepage capture systems; and</p> <p>c. Mechanisms for contingency and response planning and implementation.</p> <p>2.6.5.2. Monitoring locations for surface and groundwater shall be sufficient to detect off-site contamination from all closed mine facilities, as well as at the points of compliance.</p>	<p>For 2.6.5.2, 2.6.5.3, and 2.6.5.4: Review Reclamation and Closure Plan for <u>post-closure</u> surface, groundwater and biologic monitoring requirements, if relevant, and funding provisions. Confirm that plans for water monitoring are in place for reclamation and closure that include monitoring locations that will be sufficient to detect off-site contamination.</p>	<p>For 2.6.5.2:</p> <ul style="list-style-type: none"> Reclamation and closure plan/post-closure monitoring plan. <p>Explanatory Note for 2.6.5.2: <u>Post-closure</u> monitoring should be consistent with the requirements of IRMA Chapter 4.2, "Water Management," criterion 4.2.4 Monitoring and Adaptive Management.</p> <p>In particular, requirement 4.2.4.1 similarly requires that there be a sufficient number of monitoring locations to detect changes in water quality/contamination. As explained in the note for requirement 4.2.4.1: establishing what constitutes an "adequate" number of monitoring locations is somewhat arbitrary. At a minimum, point discharges of contaminants need to be monitored (usually this is required by regulatory agencies). Internal monitoring of sources like <u>tailings</u> and <u>waste rock</u> groundwater interception systems is strongly encouraged."</p> <p>To ensure reliability of data, sites should be located as close as <u>practicable</u> to mine related contaminant sources (point source and non-point). Additional points of monitoring could be located inside the mine site boundary as a best practice measure.</p> <p>Regardless of regulatory requirements, <u>points of compliance</u> for surface water and ground water discharges should be established and monitored for each source of treated or untreated contaminants. For IRMA purposes a <u>point of compliance</u> is the physical location where water quality must meet IRMA end-use <u>water quality criteria</u>. (View IRMA end-use tables) The location will vary with the type of discharge (surface, groundwater, <u>mixing zone</u>, etc.).</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION		EXPLANATORY NOTES
<p>2.6.5.3. Water quality monitoring locations shall be sampled until IRMA <u>Water Quality Criteria</u> have been met for at least 5 years, with a minimum of 25 years of post-closure data.²³⁴ The 25-year minimum may be waived if ongoing water quality monitoring demonstrates and modeling predicts that no contamination of surface or ground waters is occurring or will occur, respectively.</p>	<p>For 2.6.5.2, 2.6.5.3, and 2.6.5.4: Review Reclamation and Closure Plan for <u>post-closure</u> surface, groundwater and biologic monitoring requirements, if relevant, and funding provisions. Confirm that plans for water monitoring are in place for reclamation and closure that include monitoring locations that will be sufficient to detect off-site contamination.</p>	<p>For 2.6.5.3:</p> <ul style="list-style-type: none"> • Reclamation and closure plan/post-closure monitoring plan. • Annual closure cost estimate report (sections: post-closure monitoring and residual costs, contingency) 	<p>Explanatory Note for 2.6.5.3: IRMA's tables of <u>water quality criteria</u> are found in Chapter 4.2, Tables 4.2.a to h. Alternatively, the mine may meet <u>baseline water quality</u> or <u>background water quality</u> values as per Chapter 4.2, requirement 4.2.2.3.</p>
<p>2.6.5.4. Biologic monitoring shall be included in <u>post-closure</u> monitoring if required to ensure there is no ongoing <u>post-closure</u> damage to aquatic and terrestrial resources.</p>	<p>For 2.6.5.2, 2.6.5.3, and 2.6.5.4: Review Reclamation and Closure Plan for <u>post-closure</u> surface, groundwater and biologic monitoring requirements, if relevant, and funding provisions. Confirm that plans for water monitoring are in place for reclamation and closure that include monitoring locations that will be sufficient to detect off-site contamination.</p>	<p>For 2.6.5.4:</p> <ul style="list-style-type: none"> • Reclamation and closure plan/post-closure monitoring plan. • Annual closure cost estimate report (sections: post-closure monitoring and residual costs, contingency) • Records of meetings with stakeholders (e.g., meeting minutes, correspondence from stakeholders) where they contributed input on the current and potential future uses of water locally and regionally. • Environmental and social impact assessment. • Biodiversity, ecosystem services and protected area impact assessment. • Operational monitoring data (water 	<p>Explanatory Note for 2.6.5.4: Biologic monitoring of aquatic <u>ecosystems</u> should be included in <u>post-closure</u> monitoring if aquatic <u>ecosystems</u> or the resources they sustain were identified as a current or future end-uses of surface waters (as per Chapter 4.2, requirement 4.2.1.2).</p> <p><u>Post-closure</u> monitoring of terrestrial resources or organisms may be required if a risk to terrestrial resources was identified in the ESIA (IRMA Chapter 2.1), <u>biodiversity</u> impact assessment (Chapter 4.6), during the course of operational monitoring (e.g., there were bird or livestock mortalities related to pit lakes, <u>tailings</u> or other <u>facilities</u> that will continue to exist <u>post-closure</u>), or from other sources of information.</p>

²³⁴ IRMA criteria are found in Chapter 4.2, Tables 3.1a to h. Alternatively, the mine may meet baseline or background water quality values as per Chapter 4.2, requirement 4.2.2.3..

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION		EXPLANATORY NOTES
<p>2.6.5.5. If a <u>pit lake</u> is present, <u>pit lake</u> water quality shall be monitored, and if potentially harmful to people, wildlife, livestock, birds, or agricultural uses, adequate measures shall be taken to protect these organisms.</p>	<p>For 2.6.5.5: Review reclamation and closure plan for <u>pit lake</u> water quality monitoring requirements, and the presence of appropriate measures to protect wildlife if <u>pit lake</u> water will be potentially harmful.</p>	<p>quality, surveillance of mine waste facilities, etc.).</p> <p>For 2.6.5.5:</p> <ul style="list-style-type: none"> • Post-closure monitoring plan. • Annual closure cost estimate report (sections: post-closure monitoring and residual costs, contingency) • Documentation of analysis to determine if pit lake will form, and pit lake water quality (e.g., conceptual site model, numerical modeling results/predictions). • Operational monitoring data (water quality, surveillance of open pit facilities, etc.). • Documentation of risk assessment or some similar analysis that determines potential risks, benefits and cost estimates of backfilling pits. 	<p>Explanatory Note for 2.6.5.5: <u>Pit lake</u> water quality testing should be consistent with the requirements of IRMA Chapter 4.2, criterion 4.2.4 Monitoring and Adaptive Management.</p> <p>Depending on the situation, adequate measures might include early warning systems alerting mines to the movement of migratory birds or wildlife, hazing (using noise, drones, lasers to ward off animals), or backfilling of pit lakes.</p>
<p>2.6.6. Post-Closure Water Treatment</p> <p>2.6.6.1. <u>Long-term water treatment</u> shall not take place unless:²³⁵</p> <p>a. All <u>practicable efforts</u> to implement best practice water and waste management methods to avoid <u>long-term treatment</u> have been made; and</p>	<p>For 2.6.6.1.a: Review the closure plan to ensure that all technically feasible options (covers, etc.) have been investigated and weighed before the option of <u>long-term water treatment</u> is employed.</p> <p>For 2.6.6.1.b: Review independent third-party engineering & risk assessment.</p>	<p>For 2.6.6.1:</p> <ul style="list-style-type: none"> • Long-term water treatment engineering and risk assessment. • Annual closure cost estimate report (sections: post-closure water treatment and residual costs, contingency) 	<p>Explanatory Note for 2.6.6.1: The intent of this requirement is to avoid, if possible, the need for water treatment in perpetuity. As long as treatment systems are needed there will be risks to downstream communities if treatment systems were to fail (e.g., due to catastrophic events or lack of funding to keep treatment systems operating effectively).</p> <p>A determination of whether or not long-term water treatment will be necessary is required in Chapter 4.2, requirement 4.2.2.3.d. If treatment is deemed necessary, the rationale underpinning 2.6.6.1 is that <u>affected communities</u> should be engaged in discussions of the risks and benefits of long-term treatment before a decision is made by the company about</p>

²³⁵ This requirement applies to new or expanded mines.

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<p>b. The <u>operating company</u> funds an engineering and risk assessment that:</p> <p>i. Is carried out by an independent third-party;</p> <p>ii. Evaluates the environmental and financial advantages/disadvantages and risks of <u>long-term water treatment</u> versus other <u>mitigation</u> methods;</p> <p>iii. Incorporates data on the failure rates of the proposed <u>mitigation</u> measures and water treatment mechanisms;</p> <p>iv. Determines that the contaminated water to be treated perpetually poses no significant risk to human health or to the livelihoods of communities if the discharge were to go untreated; and</p> <p>v. Includes <u>consultations</u> with <u>stakeholders</u> and their technical representatives during the design of the study, and discussion of findings with <u>affected communities</u> prior to mine construction or expansion.²³⁶</p>	<p>Confirm that requirements have been met to assure that the <u>affected community</u> is aware of the risks associated with <u>long-term water treatment</u>.</p> <p>Confirm that the independent third-party assessment was paid for by the operating company and that technical representatives selected by <u>stakeholders</u> from <u>affected communities</u> had the opportunity to contribute input into the study design and review/discussion of findings.</p>	<p>proceeding with a <u>mining project</u> that will require long-term water treatment.</p> <p>This requirement applies to <u>new mines</u>. <u>Existing mines</u> that currently require long-term water treatment are not required to comply with this section, as the studies and <u>consultations</u> that are required in 2.6.6.1 are unlikely to have taken place at <u>existing mines</u>. <u>Existing mines</u>, however, will be expected to conform with 2.6.6.2 if expansions are proposed and long-term water treatment might be needed as a result of the expansion. In those cases, mines will be expected to meet this requirement at that stage.</p> <p>Re: 2.6.6.1.a, <u>mitigation</u> strategies should comply with Chapter 2.6, requirement 2.6.2.2.g (source <u>mitigation</u> to prevent water degradation); Chapter 4.1, requirement 4.1.5.1 and 4.1.5.2 (use of BAT/BAP and prioritizing source control measures).</p> <p>Re: 2.6.6.1.b: As typical environmental and social impact assessments carried out for regulatory purposes or as otherwise described by IRMA Chapter 2.1 do not require this specific analysis, operators that require long-term water treatment will need to have a study conducted specifically for this purpose as described herein in order to fully meet this requirement.</p> <p>Re: 2.6.6.1.b.ii-iii, see requirement 2.6.6.1.a.</p> <p>Re: 2.6.6.1.b.iv, discharges that require long-term treatment generally either exceed human health standards or aquatic/wildlife standards that protect the ecology upon which communities' <u>livelihoods</u> depend. Risks may be more or less significant depending on the contaminants being treated, the uses of the receiving waters, the distance of communities from the water treatment <u>facility</u>, the ability to quickly remedy a problem (access to equipment, funding, expertise) should something arise, etc.</p>

²³⁶ If indigenous peoples' rights or interests may be affected by long-term water treatment (including potential risks of accidents or incidents related to long-term water treatment facilities) then the operating company must obtain FPIC from indigenous peoples as per IRMA Chapter 2.2.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION		EXPLANATORY NOTES
<p>2.6.6.2. If a decision is made to proceed with <u>long-term water treatment</u>, the <u>operating company</u> shall take all <u>practicable</u> efforts to minimize the volume of water to be treated.</p>	<p>For 2.6.6.2: Review and/or reclamation and closure plan and other relevant documentation (E.g., perhaps a water management plan, or waste management plan) to confirm that steps have been taken to minimize the water being treated (e.g., through mitigation measures such water diversions, caps on waste materials to reduce infiltration, etc.).</p>	<p>For 2.6.6.2:</p> <ul style="list-style-type: none"> • Documentation of evaluation of options to minimize the volume of water to be treated in a long-term water treatment system. • Documentation of mitigation strategies implemented at waste management facilities (see 4.1.5.2). • Adaptive management plan for water or equivalent that outlines planned actions to mitigate predicted impacts on water (see 4.2.4.4). 	<p>A determination of whether or discharges pose a "significant risk" to health or livelihoods will vary depending on the circumstances, and should be determined with input from <u>potentially affected communities</u>.</p> <p>Re: 2.6.6.1.b.v, if <u>indigenous peoples'</u> rights or interests may be affected by long-term water treatment (including potential risks of accidents or incidents related to long-term water treatment facilities) then the <u>operating company</u> must obtain the <u>free, prior and informed consent</u> from <u>indigenous peoples</u> as per IRMA Chapter 2.2. For all other communities, at minimum they must be involved in the risk assessment and be <u>consulted</u> before a company decides to move forward with a <u>mining project</u> that will require long-term water treatment.</p> <p>Explanatory Note for 2.6.6.2: This is similar to requirement 2.6.6.1.a, which requires that "All practicable efforts to implement best practice water and waste management methods to avoid long-term treatment."</p> <p>That requirement is targeted, however, at early-project steps that can be taken to prevent the generation of contamination in hopes of avoiding the need for long-term water treatment.</p> <p>Once it is clear that long-term treatment will be necessary, the <u>operating company</u> at <u>new mines</u> or <u>existing mines</u> should do what they can to reduce the volume of water that needs to be treated. This could include source <u>control</u> measures, caps, water diversions, etc. Reducing the volume of treated water will reduce the costs of long-term water treatment (e.g., a smaller treatment plant can be constructed), and may also decrease the potential risks if long-term water treatment were to temporarily fail (i.e., a smaller volume of polluted water entering the environment may have less impact on water resources that large volumes, depending, of course, on the relative concentrations of contaminants in each case).</p> <p>See also Chapter 4.1, requirement 4.1.5.2, which requires companies to implement source control measures to prevent or minimize generation of contamination where possible. Similarly, see Chapter 4.2, requirement</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION		EXPLANATORY NOTES
<p>2.6.7. Post-Closure Financial Surety</p> <p>2.6.7.1. The operating company shall provide sufficient financial surety for all long-term activities, including: mine closure and post-closure site monitoring, maintenance, and water treatment operations. Financial assurance shall guarantee that funds will be available, irrespective of the operating company's finances at the time of mine closure or bankruptcy.</p>	<p>Auditing Note for 2.6.7: See IRMA Guidance for Chapter 2.6, 2.6.7. Post-Closure Financial Assurance Cost Estimate.</p> <p>For 2.6.7.1: Review financial surety calculations and associated reports.</p>	<p>For 2.6.7.1:</p> <ul style="list-style-type: none"> • Documentation for the financial surety instruments that are in place (e.g., form of financial surety, initial date when surety instruments were put in place, etc.) • Documentation of a financial surety review carried out by a qualified third-party consultant or suitable government review, determining financial surety to be sufficient to cover estimated costs. • Financial assurance audit reports from an independent accounting organization • Reclamation and closure plan including estimated costs. 	<p>4.2.4.4., which requires companies to document mitigation strategies to reduce impacts on water.</p> <p>Explanatory Note for 2.6.7.1: Post-closure financial surety is defined as "A trust fund or other similar suitable interest accruing cash or equivalent long-term security that covers all costs associated with the long-term activities, including: post-closure site monitoring and maintenance; and, water treatment operations. It should be held by a governmental or other entity with the ability to accept financial responsibility for the site."</p> <p>The post-closure financial surety cost estimate should be based on tasks and activities described in site monitoring, maintenance, and water treatment as per requirements 2.6.2.2 n. Long-term maintenance; o. Post-closure monitoring plan and 2.6.2.3 h. Post-closure costs for: i. Long-term water treatment; and ii. Long-term monitoring and maintenance.</p> <p>A form of financial surety that ensures that funds will be available regardless of the operating company's finances could be, for example, funds in a trust account.</p>
<p>2.6.7.2. If long-term water treatment is required post-closure:</p> <p>a. The water treatment cost component of the post-closure financial surety shall be calculated conservatively, and cost calculations based on treatment technology proven to be effective under similar climatic conditions and at a similar scale as the proposed operation; and</p>	<p>For 2.6.7.2.a: Review water treatment cost component of finance surety to confirm that treatment costs have been conservatively estimated, using costs for proven technologies.</p> <p>For 2.6.7.2.b: When the obligation for long-term water treatment is incurred, confirm that funding is sufficient to fully financially protect the public in the event that the company were to go bankrupt. To do so, confirm that the</p>	<p>For 2.6.7.2:</p> <ul style="list-style-type: none"> • Documentation for the financial surety instruments that are in place (e.g., form of financial surety, initial date when surety instruments were put in place, etc.) • Documentation of a financial surety review carried out by a qualified third-party consultant or suitable government review, determining financial surety to be sufficient to cover estimated costs. 	<p>Explanatory Note for 2.6.7.2: Re: 2.6.7.2.a, "Conservative" treatment costs estimates should be based on maximum possible mine-related contaminant concentrations, or the highest observed concentrations in relevant mine waters during mine operation.</p> <p>A proven treatment technology, e.g. mechanical water treatment, should be proposed for cost analysis. Less-proven technologies, e.g. most passive biologic treatment systems, should not be considered for post-closure financial surety purposes until their effectiveness on site has been demonstrated.</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION		EXPLANATORY NOTES
<p>b. When mine construction commences, or whenever the commitment for <u>long-term water treatment</u> is initiated, sufficient funding shall be established in full for <u>long-term water treatment</u> and for conducting <u>post-closure monitoring and maintenance</u> for as long as <u>IRMA Water Quality Criteria</u> are predicted to be exceeded.²³⁷</p>	<p>company has included the appropriate factors in their calculations to know what "sufficient" funding will be (e.g., carried out conservative calculation of cost of treatment technology), likely length of time monitoring will be needed, and cost to carry out that monitoring. Confirm that <u>financial security</u> has been established in that amount.</p>	<ul style="list-style-type: none"> • Documentation in reclamation and closure plan or other materials of estimated costs for long-term water treatment (and assumptions, basis for calculations, etc.). 	<p>Re: 2.6.7.2.b, <u>IRMA Water Quality Criteria</u> are found in Chapter 4.2, Tables 3.1a to h. Alternatively, the mine may meet <u>baseline water quality</u> or <u>background water quality</u> values as per Chapter 4.2, requirement 4.2.2.3.</p>
<p>2.6.7.3. The <u>post-closure financial surety</u> shall be recalculated and reviewed by an independent analyst at the same time as the reclamation <u>financial surety</u>.</p>	<p>For 2.6.7.3: Confirm that both the reclamation and <u>post-closure financial sureties</u> are recalculated at least every 5 years, as required by this chapter (See 2.6.4.2.b), and that all recalculations are reviewed by independent analysts.</p>	<p>For 2.6.7.3:</p> <ul style="list-style-type: none"> • Documentation of credentials of independent analyst. • Documentation of most recent financial surety review carried out by a qualified third-party consultant or suitable government reviewer. 	<p>Explanatory Note for 2.6.7.3: Independent analysis should be carried out by a registered professional engineer. Government agency review is also acceptable if the agency has a registered professional engineer that has placed her or his credential on the review document.</p> <p>The frequency of the review will be at least every five years (see Section 2.6.2.4)</p>
<p>2.6.7.4. Long-term Net Present Value (NPV) calculations utilized to estimate the value of any <u>financial surety</u> shall use conservative assumptions, including:</p> <p>a. A real interest rate of 3% or less;²³⁸ unless the entity holding the <u>financial surety</u> can document that</p>	<p>For 2.6.7.4: Review <u>financial surety</u> calculations to confirm that conservation assumptions have been made in the calculations.</p>	<p>For 2.6.7.4:</p> <ul style="list-style-type: none"> • The audit record should include the post-closure cost estimate including the detailed long-term costs and showing the Real Interest Rate and NPV calculations. 	<p>Explanatory Note for 2.6.7.4: Re: 2.6.7.4.a, "real interest rate" is the difference between the rate of return (i.e. interest rate) and inflation. This is sometimes called a discount rate, or an interest rate that has been adjusted to remove the effects of inflation to reflect the real cost of funds to the borrower, and the real yield to the lender).</p> <p>The Real Interest Rate is also referred to as the Net Discounted Rate of Return (NDROR) in economics.</p>

²³⁷ IRMA criteria are found in Chapter 4.2, Tables 3.1a to h. Alternatively, the mine may meet baseline or background water quality values as per Chapter 4.2, requirement 4.2.2.3..

²³⁸ Real Interest Rate – the difference between the rate of return and inflation (An interest rate that has been adjusted to remove the effects of inflation to reflect the real cost of funds to the borrower, and the real yield to the lender). A 3% real interest rate is a realistic but conservative assumption for NPV calculations.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
<p>a higher long-term real interest rate can be achieved; and</p> <p>b. NPV calculation will be carried out until the difference in the NPV between the last two years in the calculations is US \$10.00 or less (or its equivalent in other currencies).</p>		<p>A 3% real interest rate is a generally accepted conservative assumption for NPV calculations.</p> <p>2.6.7.4.b, most jurisdictions require that the basis of NPV is long-term costs be carried out to 100-years, and in some cases up to 500-years.</p> <p>IRMA's approach is to carry out the calculation until the NPV for two years in the calculation is US\$10 or less. In most cases this will require setting up a cost estimate and corresponding calculation that goes out to 500-years. If the estimated costs exceed costs required by the <u>competent authority / regulations</u>, the <u>operating company</u> can provide the additional <u>financial security</u> providing a temporary financial surety, like a letter of credit, while the mine is operating, until sufficient cash or equivalent can be placed in a fund to guarantee <u>post-closure</u> payment.</p>

NOTES

There is a great deal of literature available on reclamation planning, and these sources provide the necessary detail to guide such planning.²³⁹ Details on how to calculate financial sureties and different forms of financial surety are also available.²⁴⁰ IRMA auditors should be familiar with the guidance included in these sources, assisted by an IRMA guidance materials, and their audits of the reclamation and closure plans and financial sureties will reflect this knowledge. This is why there isn't more prescriptive detail on reclamation plans and financial sureties in the IRMA Standard. It will be up to IRMA to monitor whether the intent of the IRMA Standard is being met in the field, and if it is not, then changes to the standard will be made.

Cross References to Other Chapters	
CHAPTER	ISSUES

²³⁹ E.g., ICMM. 2008. Planning for Integrated Mine Closure: Toolkit. <https://www.icmm.com/website/publications/pdfs/mine-closure/310.pdf>

²⁴⁰ E.g., ICMM. 2005. Financial Assurance for Mine Closure and Reclamation. <https://www.icmm.com/website/publications/pdfs/mine-closure/282.pdf>; ICMM. 2006. Financial Assurance for Mine Closure and Reclamation: Guidance Paper. <https://www.icmm.com/website/publications/pdfs/mine-closure/23.pdf>; Sasoon, M. 2009. Financial Surety: Guidelines for the Implementation of Financial Surety for Mine Closure. (World Bank Group's Oil, Gas, and Mining Policy Division). pp. 7, 9, 10 and 41. http://siteresources.worldbank.org/INTOGMC/Resources/7_eifd_financial_surety.pdf; Kuipers, J. 2000. Hardrock Reclamation Bonding Practices in the Western United States. <https://www.csp2.org/files/reports/Hardrock%20Bonding%20Report.pdf>; USDA. 2004. Training Guide for Reclamation Bond Estimation and Administration. https://www.fs.fed.us/geology/bond_guide_042004.pdf

Cross References to Other Chapters	
1.1—Legal Compliance	Some host countries may have laws relating to the reclamation and closure of mines. As per Chapter 1.1, if <u>host country laws</u> related to reclamation and closure exist, a company is required to abide by those laws. However, if IRMA requirements are more stringent than <u>host country law</u> , the company is required to also meet the IRMA requirements, as long as complying with them would not require the <u>operating company</u> to violate <u>host country law</u> .
1.2—Community and Stakeholder Engagement	Engagement with <u>stakeholders</u> during reclamation and closure, including prior to and during the risk assessment of <u>long-term water treatment options</u> (2.6.7.1), shall conform to the requirements in Chapter 1.2. The need for meaningful <u>stakeholder</u> engagement is found in requirement 1.2.2.2. Criterion 1.2.3 is important to ensure that <u>stakeholders</u> have the capacity to fully engage in the review of <u>financial surety</u> information and reclamation and closure plans. Also, 1.2.4.2 ensures that communications and information are in formats and languages that are accessible and understandable to <u>affected communities</u> and <u>stakeholders</u> , and provided in a timely, culturally appropriate manner. The disclosure requirements in 2.6.2 and 2.6.4 should conform with 1.2.4.2.
1.4—Complaints and Grievance Mechanism and Access to Remedy	As per Chapter 1.4, the company is required to have an operational-level <u>grievance mechanism</u> available to <u>stakeholders</u> , including procedures for filing complaints, and having complaints recorded, investigated and resolved in a timely manner. <u>Stakeholders</u> who have complaints related to an <u>operating company's</u> reclamation and closure planning or implementation, including complaints related to reclamation activities from the exploration phase, can raise complaints through the company's operational-level <u>grievance mechanism</u> .
2.1—Environmental and Social Impact Assessment and Management	A reclamation plan and an estimated financial assurance for <u>mine closure</u> and <u>post-closure</u> are required as an integral part of an ESIA. If potential impacts related to long-term water quality are significant, the operating company shall provide affected <u>stakeholders</u> with the opportunity to propose independent experts to collaborate with the company on the design and implementation of its monitoring program; and shall facilitate the independent monitoring of key impact indicators where this would not interfere with the safe operation of the project as per 2.1.8.
2.2—Free, Prior and Informed Consent	If there are <u>indigenous peoples</u> potentially impacted by <u>long-term water treatment</u> (2.6.7.1), that treatment shall not take place without the <u>free, prior and informed consent</u> of <u>indigenous peoples</u> .
2.3—Obtaining Community Support and Delivering Benefits	Chapter 2.3 includes the requirement (2.3.3.4) for a company to undertake efforts to ensure that its contributions to some community development initiatives and other can be sustained after <u>mine closure</u> .
3.6—Artisanal and Small-Scale Mining	Chapter 2.6 requires that <u>affected communities</u> be involved in assessments/closure planning. If present in the area, Chapter 3.6 requires that <u>ASM</u> entities be involved in <u>mine closure</u> planning (see 3.6.2.1.b), as they should be considered members of <u>affected communities</u> .
4.1—Waste and Materials Management	See Chapter 4.1 for requirements related to pit and underground backfill, liners, and lake-riverine-ocean waste disposal, which all have relevance to reclamation and closure. Also, some of the information in the reclamation and closure plan (2.6.2) will be informed by or include information gathered for Chapter 4.1 (E.g., site facility information, source and pathway characterization for contaminants; source mitigation measures; and hazardous materials disposal).
4.2—Water Management	Some of the information in the reclamation and closure plan (2.6.2) will be informed by or include information gathered for Chapter 4.2 (E.g., source and pathway characterization for contaminants; source mitigation measures). Water Quality Criteria in Chapter 4.2 will apply during mine closure and post-closure. Also, in the determination of whether or not to backfill pits, the predicted quality of pit water should be compared to IRMA Water Quality Criteria.

Not all terms in the Cross References Table are defined below. For those terms, see the [Glossary of Terms](#) at the end of the IRMA Standard document.

Acid Rock Drainage (ARD)

The drainage produced when rocks with sulfide or other acid-producing minerals are under oxidizing conditions (exposed to water and oxygen) and generate an acidic water stream. Acid rock drainage generally contains elevated concentrations of metals, sulfate, and other constituents and has a pH < 6. The terms acid mine drainage and acid and metalliferous drainage (both AMD) are sometimes used as synonyms for ARD.

Affected Community

A community that is subject to risks or impacts from a project.

Background Water Quality

Established after mining has commenced, it is the water quality in a similarly mineralized area outside of the mine's influence (e.g., surface water quality upstream of the mine site or upgradient for groundwater).

Biodiversity

The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems

Competent Professionals

In-house staff or external consultants with relevant education, knowledge, proven experience, necessary skills and training to carry out the required work. Competent professionals would be expected to follow scientifically robust methodologies that would withstand scrutiny by other professionals. Other equivalent terms used may include: competent person, qualified person, qualified professional. For independent reviews (in IRMA Chapter 4.1) competent professionals must not be in-house staff.

Confidential Business Information

Material that contains trade secrets or commercial or financial information that has been claimed as confidential by its source. The information must be secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question; it must have commercial value because it is secret; and it must have been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret.

Conservation Values

The ecological, biological, geomorphological, geological, cultural, spiritual, scenic or amenity values, features, processes or attributes that are being conserved.

Consultation

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. In principle, the company should take into account the concerns and views expressed by stakeholders in the final decision.

Contractor

An individual, company, or other legal entity that carries out duties related to a mining project that are subject to a contractual agreement that defines, for example, work, duties or services, pay, hours or timing, duration of agreement, and that remains independent for employment, tax, and other regulatory purposes. This includes sub-contractors.

Corporate Owner(s)

The corporation(s) or other business institution(s) including any private or state-run enterprises that have complete or partial financial interest in or ownership of a mining project.

Ecosystem Services

The benefits people obtain from ecosystems. These include provisioning services such as food, water, timber, and fibre; regulating services that affect climate, floods, disease, wastes, and water quality; cultural services that provide recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation, photosynthesis, and nutrient cycling.

Existing Mine

A mine that was operational prior to the date that the IRMA standard was published in final (June 2018).

Exploration Activity

Any landscape disturbance by a mining company to ascertain whether a deposit is economically viable, including drilling, trenching and road construction.

Facility

The term facility is widely utilized in this Standard, and for the most part is associated with a specific type of facility that is self-described (e.g., stormwater facilities, waste rock facilities, tailings facility, etc.). However, in a number of instances the term facility is used more generically. For example, “mine facilities” include any facilities owned by the operating company that are located on the mine-lease property, and “associated facilities” are facilities essential to and developed because of the mining project. See “Associated Facility” elsewhere in the Glossary.

Financial Surety

Reclamation Financial Surety – a financial surety instrument that covers all costs associated with mine closure, at a minimum for the cost of existing and anticipated/predicted mine facilities for the subsequent 12 months, and which shall be independently guaranteed, reliable, and readily liquid.

Post-Closure Financial Surety – a trust fund or other similar suitable interest accruing cash or equivalent long-term security, held by a governmental or other entity with the ability to accept financial responsibility for the site over the long-term, for all long-term activities, including: post-closure site monitoring and maintenance; and, water treatment operations.

Free, Prior and Informed Consent (FPIC)

Consent based on: engagement that is free from external manipulation, coercion and intimidation; notification, sufficiently in advance of commencement of any activities, that consent will be sought; full disclosure of information regarding all aspects of a proposed project or activity in a manner that is accessible and understandable to the people whose consent is being sought; acknowledgment that the people whose consent is being sought can approve or reject a project or activity, and that the entities seeking consent will abide by the decision.

Holding Costs

The costs that would be incurred by a regulatory agency immediately after bankruptcy of a company responsible for maintaining a mine site, and before reclamation begins. Examples of such costs include continuing water treatment, routine maintenance, and the other operating costs involved with holding a piece of severely disturbed land.

Host Country Law

May also be referred to as national law, if such a phrase is used in reference to the laws of the country in which the mining project is located. Host country law includes all applicable requirements, including but not limited to laws, rules, regulations, and permit requirements, from any governmental or regulatory entity, including but not limited to applicable requirements at the federal/national, state, provincial, county or town/municipal levels, or their equivalents in the country where the mine is located. The primacy of host country laws, such as federal versus provincial, is determined by the laws of the host country.

Landscape

A geographical mosaic composed of interacting ecosystems resulting from the influence of geological, topographical, soil, climatic, biotic and human interactions in a given area.

Long-Term Water Treatment

Long-term water treatment is defined as any water treatment that requires active water treatment after mine closure. After mine closure long-term water treatment is assumed to be required until it can be empirically demonstrated that water treatment is no longer needed.

Metals Leaching

The extraction of soluble metals by percolating solvents. Leaching may be natural or induced. Primary mineral weathering commonly accelerates metal dissolution and removal in mine site drainage. Metals leaching can also be referred to as “neutral” leaching, or “contaminant” leaching.

Mine Closure

A period of time when ore-extracting and processing activities of a mine have ceased, and final decommissioning and mine reclamation are occurring. It typically includes pre-closure (detailed closure design and planning), closure (actual activities of closure of mine workings and construction/decommissioning) and post-closure (mainly long-term reclamation, monitoring, and treatment) periods, each with its own specific activities.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mitigation

Actions taken to reduce the likelihood of a certain adverse impact occurring.

New Mine

A mine that becomes operational and applies for IRMA verification after the date that the IRMA standard was published in final (June 2018).

Operational-Level Grievance Mechanism

A formalized means through which individuals or groups can raise concerns about the impact an enterprise has on them—including, but not exclusively, on their human rights—and can seek remedy.

Pit Lake

Lake formed in the site of a mine pit when mine dewatering pumpage ceases.

Post-Closure

The period after the reclamation surety holder declares the activities required by the reclamation and closure plan are complete; any significant objections raised during the public comment period on the final release of the financial surety have been resolved; and the reclamation surety has been returned to the operator, or it has been converted to a post-closure trust fund or equivalent (i.e. if there is a need to fund long-term management and monitoring of the site). This phase continues until final sign-off and relinquishment can be obtained from the regulator and stakeholders.

Practicable

Giving equal weight to environmental, social, and economic benefits and costs. This is not a technical definition. It is the discussion between the affected parties on the balance between these interrelated costs and benefits that is important.

Process Water

Water that is used to process ore using hydrometallurgical extraction techniques. It commonly contains process chemicals.

Restoration

Measures taken to assist the recovery of ecosystems that have been degraded, damaged or destroyed. Involves altering an area in such a way as to re-establish an ecosystem's composition, structure and function, usually bringing it back to its original (pre-disturbance) state or to a healthy state close to the original.

Revegetation

Revegetation is the task of reseeding or replanting forbs, grasses, legumes and other plants (sometimes including shrubs and trees) so as to provide cover to decrease erosion, provide for soil stability and provide forage for wildlife or livestock or to otherwise return the site to a useable state.

Stakeholders

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Stormwater

Industrial stormwater (also known as contact water) is runoff of rainfall, snow or snowmelt that has contacted mined materials (e.g., waste rock, tailings, mine openings, mine processing facilities and associated mining roads). Non-industrial stormwater (also known as non-contact water) is runoff of rainfall, snow or snowmelt from land and impervious surface areas such as non-mining related roads that do not contain mined materials.

Subsidence

Subsidence is a sinking of the ground surface that results in a fracture of the surface, which could change surface water hydrology, or pose a threat to human health or property.

Water Quality Criteria

Numerical concentrations or a narrative statement recommended to support and maintain a designated water use. Criteria are based on scientific information about the effects of water pollutants on a specific water use

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.

Social Responsibility Requirements



Chapter 3.1—Fair Labor and Terms of Work

BACKGROUND

Responsible employers provide fair wages and respectful workplaces. However, historically, a portion of the labor force has been the subject of mistreatment such as child and forced labor, discrimination, inadequate wages, and lack of respect for workers' rights.

In 1919, the International Labour Organization (ILO) was formed to protect workers' rights. Since that time, a number of internationally recognized human rights of workers have been enumerated and incorporated into laws world-wide. These include the UN *International Bill of Human Rights*, and the ILO *Declaration on Fundamental Principles and Rights at Work* and eight core ILO conventions that cover: freedom of association and the right to collective bargaining; the elimination of all forms of forced or compulsory labor; the abolition of child labor; and the elimination of discrimination in respect of employment and occupation. In addition to acknowledging the need to safeguard those human rights of workers, companies are increasingly recognizing the need to provide working hours and wages that promote a high quality of life for workers and their families.

The fundamental principles and rights of workers have been incorporated into various voluntary standards to protect labor rights and ensure fair working conditions (e.g., International Finance Corporation Performance Standard 2; Social Accountability International SA8000; Global Reporting Initiative). Within any responsible labor standard and verification system, there is an inextricable link between the role of workers and the practice of freedom of association. Workers with first-hand knowledge of environmental, human rights and labor practices must have the right to participate in the verification process without fear of employer retribution. This can be best guaranteed by workers having the right to freely establish or join trade unions of their choosing without employer interference and through protections provided in collective bargaining agreements.

OBJECTIVES/INTENT OF THIS CHAPTER

To maintain or enhance the social and economic wellbeing of mine workers and respect internationally recognized workers' rights.

SCOPE OF APPLICATION

Chapter Relevance: This chapter is applicable to all mines assessed under IRMA. IRMA recognizes that some of the requirements of this chapter may be included in a collective bargaining agreement (CBA). If such an agreement is in place, the operating company will not be expected to meet the IRMA requirements that overlap with those in the CBA.

As per IRMA Chapter 1.1, the operating company is responsible for ensuring that its contractors and subcontractors involved in mining-related activities comply with the IRMA Standard.

CRITICAL REQUIREMENTS IN THIS CHAPTER

Workers' freedom of association is respected (3.1.2.1).

Measures are in place to prevent and address harassment, intimidation, and/or exploitation, especially in regard to female workers (3.1.3.3).

Workers have access to operational-level mechanisms that allows them to raise and seek resolution or remedy for complaints and grievances that may occur in relation to workplace-related issues (3.1.5.1).

TERMS USED IN THIS CHAPTER

Child Labor ■ Company Union ■ Consultation ■
Contractors ■ Corporate Owner ■ Forced Labor ■
Grievance ■ Grievance Mechanism ■ Hazardous Work
■ Host Country Law ■ Indigenous Peoples ■ Living
Wage ■ Mining Project ■ Mining-Related Activities ■
Operating Company ■ Practicable ■
Remediation/Remedy ■ Retrenchment ■
Stakeholders ■ Suppliers ■ Trafficking in Persons ■
Worker ■ Workers' Organizations ■ Workers'
Representative ■

These terms appear in the text with a dashed underline, and

No children (i.e., persons under the age of 18) are employed to do hazardous work (3.1.7.2) and no children under the age of 15 are employed to do non-hazardous work (3.1.7.3).

There is no forced labor at the mine site or used by the operating company (3.1.8.1).

Fair Labor and Terms of Work Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.1.1. Human Resources Policy</p> <p>3.1.1.1. The <u>operating company</u>²⁴¹ shall adopt and implement human resources policies and procedures applicable to the <u>mining project</u> that set out its approach to managing <u>workers</u> in a manner that is consistent with the requirements of this chapter and national (i.e., <u>host country</u>) <u>law</u>.</p>	<p>Auditing Note for Chapter 3.1: Throughout this chapter verification relies heavily on interviews with <u>operating company</u> management that have human resources responsibilities as well as <u>workers</u> and <u>workers’ representatives</u> (may include labor unions, if they are active at the site). Auditors shall be able to interview <u>workers</u> and their representatives without management present. Verification will also involve first-hand observations of the workplace and review of company documentation by auditors.</p> <p>For 3.1.1.1: Confirm, through interviews with relevant <u>operating company</u> management and through document reviews, that the <u>operating company</u> (or its <u>corporate owner</u>) has human resources policies and procedures in place that are consistent with national laws/<u>host country laws</u> and this chapter’s requirements.</p>	<p>For 3.1.1.1:</p> <ul style="list-style-type: none"> • Human resources policies and procedures that include the elements in this chapter (i.e., Workers Organizations and Agreements, Non-Discrimination and Equal Opportunity, Retrenchment, Grievance Mechanism, Disciplinary Procedures, Child Labor, Forced Labor, Wages and Working Hours). • Documented evidence of implementation of the human resources policies and procedures. • Proof of communication of policies and procedures to workers and management. • Employee Handbook. 	<p>Explanatory Note for 3.1.1.1: IRMA recognizes that for larger companies, human resources policies may be developed at the <u>corporate owner</u> level. In these cases, IRMA does not expect the <u>operating company</u> to have developed its own policies, but it will be expected to demonstrate that the <u>mining project</u> is operating in compliance with the corporate policies (e.g., mine-site-level management understand the corporate policies and have integrated them into the site's procedures).</p>

²⁴¹ IRMA recognizes that for larger companies, human resources policies may be developed at the corporate level. In these cases, IRMA does not expect the operating company to have developed its own policies, but it will be expected to demonstrate that the mine site is operating in compliance with the corporate policies (e.g., site-level management understand the corporate policies, and have integrated them into the mine site's procedures).

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.1.2. Workers’ Organizations and Agreements</p> <p>3.1.2.1. (Critical Requirement) The operating company shall respect the rights of workers to freedom of association and collective bargaining.</p>	<p>Auditing Note for 3.1.2: Relevant documentation for this criterion may include:</p> <ul style="list-style-type: none"> • Policies and procedures (e.g. hiring) on human resources related matters • Employee Handbook • Collective Bargaining Agreement • Written records of the employment terms • Written employment contracts, if applicable • Communications (memos, etc.) with workers • Job descriptions • Contracts with recruitment agencies • Internal audit reports • Worker grievance records • Disciplinary records • Government inspection reports • Media or other reports <p>Relevant interviewees for this criterion include: relevant operating company management (may include human resources, security); workers’ representatives; workers.</p>	<p>For 3.1.2.1:</p> <ul style="list-style-type: none"> • Freedom of association policy (or equivalent) that allows employees to exercise their right to freedom of association. • Employment contract that allows employees to exercise their right to freedom of association. • Records of communication/training of employees on freedom of association policy. • Evidence that the operating company informs workers that they are free to join a workers’ organization of their choosing without any negative consequences or retaliation from the operating company (see 3.1.2.6). • Collective bargaining agreement or equivalent where applicable. • Records of worker grievances (e.g., complaints or lack thereof regarding freedom of association or collective bargaining), and any company follow-up. 	<p>Explanatory Note for 3.1.2.1: The operating company can demonstrate this through a policy or public statement that the company respects workers’ rights to freedom of association and collective bargaining. Such a statement may be in a standalone policy, e.g., a Freedom of Association policy, or integrated into a larger Employment policy, or even the company’s Human Rights policy, as the rights to Freedom of Association and Collective Bargaining are core labor rights that are also viewed as being human rights.²⁴²</p> <p>If no policy exists, the operating company may demonstrate, through its practices that it respects human rights. This would be done by meeting the remaining requirements in criterion 3.1.2 which are all meant to ensure that the rights to freedom of association and collective bargaining are being implemented.</p>

²⁴² International Labour Organization website: "Freedom of Association." http://www.ilo.org/empent/areas/business-helpdesk/WCMS_DOC_ENT_HLP_FOA_EN/lang--en/index.htm and Ruggie, J. 2011. Guiding Principles on Business and Human Rights. p. 14. http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.1.2.2. Where national law substantially restricts <u>workers' organizations</u>, the <u>operating company</u> shall not restrict <u>workers</u> from developing alternative mechanisms to express their <u>grievances</u> and protect their rights regarding working conditions and terms of employment. The <u>operating company</u> shall not seek to influence or control these mechanisms.</p>	<p>For 3.1.2.1: Review regulatory documents and media or other reports related to <u>workers' organizations</u>, collective bargaining, strikes and interactions between <u>workers' organizations</u> and the <u>operating company</u>.</p> <p>Confirm, through interviews with <u>workers' representatives</u> and company representatives, that <u>workers'</u> rights are being respected by the company. If collective bargaining agreements exist, confirm with <u>workers' representatives</u> that the agreement was freely negotiated, i.e., not negotiated as a result of coercion, intimidation or duress.</p> <p>For 3.1.2.2: If relevant, confirm that <u>workers</u> are able to develop mechanisms to express their grievances (see also 3.1.5) and protect their rights.</p>	<p>For 3.1.2.2:</p> <ul style="list-style-type: none"> • A policy that allows employees to develop alternative mechanisms to express their grievances and protect their rights regarding working conditions and terms of employment. • Employment contracts or Employee Handbook that allow employees to develop alternative mechanisms to express their grievances and protect their rights regarding working conditions and terms of employment. • Training records/evidence of communication to employees that they are allowed to develop alternative mechanisms to express their grievances 	<p>Explanatory Note for 3.1.2.2: According to the IFC:</p> <p>"In a number of countries, or in particular sectors, workers' freedom of association and/or collective bargaining is substantially restricted by law. This may occur in a number of ways. In some countries unions are prohibited, while in others, workers' organizations may exist but are controlled or subject to approval by the state. There are some instances where either particular categories of workers (e.g., non-nationals) or workers in particular sectors, such as export processing zones, are excluded from the right to associate freely and bargain collectively. In any of these circumstances, the client should engage with workers to address issues relating to their working conditions and terms of employment. Methods to enable alternative mechanisms include but are not limited to recognizing worker committees, and allowing workers to choose their own representatives for dialogue and negotiation over</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.1.2.3. The operating company shall engage with workers' representatives and workers' organizations and provide them with information needed for meaningful negotiation in a timely manner.</p>	<p>For 3.1.2.3: Confirm with workers' representatives that they have the information needed for meaningful negotiation, with the company.</p> <p>Interview relevant operating company staff (e.g., human resources personnel, other directly engaged in collective bargaining or other discussions with workers' representatives) to determine what materials were provided prior to discussions/negotiations.</p>	<p>and protect their rights regarding working conditions and terms of employment.</p> <ul style="list-style-type: none"> • Documented evidence that a workers' organization(s) exists (e.g., evidence of the worker representative election or equivalent), and that there are opportunities for workers to express their grievances and protect their rights regarding working conditions and terms of employment. • Records of complaints and grievances (e.g., complaints or lack thereof related to company interference in the workers' organizations), and any company follow-up. <p>For 3.1.2.3:</p> <ul style="list-style-type: none"> • Minutes or documents of meetings between mine management and workers' representatives and workers' organizations. • Records of agreements with workers' representatives and workers' organizations. • Collective bargaining agreement or equivalent where applicable. • Documentary evidence of scheduled meetings with employee representatives 	<p>terms and conditions of employment with the employer in a manner that does not contravene national law."²⁴³</p> <p>Similarly, the Ethical Trading Initiative says that, "Where rights of freedom of association and collective bargaining are restricted under law (for example in China, Jordan, Vietnam and other countries), operating companies should facilitate and not hinder the development of parallel means for independent and free association and bargaining. This may include the facilitation of free choice by workers to elect their own workplace representatives; education of workforce on worker representation framework prior to elections; formation of issues committees; and external independent training for elected worker representatives."²⁴⁴</p> <p>Explanatory Note for 3.1.2.3: "In a timely manner" will vary based on the issues being discussed. The operating company and workers' representatives should agree on the timeframes for receipt of information that is critical to any negotiations.</p> <p>The frequency of engagement should also be agreed by the operating company and workers' representatives.</p>

²⁴³ International Finance Corporation (IFC). 2012. Performance Standard 2: Labor and Working Conditions. Guidance Note. GN39. https://www.ifc.org/wps/wcm/connect/Od7a4480498007faa1f7f3336b93d75f/Updated_GN2-2012.pdf?MOD=AJPERES

²⁴⁴ Ethical Trading Initiative (ETI). 2013. Freedom of Association in Company Supply Chains: A practical guide. p. 23. https://ethicaltrade.org/sites/default/files/shared_resources/foa_in_company_supply_chains.pdf

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<p>3.1.2.4. <u>Workers' representatives</u> shall have access to facilities needed to carry out their functions in the workplace. This includes access to designated non-work areas during organizing efforts for the purposes of communicating with <u>workers</u>, as well as accommodations for <u>workers' representatives</u> at fly-in/fly-out or other remotely located mine sites, where relevant.</p>	<p>For 3.1.2.4: Confirm with <u>workers' representatives</u> that they have access to facilities and accommodations needed to carry out their functions in the workplace.</p>	<p>and workers' organizations.</p> <ul style="list-style-type: none"> • Documented evidence (e.g., communications) that the operating company provides workers' representatives and workers' organizations with information needed for meaningful negotiation in a timely manner. • Records of complaints or grievances, or lack thereof, filed by workers' representatives related to lack of information or failure to provide information in a timely manner, and any company follow-up. <p>For 3.1.2.4:</p> <ul style="list-style-type: none"> • Evidence of access to facilities needed to carry out their functions in the workplace by worker representatives. • Meeting minutes between mine management and worker representatives. • Collective bargaining agreement or equivalent where applicable. • Records of complaints or grievances, or lack thereof, filed by workers' representatives related to lack of access to facilities necessary to do their work, and any company follow-up. 	<p>Explanatory Note for 3.1.2.4: Both the International Labour Organization (ILO) and the International Finance Corporation (IFC) have guidance on this point.</p> <p>ILO Convention 135, which concerns the protection and facilities to be afforded <u>workers' representatives</u> in an undertaking, came into force in 1973. The convention includes the provision that:</p> <p>"Such facilities in the undertaking shall be afforded to workers' representatives as may be appropriate in order to enable them to carry out their functions promptly and efficiently."²⁴⁵</p> <p>According to IFC:</p> <p>"Clients [i.e., companies] should also provide access for representatives of workers' organizations to the workers they represent. Workers should be free to meet and discuss workplace issues on the premises during scheduled breaks, and before and after work. Furthermore,</p>

²⁴⁵ International Labour Organization (ILO). 1973. Workers' Representatives Convention, 1971 (No. 135). Article 2. https://www.ilo.org/dyn/normlex/en/f?p=1000:12100:::NO:12100:P12100_INSTRUMENT_ID:312280

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<p>3.1.2.5. The operating company shall remain neutral in any legitimate unionizing or worker-organizing effort; shall not produce or distribute material meant to disparage legitimate trade unions; shall not establish or support a company union for the purpose of undermining legitimate worker representation; and shall not impose sanctions on workers' organizations participating in a legal strike.²⁴⁷</p>	<p>For 3.1.2.5: Confirm that no unions have been established or supported by the company that undermine legitimate worker representation; the company has not disparaged legitimate trade unions; or discriminated against workers' representatives including during legal strikes.</p>	<p>For 3.1.2.5:</p> <ul style="list-style-type: none"> • Operating company freedom of association policy (or equivalent) that allows workers to exercise their right to freedom of association. • Meeting minutes between mine management and workers' representatives. • Collective bargaining agreement or equivalent where applicable. • Records of complaints or grievances, or lack thereof, filed by workers or their representatives related to company interference in worker organizing efforts or sanctions on workers' organizations during legal strikes, and any company follow-up. 	<p>workers should be allowed to choose representatives to speak with management, inspect working conditions in an appropriate manner and in a way that does not disrupt productivity, and carry out other organizing activities."²⁴⁶</p> <p>Explanatory Note for 3.1.2.5: "Remain neutral" in a legitimate worker organizing effort is the same as not interfering.</p> <p>According to ILO:</p> <p>"Interference is any act designed to promote the establishment of workers' organizations under the domination of employers or employers' organizations, or to support workers' organizations by financial or other means, with the object of placing them under the control of employers or their organizations. ILO Convention No. 98 concerning the Right to Organize and Collective Bargaining includes protection against anti-union discrimination and interference. Protection from employers' interference includes all stages of the employment relationship, from hiring to termination. . . . Anti-union discrimination includes any action that makes a worker's employment dependent on giving up union membership or not joining a union. It also includes actions that cause the dismissal or prejudice a worker because of union membership or participation in union activities." (ILO website)</p> <p>A company union is a workers' organization that is dominated or controlled by an employer. According to the Ethical Trading Initiative some companies arrange the appearance without the substance of freedom of association by sponsoring, controlling and often financing a worker association. Such associations – often called 'yellow unions',</p>

²⁴⁶ International Finance Corporation (IFC). 2012. Performance Standard 2: Labor and Working Conditions. Guidance Note. GN38. https://www.ifc.org/wps/wcm/connect/0d7a4480498007faa1f7f3336b93d75f/Updated_GN2-2012.pdf?MOD=AJPERES

²⁴⁷ Nothing in this requirement shall remove the right of an operating company to seek enforcement action when workers, workers' representatives or workers' organizations are operating in contravention to laws or regulations.

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<p>3.1.2.6. Upon employment, the <u>operating company</u> shall:</p> <ol style="list-style-type: none"> Inform <u>workers</u> of their rights under national labor and employment law; Inform <u>workers</u> that they are free to join a <u>workers' organization</u> of their choosing without any negative consequences or retaliation from the <u>operating company</u>; If relevant, inform <u>workers</u> of their rights under any applicable collective agreement; and If relevant, provide <u>workers</u> with a copy of the collective agreement and the contact information for the appropriate trade union (or <u>workers' organization</u>) representative. 	<p>For 3.1.2.6.a and b: Confirm that employees have been provided with information on their labor rights (review documentation), and that they are free to join a trade union/<u>workers' organization</u> without any negative consequences from the company.</p> <p>For 3.1.2.6.c and d: The requirements are relevant if there is a collective bargaining agreement in place. If there is one, confirm that <u>workers</u> have been informed of its existence and provided with a copy of the agreement and contact information for the trade union representative.</p>	<p>For 3.1.2.6:</p> <ul style="list-style-type: none"> Evidence that the operating company informs workers of their rights when they are hired (e.g., materials provided to workers upon hiring, Employees Handbook) and that they are free to join a workers' organization of their choosing without any negative consequences or retaliation from the operating company. Freedom of association policy (or equivalent) that allows employees to exercise their right to freedom of association. Employment contract that allows employees to exercise their right to freedom of association. Evidence of communication/training of employees on freedom of association 	<p>'white unions' (in Latin America), 'pocket unions' or 'paper unions' – may look like representational structures but are not based on employees' free choice.²⁴⁸ Company unions are contrary to international labor law.²⁴⁹</p> <p>Nothing in this requirement shall remove the right of an operating company to seek enforcement action when workers, workers' representatives or workers' organizations are operating in contravention to laws or regulations.</p> <p>Explanatory Note for 3.1.2.6: There may be <u>workers</u> of different ethnicities who speak different languages, and some <u>workers</u> may not be literate. Companies need to ensure that relevant information is conveyed to <u>workers</u> in a manner that they understand.</p> <p>According to IFC:</p> <p>"The working conditions and terms of employment should be communicated to the workers orally or in writing. . . Where there is a collective agreement that applies to the workers, this should be communicated to them as well. . . Documentation should be clear, easily understandable, and accurate." (IFC, 2012, GN16 and GN17)</p> <p>Re: 3.1.2.6.c and d, these sub-requirements are relevant only if there is a collective bargaining agreement in place.</p>

²⁴⁸ Ethical Trading Initiative (ETI). 2013. Freedom of Association in Company Supply Chains: A practical guide. p. 6. https://ethicaltrade.org/sites/default/files/shared_resources/foa_in_company_supply_chains.pdf

²⁴⁹ “. . . acts which are designed to promote the establishment of workers' organisations under the domination of employers or employers' organisations, or to support workers' organisations by financial or other means, with the object of placing such organisations under the control of employers or employers' organisations, shall be deemed to constitute acts of interference.” (Source: Article 2 of Convention 98, International Labour Organisation Right to Organise and Collective Bargaining Convention, 1949 (No. 98). http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312243)

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<p>3.1.2.7. The operating company shall not discriminate or retaliate against workers who participate, or seek to participate, in legitimate workers' organizations or in a legal strike.²⁵⁰</p>	<p>For 3.1.2.7: Confirm that the operating company has not discouraged workers from electing workers' representatives, joining workers' organizations or bargaining collectively, or retaliated against those who have participated in any of the above.</p>	<p>policy.</p> <ul style="list-style-type: none"> • Collective bargaining agreement or equivalent where applicable. • Records of worker grievances (e.g., complaints or lack thereof regarding freedom of association or collective bargaining), and any company follow-up. <p>For 3.1.2.7:</p> <ul style="list-style-type: none"> • Freedom of association policy, or its equivalent, that allows workers to exercise their right to freedom of association without any negative consequences or retaliation from the operating company. • Records of communications with workers and/or trainings on the freedom of association policy, informing workers that there will be without any negative consequences to workers or retaliation from the operating company if workers participate in legal strikes. • Documented evidence that the operating company does not discriminate or retaliate against workers who participate, or seek to participate, in legitimate workers' organizations or in a legal strike. 	<p>Explanatory Note for 3.1.2.7: This requirement does not remove the right of an operating company to seek enforcement action when workers, workers' representatives or workers' organizations are operating in contravention to laws or regulations.</p> <p>According to ILO:</p> <p>"Anti-union discrimination includes any action that makes a worker's employment dependent on giving up union membership or not joining a union. It also includes actions that cause the dismissal or prejudice a worker because of union membership or participation in union activities."²⁵¹</p> <p>The ILO Committee on Freedom of Association considers illegitimate any discriminatory act against union leaders for organizing legitimate strikes; such protection also covers trade union members and workers who participate in strikes. . . The use of extremely serious measures, such as dismissal of workers for having participated in a strike and refusal to re-employ them, implies a serious risk of abuse and constitutes a violation of freedom of association.²⁵²</p>

²⁵⁰ Nothing in this requirement shall remove the right of an operating company to seek enforcement action when workers, workers' representatives or workers' organizations are operating in contravention to laws or regulations.

²⁵¹ International Labour Organization (ILO) website: "What constitutes anti-union discrimination?" https://www.ilo.org/empent/areas/business-helpdesk/faqs/WCMS_DOC_ENT_HLP_FOA_FAQ_EN/lang--en/index.htm#Q8

²⁵² Gernigon et al. 1998. ILO Principles Concerning the Right to Strike. pp. 37, 38. (International Labour Organization. Geneva). http://www.ilo.org/wcmsp5/groups/public/---ed_norm/---normes/documents/publication/wcms_087987.pdf

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<p>3.1.2.8. Where the <u>operating company</u> is a party to a collective bargaining agreement with a <u>workers' organization</u>, the terms of the agreement shall be respected. Where such an agreement does not exist, or an agreement does not address specific requirements in this chapter, the <u>operating company</u> shall meet the relevant IRMA requirements.</p>	<p>For 3.1.2.8: If a collective bargaining agreement (CBA) is in place, review the agreement and determine its scope and if it does not cover all of the IRMA requirements, ensure that those requirements are verified. Confirm that terms of CBA are being upheld.</p>	<ul style="list-style-type: none"> • Anti-discrimination policy. • Records of agreements with workers' representatives. • Collective bargaining agreement or equivalent where applicable. • Recruitment and dismissal procedures and records. • Records of worker grievances (e.g., complaints or lack thereof regarding discrimination or retaliation in relation to participation in workers' organizations or participation in legal strikes), and any company follow-up. <p>For 3.1.2.8:</p> <ul style="list-style-type: none"> • Collective bargaining agreement or equivalent where applicable. • Evidence of implementation of the agreements in the collective bargaining agreement/agreements with workers' representatives. • Records of worker grievances (e.g., complaints or lack thereof regarding breach of collective bargaining agreements), and any company follow-up. 	
<p>3.1.2.9. The <u>operating company</u> shall not make use of short-term contracts or other measures to undermine a collective bargaining agreement or <u>worker</u> organizing effort, or to avoid or reduce obligations to <u>workers</u> under</p>	<p>For 3.1.2.9: Determine if the company uses short-term contracts. Interview <u>workers' representatives</u> to confirm that if used, these short-term contracts are not used so frequently that they enable the mine to avoid legal obligations to</p>	<p>For 3.1.2.9:</p> <ul style="list-style-type: none"> • Recruitment and dismissal procedures and records. Employment contracts (e.g., permanent employees, contractors and temporary workers). 	<p>Explanatory Note for 3.1.2.9: According to the Responsible Jewellery Council (RJC):</p> <p>"The employment relationship is the legal link between employers and employees. It exists when a person performs work or services under certain conditions in return for remuneration. The corresponding legal</p>

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<p>applicable labor and social security laws and regulations.</p>	<p>employees or undermine a CBA or <u>worker</u> organizing efforts.</p>	<ul style="list-style-type: none"> • Collective bargaining agreement (CBA) or equivalent where applicable. • Records of worker grievances (e.g., complaints or lack thereof related to misuse of short-term contracts or other measures to undermine CBAs or avoid labour and social security obligations), and any company follow-up. • Records or documentation demonstrating compliance with labor and social security laws and regulations. • Records of worker grievances (e.g., complaints or lack thereof related to hiring of replacement workers to prevent, undermine or break up a legal strike), and any company follow-up. • Employment contracts. 	<p>instrument is a contract of employment, which may be expressed or implied, in writing or verbal. . . It is also the main vehicle through which workers gain access to the rights and benefits associated with employment in the areas of labour law and social security. . .</p> <p>The traditional employment relationship used to be based on full time work with a single employer, under a contract of employment for unlimited duration, with protection against unjustified dismissal. Over the last thirty years, new patterns of employment have emerged in the global economy. These include an increasing use of fixed term contracts and contractual arrangements where workers are not strictly employees. Some workers under these arrangements may have weak protection under labour or social security law, particularly migrant workers and home-workers. Exploitative working arrangements have also emerged, such as false apprenticeship schemes where workers are on lower wages during a ‘training period’ but there is no real intent to impart skills or provide regular or ongoing employment once that period ends.</p> <p>Home-working, successive short-term contracts, apprenticeships, sub-contracting and labour-only contracting can all be legitimately used within employment relationships. However these kinds of arrangements can present higher risks that legal obligations to workers are not being upheld. Therefore the RJC Code of Practices does not unduly restrict general use of these working arrangements, but does require that they not be used as a means to avoid labour and social security obligations."²⁵³</p> <p>Similar to RJC, IRMA does not ban the use of short-term or other contracts, but requires that they not be used to either undermine a collective bargaining agreement or to avoid/reduce labor and social security laws and regulations.</p>

²⁵³ Responsible Jewellery Council. 2013. Standards Guidance. p. 73. https://www.responsiblejewellery.com/files/RJC_Standards_Guidance_2013_eng.pdf

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<p>3.1.2.10. The <u>operating company</u> shall not hire <u>replacement workers</u> in order to prevent, undermine or break up a legal strike, support a lockout, or avoid negotiating in good faith. The company may, however, hire <u>replacement workers</u> to ensure that critical maintenance, health and safety, and environmental control measures are maintained during a legal strike.</p>	<p>For 3.1.2.10: If relevant (i.e., if <u>replacement workers</u> have ever been hired), confirm that the <u>replacement workers</u> were not hired to prevent, undermine or break up a legal strike (<u>replacement workers</u> okay if hired to carry out work that if not continued could endanger health, safety, or environment).</p>	<p>For 3.1.2.10:</p> <ul style="list-style-type: none"> Recruitment and dismissal procedures and records. 	<p>Explanatory Note for 3.1.2.10: According to the International Labour Organization (ILO):</p> <p>"National legislation frequently places some form of limitation on the right to strike in certain activities, usually defined as essential services. In this respect, the ILO's supervisory bodies have taken the position that it is admissible to limit or prohibit the right to strike in essential services, defined as those the interruption of which would endanger the life, personal safety or health of the whole or part of the population."²⁵⁴</p>
<p>3.1.3. Non-Discrimination and Equal Opportunity</p> <p>3.1.3.1. The <u>operating company</u> shall base employment relationships on the principles of equal opportunity and fair treatment, and shall not discriminate or make employment decisions on the basis of personal characteristics unrelated to inherent job requirements.</p>	<p>Auditing Note for 3.1.3: Relevant documentation for this criterion may include:</p> <ul style="list-style-type: none"> Policies and procedures (e.g. recruitment, promotion, remuneration, professional development, termination) Job advertisements Job descriptions and wage rates New employee selection criteria Hiring records from recruitment process Employment contracts Payroll, time and training records Performance reviews, including disciplinary and promotion records; 	<p>For 3.1.3.1:</p> <ul style="list-style-type: none"> Employment or other policy that contains information on anti-discrimination, equal opportunity and fair treatment in employment. Recruitment and dismissal procedures and records. Employment contracts or agreements, including with recruitment agencies. Performance reviews. Records of worker grievances (e.g., complaints or lack thereof related to discrimination based on personal characteristics unrelated to the job requirements), and any company follow- 	<p>Explanatory Note for 3.1.3.1: "Employment relationships" include: recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices.</p> <p>"Personal characteristics unrelated to inherent job requirements" may include: gender, race, nationality, ethnicity, social and indigenous origin, religion or belief, disability, HIV status, age, sexual orientation, marital status, parental status, <u>worker status</u> (e.g., local vs. migrant <u>workers</u>, temporary versus permanent <u>workers</u>), political affiliation, union membership and veteran status.</p> <p>There are a number of International Labor Organization conventions that are relevant in relation to non-discrimination and equality of opportunity and treatment.²⁵⁵ These include, but are not limited to:</p> <ul style="list-style-type: none"> ILO Convention 100, Equal Remuneration Convention, 1951, outlines

²⁵⁴ International Labour Organization (ILO). 2001. Labour Legislation Guidelines. Chapter V: Substantive provisions of labour legislation - the right to strike. <http://www.ilo.org/legacy/english/dialogue/ifpdial/llg/noframes/ch5.htm>

²⁵⁵ International Labour Organization (ILO) website: "International Labour Standards on Equality of Opportunity and Treatment." <https://www.ilo.org/global/standards/subjects-covered-by-international-labour-standards/equality-of-opportunity-and-treatment/lang-en/index.htm>

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	<ul style="list-style-type: none"> Grievance records Termination records <p>Relevant interviewees for this criterion may include: <u>operating company management</u> (including human resources and security); <u>workers' representatives</u>; and <u>workers</u>.</p> <p>For 3.1.3.1: Review relevant documentation to determine how the <u>operating company</u> integrates the principles of equal opportunity and fair treatment and non-discrimination into its hiring and recruitment, compensation, working conditions and terms of employment and other employment relationships. Through interviews, confirm that such procedures or practices have been implemented.</p>	<p>up.</p>	<p>principles and requirements related to the principle of equal remuneration for female and male workers for work of equal value. The principle is that rates of remuneration be established without discrimination based on the gender of the worker.²⁵⁶</p> <ul style="list-style-type: none"> ILO Convention 111, Discrimination (Employment and Occupation) Convention, 1958, promotes equality of opportunity and elimination of discrimination in relation to vocational training, access to employment and in terms and conditions of employment.²⁵⁷ ILO Convention 156, Workers with Family Responsibilities Convention, 1981, is intended to create effective equality of opportunity and treatment for men and women workers by enabling persons with family responsibilities who are engaged or wish to engage in employment to exercise their right to do so without being subject to discrimination and, to the extent possible, without conflict between their employment and family responsibilities.²⁵⁸ ILO Convention 190, Violence and Harassment Convention, 2019 and Recommendation No. 206, recognizes the right of everyone to a world of work free from violence and harassment, including gender-based violence and harassment.²⁵⁹
<p>3.1.3.2. Exceptions to 2.1.3.1 may be made with respect to hiring and recruitment in the case of:</p> <p>a. Targets or quotas mandated by law;</p>	<p>For 3.1.3.2: If there are some employment decisions that are based on personal characteristics unrelated to inherent job requirements, determine if 3.1.3.2.a, b or c apply. These are the only acceptable</p>	<p>For 3.1.3.2:</p> <ul style="list-style-type: none"> Employment or other policy that contains information on the operating company's approach to anti-discrimination, equal opportunity and fair treatment in 	<p>Explanatory Note for 3.1.3.2: Increasingly, proactive efforts are being made by mining companies to increase diversity in the workplace, and create employment opportunities for historically disadvantaged groups who may not have the education, training or skills needed to gain permanent employment at mine sites.</p>

²⁵⁶ ILO. 1951. Equal Remuneration Convention, 1951 (No. 100). http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C100

²⁵⁷ ILO. 1958. Discrimination (Employment and Occupation) Convention, 1958 (No. 111). https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C111

²⁵⁸ ILO. 1981. Workers with Family Responsibilities Convention, 1981 (No. 156). https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C156

²⁵⁹ ILO. 2019. Violence and Harassment Convention, 2019 (No. 190). https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C190

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<p>b. Targets developed through local agreements for the employment of local residents, indigenous peoples, or individuals who have been historically disadvantaged; or</p> <p>c. Operating company targets for the employment of local residents, indigenous peoples, or individuals who have been historically disadvantaged that are expressed in publicly accessible policies with explicit goals and justification for such targets.</p>	<p>reasons why discrimination may occur in employment decisions.</p>	<p>employment.</p> <ul style="list-style-type: none"> • Employment or other policy that contains operating company targets for training and employing individuals who have been historically disadvantaged in the mining sector, such as women, unskilled workers, indigenous peoples or others. • Agreements with communities that include targets for employment. 	<p>For example, diversity targets are being set throughout all levels of some companies, from the boardroom to senior management positions, to mine workers. These targets are being set not only to demonstrate a commitment to non-discrimination, but also because there is growing evidence of a correlation between increased gender diversity and improved productivity and environmental and social performance, safer work environments, improved community relations, better financial performance and numerous other positive outcomes.²⁶⁰</p> <p>In other cases, mines are setting targets for training and employment of local indigenous peoples. These targets may be independently set by the mining company, or they may be a result of agreements between the mine and local communities and/or host country governments.²⁶¹</p> <p>While these proactive provisions provide an important means for mining operations to address some historic inequalities, the International Institute for Sustainable Development cautions that: “Provisions that require companies to give preference to women, Indigenous People or other marginalized groups through direct employment should also seek to address the contextual factors that obstruct access to opportunities. For example, quotas for women should be supported by policy provisions that require companies to implement strong anti-discrimination and anti-harassment mechanisms.”²⁶²</p> <p>Non-discrimination and anti-harassment are addressed elsewhere in this chapter (see 3.1.3.1 and 3.1.3.3).</p>
<p>3.1.3.3. (Critical Requirement) The operating company shall take</p>	<p>For 3.1.3.3: Confirm that the operating company has taken measures to prevent</p>	<p>For 3.1.3.3:</p> <ul style="list-style-type: none"> • Documented anti-harassment 	<p>Explanatory Note for 3.1.3.3: According to the Responsible Jewellery Council (RJC):</p>

²⁶⁰ International Finance Corporation. 2018. Unlocking Opportunities for Women and Business: A Toolkit of Actions and Strategies for Oil, Gas and Mining Companies. pp. 12, 13. https://www.commddev.org/pdf/publications/ToolSuite1_Interior_FIN-05-16_LoRes.pdf

²⁶¹ International Institute for Sustainable Development. 2018. Local Content Policies in the Mining Sector: Stimulating direct local employment. p. 23. <https://www.iisd.org/sites/default/files/publications/local-content-policies-mining-direct-local-employment.pdf>

²⁶² Ibid. p. 24.

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measures to prevent and address harassment, intimidation, and/or exploitation, especially in regard to female workers.	and address harassment, intimidation and/or exploitation, especially women (e.g., through a company policy, memos, records of trainings, etc.). Interview workers of different genders and races/ethnicities, as well as migrant workers and/or children (if any) or their representatives. Review complaint or grievances related to harassment, etc., and records of how the company remedied or resolved them. Confirm that no relevant complaints are unresolved at the time of the IRMA audit (with the exception of recent complaints, e.g., those filed within the previous few months prior to the audit).	<p>policy/procedure.</p> <ul style="list-style-type: none"> • Anti-discrimination policy. • Records of communications and/or trainings on anti-harassment and anti-discrimination for workers and management. • Records of worker grievances (e.g., complaints or lack thereof related to harassment, intimidation or exploitation), and any company follow-up. 	<p>"Discrimination may be direct or indirect, and it does not have to be intentional. Practices that appear neutral but result in unequal treatment of people with certain characteristics are considered indirect discrimination. Harassment (behaviour that creates an intimidating, hostile or humiliating working environment) also is considered discrimination when it is based on discriminatory grounds. All workers must be free from discrimination, including nationals, non-nationals, migrants, home-based workers, and job applicants."²⁶³</p> <p>Violence and harassment against women and men in the world of work is an abuse of power that affects the most marginalised workers. Women are disproportionately affected where unequal power relations, low pay, non-standard working conditions and other workplace abuses expose them to violence in the world of work.²⁶⁴</p> <p>Sexual harassment in the workplace is a growing concern. Sexual harassment may take two forms: 1) Quid Pro Quo, when a job benefit - such as a pay rise, a promotion, or even continued employment - is made conditional on the victim acceding to demands to engage in some form of sexual behavior; or 2) hostile working environment in which the conduct creates conditions that are intimidating or humiliating for the victim.</p> <p>Behavior that qualifies as sexual harassment includes physical violence, touching, unnecessary close proximity, comments and questions about appearance, life-style, sexual orientation, whistling, sexually-suggestive gestures or display of sexual materials.²⁶⁵</p> <p>Explanatory Note for 3.1.4.1: "Collective dismissals" cover all multiple dismissals that are a result of an economic, technical, or organizational reason; or other reasons that are not related to performance or other</p>
3.1.4. Retrenchment	For 3.1.4.1: If this requirement is applicable, review documents, such as the	For 3.1.4.1: <ul style="list-style-type: none"> • Retrenchment policy/procedures. 	

²⁶³ Responsible Jewellery Council (RJC). 2013. Standards Guidance. p. 110. https://www.responsiblejewellery.com/files/RJC_Standards_Guidance_2013_eng.pdf

²⁶⁴ Pillinger, J. 2017. Violence and Harassment Against Women and Men in the World of Work. p. 1. (International Labour Organization, Geneva). http://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---actrav/documents/publication/wcms_546645.pdf

²⁶⁵ International Labour Organization. No Date. Sexual Harassment at Work. Fact Sheet. p. 1. http://www.ilo.org/wcmsp5/groups/public/---ed_norm/---declaration/documents/publication/wcms_decl_fs_96_en.pdf

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<p>3.1.4.1. Prior to implementing any collective dismissals, the <u>operating company</u> shall carry out an analysis of alternatives to <u>retrenchment</u>. If the analysis does not identify viable alternatives to <u>retrenchment</u>, a <u>retrenchment plan</u> shall be developed in consultation with <u>workers</u>, their organizations, and, where appropriate, the government. The plan shall be based on the principle of non-discrimination, and be implemented to reduce the adverse impacts of <u>retrenchment</u> on <u>workers</u>.</p>	<p><u>operating company</u> analysis of alternatives to <u>retrenchment</u>, and <u>retrenchment plan</u> to determine if efforts have been made to reduce adverse impacts of <u>retrenchment</u> on <u>workers</u>.</p> <p>Interview <u>workers' representatives</u> to ensure that <u>workers</u> and <u>workers' organizations</u> were consulted during development of the <u>retrenchment plan</u>.</p>	<ul style="list-style-type: none"> • Retrenchment plan. • Records of consultations and communications with workers (e.g., meetings, correspondence) during the development of retrenchment plans. • Documentation of analysis of alternatives to retrenchment. • Documentation of steps taken to reduce impact of retrenchment on workers. • Collective bargaining agreement or equivalent. • Records of agreements with workers representatives. • Anti-discrimination procedure. • Records of worker grievances (e.g., complaints or lack thereof related to retrenchment), and any company follow-up. 	<p>personal reasons. Mitigation measures to reduce the impact on workers of collective dismissals or retrenchment might include, for example, provision of re-training and building of transferable skills; and providing assistance with placement at other mines or industries.</p> <p>Examples of "alternatives to retrenchment" may include negotiated reduction in hours for existing workers, internal transfers, ending use of contract workers, reduction in salaries, voluntary early retirement, etc.²⁶⁶</p> <p>The "principle of non-discrimination" means that selection criteria for those to be laid off should be objective, fair, and transparent. The retrenchment should not be based on personal characteristics unrelated to inherent job requirements.²⁶⁷</p>
<p>3.1.4.2. The <u>operating company</u> shall ensure that all <u>workers</u> receive notice of dismissal and severance payments mandated by law and collective agreements in a timely manner. All outstanding back pay, social security benefits, and pension contributions and benefits shall be paid on or before</p>	<p>For 3.1.4.2: If applicable, interview <u>workers' representatives</u> to confirm that <u>workers</u> were provided with due notice of dismissal, and review payroll and other termination-related records to verify that <u>workers</u> received severance payments (and back pay/benefits) mandated by law</p>	<p>For 3.1.4.2:</p> <ul style="list-style-type: none"> • Retrenchment policy/procedures. • Records of communications with workers providing them notice of termination of employment contracts. • Payroll records. • Records of full and final settlement payments for outstanding back pay, social 	<p>Explanatory Note for 3.1.4.2: According to IFC:</p> <p>"In many countries, national law requires advance notice to affected workers, and/or governments of plant closings or layoffs above specified numerical thresholds. Some national laws require that retrenchments be negotiated with workers' organizations through collective bargaining. Severance payments to affected workers may be</p>

²⁶⁶ International Finance Corporation (IFC). 2005. Good Practice Note: Managing Retrenchment. p. 3. <https://www.ifc.org/wps/wcm/connect/8b14b6004885555db65cf66a6515bb18/Retrenchment.pdf?MOD=AJPERES&CACHEID=8b14b6004885555db65cf66a6515bb18>

²⁶⁷ IFC. 2012. Performance Standard 2: Labor and Working Conditions. Guidance Note. GN51. https://www.ifc.org/wps/wcm/connect/0d7a4480498007faa1f7f3336b93d75f/Updated_GN2-2012.pdf?MOD=AJPERES

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<p>termination of the working relationship, or in accordance with a timeline agreed through a collective agreement. Payments shall be made directly to <u>workers</u>, or to appropriate institutions for the benefit of <u>workers</u>. Where payments are made for the benefit of <u>workers</u>, they shall be provided with evidence of such payments.</p> <p>3.1.5. Grievance Mechanism</p> <p>3.1.5.1. (Critical Requirement) The <u>operating company</u> shall provide a <u>grievance mechanism</u> for <u>workers</u> (and their organizations, where they exist) to raise workplace concerns. The mechanism, at minimum:</p> <p>a. Shall involve an appropriate level of management and address concerns promptly, using an understandable and transparent process that provides timely feedback to those concerned, without any retribution;</p>	<p>or collective agreement in a timely manner.</p> <p>Auditing Note for 3.1.5: Relevant interviewees for this criterion include: relevant <u>operating company</u> management (including human resources or others); <u>workers’ representatives</u>; and <u>workers</u>.</p> <p>For 3.1.5.1: Confirm, through interviews and documentation review, that a <u>grievance mechanism</u> exists, and that the mechanism and procedures are transparent, provide for timely resolution, and allow for complaints and <u>grievances</u> to be filed without retribution; enables complaints to be filed anonymous; allows <u>workers’ representatives</u> to be present if requested by <u>workers</u>; and allows that</p>	<p>security benefits, and pension contributions to affected employees.</p> <p>For 3.1.5.1:</p> <ul style="list-style-type: none"> • Grievance policy/procedures. • Demonstrated ways to lodge grievances, e.g., hotlines, grievances boxes, etc. • Records of grievances lodged/investigated. • Collective bargaining agreement. 	<p>required by national law or existing collective bargaining agreements."²⁶⁸</p> <p>Additionally:</p> <p>"In some jurisdictions companies may be obligated by law to transfer certain payments to specific institutions such as pension fund administration, health funds, etc. In such cases companies would not provide payments directly to the worker but for the benefit of the worker to the appropriate institution. In cases where payments to certain institutions are optional the client will provide options to the worker who might choose either a direct cash payment or payment to a defined institution."²⁶⁹</p> <p>Explanatory Note for 3.1.5.1: It is possible that one <u>grievance mechanism</u> (e.g. referred to in Chapter 1.4) may be suitable to address all types of grievances raised in relation to the <u>mining project</u>, including <u>workers</u>, although typically labor <u>grievances</u> are dealt with through a separate mechanism established through collective bargaining agreements or human resources policies.</p> <p>If <u>worker</u> complaints/<u>grievances</u> involve the infringement of human rights, they should either be handled through the general operational <u>grievance mechanism</u> (see Chapter 1.4), which is required to conform with the effectiveness criteria laid out in the UN Guiding Principles on Business and Human Rights (UNGP), or be addressed through a different procedure that compatible with the UNGP effectiveness criteria.²⁷⁰ If the worker <u>grievance mechanism</u> in 3.1.5.1 meets the UNGP effectiveness criteria, then that shall suffice.</p>

²⁶⁸ International Finance Corporation (IFC). 2012. Performance Standard 2: Labor and Working Conditions. Guidance Note. GN50. https://www.ifc.org/wps/wcm/connect/Od7a4480498007faa1f7f3336b93d75f/Updated_GN2-2012.pdf?MOD=AJPERES

²⁶⁹ International Finance Corporation (IFC). 2012. Performance Standard 2: Labor and Working Conditions. Guidance Note. GN56. https://www.ifc.org/wps/wcm/connect/Od7a4480498007faa1f7f3336b93d75f/Updated_GN2-2012.pdf?MOD=AJPERES

²⁷⁰ Ruggie, J. 2011. Guiding Principles on Business and Human Rights: Implementing the United Nations “Protect, Respect and Remedy” Framework. March 21, 2011. A/HRC/17/31. pp. 33-35. www.ohchr.org/Documents/Issues/Business/A-HRC-17-31_AEV.pdf

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<p>b. Shall allow for anonymous complaints to be raised and addressed;</p> <p>c. Shall allow <u>workers’ representatives</u> to be present, if requested by the <u>aggrieved worker</u>; and</p> <p>d. Shall not impede access to other judicial or administrative remedies that might be available under the law or through existing arbitration procedures, or substitute for <u>grievance mechanisms</u> provided through collective agreements.</p>	<p>using the mechanism does not bar a <u>worker</u> from seeking remedy for that issue through other mechanisms.</p>		<p><u>Worker complaints/grievances</u> may include, but are not limited to concerns about working conditions, health, safety, terms of work, potential violations of host country laws or company policies and procedures by the company or employees, the conduct of other workers or management, etc.</p> <p>Sub-requirements 3.1.5.1.a and 3.1.5.1.b require that the mechanism allow for complaints to be raised without fear of retribution, and for companies to be filed anonymously. These attributes are essential for any “whistleblower”-type complaint, which typically relates to illegal, unethical or fraudulent activities.</p> <p>Re: 3.1.5.1.d, according to IFC, “Most countries have judicial or administrative processes to address labor complaints; the client’s mechanism should not delay or hinder access to other judicial or administrative remedies that are available under law.”²⁷¹</p>
<p>3.1.5.2. The <u>operating company</u> shall inform the <u>workers</u> of the <u>grievance mechanism</u> at the time of recruitment and make it easily accessible to them.</p>	<p>For 3.1.5.2: Confirm, through interviews and documentation review, that a <u>grievance mechanism</u> exists, <u>workers</u> are aware of it, and that the mechanism is accessible to all <u>workers</u>.</p>	<p>For 3.1.5.2:</p> <ul style="list-style-type: none"> • Grievance procedures. • Demonstrated ways to lodge grievances, e.g., hotlines, grievances boxes, etc. • Evidence that the operating company informs workers of grievance mechanism when they are hired (e.g., materials provided to workers upon hiring, Employees Handbook). • Documented evidence of accessibility of the grievance mechanism to all workers, or efforts to improve accessibility (e.g., 	<p>Explanatory Note for 3.1.5.2: According to the UN Guiding Principles on Business and Human Rights, <u>accessibility</u> means that <u>grievance mechanisms</u> are known to all <u>stakeholder</u> groups for whose use they are intended, and providing adequate assistance for those who may face particular barriers to access.²⁷²</p> <p>Barriers that may prevent use of the mechanism could be that it is not available in formats or language that work for affected <u>stakeholders</u>, or the information on how to access and utilize the mechanism are not understandable to <u>stakeholders</u>.</p> <p>Other barriers to access “relate to trust and confidence – complainants may be afraid or uncertain about remote or complicated mechanisms,</p>

²⁷¹ International Finance Corporation (IFC). 2012. Performance Standard 2: Labor and Working Conditions. Guidance Note. GN57. https://www.ifc.org/wps/wcm/connect/0d7a4480498007faa1f7f3336b93d75f/Updated_GN2-2012.pdf?MOD=AJPERES

²⁷² Ruggie, J. 2011. Guiding Principles on Business and Human Rights. p. 33. http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf

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<p>3.1.5.3. The <u>operating company</u> shall maintain a record of <u>grievances</u> and the company's actions taken to respond to and/or resolve the issues.</p>	<p>For 3.1.5.3: Confirm, through review of <u>grievance</u> documentation review, that records are kept of <u>grievances</u> and the company's actions taken in response to the <u>grievances</u>.</p>	<p>trainings, revising mechanisms based on worker input, etc.).</p> <ul style="list-style-type: none"> Records of grievances lodged/investigated. <p>For 3.1.5.3:</p> <ul style="list-style-type: none"> Grievance policy/procedures. Records of grievances lodged/investigated. 	<p>distrust the institutions where they're located and/or fear retaliation."²⁷³</p> <p>There may be the need to offer more than one type of mechanism, including various options for confidential filing of <u>grievances</u>, and/or provide better information and assistance so that <u>workers</u> trust and make use of the grievance mechanism.</p>
<p>3.1.6. Disciplinary Procedures</p> <p>3.1.6.1. The <u>operating company</u> shall have documented disciplinary procedures (or their equivalent) that are made available to all <u>workers</u>.</p>	<p>For 3.1.6.1: Review <u>operating company</u> documents to confirm that disciplinary procedures are written down and available to <u>workers</u>.</p>	<p>For 3.1.6.1:</p> <ul style="list-style-type: none"> Disciplinary procedures. Documented evidence of communications with all workers informing them of the disciplinary procedures. 	
<p>3.1.6.2. The <u>operating company</u> shall not use corporal punishment, harsh or degrading treatment, sexual or physical harassment, mental, physical or verbal abuse, coercion or intimidation of <u>workers</u> during disciplinary actions.</p>	<p>For 3.1.6.2: Interview management, <u>workers</u> and <u>workers' representatives</u> to confirm the respectful treatment of <u>workers</u> involved in disciplinary actions.</p>	<p>For 3.1.6.2:</p> <ul style="list-style-type: none"> Anti-harassment policy or disciplinary procedure or equivalent that prohibits the use of corporal punishment, harsh or degrading treatment, sexual or physical harassment, mental, physical or verbal abuse, coercion or intimidation of workers during disciplinary actions. Documented evidence of communication/training workers and management on the disciplinary 	<p>Explanatory Note for 3.1.6.2: According to the Responsible Jewellery Council (RJC):</p> <p>"Discipline in the workplace should be viewed as a way to correct problem behaviours or performance issues. It should not be viewed simply as a way to punish employees. Supervisors and other persons in authority should be aware that the object of disciplinary action is to correct the problem, action, or behaviour, not the person.</p> <p>In some workplaces discipline can take an extreme form. This can include physical (corporal) punishment and mental, psychological, or sexual abuse. Examples of unreasonable practices that have been</p>

²⁷³ Rees, C. 2008. Grievance Mechanisms for Business and Human Rights: Strengths, Weakness and Gaps. p. 14. <https://www.business-humanrights.org/sites/default/files/reports-and-materials/Rees-Existing-grievance-mechanisms-Jan-2008.pdf>

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<p>3.1.6.3. The <u>operating company</u> shall keep records of all disciplinary actions taken.</p>	<p>For 3.1.6.3: Review records retained by <u>operating company</u> for disciplinary actions taken.</p>	<p>procedure.</p> <ul style="list-style-type: none"> • Documented disciplinary notices, hearings, minutes or equivalent. • Records of worker grievances (e.g., complaints or lack thereof related to use of corporal punishment, harsh or degrading treatment, sexual or physical harassment, mental, physical or verbal abuse, coercion or intimidation during disciplinary actions), and company follow-up. <p>For 3.1.6.3:</p> <ul style="list-style-type: none"> • Disciplinary procedures • Documented disciplinary records, notices, hearings, minutes or equivalent. • Log of all disciplinary actions taken where applicable. 	<p>documented in workplaces include: being forced to do push-ups or run laps; standing in the sun for extended periods; being beaten or hit over the head; threats of violence; sexual or racial harassment; or withholding of wages, food or services. These and similar actions are considered to be violations of basic human dignity and human rights."²⁷⁴</p>
<p>3.1.7. Child Labor</p> <p>3.1.7.1. The <u>operating company</u> shall document the ages of all <u>workers</u>.</p>	<p>Auditing Note for 3.1.7: Relevant interviewees may include: <u>operating company management</u>; <u>workers' representatives</u>; <u>workers</u> (including child workers, if any); representatives of child workers; and stakeholders, e.g., NGOs or others that track <u>child labor</u> in the region.</p> <p>For 3.1.7.1: Review company procedures and documentation confirming age verification in hiring.</p>	<p>For 3.1.7.1:</p> <ul style="list-style-type: none"> • Recruitment / hiring procedure. • Age verification procedure. • Age verification records. 	

²⁷⁴ Responsible Jewellery Council. 2013. Standards Guidance. p. 88. https://www.responsiblejewellery.com/files/RJC_Standards_Guidance_2013_eng.pdf

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<p>3.1.7.2. (Critical Requirement) Children (i.e., persons under the age of 18²⁷⁵) shall not be hired to do <u>hazardous work</u> (e.g., working underground, or where there is exposure to hazardous substances²⁷⁶).</p>	<p>For 3.1.7.2: Through review of company procedures, documentation confirming age verification in hiring, interviews and observation, determine if children are employed by the company/<u>contractors</u>.</p>	<p>For 3.1.7.2 and 3.1.7.3:</p> <ul style="list-style-type: none"> • Recruitment / hiring procedure. • Age-verification procedure. • Age verification records. • Risk assessment of workplace hazards. • Documented job descriptions. • Employment contracts. 	<p>Explanatory Note for 3.1.7.2: Age 18 is the dividing line between childhood and adulthood according to the major ILO child labor Conventions, Nos. 138 and 182, and the United Nations Convention on the Rights of the Child (CRC).²⁷⁷ Although many cultural traditions and personal characteristics could argue for a higher or lower age, in first crafting and then in ratifying these Conventions the international community have determined that persons under 18 are children and have the right to special protection.²⁷⁸</p> <p>Examples of hazardous work activities include work (i) with exposure to physical, psychological, or sexual abuse; (ii) underground, underwater, working at heights, or in confined spaces; (iii) with dangerous machinery, equipment, or tools, or involving handling of heavy loads; (iv) in unhealthy environments exposing the worker to hazardous substances, agents, processes, temperatures, noise, or vibration damaging to health; or (v) under difficult conditions such as long hours, late night, or confinement by employer.²⁷⁹</p> <p>As per IRMA Chapter 1.1, requirement 1.1.4.1, the <u>operating company</u> is required to demonstrate that it takes appropriate steps to ensure compliance with the IRMA Standard by <u>contractors</u> engaged in activities relevant to the <u>mining project</u>. So <u>operating companies</u> should have in place some due diligence procedures to verify that <u>contractors</u> working</p>

²⁷⁵ Age 18 is the dividing line between childhood and adulthood according to the major ILO child labour conventions (Nos. 138 and 182), and the United Nations Convention on the Rights of the Child (CRC). Although many cultural traditions and personal characteristics could argue for a higher or lower age, in first crafting and then in ratifying these Conventions the international community has determined that persons under 18 are children and have the right to special protection. (International Labour Organization. 2011. Children in Hazardous Work: what we know, what we need to know. http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_155428.pdf)

²⁷⁶ Examples of hazardous work activities include work (i) with exposure to physical, psychological, or sexual abuse; (ii) underground, underwater, working at heights, or in confined spaces; (iii) with dangerous machinery, equipment, or tools, or involving handling of heavy loads; (iv) in unhealthy environments exposing the worker to hazardous substances, agents, processes, temperatures, noise, or vibration damaging to health; or (v) under difficult conditions such as long hours, late night, or confinement by employer. (Source: IFC. 2012. Performance Standard 2: Labor and Working Conditions. Footnote 12. https://www.ifc.org/wps/wcm/connect/2408320049a78e5db7f4f7a8c6a8312a/PS2_English_2012.pdf?MOD=AJPERES)

²⁷⁷ ILO. 1973. Minimum Age Convention (No. 138). https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312283:NO and ILO. 1999. Worst Forms of Child Labour Convention. (No. 182). https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C182 and United Nations. 1990. Convention on the Rights of the Child. <https://www.ohchr.org/en/professionalinterest/pages/crc.aspx>

²⁷⁸ International Labor Organization (ILO). 2011. Children in Hazardous Work: what we know, what we need to know. p. 3. http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_155428.pdf

²⁷⁹ International Finance Corporation (IFC). 2012. Performance Standard 2: Labor and Working Conditions. Guidance Note. Para 21. Footnote 12. https://www.ifc.org/wps/wcm/connect/0d7a4480498007faa1f7f3336b93d75f/Updated_GN2-2012.pdf?MOD=AJPERES

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<p>3.1.7.3. (Critical Requirement) The minimum age for non-hazardous work shall be 15, or the minimum age outlined in national law, whichever is higher.</p>	<p>For 3.1.7.3: Review company procedures for assessing and minimizing risk to child <u>workers</u>, and monitoring their health, working conditions and hours. Confirm through document review that if children are employed monitoring has been undertaken. If relevant, review documents related to <u>remediation</u> of children under 15 that have been discovered to be employed at the operation, or under 18 if found to be employed in <u>hazardous work</u>; confirm that children were removed from age-inappropriate, harmful or dangerous work situations. Review information not protected by privacy laws that relates to <u>complaints/grievances</u> filed in relation to <u>child labor</u>, and records of how the company <u>remedied</u> or responded to them.</p>	<p>For 3.1.7.2 and 3.1.7.3:</p> <ul style="list-style-type: none"> • Recruitment / hiring procedure. • Age-verification procedure. • Age verification records. • Risk assessment of workplace hazards. • Documented job descriptions. • Employment contracts. 	<p>on the <u>mining project</u> are not employing persons under the age of 18 to perform <u>hazardous work</u>.</p> <p>Explanatory Note for 3.1.7.3: The International Labour Organization's Convention No. 138 states that the minimum age for work "shall not be less than the age of completion of compulsory schooling, and in any case, shall not be less than 15."²⁸⁰</p> <p>Convention 138 allows temporary exceptions for countries enacting the convention.²⁸¹ IRMA is not allowing this exception.</p>
<p>3.1.7.4. When a child is legally performing non-<u>hazardous work</u>, the company shall assess and minimize the risks to their physical or mental health, and ensure that regular monitoring of the child's health, working conditions and hours of work occurs by the national</p>	<p>For 3.1.7.4: Confirm that the company has assessed the risk of <u>child labor</u> in its supply chain. The determination of whether or not there is a high risk of <u>child labor</u> in the supply chain should occur as part of the <u>operating company's</u> human rights due diligence in Chapter 1.3. Also, through review of company documentation and</p>	<p>For 3.1.7.4:</p> <ul style="list-style-type: none"> • Occupational health and safety risk assessment that includes risks to children's physical and mental health. • Employment contracts. • Job descriptions. 	

²⁸⁰ International Labor Organization (ILO). 1973. Minimum Age Convention, 1973 (No. 138). Article 2.3. https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C138

²⁸¹ International Labor Organization (ILO). 1973. Minimum Age Convention, 1973 (No. 138). Article 2.5. https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C138

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<p>labor authority, or if that is not possible, by the company itself.</p> <p>3.1.7.5. If the <u>operating company</u> discovers that a child under the minimum age outlined in 3.1.7.2 and 3.1.7.3 is performing hazardous or non-hazardous work:</p> <ol style="list-style-type: none"> The child shall be removed immediately from his or her job; and <u>Remediation</u> procedures shall be developed and implemented that provide the child with support in his or her transition to legal work or schooling, and that take into consideration the welfare of the child and the financial situation of the child’s family. 	<p>interviews with <u>operating company</u> and relevant stakeholders (e.g., <u>workers’ representatives</u>, NGOs) confirm that the <u>operating company</u> has procedures in place to determine if child <u>workers</u> below the minimum age for hazardous /non-hazardous work are being employed by its <u>suppliers</u>; and if cases are found, <u>remedy</u> was provided or the company shifted its <u>supplier</u>.</p> <p>For 3.1.7.5: Determine if any incidents of <u>child labor</u> have been found. If so, confirm that the child was removed immediately from the job, and that appropriate <u>remediation</u> was implemented.</p>	<p>For 3.1.7.5:</p> <ul style="list-style-type: none"> Remediation procedures. Documentation of actions considered and taken to remediate any incident involving child labor (i.e., a child under the minimum age for hazardous or non-hazardous work discovered working at the mining project). Documentation of meetings and/or correspondence with those carrying out judicial or State-based investigations of child labor at the mining project. Records of worker or stakeholder grievances (e.g., reports of under-age persons in age-inappropriate jobs), and company follow-up. 	<p>Explanatory Note for 3.1.7.5: If there are incidents of children being employed at the <u>mining project</u> who are under the minimum ages outlined in 3.1.7.2 and 3.1.7.3, <u>remediation</u> should also align with IRMA Chapter 1.3, requirement 1.3.3.3. In particular, the <u>operating company</u> must cooperate with other legitimate processes such as judicial or State-based investigations that may result if the use of <u>child labor</u> is discovered at the <u>mining project</u>.</p>

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<p>3.1.7.6. Where there is a high risk of <u>child labor</u> in the mine’s supply chain,²⁸² the <u>operating company</u> shall develop and implement procedures to monitor its <u>suppliers</u> to determine if children below the minimum age for hazardous or non-hazardous work are being employed. If any cases are identified, the <u>operating company</u> shall ensure that appropriate steps are taken to <u>remedy</u> them. Where <u>remedy</u> is not possible, the <u>operating company</u> shall shift the project’s supply chain over time to <u>suppliers</u> that can demonstrate that they are complying with this chapter.</p>	<p>For 3.1.7.6: Through review of company documentation and interviews with <u>operating company</u> and relevant <u>stakeholders</u> (e.g., worker representatives, NGOs, children’s representatives) confirm that the <u>operating company</u> has procedures in place to determine if child workers below the minimum age for hazardous /non-hazardous work are being employed by its <u>suppliers</u>; and if cases have been found, that <u>remedy</u> was provided or the company shifted its <u>supplier</u>.</p>	<p>For 3.1.7.6:</p> <ul style="list-style-type: none"> • Supply chain mapping records. • Risk assessment of supply chain (this may have been done as part of the assessment of potential human rights risks and impacts in Chapter 1.3). • Supply chain due diligence reports. • Supplier monitoring procedures. • Supplier monitoring records. • Contracts or agreements with suppliers including recruitment agencies where applicable. • Records of worker grievances or stakeholder grievances (e.g., reports of child labor being used in the mining project supply chain), and company follow-up. 	<p>Explanatory Note for 3.1.7.6: Requirement 3.1.7.6 requires a company to take steps to identify instances of <u>child labor</u> within its supply chain.</p> <p>The determination of whether or not there is a high risk of <u>child labor</u> in the supply chain should have occurred as part of the <u>operating company’s</u> human rights due diligence in IRMA Chapter 1.3. If <u>child labor</u> in the supply chain is identified as being a salient <u>human rights risk</u> during the human rights impact assessment, the company is required to carry out the remaining due diligence as per Chapter 1.3, and also the requirements in 3.1.7.6.</p> <p>If cases are of <u>child labor</u> in the supply chain are identified, the <u>operating company</u> should take steps to ensure that appropriate <u>remediation</u> occurs. Appropriate <u>remediation</u> is remediation that is consistent with requirement 3.1.7.5.</p> <p>Additionally, if the mine is operating in or sourcing minerals from a <u>conflict-affected and high-risk area</u>, <u>child labor</u> should be one of the issues assessed in the conflict risk assessment. If <u>child labor</u> is identified as a risk, the due diligence steps outlined in IRMA Chapter 3.4 apply. The due diligence steps in Chapter 3.4 are intended to align with the OECD Due Diligence Guidance on Responsible Mineral Supply Chains from Conflict-Affected and High-Risk Areas.²⁸³</p>
<p>3.1.8. Forced Labor</p> <p>3.1.8.1. (Critical Requirement) The <u>operating company</u> shall not employ</p>	<p>Auditing Note for 3.1.8: Relevant interviewees may include: <u>operating company</u> management; <u>workers’</u> representatives; <u>workers</u>; and</p>	<p>For 3.1.8.1:</p> <ul style="list-style-type: none"> • Forced labor and human trafficking prevention procedure. • Employment contracts. 	<p>Explanatory Note for 3.1.8.1: If there are instances of <u>forced labor</u>, <u>operating companies</u> shall ensure that <u>remediation</u> is followed as per IRMA Chapter 1.3, requirements 1.3.3.2. and 1.3.3.3.</p>

²⁸² The determination of whether or not there is a high risk of child labor in the supply chain should occur as part of the operating company’s human rights due diligence in Chapter 1.3. If child labor in the supply chain is identified as being a salient risk during the human rights impact assessment, the company will be required to carry out the remaining due diligence as per Chapter 1.3, and also the requirements in 3.1.7.6.

Additionally, if the mine is operating in or sourcing minerals from a conflict-affected and high-risk area, child labor should be one of the issues assessed in the conflict risk assessment. If child labor is identified as a risk, the due diligence outlined in Chapter 3.4 apply. The due diligence steps in Chapter 3.4 are intended to align with the OECD Due Diligence Guidance on Responsible Mineral Supply Chains from Conflict Affected and High Risk Areas (2016). <https://mneguidelines.oecd.org/mining.htm>

²⁸³ OECD. 2016. OECD Due Diligence Guidance on Responsible Mineral Supply Chains from Conflict Affected and High Risk Areas. (3rd Ed.). <http://www.oecd.org/daf/inv/mne/OECD-Due-Diligence-Guidance-Minerals-Edition3.pdf>

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<p><u>forced labor</u> or participate in the <u>trafficking of persons</u>.</p>	<p>stakeholders, e.g., NGOs or others that track forced labor in the region.</p> <p>For 3.1.8.1: Interview relevant <u>operating company management</u>, <u>workers</u> and <u>workers' representative(s)</u>, and other <u>stakeholders</u> if deemed necessary (e.g., NGOs) to confirm that the company does not employ <u>forced labor</u> or trafficked persons. Review hiring documentation and any agreements with labor brokers about employment conditions for supplied labor.</p> <p>Relevant questions to ask include:²⁸⁴</p> <ul style="list-style-type: none"> • Have any workers been the subject of a threat or menace of penalty? • Have workers provided consent to work freely and are they free to leave? The absence of these freedoms is the concept of involuntariness. 	<ul style="list-style-type: none"> • Payroll records showing wage deductions. • Workplace internal rules and regulations. • Accommodation rules if applicable. • Contracts with recruitment agencies if applicable. • Disciplinary procedures. • Disciplinary punishment records. • Termination records. • Records of worker grievances or stakeholder grievances (e.g., reports of forced labor being used in the mining project), and company follow-up. 	<p>According to the International Labour Organization (ILO), <u>forced labor</u> can be understood as work that is performed involuntarily and under the menace of any penalty. It refers to situations in which persons are coerced to work through the use of violence or intimidation, or by more subtle means such as manipulated debt, retention of identity papers or threats of denunciation to immigration authorities. The forced labor definition encompasses: "traditional practices of forced labour, such as vestiges of slavery or slave-like practices, and various forms of debt bondage, as well as new forms of forced labour that have emerged in recent decades, such as human trafficking."²⁸⁵</p> <p><u>Forced labor</u> can take different forms such as: restrictions on workers' freedom of movement during or after working hours, withholding of wages or identity documents, physical or sexual violence, threats and intimidation or fraudulent debt from which <u>workers</u> cannot escape.</p> <p>As explained above, the <u>trafficking of persons</u> (also referred to as human trafficking or modern slavery) can also be regarded as <u>forced labor</u>. The only exceptions to this are cases of trafficking for organ removal, forced marriage or adoption, unless the latter practices result in <u>forced labor</u>.²⁸⁶</p>
<p>3.1.8.2. Where there is a high risk of forced or trafficked labor in the mine's supply chain,²⁸⁷ the <u>operating company</u></p>	<p>For 3.1.8.2: Confirm that the company has assessed the risk of forced or trafficked labor in its supply chain. The</p>	<p>For 3.1.8.2:</p> <ul style="list-style-type: none"> • Supply chain mapping records. • Risk assessment of supply chain (this may 	<p>Explanatory Note for 3.1.8.2: This requirement requires companies to take steps to identify instances of <u>forced labor</u> or the <u>trafficking of persons</u> within their supply chain.</p>

²⁸⁴ See indicators of modern slavery and forced labor in: IFC. 2018. Good Practice Note on Managing Risks Associated with Modern Slavery. Section 1.3 "Using indicators to identify modern slavery risks." https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/publications/publications_gpn_modernslavery

²⁸⁵ International Labour Organization (ILO) website: "What is forced labour, modern slavery and human trafficking." <http://www.ilo.org/global/topics/forced-labour/definition/lang-en/index.htm>

²⁸⁶ ILO website: "Questions and answers on forced labour." http://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_181922/lang-en/index.htm

²⁸⁷ The determination of whether or not there is a high risk of forced labor in the supply chain should occur as part of the operating company's human rights due diligence in Chapter 1.3. If forced labor in the supply chain is identified as being a salient risk during the human rights impact assessment, the company will be required to carry out the remaining due diligence as per Chapter 1.3, and also the requirements in 3.1.8.2.

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<p>shall develop and implement procedures to monitor its <u>suppliers</u> to determine if <u>forced labor</u> or <u>trafficked workers</u> are being employed. If any cases are identified, the <u>operating company</u> shall ensure that appropriate steps are taken to <u>remedy</u> them. Where <u>remedy</u> is not possible, the <u>operating company</u> shall shift the project’s supply chain over time to <u>suppliers</u> that can demonstrate that they are complying with this chapter.</p>	<p>determination of whether or not there is a high risk of forced or trafficked labor in the supply chain should occur as part of the <u>operating company’s</u> human rights due diligence in IRMA Chapter 1.3. Also, through review of company documentation and interviews with <u>operating company</u> and relevant stakeholders (e.g., <u>worker</u> representatives, NGOs) and documentation, confirm that the company has procedures in place to determine if <u>forced labor</u> or <u>trafficked workers</u> are being employed by its <u>suppliers</u>; and that if cases are found, <u>remedy</u> was provided and/or the company shifted its <u>supplier</u>.</p>	<p>have been done as part of the assessment of potential human rights risks and impacts in Chapter 1.3).</p> <ul style="list-style-type: none"> • Supply chain due diligence reports. • Supplier monitoring procedures. • Supplier monitoring records. • Contracts or agreements with suppliers including recruitment agencies where applicable. • Records of worker grievances or stakeholder grievances (e.g., reports of forced labor in the supply chain), and company follow-up. 	<p>The determination of whether or not there is a high risk of <u>forced labor</u> or human trafficking in the supply chain should have occurred as part of the <u>operating company’s</u> human rights due diligence in Chapter 1.3. If <u>forced labor</u> in the supply chain is identified as being a salient <u>human rights risk</u> during the human rights impact assessment, the company is required to carry out the remaining due diligence as per Chapter 1.3, and also the requirements in 3.1.8.2.</p> <p>Additionally, if the mine is operating in or sourcing minerals from a <u>conflict-affected and high-risk area</u>, <u>forced labor</u> should be one of the issues assessed in the conflict risk assessment. If <u>forced labor</u> is identified as a risk, the due diligence outlined in Chapter 3.4 apply. The due diligence steps in Chapter 3.4 are intended to align with the OECD Due Diligence Guidance on Responsible Mineral Supply Chains from Conflict-Affected and High-Risk Areas.²⁸⁸</p> <p>The International Finance Corporation has developed guidance on modern slavery to help companies carry out an assessment of risks of forced labor in its supply chain.²⁸⁹</p>
<p>3.1.9. Wages</p> <p>3.1.9.1. The <u>operating company</u> shall pay wages to <u>workers</u> that meet or exceed the higher of applicable legal minimum wages, wages agreed through collective wage agreements, or a <u>living wage</u>.</p>	<p>Auditing Note for 3.1.9: Review <u>operating company</u> policies regarding wages, including overtime compensation, review payroll records, methods of payment, etc. Review national laws related to minimum wage (3.1.9.1), overtime (3.1.9.2) and allowance of wage deductions for disciplinary purposes (3.1.9.5). If relevant,</p>	<p>For 3.1.9.1:</p> <ul style="list-style-type: none"> • Remuneration policies and procedures. • Collective bargaining agreements. • Documentation on national minimum wage rates. • Employment contracts. 	<p>Explanatory Note for 3.1.9.1: Living wage has been defined as: “Remuneration received for a standard work week by a worker in a particular place sufficient to afford a decent standard of living for the worker and her or his family.”²⁹⁰</p> <p>Elements of a decent standard of living include food, water, housing, education, health care, transport, clothing, and other essential needs, including provision for unexpected events.</p>

Additionally, if the mine is operating in or sourcing minerals from a conflict-affected and high-risk area, forced labor should be one of the issues assessed in the conflict risk assessment. If forced labor is identified as a risk, the due diligence outlined in Chapter 3.4 apply. The due diligence steps in Chapter 3.4 are intended to align with the OECD Due Diligence Guidance on Responsible Mineral Supply Chains from Conflict Affected and High Risk Areas (2016). <https://mneguidelines.oecd.org/mining.htm>

²⁸⁸ OECD. 2016. OECD Due Diligence Guidance on Responsible Mineral Supply Chains from Conflict Affected and High Risk Areas. (3rd Ed.). <http://www.oecd.org/daf/inv/mne/OECD-Due-Diligence-Guidance-Minerals-Edition3.pdf>

²⁸⁹ IFC. 2018. Good Practice Note on Managing Risks Associated with Modern Slavery. https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/publications/publications_gpn_modernslavery

²⁹⁰ Ankar, R. and Ankar, M. 2013. A Shared Approach to Estimating Living Wages. Prepared for the Global Living Wage Coalition. https://www.globallivingwage.org/wp-content/uploads/2018/06/anker_methodology.pdf

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	<p>interview <u>workers</u> and <u>workers' representatives</u>.</p> <p>For 3.1.9.1: Confirm that the <u>operating company</u> is abiding by minimum-wage-related provisions in national law, and, if relevant, wage provisions outlined in collective bargaining agreements.</p> <p>If relevant (e.g., if there are questions raised by <u>workers</u> or as a result of the auditor's best judgment) that living wages are not being paid for all <u>workers</u>, discuss with <u>operating company</u> management how it determined <u>living wage</u> rates, and review any wage studies and calculations conducted or commissioned by the company. Interview <u>workers</u> to determine if wages are sufficient to afford a decent standard of living for the <u>worker</u> and her or his family.</p>	<ul style="list-style-type: none"> • Payroll records. • Pay rates. • Records of worker grievances or stakeholder grievances (e.g., reports that a living wage is not being paid at the mining project), and company follow-up. 	
<p>3.1.9.2. Overtime hours shall be paid at a rate defined in a collective bargaining agreement or national law, and if neither exists, at a rate above the regular hourly wage.</p>	<p>For 3.1.9.2: Confirm that the <u>operating company</u> is abiding by overtime wage-related provisions in collective bargaining agreements.</p>	<p>For 3.1.9.2:</p> <ul style="list-style-type: none"> • Documentation on national overtime wage rates. • Collective Bargaining Agreement. • Payroll records. • Employment contracts. • Remuneration policies and procedures. 	
<p>3.1.9.3. All <u>workers</u> shall be provided with written and understandable information about wages (overtime rates,</p>	<p>For 3.1.9.3: Confirm through review of pay stubs or other documents, and/or interviews with <u>workers' representatives</u></p>	<p>For 3.1.9.3:</p> <ul style="list-style-type: none"> • Pay slips. 	<p>Explanatory Note for 3.1.9.3: Companies are expected to provide all <u>workers</u> with information that is understandable to them. There may be <u>workers</u> of different ethnicities who speak different languages, and</p>

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<p>benefits, deductions and bonuses) before they enter employment, and for the pay period each time they are paid.</p>	<p>and <u>workers</u>, that <u>workers</u> were provided with information on payment of wages prior to employment, and that each wage payment is accompanied by an explanation of overtime rates, benefits, deductions and bonuses, as applicable for that pay period).</p>	<ul style="list-style-type: none"> • Remuneration policies and procedures. • Employment contracts. 	<p>some <u>workers</u> may not be literate. Companies need to ensure that relevant information is conveyed to <u>workers</u> in a manner that they understand.</p> <p>According to the International Finance Corporation (IFC):</p> <p>"The working conditions and terms of employment should be communicated to the workers orally or in writing. Oral communication may be appropriate for simple short-term jobs or where workers are illiterate. In other cases, clients should provide documentation of the working conditions and terms of employment. Where there is a collective agreement that applies to the workers, this should be communicated to them as well. . . Documentation should be clear, easily understandable, and accurate. The extent of documentation can be appropriate to the length and nature of the employment relationship. For example, a simple public notice of the job to be done, the number of hours, pay, and other key terms and working conditions may be adequate for seasonal workers (with copies available on request), while for longer-term employment, material terms of the employment relationship should be documented. In some countries, individual contracts are a legal requirement."²⁹¹</p>
<p>3.1.9.4. The <u>operating company</u> shall pay wages in a manner that is reasonable for <u>workers</u> (e.g., bank transfer, cash or check).</p>	<p>For 3.1.9.4: Confirm, through interviews <u>workers</u> and <u>workers' representatives</u>, that wages are paid in a manner that is reasonable for them (i.e., the form of payments allows the <u>worker</u> to obtain cash in an easy and timely manner).</p>	<p>For 3.1.9.4:</p> <ul style="list-style-type: none"> • Payroll records. • Employment contracts. • Documentary evidence of payment to employees through bank transfer, cash or check. 	<p>Explanatory Note for 3.1.9.4: According to guidance from the Responsible Jewellery Council (RJC):</p> <p>"In addition to wage levels, it is important that workers receive their payments regularly in order to meet their domestic needs. The frequency of payments – weekly, fortnightly or monthly, for example – should be pre-determined and respected. Wages should be paid either as a bank transfer, in cash or as a cheque, as agreed with workers. It is usually a legal requirement for employers to provide clear information to workers on how their wages are calculated and keep certain time, wage and leave records. . . Regular wage slips should be provided to</p>

²⁹¹ International Finance Corporation (IFC). 2012. Performance Standard 2: Labor and Working Conditions. Guidance Note. GN16 and GN17. https://www.ifc.org/wps/wcm/connect/0d7a4480498007faa1f7f3336b93d75f/Updated_GN2-2012.pdf?MOD=AJPERES

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.1.9.5. The operating company shall ensure that deductions from wages are not made for disciplinary purposes unless one of the following conditions exist:</p> <p>a. Deductions from wages for disciplinary purposes are permitted by national law, and the law guarantees the procedural fairness of the disciplinary action; or</p> <p>b. Deductions from wages for disciplinary purposes are permitted in a freely negotiated collective bargaining agreement or arbitration award.</p>	<p>For 3.1.9.5: Confirm that deductions for disciplinary purposes are not made for disciplinary purposes unless permitted by law or collective agreements with due process.</p> <p>Confirm with workers' representatives that the collective bargaining agreement was not negotiated as a result of coercion, intimidation or duress.</p>	<p>For 3.1.9.5:</p> <ul style="list-style-type: none"> • Payroll records. • Disciplinary procedures. • Documentation of national laws, if there are any applicable to this requirement. • Collective bargaining agreements. 	<p>workers that clearly show the rates of pay, any benefits paid, and any applicable deductions."²⁹²</p> <p>Explanatory Note for 3.1.9.5: According to the International Labour Organization (ILO), international labour standards are silent on the issue of whether it is permissible to make disciplinary deductions from wages. The ILO's Committee of Experts on the Application of Conventions and Recommendations (CEACR) has noted that in many countries the imposition of disciplinary penalties by way of wage deductions is formally prohibited. In countries that authorize disciplinary deductions from wages, the national legislation also contains provisions guaranteeing the procedural fairness of the disciplinary action such as requiring written notification of the worker or recognizing the right to lodge an appeal.²⁹³</p> <p>The CEACR also has noted that the labour standards concerning protection of wages establish three main principles:</p> <p>Deductions of any type, to be lawful, need an appropriate legal basis— national laws or regulations, collective agreements or arbitration awards; individual agreement is not sufficient. All authorized deductions must be limited so that the net amount of wages received by workers should in all cases be sufficient to ensure a decent living income for themselves and their families.</p> <p>All relevant information regarding the grounds on which and the extent to which wages may be subject to deductions must be communicated in advance to the workers concerned so as to avoid any unexpected decrease in their remuneration which would compromise their ability to support themselves and their household. The preferable means is appropriate references in their contracts of employment or the</p>

²⁹² Responsible Jewellery Council (RJC). 2013. Standards Guidance. p. 83. https://www.responsiblejewellery.com/files/RJC_Standards_Guidance_2013_eng.pdf

²⁹³ International Labour Organization (ILO) website: "Q&As on Business, Wages and Benefits." http://www.ilo.org/empent/areas/business-helpdesk/faqs/WCMS_DOC_ENT_HLP_WAG_FAQ_EN/lang-en/index.htm#Q6

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.1.10. Working Hours and Leave</p> <p>3.1.10.1. The <u>operating company</u> shall ensure that:</p> <ol style="list-style-type: none"> a. Regular working hours do not exceed eight hours per day, or 48 per week. Where <u>workers</u> are employed in shifts the 8-hour day and 48-hour week may be exceeded, provided that the average number of regular hours worked over a 3-week period does not exceed 8 hours per day and 48 hours per week; b. <u>Workers</u> are provided with at least 24 consecutive hours off in every 7-day period; and c. Overtime is consensual and limited to 12 hours a week. d. Exceptions to 3.1.10.1.b and c shall be allowed at mines in remote locations if: <ol style="list-style-type: none"> i. A freely negotiated collective bargaining agreement is in force that allows variances to the rest 	<p>Auditing Note for 3.1.10: Relevant interviewees for this criterion include: relevant <u>operating company management</u>; <u>workers’ representatives</u>; and <u>workers</u>.</p> <p>For 3.1.10.1: Confirm through interviews and documentation review that working hours meet the requirements.</p> <p>If working hours exceed requirements, confirm that a collective bargaining agreement allows for the extended working hours, or that a risk management process has been carried out to minimize health and safety impacts associated with extended working hours. Confirm with <u>workers’ representatives</u> that the collective bargaining agreement was not negotiated as a result of coercion, intimidation or duress.</p>	<p>For 3.1.10.1:</p> <ul style="list-style-type: none"> • Collective bargaining agreement. • Time records. • Working hour policy. • Employment contracts. • Working hour schedule. 	<p>permanent display of the relevant laws, regulations and internal regulations at the workplace, and in any event by means which ensure that <u>workers</u> have advance notice of the nature and extent of all possible deductions, and are aware of their rights concerning procedural safeguards set out in national law.²⁹⁴</p> <p>Explanatory Note for 3.1.10.1: This requirement also applies to contractors as per Chapter 1.1.</p> <p>Re 3.1.10.1.d, exceptions only apply at mines in remote locations. At all other mines, exceptions are not allowed.</p>

²⁹⁴ International Labour Organization (ILO) website: "Q&As on Business, Wages and Benefits." http://www.ilo.org/empent/areas/business-helpdesk/faqs/WCMS_DOC_ENT_HLP_WAG_FAQ_EN/lang--en/index.htm#Q6

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>and/or overtime hours above; and</p> <p>ii. Through <u>consultations</u> with <u>workers' representatives</u>, a risk management process that includes a risk assessment for extended working hours is established to minimize the impact of longer working hours on the health, safety and welfare of <u>workers</u>.</p> <p>3.1.10.2. Where neither national law nor a collective bargaining agreement includes provisions for <u>worker leave</u>, the <u>operating company</u> shall, at minimum, provide:</p> <p>a. An annual paid holiday of at least three working weeks per year, after achieving one year of service;²⁹⁵ and</p> <p>b. A maternity leave period of no less than 14 weeks.</p>	<p>For 3.1.10.2: Determine if national law or collective bargaining agreements have leave provisions. Through interviews and documentation review, confirm that the <u>operating company</u> adheres to those provisions or, if relevant, the leave requirements outlined in 3.1.10.2.a and b.</p>	<p>For 3.1.10.2:</p> <ul style="list-style-type: none"> • Leave policy. • Employment contracts. • Documentation of relevant national law. • Collective bargaining agreements where applicable. • Payroll records. 	<p>Explanatory Note for 3.1.10.2: A <u>worker</u> whose length of service in any year is less than that required for the full entitlement shall be entitled in respect of that year to a holiday with pay proportionate to his or her length of service during that year. (This is based on ILO Convention 132.²⁹⁶)</p>

NOTES

This chapter uses, as its basis, the International Finance Corporation's (IFC) Performance Standard 2 (PS 2) Labor and Working Conditions. In addition to aligning with IFC performance standard requirements, this chapter contains two other criteria related to Wages (3.1.10) and Working Hours and Leave (3.1.11), which contain requirements that are based, in part, on ILO conventions. Where IFC or ILO concepts have been integrated into IRMA criteria, they are referenced in IRMA explanatory notes.

²⁹⁵ A worker whose length of service in any year is less than that required for the full entitlement shall be entitled in respect of that year to a holiday with pay proportionate to his or her length of service during that year. (Based on ILO C132 – Holidays with Pay Convention (Revised), 1970 (No. 132). http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100::NO:12100:P12100_ILO_CODE:C132:NO)

²⁹⁶ International Labour Organization (ILO). 1970. Holidays with Pay Convention (Revised), 1970 (No. 132). http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100::NO:12100:P12100_ILO_CODE:C132:NO

Cross References to Other Chapters	
CHAPTER	ISSUES
1.1—Legal Compliance	<p>As per Chapter 1.1, if <u>host country laws</u> are more protective of <u>workers’ rights</u> or provide more favorable terms of work, those requirements shall supersede IRMA requirements (i.e., companies are required, at minimum to follow <u>host country law</u>). But if IRMA requirements are more stringent than <u>host country law</u>, the company is required to also meet the IRMA requirements, as long as complying with them would not require the company to violate <u>host country law</u>.</p> <p>Also, the <u>operating company</u> is responsible for ensuring that its <u>contractors</u> and subcontractors involved in <u>mining-related activities</u> comply with the requirements of this chapter of the IRMA Standard, i.e., <u>contract workers</u> and any other workers who provide project-related work and services should be apprised of labor rights and provided fair terms of work.</p> <p>In particular, Chapter 3.1 requires companies to take steps to identify instances of <u>child labor</u> and <u>forced labor</u> within their primary supply chain. This should also apply to <u>contractors</u> and subcontractors as per 1.1.5.1. Similarly, if <u>contractors place worker health and safety at risk</u>, procedures and mitigation measures will be taken to <u>remedy</u> this.</p>
1.2—Community and Stakeholder Engagement	<p><u>Workers</u> are <u>stakeholders</u>, and also often members of the <u>affected communities</u>. As such, the engagement process with <u>workers</u> on issues related to <u>affected communities</u> should align with the requirements in Chapter 1.2.</p>
1.3—Human Rights Due Diligence	<p>The <u>grievance mechanism</u> in Chapter 1.3 may also be used by <u>workers</u> seeking <u>remedy</u> for perceived infringements of their human rights (e.g., core labor rights are considered human rights).</p> <p>Also, if there are instances of <u>child labor</u> or <u>forced labor</u> at the mine, both of which are considered infringements of human rights, companies shall ensure that the remedy section of Chapter 1.3 is followed (see requirement 1.3.3). The risks that <u>child labor</u> or <u>forced labor</u> might occur at the mine or in its supply chain should be assessed as part of the human rights assessment in Chapter 1.3.</p>
1.4—Complaints and Grievance Mechanism and Access to Remedy	<p>There is potential overlap with Chapter 1.4. It is possible that one <u>grievance mechanism</u> may be suitable to address <u>grievances</u> raised in relation to the <u>mining project</u> from all <u>stakeholders</u> including <u>workers</u>,²⁹⁷ however, typically labor <u>grievances</u> are dealt with through a separate mechanism established through collective bargaining agreements or human resources policies.²⁹⁸ If <u>worker-specific grievance mechanisms</u> are developed, they need to be consistent with the effectiveness criteria in Chapter 1.4.</p>
3.2—Occupational Health and Safety	<p>Although there are some requirements in this chapter that have a health and safety aspect (such as <u>child labor</u> and working hours), <u>worker-related issues</u> related to occupational health and safety issues are specifically covered in Chapter 3.2.</p> <p>Compensation for work-related injuries are also addressed in Chapter 3.2 (requirement 3.2.3.5).</p> <p>The <u>grievance mechanism</u> in 3.1.5 may be used to hear worker’s OH&S-related grievances.</p>
3.3—Community Health and Safety	<p>Requirement 3.1.3.1 mandates fair treatment in employment relationships, and prohibits <u>operating companies</u> from making discriminatory employment decisions on the basis of personal characteristics unrelated to inherent job requirements, such as HIV/AIDs status, which is also addressed in Chapter 3.3 (see requirement 3.3.4.2).</p>

²⁹⁷ The OHCHR has elaborated that, “As discussed in the context of Guiding Principle 22, it is fairly usual to have separate grievance mechanisms for direct employees and for external affected stakeholders, though it is not always necessary to separate the two. (UN Office of the High Commissioner for Human Rights. 2012. The Corporate Responsibility to Respect Human Rights: An Interpretive Guide. pp. 69, 70. www.ohchr.org/Documents/Publications/HR.PUB.12.2_En.pdf)

²⁹⁸ IFC. 2009. Good Practice Note: Addressing Grievances from Project-Affected Communities. p. 21. www.ifc.org/wps/wcm/connect/cbe7b18048855348ae6cfe6a6515bb18/IFC+Grievance+Mechanisms.pdf?MOD=AJPERES&CACHEID=cbe7b18048855348ae6cfe6a6515bb18

Cross References to Other Chapters	
3.4—Mining and Conflict Affected Areas	Incidents of <u>child labor</u> or <u>forced labor</u> are addressed in Chapter 3.1. However, if the mine is in a conflict-affected or high-risk area the potential for <u>child labor</u> and <u>forced labor</u> should be considered during the <u>conflict risk assessment</u> in Chapter 3.4.

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the [Glossary of Terms](#) at the end of the IRMA Standard document.

Child Labor

Work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development.

Company Union

A workers' organization that is dominated or controlled by an employer.

Consultation

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. In principle the company should take into account the concerns and views expressed by stakeholders in the final decision.

Contractor

An individual, company, or other legal entity that carries out duties related to a mining project that are subject to a contractual agreement that defines, for example, work, duties or services, pay, hours or timing, duration of agreement, and that remains independent for employment, tax, and other regulatory purposes. This includes sub-contractors.

Corporate Owner

The corporation(s) or other business institution(s) including any private or state-run enterprises that have complete or partial financial interest in or ownership of a mining project.

Forced Labor

Any work or service not voluntarily performed that is exacted or coerced from an individual under threat of force or penalty. This covers any kind of involuntary or compulsory labor, such as indentured labor, bonded labor or similar labor-contracting arrangements required to pay off a debt; or slavery or slavery-like practices. It also includes requirements of excessive monetary deposits, excessive limitations on freedom of movement, excessive notice periods, substantial or inappropriate fines, and loss or delay of wages that prevent workers from voluntarily ending employment within their legal rights.

Grievance

A perceived injustice evoking an individual's or a group's sense of entitlement, which may be based on law, contract, explicit or implicit promises, customary practice, or general notions of fairness of aggrieved communities. For the purposes of the IRMA Standard, the words grievances and complaints will be used interchangeably.

Grievance Mechanism

Any routinized, State-based or non-State-based, judicial or non-judicial process through which complaints or grievances, including business-related human rights abuses, stakeholder complaints and/or labor grievances, can be raised and remedy can be sought.

Hazardous Work (in relation to child labor)

Work that, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children.

Indigenous Peoples

A modern and inclusive understanding of “indigenous” includes peoples who: identify themselves and are recognized and accepted by their community as indigenous; demonstrate historical continuity with pre-colonial and/or pre-settler societies; have strong links to territories and surrounding natural resources; have distinct social, economic or political systems; maintain distinct languages, cultures and beliefs; form non-dominant groups of society; and resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities. In some regions there may be a preference to use other terms such as: tribes, first people, First Nations, aboriginal peoples, ethnic groups, Adivasi and Janajati. All such terms fall within this modern understanding of “indigenous.”

Living Wage

Remuneration received for a standard work week by a worker in a particular place sufficient to afford a decent Standard of living for the worker and her or his family. Elements of a decent standard of living include food, water, housing, education, health care, transport, clothing, and other essential needs including provision for unexpected events.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mining-Related Activities

Physical activities (e.g., land disturbance and clearing, road building, sampling, airborne surveys, facility construction, ore removal, ore processing, waste management, reclamation, etc.) carried out during any phase of the mine life cycle (planning, impact assessment, exploration, mine construction, mining, mine closure, post-closure).

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Remediation/Remedy

Remediation and remedy refer to both the processes of providing remedy for an adverse (human rights) impact and the substantive outcomes that can counteract, or make good, the adverse impact. These outcomes may take a range of forms, such as apologies, restitution, rehabilitation, financial or non-financial compensation, and punitive sanctions (whether criminal or administrative, such as fines), as well as the prevention of further harm through, for example, injunctions or guarantees of non-repetition.

Retrenchment

The elimination of a number of work positions or the dismissal or layoff of a number of workers by an employer, generally by reason of plant closing or for cost savings. Retrenchment does not cover isolated cases of termination of employment for cause or voluntary departure. Retrenchment is often a consequence of adverse economic circumstances or as a result of a reorganization or restructuring.

Stakeholders

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Suppliers

Those who are provide goods, services and materials to the project.

Trafficking in Persons

The recruitment, transportation, transfer, harboring or receipt of a person by means of the threat or use of force or other means of coercion, or by abduction, fraud, deception, abuse of power or of a position of vulnerability, or by the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation includes, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs. Women and children are particularly vulnerable to trafficking practices.

Worker

All non-management personnel.

Workers’ Organizations

Typically called trade unions or labor unions, these organizations are voluntary associations of workers organized on a continuing basis for the purpose of maintaining and improving their terms of employment and workplace conditions.

Workers’ Representative

A worker chosen to facilitate communication with senior management on matters related to working conditions, occupational health and safety or other workers’ concerns. This is undertaken by the recognized trade union(s) in unionized facilities and, elsewhere, by a worker elected by non-management personnel for that purpose.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



Chapter 3.2—Occupational Health and Safety

BACKGROUND

Occupational health impacts related to the mining industry may include physical injuries; musculoskeletal disorders; noise-induced hearing loss; hand-arm vibration syndrome; skin cancer; dermatitis; heat exhaustion; hypothermia; eye disorders related to radiation exposure; asphyxiation; pneumonia; respiratory disorders and lung diseases such as silicosis; damage to internal organs and other effects related to chemical/metal exposures; decreased mental health and wellbeing; and others.²⁹⁹

Key hazards related to mining include, but are not limited to: rocks falls, ground subsidence, vehicle collisions with other vehicles, equipment, humans or wildlife, explosions, release of noxious gases, catastrophic failure of mine infrastructure.³⁰⁰

Due to the many hazards and potential impacts associated with mining, a strong focus on occupational health and safety must be present at responsible mines such as robust health and safety management systems that include participation by workers or their representatives.

In 1995, the International Labour Organization (ILO) adopted *Convention 176—Safety and Health in Mines*.³⁰¹ This convention set out international standards with respect to mine-related safety and health inspections, accident reporting, investigation, training, hazard assessment and management, and workers’ rights to participate in workplace health and safety decisions, be adequately trained in their tasks, be informed of occupational hazards, and remove themselves from dangerous workplace situations.

OBJECTIVES/INTENT OF THIS CHAPTER

To identify and avoid or mitigate occupational health and safety hazards; maintain working environments that protect workers’ health and working capacity; and promote workplace safety and health.

SCOPE OF APPLICATION

Chapter Relevance: This chapter is relevant for all mines assessed under IRMA; however, requirements 3.2.1.5.d and e, and 3.2.3.2.c are only applicable for underground mining operations.

CRITICAL REQUIREMENTS IN THIS CHAPTER

Workers are informed of the hazards associated with their work, the health risks involved and relevant preventive and protective measures (3.2.4.1.a and b).

TERMS USED IN THIS CHAPTER

Affected Community ■ Associated Facility ■ Biological Exposure Indices (BEI) ■ Competent Authority ■ Competent Professionals ■ Comprehensible Manner ■ Consultation ■ Contractor ■ Corporate Owner ■ Grievance ■ Hazard ■ Health Surveillance ■ Inform ■ Mining Project ■ Mining-Related Activities ■ Occupational Exposure Limit (OEL) ■ Operating Company ■ Stakeholder ■ Supplier ■ Training ■ Worker ■ Workers’ Representative ■

These terms appear in the text with a dashed underline and

²⁹⁹ ICMM. 2009. Good Practice Guidance on Occupational Health Risk Assessment. www.icmm.com/document/629

³⁰⁰ ICMM website: “Preventing Fatalities.” <https://www.icmm.com/en-gb/health-and-safety/safety/preventing-fatalities>

³⁰¹ International Labour Organization. See “C176 - Safety and Health in Mines Convention, 1995 (No. 176)” www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_ILO_CODE:C176

Occupational Health and Safety Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.2.1. Health and Safety Management System</p> <p>3.2.1.1. The operating company shall implement a health and safety management system for measuring and improving the mining project's health and safety performance.</p>	<p>Auditing Note for Chapter 3.2: Throughout this chapter verification relies heavily on interviews with operating company management personnel that have occupational health and safety (OHS) responsibilities (referred to simply as "operating company OHS personnel"), as well as workers and worker health and safety (H&S) representatives. Auditors shall be able to interview workers and their H&S representatives without management present. Verification will also involve first-hand observations of the workplace and review of company documentation by auditors.</p> <p>For 3.2.1.1: Review documentation and interview company employees with OHS responsibilities to confirm that there is a health and safety management system in place that enables measurement of health and</p>	<p>For 3.2.1.1:</p> <ul style="list-style-type: none"> • Documented policies regarding occupational health and safety (OH&S) in its organization. • Procedures for maintaining OH&S. • List of assigned OH&S roles within the company / mine site. • Records of OH&S trainings provided to all employees, and specialist trainings for employees who have additional OH&S roles and responsibilities. • Evidence of testing or other means of establishing the competence of all employees to carry out their specific OH&S roles and responsibilities. • List of organizations, legislation and stakeholders involved in consultation of the mine's OH&S management system in the last 12 months. • Evidence of OH&S assessments that are relevant for the mine's current activities of operation. 	<p>Explanatory Note for 3.2.1.1: According to the Government of Western Australia Department of Mines, Industry Regulation and Safety, "A safety management system (SMS) for a mine is a tool that assists mine operators to systematically achieve and maintain standards for managing safety and health. It brings together the policies and procedures required to effectively mitigate (i.e. lessen the severity) the risks associated with the mining operations. . . to both meet the minimum regulatory requirements and lead to sustained improvement in safety and risk management performance."³⁰²</p> <p>For more information on suggested components of a health and safety management system see Government of Western Australia website "What is a safety management system?" and other resources.³⁰³</p> <p>At minimum, a health and safety management system should consist of:</p> <p>A health and safety policy that sets the goals of the organization to uphold occupational health and safety (OH&S), owning responsibility for its duty of care, which should be enshrined in the responsibility of both management and workers, as well as through a commitment to provide the resources required to carry out these responsibilities. The policy should involve participation and commitment from all employees and be clear in its intent and interpretation.</p> <p>A health and safety management plan (with procedures, specifications and guidance documents) that defines the requirements of the system;</p>

³⁰² Government of Western Australia Department of Mines, Industry Regulation and Safety, website. "What is safety management system?" <http://www.dmp.wa.gov.au/Safety/What-is-a-safety-management-4598.aspx>

³⁰³ Ibid. and International Mining for Development Centre. 2012. The Management of Occupational Health and Safety in the Australian Mining Industry. https://im4dc.org/wp-content/uploads/2012/01/UWA_1698_Paper-03.pdf

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
	<p>safety performance and continual improvement.</p> <p>Confirm that the company has established metrics or indicators for measuring the effectiveness of its OH&S performance (e.g., accident rates, health statistics, training sessions attended by workers, regular inspections and maintenance of equipment, etc.). Confirm that performance is tracked, and results are used to improve the system.</p>	<ul style="list-style-type: none"> • A list of all OH&S operational controls, whether active or passive, that are in place at the mine. • A list of metrics used to monitor OH&S performance. • The findings of the last review of the OH&S management system, which should at least have been conducted in the last 12 months. • A list of changes made in response to the OH&S management system review in line with findings. 	<p>performance criteria; persons responsible; timescales for implementation and review; and desired outcome. The plan and procedures should ensure that: all significant OH&S hazards are identified, and their risk mitigated by undertaking risk assessment and management; all legal requirements are met; and the organization’s specific H&S objectives are conformed with and employees participate in the organization’s H&S programs.</p> <p>Implementation of the system in line with planning that: Clearly assigns and communicates the specific roles, responsibilities and lines of reporting of each individual and holds those individuals to account for discharging their responsibilities; Ensures all personnel are competent to carry out their designated function; Promotes continual review of the OH&S plan through consultation and conversation; Ensures up-to date and relevant documentation relating to the OH&S management system; Demonstrates management of significant risks through operational controls.</p> <p>Monitoring of OH&S performance using defined procedures to actively scrutinize compliance with the OH&S management system, and reactively reporting and investigating incidents and accidents to identify their root cause.</p> <ul style="list-style-type: none"> • Review of OH&S performance and making changes to the OH&S management system in line with findings, taking immediate corrective actions in line with the changes.
<p>3.2.2. Health and Safety Risk Assessment and Management</p> <p>3.2.2.1. The operating company shall implement an ongoing, systematic health and safety risk assessment process that follows a recognized risk</p>	<p>For 3.2.2.1 and 3.2.2.2: Confirm, through interviews and document review, that the operating company has systems in place for the ongoing and systematic assessment of health and safety risks. Relevant documents may include:</p> <ul style="list-style-type: none"> • Hazard identification analyses and 	<p>For 3.2.2.1:</p> <ul style="list-style-type: none"> • Documented risk assessments and methodologies that identify hazards at a mine level and task level, including baseline assessments and continuous (updated) assessments over the life of the mine. 	<p>Explanatory Note for 3.2.2.1: An ongoing, systematic health and safety risk assessment process should include the following elements:</p> <p>A process to identify potentially hazards</p> <p>A system to quantify the criticality of the risk associated with development and release of a hazard.</p> <p>A control framework to identify mitigation measures following the hierarchy of control for all those significant hazards. It assigns each control an owner, who is accountable for the way that they manage that control.</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
assessment methodology for industrial operations. ³⁰⁴	<p>records</p> <ul style="list-style-type: none"> • Risk assessment documents, including any baseline analyses • Company health and safety policies and procedures 		<p>Measures to detect early development of potentially hazardous events and monitoring to check the status of <u>hazard</u> development or <u>control</u>. A <u>control</u> effectiveness rating system to verify that risk is reduced to within a safe threshold, and alternative measures are taken where the initial <u>control</u> is ineffective.</p> <p>According to CDC (2008), examples of recognized risk assessment methodologies include, but are not restricted to:³⁰⁵</p> <p>Workplace Risk Assessment & Control (WRAC) Job Safety Analysis (JSA) Failure Modes, Effects and Critical Analysis (FMEA) Process deviations analysis (such as HAZOP) Fault / Logic Tree Analysis Event Tree Analysis Bow Tie Analysis SLAM (Stop, Look, Assess, Manage) Risk Inventory and Evaluation (RI&E) Health Risk Assessment (see, e.g., ICMM, 2016³⁰⁶)</p> <p>Different risk assessment methodologies are applicable at different levels and different phases in a <u>mining project's</u> life cycle. An appropriate methodology should be selected for <u>baseline</u> assessments, issue-based assessments and continuous assessments.</p>
3.2.2.2. The assessment process shall identify and assess the significance/consequence of the full	<p>For 3.2.2.1 and 3.2.2.2: Confirm, through interviews and document review, that the <u>operating company</u></p>	<p>For 3.2.2.2:</p> <ul style="list-style-type: none"> • Documented risk assessments and methodologies that identify hazards at a 	<p>Explanatory Note for 3.2.2.2: As per 3.2.2.5, below, the assessment should include identification of key hazards related to:</p>

³⁰⁴ For example, the risk assessment methodologies found in: Risk Assessment - Recommended Practices for Municipalities and Industry prepared by the Risk Assessment Expert Committee of the former Major Industrial Accidents Council of Canada; the process outlined in ICMM's Good Practice Guidance on Occupational Health Risk Assessment. p. 16; or other similar methodologies.

³⁰⁵ Centers for Disease Control and Prevention (CDC). 2008. The Application of Major Hazard Risk Assessment (MHRA) to Eliminate Multiple Fatality Occurrences in the U.S. Minerals Industry. IC9508 Information Circular. <https://www.cdc.gov/niosh/mining/userfiles/works/pdfs/2009-104.pdf>

³⁰⁶ International Council on Mining and Metals (ICMM). 2016. Good Practice Guidance on Occupational Health Risk Assessment. 2nd Ed. https://www.icmm.com/website/publications/pdfs/health-and-safety/161212_health-and-safety_health-risk-assessment_2nd-edition.pdf

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<p>range of potential <u>hazards</u> associated with the <u>mining project</u>, including those related to:</p> <p>a. The design, construction and operation of the workplace, <u>mining-related activities</u> and processes, the physical stability of working areas, the organization of work, use of equipment and machinery, and waste and chemical management;³⁰⁷</p> <p>b. All personnel, <u>contractors</u>, business partners, <u>suppliers</u> and visitors;</p> <p>c. Unwanted events;³⁰⁸</p> <p>d. Routine and non-routine activities, products, procedures, and services; and</p> <p>e. Changes in duration, personnel, organization, processes, facilities, equipment, procedures, laws, standards, materials, products systems and services.</p>	<p>has systems in place for the ongoing and systematic assessment of health and safety risks.</p> <p>Review documentation to confirm that the assessment is comprehensive and covers the range of issues listed in 3.2.2.2.</p>	<p>mine level and task level.</p> <ul style="list-style-type: none"> • Baseline health and safety risk assessment. • Continuous (updated) health and safety risk assessments over the life of the mine. • Documentation of risk assessment methodologies, specifications and procedures. • Risk assessment guidance documents for relevant personnel. • Documentation of changes or updates made to specifications and guidance documents. 	<p><u>Mining-related activities</u> and processes; Ground stabilization in working areas; Equipment and machinery operation, maintenance and repair; Waste and chemical management.</p> <p>Some issues related to health and safety of workers are assessed in other chapters, and if relevant, this information should be integrated into the health and safety risk assessment in this chapter:</p> <p><u>Workers</u> have the right to health, and so during the human rights assessment in IRMA Chapter 1.3, companies should include an assessment the potential that employees may be exposed to unacceptable health impacts.</p> <p>IRMA Chapter 3.3 shares similar objectives to Chapter 3.2 of protecting the health and safety of <u>affected communities</u>, of which <u>workers</u> are members. The community health and safety risk and impact assessment process includes collaboration with workers as per requirement 3.3.5.1. Also, Criteria 3.3.4 has requirements that pertain to <u>workers/employees</u> that are triggered if there are significant risks to workers/communities related to HIV/AIDS, TB or malaria.</p> <p>There may be particular risks to <u>workers</u> when projects are located in <u>conflict-affected or high-risk areas</u>. These risks may include potential impacts on health or safety, as well as risks to human rights. The conflict risk assessment in Chapter 3.4 should evaluate such risks to workers, and any relevant information should be integrated in the H&S assessment process (or vice versa).</p> <p>As per IRMA Chapter 3.5, there may be risks to workers related to mine security arrangements. These risks may include potential impacts on health or safety, as well as risks to human rights. The security risk assessment in Chapter 3.5 should evaluate such risks to <u>workers</u>, and any</p>

³⁰⁷ See also IRMA Chapter 4.1, requirement 4.1.2.1, which requires the identification of all materials, substances, such as chemicals, and wastes (other than mine wastes) associated with the mining project that have the potential to cause impacts on human health, safety, the environment or communities; and also requirement 4.1.3.1, which requires the identification of chemical and physical risks associated with mine waste materials (e.g., tailings, waste rock, spent ore from heap leaches, and residues and fluid wastes from mineral processing).

³⁰⁸ An unwanted event is a situation where a hazard has or could possibly be released in an unplanned way. (ICMM. 2015. Health and Safety Critical Control Management Good Practice Guide)

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			<p>relevant information should be integrated in the H&S assessment process (or vice versa).</p> <p>Re: “waste and chemical management” in 3.2.2.2.a, see also IRMA Chapter 4.1, requirement 4.1.2.1, which requires the identification of all materials, substances, such as chemicals, and wastes (other than mine wastes) associated with the <u>mining project</u> that have the potential to cause impacts on human health, safety, the environment or communities; and also requirement 4.1.3.1, which requires the identification of chemical and physical risks associated with <u>mine waste facilities</u> and materials (e.g., <u>tailings</u>, <u>waste rock</u>, spent ore from heap leaches, and residues and fluid wastes from mineral processing).</p> <p>Re: 3.2.2.1.c, assessment of significance or consequence should result in a description of the final impact (or maximum foreseeable loss) that could occur from a material unwanted event.</p> <p>An "unwanted event" is a situation where a hazard has or could possibly be released in an unplanned way.</p> <p>A "material unwanted event" is an unwanted event where the potential or real consequence meets a threshold defined by the company as warranting the highest level of attention.³⁰⁹</p> <p>Assessment procedures should be put in place to ensure that:</p> <p>Unwanted events are anticipated; Risk assessments cover the scope of activities that a group of persons may undertake, both routine and non-routine; Consideration is given to the experience and familiarity of personnel, contractors, business partners, suppliers and visitors with the workplace and activities undertaken.</p> <p>Re: 3.2.2.2.e, specifications and guidance documents should be periodically renewed to adapt to:</p>

³⁰⁹ ICMM. 2015. Health and Safety Critical Control Management Good Practice Guide). p. 5. <https://www.icmm.com/website/publications/pdfs/health-and-safety/8570.pdf>

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<p>3.2.2.3. The <u>operating company</u> shall pay particular attention to identifying and assessing <u>hazards to workers</u> who may be especially susceptible or vulnerable to particular <u>hazards</u>.</p>	<p>For 3.2.2.3: Confirm that the evaluation of risks included particular attention to vulnerable or susceptible <u>workers</u>.</p>	<p>For 3.2.2.3:</p> <ul style="list-style-type: none"> • Documentation of added risks that persons with specific limitations may experience in relation to particular hazards. • List of activities that people with specific limitations or vulnerabilities should not carry out, and locations that people with specific limitations should not enter due to the heightened risk. 	<p>New stages of design, construction and operation; Changes in processes and procedures; Changes in facilities and equipment; Changes in laws and compliance standards; Change in materials and product-service systems.</p> <p>As per IRMA Chapter 1.1, the <u>operating company</u> is responsible for ensuring that <u>contractors</u> (and subcontractors) involved in <u>mining-related activities</u> comply with the occupational health and safety requirements of the IRMA Standard, i.e., <u>contract workers</u> and any other <u>workers</u> who provide project-related work and services should be afforded a safe and healthful work environment.</p> <p>Explanatory Note for 3.2.2.3: Note that there are some requirements in Chapter 3.1 that share the objective of protecting the health and safety of all <u>workers</u>, including <u>vulnerable workers</u> (such as those relating to harassment in 3.1.3.3, <u>child labor</u> in 3.1.7, and working hours in 3.1.9).</p> <p>Vulnerable workers would be those who have one or more specific characteristics that may make them more susceptible to health or safety impacts (e.g., in some cases workers with disabilities, HIV/AIDS or other disease or health impairments, young, older or female workers may be more susceptible to certain health-related impacts, etc.). For example, there may be a greater potential for health or safety impacts if workers have a limited range or reach of movement or stability, speed of movement, height, sensory responses, or lifting strength. Also, some <u>workers</u> may have greater sensitivity or adverse responses to heat, chemicals, gases, sunlight, noise, vibration and/or dust.</p> <p>The Danish Institute for has outlined measures that should be considered for particular vulnerable groups such as <u>night workers</u>, pregnant and nursing women, and young workers (DIHR, 2016).</p>

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<p>3.2.2.4. The <u>operating company</u> shall develop, implement and systematically update³¹⁰ a risk management plan that prioritizes measures to eliminate significant <u>hazards</u>, and outlines additional controls to effectively minimize negative consequences and protect <u>workers</u> and others from remaining <u>hazards</u>.³¹¹</p>	<p>For 3.2.2.4: Review risk management plans to confirm that the <u>operating company</u> has developed a risk management process that prioritizes elimination of significant <u>hazards</u>. Review hazards identified, and confirm that where avoidance of significant hazards is not possible (e.g., there is no non-hazardous that can be used in a particular flotation process), that controls are in place to protect workers (e.g., training related to handling, issuance of personal protective equipment (PPE), confirmation that PPE is being used, chemical/material safety data sheets posted in the workplace in languages understandable to workers, etc.).</p> <p>Confirm that the plan is updated based on incidents, accidents, investigations, monitoring, additional assessments, or other information relevant to managing health and safety risks.</p>	<p>For 3.2.2.4:</p> <ul style="list-style-type: none"> • Risk management plan documents. • Records or documentation of guidance documents used to develop risk management plans. • List of specifications used to develop risk management plans. • Schedule of review of risk management plans. • List of measures in place to detect and monitor development and controlled release of identified hazards. • Documentation that explains the process for quantifying the criticality of risks. • A list of persons responsible and accountable for implementation and monitoring controls to mitigate risks and impacts. • Documentation that explains the process for verifying that risk or impact is reduced to within a safe threshold, and alternative measures are taken where the initial control is ineffective. • Records of updates made to mitigation measures/controls. 	<p>Explanatory Note for 3.2.2.4: The risk management plan in 3.2.2.4 shall be updated, as necessary, based on the outcomes and information from its ongoing risk assessment process, monitoring, and other information.</p> <p>Note that Chapter 3.2 provides requirements related to worker safety that may be partially addressed in the Emergency Response Plan found in IRMA Chapter 2.5. Conversely, emergency-related procedures may be included in the occupational health and safety risk management plan if deemed applicable.</p> <p>Re: "prioritizes measures to eliminate significant <u>hazards</u>," according to the ILO Convention on Safety and Health in Mines a hierarchy of controls should be implemented that prioritizes: (1) Eliminating the <u>hazard</u>; (2) Controlling the hazard at source; (3) Minimizing risk by means such as design of safe work systems; and (4) In so far as the risk remains, provide for the use of personal protective equipment.³¹²</p> <p>In other words, the <u>operating company</u> should develop a system of <u>controls</u> for the elimination of risk through re-design of the activity or work area to eliminate hazards. Where elimination of the <u>hazard</u> is not possible, control measures should be implemented to reduce the risk at source, and procedural <u>controls</u> developed to limit exposure to the <u>hazard</u>.</p>

³¹⁰ The plan shall be updated, as necessary, based on the outcomes and information from its ongoing risk assessment process, monitoring, and other information.

³¹¹ According to the ILO Convention 176 – Safety and Health in Mines (1995), the hierarchy of control should prioritize: (1) Eliminating the hazard; (2) Controlling the hazard at source; (3) Minimizing risk by means such as design of safe work systems; and (4) In so far as the risk remains, provide for the use of personal protective equipment. http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C176

³¹² International Labour Organization (ILO). 1995. Safety and Health in Mines Convention, 1995 (No. 176). http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C176

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<p>3.2.2.5. In particular, the <u>operating company</u> shall demonstrate that it has developed procedures and implemented measures to:</p> <ol style="list-style-type: none"> Ensure that the mine has electrical, mechanical and other equipment, including a communication system, to provide conditions for safe operation and a healthy working environment; Ensure that the mine is commissioned, operated, maintained and decommissioned in such a way that <u>workers</u> can perform the work assigned to them without endangering their safety and health or that of other persons; Maintain the stability of the ground in areas to which persons have access in the context of their work; If relevant, whenever <u>practicable</u> provide two exits from every underground workplace, each connected to separate means of egress to the surface; If relevant, ensure adequate ventilation for all underground workings to which access is permitted; 	<p>For 3.2.2.5: Interview <u>operating company</u> OHS personnel, and review any relevant documentation including maps, plans or written procedures, to confirm that they can demonstrate that efforts have been undertaken to eliminate or minimize the risks related to the particular issues outlined in 3.2.2.5.</p> <p>For 3.2.2.5.g: Evidence of compliance may include documentation and training/education materials and records of <u>worker</u> trainings held regarding explosion and fire prevention and/or firefighting techniques; that <u>workers</u> are aware of the location of fire extinguishers; confirm that equipment for detecting fire and explosive gas is in place, etc.</p> <p>For 3.2.2.5.h: Confirm, through interviews with <u>workers</u> and <u>worker</u> H&S representatives, that workers are <u>informed</u> of evacuation plans and/or procedures, and that they understand where to go in the event of an evacuation; and confirm that communication systems are in place to alert <u>workers</u> of evacuations.</p>	<p>For 3.2.2.5:</p> <ul style="list-style-type: none"> Documentation showing safe installation of electrical, mechanical and other equipment; procedures for maintaining systems in safe working conditions. Inspection and maintenance records showing machinery and equipment are well maintained and in safe working order. Documentation of testing of communication systems to ensure they are maintained in working condition. Documented procedures outlining restriction of work or workplaces to or from certain workers to ensure during the mine’s commission, operation, maintenance and decommission, workers can perform the work assigned to them without endangering their safety and health or that of other persons. Documented procedures or policies related to restriction of face angles and exposures, and implementation of active and passive rock stabilization systems to maintain the stability of the ground in areas to which persons have access in the context of their work. Documented policy and/or records (e.g., maps of facilities) demonstrating provision of two exits from every underground workplace, each connected to a separate 	<p>Explanatory Note for 3.2.2.5: These requirements are from ILO Convention 176 – Safety and Health in Mines. See Article 7.³¹³</p> <p>Re: 3.2.2.5.d and e, these sub-requirements are only relevant if the <u>mining project</u> includes an underground mining component.</p>

³¹³ International Labour Organization (ILO). 1995. Safety and Health in Mines Convention, 1995 (No. 176). http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C176

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<p>f. Ensure a safe system of work and the protection of workers in zones susceptible to particular hazards;</p> <p>g. Prevent, detect and combat accumulations of hazardous gases and dusts, and the start and spread of fires and explosions; and</p> <p>h. Ensure that when there is potential high risk of harm to workers, operations are stopped and workers are evacuated to a safe location.</p>		<p>means of egress to the surface to increase evacuation options if this is relevant and practicable.</p> <ul style="list-style-type: none"> • Documented policy requiring installation and use of an effective ventilation system for all underground workings, and records demonstrating installation and maintenance of these systems. • Documented policy requiring safe systems of work and use of personal protective equipment in zones susceptible to particular hazards such as work from heights, confined spaces, or with heavy machinery, and records demonstrating that systems have been implemented and protected equipment is being used appropriately. • Records showing installation of gas and dust monitors to detect accumulations of hazardous gases and dusts; records of controls implemented to dilute or otherwise control gases and dusts • Documented controls to restrict work until the hazard is within safe limits. • Documented policy or procedures for shutting down or halting operations and evacuating workers to a safe location when there is potential high risk of harm to them. • Records of evacuation drills. • Evidence of evacuation routes posted in the workplace. 	

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<p>3.2.3. Communication and Engagement with Workers and Others</p> <p>3.2.3.1. <u>Workers</u> shall be <u>informed</u> of their rights to:</p> <ol style="list-style-type: none"> Report accidents, dangerous occurrences and <u>hazards</u> to the employer and to the <u>competent authority</u>; Request and obtain, where there is cause for concern on safety and health grounds, inspections and investigations to be conducted by the employer and the <u>competent authority</u>; Know and be <u>informed</u> of workplace <u>hazards</u> that may affect their safety or health; Obtain information relevant to their safety or health, held by the employer or the <u>competent authority</u>; Remove themselves from any location at the mine when circumstances arise that appear, with reasonable justification, to pose a serious danger to their safety or health; and Collectively select safety and health representatives. 	<p>For 3.2.3.1: Interview <u>workers</u> and their H&S representatives to confirm that <u>workers</u> have been <u>informed</u> of their rights as per 3.2.3.1.</p> <p>Review any company documentation provided to workers, or training/education materials, etc. that provides information to <u>workers</u> on their rights.</p> <p>Confirm, through interviews with <u>operating company</u> OHS personnel, <u>workers</u> and <u>worker</u> H&S representatives, that systems are in place to effectively communicate and receive input from the workforce on OHS matters. Review samples of methods of communication (e.g., emails, posters, videos, brochures, others). Confirm with <u>workers</u> and <u>worker</u> H&S representatives that information provided to <u>workers</u> is comprehensible to <u>workers</u> (e.g., in languages and formats that are understandable).</p>	<p>For 3.2.3.1:</p> <ul style="list-style-type: none"> • Induction, training and information materials provided to workers. • Records of workers who have received induction. • Records of workers who have received training. • List of workplaces where informational materials are displayed. 	<p>Explanatory Note for 3.2.3.1: These requirements are from International Labour Organization (ILO) Convention 176, Safety and Health in Mines. See Articles 9 and 13.³¹⁴</p> <p><u>Workers</u> are <u>stakeholders</u>, and also often members of <u>affected communities</u>. As such, the requirements of IRMA Chapter 1.2 apply to <u>workers</u>. With respect to this chapter, some particularly important requirements from Chapter 1.2 include that: information provided to mine <u>workers</u> needs to be timely, engagement must be respectful, free from manipulation, interference, coercion or intimidation (see 1.2.2.2), and include participation by marginalized groups of workers, and communications need to be accessible, culturally appropriate and (see 1.2.2.4).</p>

³¹⁴ Ibid.

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<p>3.2.3.2. In all cases a <u>worker</u> attempting to exercise any of the rights referred to in 3.2.2.1 in good faith shall be protected from reprisals of any sort.</p>	<p>For 3.2.3.2: Confirm, through interviews with <u>operating company</u> OHS personnel and <u>worker</u> H&S representatives that <u>worker</u> rights have been free from reprisals. Document review could include review of <u>grievances</u> (see Chapter 3.1, criterion 3.1.5).</p>	<p>For 3.2.3.2:</p> <ul style="list-style-type: none"> • Policies and/or procedures that include provisions that protect workers from reprisal when exercising their rights. • Training and promotional materials delivered to management and workers affirming worker’s rights. • Grievance policy and procedures. • Records of worker grievances (e.g., complaints or lack thereof regarding reprisals for attempting to exercise rights related to protection of worker health and safety), and any company follow-up. 	<p>Explanatory Note for 3.2.3.2: According to the Danish Institute for Human Rights:</p> <p>"Employees are in the best position to recognise workplace hazards because of their experience operating directly in the workplace environment. They must be encouraged to share their views and concerns with management. Retaliation against an employee for reporting hazardous workplace concerns violates the right to health as well as the right to just and favourable conditions of work. Accordingly, the company must not punish an employee for removing him/herself from a working environment that he or she reasonably perceives to be dangerous or harmful. . . and if a reasonable difference of opinion arises regarding the actual threat of the situation, and the employee refuses to return to the work site because of these concerns, the company should investigate alternative placements for the individual within the company."³¹⁵</p> <p>The <u>operating company</u> should establish procedures to protect <u>workers</u> from reprisal when exercising their rights, be it the exercise of their rights to protect their health and safety at work or their rights related to freedom of association and other <u>workers’</u> rights outlined in Chapter 3.1.</p> <p>In order for policies/procedures to be effective, there should be consequences for those employees (management or fellow workers) that carry out reprisals on those who exercise their rights; and if incidents do occur, actions should be taken by the company to revise policies and procedures to reduce the potential for similar incidents in the future.</p>
<p>3.2.3.3. The <u>operating company</u> shall develop systems to effectively communicate with, and enable input</p>	<p>For 3.2.3.3: Confirm, through interviews with <u>operating company</u> OHS personnel and <u>worker</u> OHS representatives that systems or</p>	<p>For 3.2.3.3:</p> <ul style="list-style-type: none"> • Procedures for workers to communicate the input to OH&S representatives or to the operating company. 	<p>Explanatory Note for 3.2.3.3: There may be multiple ways that companies communicate with <u>workers</u>, and means by which workers can provide input to the <u>operating company</u> on issues related to occupational health and safety (OH&S). For example:</p>

³¹⁵ Danish Institute for Human Rights (DIHR). 2016. The Human Rights Compliance Assessment Tool: Workplace Health and Safety. p. 34. https://www.business-humanrights.org/sites/default/files/3_%20Workplace%20Health%20and%20Safety.pdf

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<p>from the workforce on matters relating to occupational health and safety.</p> <p>3.2.3.4. The operating company shall develop and implement a formal process involving workers' representatives and company management to ensure effective</p>	<p>processes are in place to enable OHS information to reach workers, and OHS input from workers to reach company OHS personnel.</p> <p>For 3.2.3.4: Confirm, through interviews with operating company OHS personnel and worker H&S representatives that a formal process for engaging workers on issues related to OHS exists. Confirm with worker</p>	<ul style="list-style-type: none"> Records of meetings between OH&S representative and management (e.g., meeting minutes, attendance sheets, lists of issues raised). Records of feedback provided and decisions taken the operating company in response to input provided at meetings between OH&S workers' representatives and company representatives. Records of correspondence between workers and the company on issues of concern, and feedback provided and decisions taken by the company in response to issues raised. Documentation of procedures in place to protect workers from reprisal when exercising their rights. Records of worker grievances (e.g., complaints or lack thereof regarding inadequate access to information on occupational health and safety, or lack of opportunity for workers to provide input on OH&S issues), and any company follow-up. <p>For 3.2.3.4:</p> <ul style="list-style-type: none"> Documentation of the process that enables workers, either individually or through workers' representatives, to participate in matters relating to occupational health and 	<p>Workers may select representatives who champion OH&S on their behalf. In such situations, there need to be systems in place for workers to communicate their input regarding OH&S to their representatives, who then provide that feedback to company management. Workers may receive information on OH&S from the company, through trainings and awareness campaigns. Processes may be in place to allow workers, regardless of their skill level, education, or language, to provide input directly to the company. Processes are in place for the operating company to provide frequent and regular feedback to workers, to demonstrate that worker safety and health concerns are being heard and addressed. The operating company authorizes sufficient time and resources to facilitate worker participation. Processes are in place to ensure that the program protects workers from being retaliated against for reporting injuries, illnesses, and hazards; participating in the program; or exercising their safety and health rights.</p> <p>Explanatory Note for 3.2.3.4: A "formal process involving workers' representatives and company management" could be, for example, a joint health and safety committee or its equivalent.</p> <p>For 3.2.3.4 d, see CSA, 2013, for guidance on protecting workers' mental health.³¹⁷</p>

³¹⁷ Canadian Standards Association (CSA). 2013. Psychological health and safety in the workplace – Prevention, promotion, and guidance to staged implementation. https://www.csagroup.org/documents/codes-and-standards/publications/CAN_CSA-Z1003-13_BNQ_9700-803_2013_EN.pdf

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<p><u>worker consultation</u> and participation in matters relating to occupational health and safety including:</p> <ol style="list-style-type: none"> Health and safety <u>hazard identification</u> and assessment; Design and implementation of workplace monitoring and worker <u>health surveillance</u> programs; Development of strategies to prevent or mitigate risks to workers through the health and safety risk assessments or workplace and workers' <u>health surveillance</u>; and Development of appropriate assistance and programs to support <u>worker</u> health and safety, including <u>worker</u> mental health.³¹⁶ 	<p>H&S representatives that they have been involved in: <u>hazard</u> identification and health and safety risk assessments; design of workplace monitoring and worker <u>health surveillance</u> programs; development of mitigation strategies to reduce risks to <u>workers</u>; devising health promotion programs, if relevant, strategies to address the mental health and wellbeing of <u>workers</u>; participation in investigations and monitoring with assistance of independent advisors if necessary.</p> <p>Interview worker H&S representatives regarding whether or not <u>consultations</u> and participation in occupational health and safety processes have been effective (e.g., they allow for genuine <u>worker</u> involvement in occupational health and safety issues on site and timely receipt of information).</p> <p>Review minutes or actions items from meetings held as part of the formal process, and query operating company OHS personnel and worker H&S representatives to determine if <u>worker</u> recommendations are generally implemented and questions</p>	<p>safety. For example, this could be terms of reference or procedures governing a joint company/worker health and safety committee or its equivalent.</p> <ul style="list-style-type: none"> Records of meetings and correspondence that demonstrate worker participation in matters relating to occupational health and safety (e.g., list of workers who participated in hazard identification and/or risk assessment). Documentation of the hazards identification and risk assessment process. Documentation of workplace monitoring and worker health surveillance programs in place. Documentation of strategies to prevent or mitigate risks to workers through the health and safety risk assessments or workplace and workers' health surveillance. Documentation of assistance and programs to support worker health and safety, including worker mental health. Records of worker grievances (e.g., complaints or lack thereof regarding inadequate worker participation in OH&S matters), and any company follow-up. 	

³¹⁶ E.g., Canadian Standards Association and Bureau de normalisation du Québec. 2013. Psychological Health and Safety in the Workplace – Prevention, promotion, and guidance to staged implementation. https://www.csagroup.org/documents/codes-and-standards/publications/CAN_CSA-Z1003-13_BNQ_9700-803_2013_EN.pdf

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<p>3.2.3.5. The <u>operating company</u> shall provide <u>workers'</u> health and safety representatives with the opportunity to:</p> <ol style="list-style-type: none"> Participate in inspections and investigations conducted by the employer and by the <u>competent authority</u> at the workplace; Monitor and investigate safety and health matters; Have recourse to advisers and independent experts; and Receive timely notice of accidents and dangerous occurrences. 	<p>responded to, or whether input rarely affects the <u>operating company's</u> actions.</p> <p>For 3.2.3.5: Interview <u>worker</u> H&S representatives to confirm that they have the opportunity to participate in inspections/investigations, monitoring, have access to advisers/experts when necessary, and receive timely notice of accidents and dangerous occurrences. Interview <u>operating company</u> to determine if there are procedures in place to include or communicate with <u>workers' representatives</u> as per 3.2.2.5.</p>	<p>For 3.2.3.5:</p> <ul style="list-style-type: none"> Documentation of the processes or systems that exist to enable workers' representatives to participate in matters relating to occupational health and safety. For example, this could be terms of reference or procedures governing a joint company/worker health and safety committee or its equivalent. Records of communications with workers' representatives informing them of their ability to participate in processes or systems, or access certain information or resources such as independent experts. Records of worker grievances (e.g., complaints or lack thereof regarding inadequate worker participation in OH&S matters, or inadequate access to information), and any company follow-up. 	<p>Explanatory Note for 3.2.3.5: As part of ILO Convention 176, workers have the right to collectively select safety and health representatives.³¹⁸</p> <p>The sub-requirements in 3.2.3.5 are all contained in the ILO C176.³¹⁹</p>
<p>3.2.3.6. Visitors and other third parties accessing the mining premises shall receive an occupational health and safety briefing, and be provided with relevant protective equipment for areas</p>	<p>For 3.2.2.6: Confirm with the <u>operating company</u> that they carry out OHS briefings with visitors and other third parties that visit the mining premises or <u>associated facilities</u>, and</p>	<p>For 3.2.3.6:</p> <ul style="list-style-type: none"> Documentation or copies of OH&S briefing materials. Documentation of PPE requirements for 	<p>Explanatory Note for 3.2.3.6: Personal protective equipment needs will vary based on whether third parties are visiting underground areas, confined spaces, workshops, general mine administration areas, zones with heavy machinery in transit, remote locations, working areas with extreme temperatures, areas with extreme noise, etc.</p>

³¹⁸ International Labour Organization (ILO). 1995. Safety and Health in Mines Convention, 1995 (No. 176). Article 13.1.f. http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C176

³¹⁹ Ibid (various articles)

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of the mine site that or <u>associated facilities</u> that they will be entering.	that protective equipment is provided in areas where such equipment is necessary. Review communication materials related to visitors and third party OHS requirements.	visitors and other third parties based on the facilities that they will be accessing. <ul style="list-style-type: none"> Records of persons that have received briefing and full PPE and the work tasks they may undertake or locations that they may enter, which verifies full briefings and PPE have been provided. Records of worker or stakeholder grievances (e.g., complaints or lack thereof regarding provision of safety briefings and PPE for visitors and other third-parties), and any company follow-up. 	
<p>3.2.4. Measures to Protect Workers</p> <p>3.2.4.1. (Critical Requirement – a and b only)</p> <p>The <u>operating company</u> shall implement measures to protect the safety and health of <u>workers</u> including:</p> <p>a. <u>Informing workers</u>, in a <u>comprehensible manner</u>, of the hazards associated with their work, the health risks involved and relevant preventive and protective measures;</p> <p>b. Providing and maintaining, at no cost to <u>workers</u>, suitable protective equipment and clothing where exposure to adverse conditions or</p>	<p>For 3.2.4.1: Interview <u>operating company</u> OHS personnel, and review any relevant documentation, including <u>worker grievances</u> (see Chapter 3.1, criterion 3.1.5) to confirm that the company has prioritized risk elimination, and when that was not possible, has controlled or mitigated risks in the manner outlined in 3.2.4.1.</p> <p>For 3.2.4.1.a: Interview <u>workers</u> to ensure that they have been <u>informed</u> of the associated with their work, health risks, and preventative and protective measures, e.g., information such as signs and labels related to <u>hazards</u> in work areas is provided in a</p>	<p>For 3.2.4.1:</p> <ul style="list-style-type: none"> Induction, training and information materials communicating all significant hazards associated with the areas may enter and tasks that workers may be undertake. Evidence that safety instructions and materials (e.g., chemical/material safety data sheets), are provided in languages understandable to workers, and are posted in the workplace as appropriate. Records of workers that have received briefing and full, functioning PPE and the work tasks they may undertake or locations that they may enter, which verifies full briefings and PPE have been provided. Records of PPE inspections to verify that PPE 	<p>Explanatory Note for 3.2.4.1: The sub-requirements 3.2.4.1.a through f align with expectations outlined in ILO Convention 176.³²¹</p> <p>Re: 3.2.4.1.a, according to the Danish Institute of Human Rights:</p> <p>"The company must provide information to workers about workplace dangers, and means of minimizing danger in a way that workers can understand. Issues such as the language and literacy of labourers must be taken into consideration in devising appropriate information devices."³²²</p> <p>Re: 3.2.4.1.f, this sub-requirement is only relevant at underground mines.</p>

³²¹ International Labour Organization (ILO). 1995. Safety and Health in Mines Convention, 1995 (No. 176). Article 10 through 13. http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C176

³²² Danish Institute for Human Rights (DIHR). 2016. The Human Rights Compliance Assessment Tool: Workplace Health and Safety. p. 17. https://www.business-humanrights.org/sites/default/files/3_%20Workplace%20Health%20and%20Safety.pdf

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<p>adequate protection against risk of accident or injury to health cannot be ensured by other means;</p> <p>c. Providing <u>workers</u> who have suffered from an injury or illness at the workplace with first aid, and, if necessary, prompt transportation from the workplace and access to appropriate medical facilities;</p> <p>d. Providing, at no cost to <u>workers</u>, training/education and retraining programs and comprehensible instructions on safety and health matters as well as on the work assigned;</p> <p>e. Providing adequate supervision and control on each shift; and</p> <p>f. If relevant, establishing a system to identify and track at any time the probable locations of all persons who are underground.³²⁰</p>	<p><u>comprehensible manner</u> (i.e., in language/formats understandable to workers). Determine if there have been OHS-related complaints/grievances (See Chapter 3.1, requirement 3.1.5) related to the failure of the company to eliminate or appropriately control workplace <u>hazards</u>. If <u>grievances</u> have been raised, determine if they were addressed to the satisfaction of workers.</p> <p>For 3.2.4.1.b: Confirm with workers that protective equipment is available to them at no cost. Confirm that the company can justify the implementation of different protective measures (e.g., what prevented companies from eliminating certain risks; why was personal protective gear selected over installing equipment to reduce risk, etc.).</p> <p>For 3.2.4.1.c: Confirm with workers and worker H&S representatives that personnel trained in first aid, and first aid equipment are available at the work site; and that injured or ill workers have access to medical facilities, including transportation to the facilities.</p>	<p>is in good working condition. List of locations of first aid kits in workplaces.</p> <ul style="list-style-type: none"> • Documented procedure of the means for emergency transport from the workplace under normal and perceivable conditions. • Information materials provided to workers on how they can access medical facilities to respond to workplace injuries or occupational illnesses. • Documentation of arrangement with a medical facility to provide the operating company with access medical facilities to respond to workplace injuries or occupational illnesses. • Training materials on safety and health matters in the workplace, and records that workers have attended training sessions. • A policy document explaining they systems used to ensure that adequate supervision is provided each shift. • Documented procedure to identify and track at any time the probable locations of all persons who are underground if applicable. • Records of worker or stakeholder grievances (e.g., complaints or lack thereof regarding implementation of measures to protect the health and safety of workers), and any company follow-up. 	


³²⁰ This is only relevant at underground mines.


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<p>3.2.4.2. If the risk assessment process reveals unique occupational health and safety risks for certain groups of <u>workers</u> (e.g., pregnant women, children, HIV-positive, etc.) the <u>operating company</u> shall ensure that additional protective measures are taken, and trainings and health promotion programs are available to</p>	<p>For 3.2.4.1.d: Confirm that OHS training programs, education materials and instructions related to their work are provided at no costs and in a manner that is comprehensible to workers; and that workers are compensated for time spent attending trainings that are held outside of normal working hours.</p> <p>For 3.2.4.1.e: Confirm, through review of shift schedules or other documentation and interviews with workers and company representatives that supervisors are present during each shift; and that regulations, if any, for supervision and controls for shift work are being met.</p> <p>For 3.2.4.1.f: If the site is an underground mine, confirm that there is a system for tracking probable locations of every person underground.</p> <p>For 3.2.4.2: Interview a sample of vulnerable and/or susceptible workers, including, if relevant, pregnant women or nursing mothers, migrant workers, workers with accessibility challenges, children in age-appropriate jobs, etc., to determine if adequate protections are in place to protect their health and</p>	<p>For 3.2.4.2:</p> <ul style="list-style-type: none"> • Documented risk assessment that includes assessment of risks to vulnerable workers. • A policy document that states intent to ensure no worker undertake work that is hazardous to them as a result of their specific needs. • A policy document that states intent to 	<p>Explanatory Note for 3.2.4.2: Note that there are some requirements in Chapter 3.1 that share the objective of protecting the health and safety of all workers, including <u>vulnerable workers</u> (such as those relating to harassment in 3.1.3.3, <u>hazards associated with child labor</u> in 3.1.7, and working hours in 3.1.9).</p> <p><u>Vulnerable workers</u> would be those who have one or more specific characteristics that may make them more susceptible to health or safety impacts (e.g., in some cases <u>workers</u> with disabilities, HIV/AIDS or other disease or health impairments, young or older workers, or female</p>

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support the health and safety of those <u>workers</u> .	safety; and also to gauge their level of awareness of trainings, health promotion programs and comprehension of health and safety information.	<p>introduce controls to de-risk all tasks and work areas to accommodate persons with specific needs that present unique occupational health and safety risks.</p> <ul style="list-style-type: none"> • Training and information materials that are delivered to management and workers to help them to understand the unique occupational health and safety hazards associated with a person with specific needs, as well as controls that can reasonably be used to mitigate the risk. • Risk management plan or other document that lists controls that the operating company plans to implement to reduce the risks unique occupational health and safety hazards associated with a person with specific needs. • Documentation of monitoring that has been undertaken to confirm that controls implemented to reduce risks to particular workers are being effective. • Guidance document for management to identify workers with specific needs that might present unique occupational health and safety risks. • Records of worker or stakeholder grievances (e.g., complaints or lack thereof regarding measures taken (or not taken) to protect vulnerable workers that have unique health 	<p>workers may be more susceptible to certain health-related impacts, etc.). For example, there may be a greater potential for health or safety impacts if workers have a limited range or reach of movement or stability, speed of movement, height, sensory responses, or lifting strength. Also, some <u>workers</u> may have greater sensitivity or adverse responses to heat, chemicals, gases, sunlight, noise, vibration and/or dust.</p> <p>The Danish Institute for has outlined measures that should be considered for particular vulnerable groups such as night workers, pregnant and nursing women, and young <u>workers</u>.³²³ For example, if there are pregnant employees, the <u>operating company</u> should ensure that they are:</p> <p>"adequately trained and equipped when handling chemicals and other materials which could be hazardous to their reproductive organs. The latter includes ensuring that pregnant employees are removed from any work environment which may pose a threat to the development of the unborn child. Relocation to a safer work environment should last throughout the duration of the pregnancy, and if necessary, the nursing period as well."³²⁴</p>

³²³ Danish Institute for Human Rights (DIHR). 2016. The Human Rights Compliance Assessment Tool: Workplace Health and Safety. pp. 4-15. https://www.business-humanrights.org/sites/default/files/3_%20Workplace%20Health%20and%20Safety.pdf

³²⁴ Danish Institute for Human Rights (DIHR). 2016. The Human Rights Compliance Assessment Tool: Workplace Health and Safety. p. 13. https://www.business-humanrights.org/sites/default/files/3_%20Workplace%20Health%20and%20Safety.pdf

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<p>3.2.4.3. The <u>operating company</u> shall provide workers with clean toilet, washing and locker facilities (commensurate with the number and gender of staff employed), potable drinking water, and where applicable, sanitary facilities for food storage and preparation. Any accommodations provided by the <u>operating company</u> shall be clean, safe, and meet the basic needs of the <u>workers</u>.</p>	<p>For 3.2.4.3: Visit facilities and confirm there are clean toilet/washing facilities available to both genders; that workers have access to potable drinking water and, if relevant, sanitary food storage/prep areas; and, if relevant, accommodations meet the basic needs of workers (they are clean and safe, have working electricity, heat, toilet/washing facilities, etc.).</p>	<p>and safety risks), and any company follow-up.</p> <p>For 3.2.4.3:</p> <ul style="list-style-type: none"> • Records of facilities that are available to workers. • Records of the number and gender of employees that have access to the facilities. • Records of worker grievances (e.g., complaints or lack thereof regarding cleanliness, accessibility and safety of facilities), and any company follow-up. 	
<p>3.2.4.4. The <u>operating company</u> shall ensure that <u>workers</u> are provided with compensation for work-related injuries and illnesses as follows:</p> <p>a. In countries where <u>workers'</u> compensation is not provided through government schemes or a collective bargaining agreement:</p> <p>i. The <u>operating company</u> shall compensate <u>workers</u> for work-related injuries or illnesses at a rate that, at minimum, covers medical expenses and wages during the recovery and rehabilitation period;</p> <p>ii. If a <u>worker</u> is not able to return to work due to the severity of</p>	<p>For 3.2.4.4.a and b: If there are national laws for <u>worker</u> compensation, confirm with <u>workers</u> and/or <u>worker</u> health representatives that they have been made aware of government compensation programs. If no program exists, confirm <u>workers</u> are compensated directly by the company as per 3.2.4.4.a., and have access to rehabilitation opportunities per 3.2.4.4.b.</p> <p>For 3.2.4.4.c: Interview <u>workers'</u> <u>representatives</u> and the company to determine if procedures are in place and are followed to provide spouses and dependents benefits to cover funeral costs, and compensation equal</p>	<p>For 3.2.4.4:</p> <ul style="list-style-type: none"> • A policy document explaining the operating company's compensation package for work related injuries and illnesses. • Records of worker illnesses or injuries incurred as a result of employment at the mine. • Records of remuneration of workers that incurred illnesses or injuries as a result of employment at the mine. • Documentation of worker rehabilitation programs (either in-house or external to the mine, e.g., government-led). • Proof of compensation payments to workers that incurred illnesses or injuries as a result of employment at the mine. • Records of worker or stakeholder grievances 	<div style="border: 1px solid red; background-color: #ffffcc; padding: 5px;"> <p> 3.2.4.4.a.iii (below) Issue in brief: The IRMA Steering Committee is interested in exploring with mining companies and workers whether or not requirement 3.2.4.4.a.iii, below, as written, is reasonable, and verifiable. In particular, we recognize that illnesses related to occupational exposures or incidents may not manifest until after the worker has stopped being employed by the mine, and at that point it can be extremely difficult for workers to prove that working at the mine caused their illnesses. Mine sites, on the other hand, should be retaining records related to occupational exposures, accidents, workers' medical surveillance, etc., that can establish whether or not there is a probable link between occupational issues and the ex-worker's subsequent illnesses.</p> </div> <p>Explanatory Note for 3.2.4.4: Re: 3.2.4.4.a, many, but not all countries have <u>workers</u> compensation schemes. For example, a 2002 report found</p>

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<p>the work-related injury or illness, the <u>operating company</u> shall compensate for lost earnings until the worker qualifies for an adequate pension (i.e., 2/3 or more of the salary they would otherwise normally receive if healthy and working); or</p> <p>iii.  If an occupational illness manifests after a <u>worker</u> has retired, the <u>operating company</u> or its <u>corporate owner</u> shall, at minimum, compensate the worker for medical expenses,³²⁵ unless the <u>operating company</u> or its <u>corporate owner</u> can establish that the occupational illness was not connected to the <u>worker's</u> employment at the <u>mining project</u>.</p> <p>b. In countries that do not provide for <u>worker</u> rehabilitation as part of their <u>workers'</u> compensation schemes, the <u>operating company</u> shall ensure that <u>workers</u> have free or affordable access to rehabilitation programs to facilitate an expeditious return to work; and</p>	<p>to at least three month's salary when there is a work-related death.</p>	<p>(e.g., complaints or lack thereof regarding inadequate compensation for work-related injuries or illnesses), and any company follow-up.</p>	<p>that 136 countries have worker compensation programs, meaning that approximately 60 do not.³²⁶ No recent references could be found.</p> <p>Re: a.i.: If medical expenses are fully covered by health insurance, then companies are not required to provide additional compensation.</p> <p>Re: a.ii: If the government does not provide for an "adequate pension," the <u>operating company</u> would be expected to supplement the government pension so that a worker was receiving equivalent to 2/3 or more of the salary he or she would otherwise receive; if no government pension program exists, the <u>operating company</u> would be expected to pay compensation equivalent to 2/3 or more of the salary the <u>worker</u> would otherwise normally receive if healthy and working. Normally, this requirement can be met by providing the appropriate public or private disability insurance coverage.</p> <p>Re: a.iii, see flag description. Also, note that if medical expenses are fully covered by health insurance or relevant compensation schemes covering occupational health matters, then companies are not required to provide additional compensation.</p>

³²⁵ If medical expenses are fully covered by health insurance or relevant compensation schemes covering occupational health matters, then companies are not required to provide additional compensation.

³²⁶ Elson, R. 2002. International Workers' Compensation. Prepared for the Indiana Compensation Rating Bureau. <http://compclues.icrb.net/file/29dbcff9-2752-4fed-bfdc-422c8c403483>)

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<p>c. Where a <u>worker</u> dies as a result of a work-related injury or disease, the <u>operating company</u> shall, at minimum, provide to spouses and dependent children benefits to cover funeral expenses and transportation of the worker's body, if appropriate, as well as compensation that is equal to or greater than three months' salary of the deceased <u>worker</u>.</p>			
<p>3.2.5. Inspections, Monitoring and Investigations</p> <p>3.2.5.1. The <u>operating company</u> and <u>workers' representatives</u> on a joint health and safety committee, or its equivalent, shall perform regular inspections of the working environment to identify the various <u>hazards</u> to which the <u>workers</u> may be exposed, and to evaluate the effectiveness of occupational health and safety controls and protective measures.</p> <p>3.2.5.2. The <u>operating company</u> shall carry out workplace monitoring and <u>worker health surveillance</u> to measure exposures and evaluate the effectiveness of controls as follows:</p>	<p>For 3.2.5.1: Review procedures and schedules for the regular inspection of the workplace. The frequency of inspections will vary depending on the working environment and potential <u>hazards</u>.</p> <p>For 3.2.5.2.a and c: Interview <u>operating company</u> OHS personnel, and review relevant documentation to confirm that the company has a program that includes workplace monitoring and <u>health surveillance</u> of</p>	<p>For 3.2.5.1:</p> <ul style="list-style-type: none"> Records of meetings or communications of the joint health and safety committee (e.g. meeting minutes, written correspondence, agreements). Records of inspections of the working environment carried out by the operating company and workers' representatives (e.g., date, areas inspected, findings, participants, etc.). Records of worker grievances (e.g., complaints or lack thereof regarding participation in workplace inspections), and any company follow-up. <p>For 3.2.5.2:</p> <ul style="list-style-type: none"> Certificate or recognition of professional competency of the person or company that designed and conducts workplace monitoring and worker health surveillance. Documentation of health surveillance 	<p>Explanatory Note for 3.2.5.1: There is no definition for the frequency of "regular inspections." The frequency of inspections should be agreed through the joint health and safety committee, or its equivalent. As a rule of thumb, inspections of the entire work area should occur at least weekly for active, high risk sites, and monthly for low risk sites, and sites under care of maintenance.</p> <p>Explanatory Note for 3.2.5.2: Re: 3.2.5.2.a, for the purposes of this requirement <u>competent professional</u> may be an occupational physician</p>

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<p>a. Workplace monitoring and <u>worker health surveillance</u> shall be designed and conducted by certified industrial hygienists or other <u>competent professionals</u>;</p> <p>b. <u>Health surveillance</u> shall be carried out in a manner that protects the right to confidentiality of medical information, and is not used in a manner prejudicial to <u>workers' interests</u>;</p> <p>c. Samples collected for workplace monitoring and <u>health surveillance</u> purposes shall be analyzed in an ISO/IEC 17025 certified or nationally accredited laboratory;</p> <p>d. Sample results shall be compared against national <u>occupational exposure limits (OELs)</u> and/or <u>biological exposure indices (BEIs)</u>, if they exist, or OELs/BEIs developed by the American Conference of Governmental Industrial Hygienists (ACGIH); and</p> <p>e. If an <u>OEL/BEI</u> is exceeded, the affected <u>worker(s)</u> shall be <u>informed immediately</u>, and</p>	<p><u>workers</u>, and that the program was designed by <u>competent professionals</u>, and that laboratories used to process samples had the appropriate accreditation. Interview <u>worker H&S representatives</u> to confirm they were <u>consulted re: the health surveillance program</u> (as per 3.2.3.4.b).</p> <p>For 3.2.5.2.b: Determine, through interviews with company OHS personnel, how the company protects confidentiality of worker medical information; and confirm that <u>health surveillance findings</u> are not used in any manner prejudicial to their interests (e.g., confirm that any tests done are justified from an OHS point of view; and do not cause unwarranted intrusion on the private life of workers).</p> <p>For 3.2.5.2.d: Review laboratory accreditation documentation. If not accredited to ISO/IEC 17025, confirm that accreditation by a national body is in place.</p>	<p>procedures.</p> <ul style="list-style-type: none"> • Policy and/or procedures related to disclosure and confidentiality of workers' medical information. • Records of sampling results from a ISO/IEC 17025 certified or nationally accredited laboratory. • Procedure document for identifying where national or ACGIH exposure limits have been exceeded and for notifying affected workers. • Records of worker grievances (e.g., complaints or lack thereof regarding workplace monitoring and health surveillance activities and confidentiality of information, etc.), and any company follow-up. 	<p>or clinical toxicologist with experience in assessing and diagnosing occupational diseases associated with hazardous substance exposures.³²⁷</p> <p>Re: 3.2.5.2.b, medical surveillance records "are held by the occupational health clinic and only concern medical examinations and tests done in relation to exposures in the workplace. They thus differ from personal medical records that are held by the employee's personal doctor or primary care records that may be held by the occupational health clinic. Personal medical records are confidential, but there may be some access to anonymised medical surveillance records. In general, consolidated data or information that has had the identification removed may be viewed. Should it be necessary to view an individual's record without removing their identity then the employee's permission will need to be sought."³²⁸</p> <p>Re: 3.2.5.2.c. ISO/IEC-17025 accredited laboratories have been verified as having an appropriate management system and ability to properly perform certain test methods and calibration. In most countries, ISO/IEC 17025 is the standard for which most labs must hold accreditation in order to be deemed technically competent. If the lab is not accredited to ISO/IEC 17025 then labs must be able to show that they are accredited by a national body. Ideally, the accreditation requirements of the national body would be as stringent and robust as ISO/IEC 17025.</p> <p>Re: 3.2.5.2.d: Some countries have developed occupational hygiene standards for workplaces. The International Labor Organization website provides links to agencies responsible for establishing exposure limits in various countries.³²⁹</p>

³²⁷ Department of Consumer and Employment Protection (DCEP), W. Australia. 2008. Risk-Based Health Surveillance and Biological Monitoring Guideline. p. 5. http://www.dmp.wa.gov.au/Documents/Safety/MSH_G_RiskBasedHealthSurveillanceAndBiologicalMonitoring.pdf

³²⁸ International Council on Mining and Metals (ICMM). 2016. Good Practice Guidance on Occupational Health Risk Assessment. 2nd Ed. p. 23. https://www.icmm.com/website/publications/pdfs/health-and-safety/161212_health-and-safety_health-risk-assessment_2nd-edition.pdf

³²⁹ International Labour Organization (ILO) website: "Chemical Exposure Limits." http://www.ilo.org/safework/info/publications/WCMS_151534/lang--en/index.htm

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<p>controls shall be reviewed and revised in a timely manner to ensure that future exposure levels remain within safe limits.</p>	<p>For 3.2.5.2.d: Review <u>health surveillance</u> and monitoring data, analyses or summary reports to confirm results have been compared to appropriate <u>OEL/BEI</u> standards.</p> <p>For 3.2.5.2.e: Determine if any <u>OEL/BEI</u> has been exceeded, and interview affected workers and/or review documentation to confirm that workers were immediately <u>informed</u> of the exceedance, and if it posed a risk to their safety or health that they were encouraged to remove themselves from the area as per 3.2.2.5.h and 3.2.3.1.e. Confirm that actions were taken to prevent similar future exceedances.</p>		<p>The American Conference of Governmental Industrial Hygienists (ACGIH) is a member-based organization composed of independent knowledgeable experts that advances occupational and environmental health. ACGIH develops Threshold Limit Values (TLVs, which are akin to occupational exposure limits) and/or biological exposure indices through a committee process that involves review of peer-reviewed literature and public input.³³⁰</p>
<p>3.2.5.3. Controls, protective measures, health risk assessments, risk management plans, and training and educational materials shall be updated as necessary based on inspection and monitoring results.</p>	<p>For 3.2.5.3: Interview <u>operating company</u>, and review relevant documentation, to confirm that findings of monitoring and <u>health surveillance</u> were used to assess the effectiveness of health and safety controls and protections, and that changes were made where warranted.</p>	<p>For 3.2.5.3:</p> <ul style="list-style-type: none"> • A procedure document to explain the process of monitoring the effectiveness of control measures, and updating protective measures, health risk assessments, risk management plans, and training and educational materials when controls have been found to be ineffective. • Inspection and monitoring reports. • Copies of original and updated health risk 	<p>Explanatory Note for 3.2.5.3: According to the International Council on Mining and Metals (ICMM):</p> <p>"Should there be an incident, for example failure of a control measure, an investigation of the cause of failure should be undertaken to prevent future occurrences or repeats. This information should also be used to update the HRA. . . It is also imperative that training materials are updated when there is new information from an HRA [Health Risk Assessment]. When new control measures are identified, they should become part of the existing monitoring programme."³³¹</p>

³³⁰ American Conference of Governmental Industrial Hygienists (ACGIH) website. <http://www.acgih.org/>

³³¹ International Council on Mining and Metals (ICMM). 2016. Good Practice Guidance on Occupational Health Risk Assessment. 2nd Ed. pp. 13 and 42. https://www.icmm.com/website/publications/pdfs/health-and-safety/161212_health-and-safety_health-risk-assessment_2nd-edition.pdf

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.2.5.4. The operating company shall ensure that all workplace injuries, fatalities, accidents and dangerous occurrences, as defined by national laws or regulations, are documented, reported to the competent authority, investigated and that appropriate remedial action is taken.</p>	<p>For 3.2.5.4: Determine relevant national laws related to occupational injuries, fatalities, accidents and dangerous occurrences. Review incident, investigation and remedial action reports; confirm the company filed legally required information. Confirm, through interviews with company, that a system is in place to investigate incidents and undertake remedial action.</p>	<p>assessments, risk management plans, and training and educational materials, and any documents outlining controls and protective measures related to worker health and safety.</p> <p>For 3.2.5.4:</p> <ul style="list-style-type: none"> • Procedure(s) for documenting, investigating and reporting all workplace injuries, fatalities, accidents and dangerous occurrences. • Copies of national laws or regulations related documentation, investigation, remediation and reporting of workplace injuries, fatalities, accidents and dangerous occurrences. • Procedure or other documentation to explain the process of selecting remedial controls. • Records of workplace injuries, fatalities, accidents and dangerous occurrences (including description of the incidents, investigations, and remedial actions taken in response). • Records of communications (e.g., reports filed) with competent authorities related to workplace injuries, fatalities, accidents and dangerous occurrences as defined by national laws or regulations. • Records of worker grievances (e.g., 	<p>Explanatory Note for 3.2.5.4: This requirement aligns with ILO Convention 176 (Safety and Health in Mines).³³²</p> <p>"remedial action" should include, as appropriate, immediate medical attention for injuries, compensation for work-related injuries or illnesses, steps to remove hazards prior to allowing workers to return to certain areas or jobs, and steps to prevent occurrence/recurrence of similar types of incidents, etc.</p>

³³² International Labour Organization (ILO). 1995. Safety and Health in Mines Convention, 1995 (No. 176). Article 10. http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C176

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.2.6. Health and Safety Data Management and Access to Information</p> <p>3.2.6.1. The operating company shall maintain accurate records of health and safety risk assessments; workplace monitoring and workers' health surveillance results; and data related to occupational injuries, diseases, accidents, fatalities and dangerous occurrences collected by the company and submitted to competent authorities. This information, except for data protected for medical confidentiality reasons, shall be available to workers' health and safety representatives.</p>	<p>For 3.2.6.1: Interview operating company OHS personnel, and review documentation related to risk assessments and information management systems in place to collect and track data on occupational injuries, diseases, accidents, fatalities, dangerous occurrences, workplace monitoring and health surveillance. Confirm with worker H&S representatives that they have access to this information.</p> <p>Determine if there are national requirements to file occupational health (e.g., illness, disease, and other) information, and review company documentation to confirm that the requirements are being met. Confirm with worker H&S representatives that they have access to information submitted to competent authorities.</p>	<p>complaints or lack thereof regarding inadequate documentation, investigation or remediation for workplace injuries, fatalities, accidents and dangerous occurrences), and any company follow-up.</p> <p>For 3.2.6.1:</p> <ul style="list-style-type: none"> • Copies of health risk assessments and updates to them. • A procedure document to explain the system for maintaining accurate records of workplace monitoring and workers' health surveillance results. • Records of workers' health surveillance results. • A procedure document to explain the system for maintaining accurate records of data related to occupational injuries, diseases, accidents, fatalities and dangerous occurrences collected by the company and submitted to competent authorities. • Records of communications (e.g., reports filed) with competent authorities related to workplace injuries, fatalities, accidents and dangerous occurrences as defined by national laws or regulations. • A document or outlining the ability of workers' representatives to access health risk assessments, non-confidential workplace monitoring and health surveillance results, and data on occupational injuries, diseases, accidents, 	

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.2.6.2. The operating company shall establish a data management system that enables worker health data to be readily located and retrieved, and data protected by medical confidentiality to be securely stored. Data shall be retained for a minimum of 30 years,³³³ and responsible custodians shall be assigned to oversee the health data management system.</p>	<p>For 3.2.6.2: Confirm with operating company OHS personnel that the health surveillance data management system enables the secure storage of confidential data (e.g., limits access to trained professionals that have the appropriate clearance to view the data). Confirm there are responsible custodians that oversee data management.</p>	<p>fatalities and dangerous occurrences.</p> <ul style="list-style-type: none"> • Records of worker grievances (e.g., complaints or lack thereof regarding inadequate access to health risk assessments, non-confidential workplace monitoring and health surveillance results, and/or data on occupational injuries, diseases, accidents, fatalities and dangerous occurrences), and any company follow-up. <p>For 3.2.6.2:</p> <ul style="list-style-type: none"> • Health data management system procedures/protocols. • Worker health data records accessible from the data management system. • A procedure document to explain the process of secure storage of worker health data protected by medical confidentiality for at least 30 years. • Documentation of the protections in place to ensure secure storage of confidential information • List of person(s) responsible and accountable for carrying out the procedure for storage and disposal of data. 	<p>Explanatory Note for 3.2.6.2: According to ICMM, the findings of any exposure monitoring and health surveillance and any actions taken regarding the reporting and investigation of incidents should "be kept for at least 30 years, or as long as required by national laws as these records will enable the evaluation of individual health effects and the accurate assessment of future insurance or liability claims for chronic health risks."³³⁴</p> <p>The intention is not that the data should be destroyed after 30 years. Rather, where possible it should be retained indefinitely as the data may be important for future medical research or legal purposes. If a company is sold, provisions should be made for successor custodianship, i.e., transfer of records to the successor company. If a company ceases to operate, it is good practice to notify current employees of their right to access their records before the company goes out of business.³³⁵</p>

³³³ The intention is not that the data should be destroyed after 30 years. Rather, where possible it should be retained indefinitely as the data may be important for future medical research or legal purposes. If a company is sold, provisions should be made for successor custodianship, i.e., transfer of records to the successor company. If a company ceases to operate, it is good practice to notify current employees of their right to access their records before the company goes out of business. (See: U.S. Dept. of Labor. 2001. "Access to Medical and Exposure Records," www.osha.gov/Publications/pub3110text.html)

³³⁴ International Council on Mining and Metals (ICMM). 2016. Good Practice Guidance on Occupational Health Risk Assessment. 2nd Ed. p. 42. https://www.icmm.com/website/publications/pdfs/health-and-safety/161212_health-and-safety_health-risk-assessment_2nd-edition.pdf

³³⁵ U.S. Dept. of Labor. 2001. Access to Medical and Exposure Records. <https://www.osha.gov/Publications/osha3110.pdf>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
3.2.6.3. The operating company shall allow workers access to their personal information regarding accidents, dangerous occurrences, inspections, investigations and remedial actions, health surveillance and medical examinations.	For 3.2.6.3: Confirm with workers and worker H&S representatives that workers have access to health and safety data relevant to them.	For 3.2.6.3: <ul style="list-style-type: none"> • A policy or other document stating the operating company’s commitment to allow workers access to their personal information regarding accidents, dangerous occurrences, inspections, investigations and remedial actions, health surveillance and medical examinations. • A procedure document to explain the process for workers to access their personal information regarding accidents, dangerous occurrences, inspections, investigations and remedial actions, health surveillance and medical examinations. • Records of worker grievances (e.g., complaints or lack thereof regarding inadequate access to their personal workplace monitoring and health surveillance results, and/or information on accidents, dangerous occurrences, inspections, investigations and remedial actions that are relevant to the worker), and any company follow-up. 	

NOTES

Many of the requirements in this chapter are based on International Labour Organization Convention *C176 - Safety and Health in Mines*. Where recommendations of ILO C176 have been integrated into IRMA requirements, the specific ILO C176 Article number will be referenced in the IRMA Guidance for this chapter (under development).

Cross References to Other Chapters	
CHAPTER	ISSUES

Cross References to Other Chapters	
1.1—Legal Compliance	As per Chapter 1.1, if <u>host country laws</u> (i.e., national laws) address occupational health and safety, the company is required to abide by those laws. If IRMA requirements are more stringent than <u>host country law</u> , the company is required to also meet the IRMA requirements, as long as complying with them would not require the <u>operating company</u> to violate <u>host country law</u> . Also, the <u>operating company</u> is responsible for ensuring that its <u>contractors</u> and subcontractors involved in <u>mining-related activities</u> comply with the requirements of this chapter of the IRMA Standard, i.e., <u>contract workers</u> and any other workers who provide project-related work and services should be afforded a safe and healthful work environment.
1.2—Community and Stakeholder Engagement	<u>Workers</u> are <u>stakeholders</u> , and also often members of the <u>affected communities</u> . As such, the engagement process with <u>workers</u> should align with the requirements in Chapter 1.2.
1.3—Human Rights Due Diligence	<u>Workers</u> have the right to health, and so during the human rights assessment companies should include an assessment the potential that employees may be exposed to unacceptable health impacts.
2.5—Emergency Preparedness and Response	Chapter 2.5 shares similar objectives to Chapter 2.2 of protecting the health and safety of workers, but 2.5 also addresses <u>affected communities</u> . <u>Workers</u> and their representatives are to be consulted in the development of the Emergency Response Plan as per 2.5.2.
3.1—Fair Labor and Terms of Work	Note that there are some requirements in Chapter 2.1 that share the objective of protecting the health and safety of <u>workers</u> (such as those relating to <u>child labor</u> in 3.1.7, and working hours in 3.1.9). The <u>grievance mechanism</u> in Chapter 3.1, criterion 3.1.5, may be used to hear OH&S-related worker <u>grievances</u> .
3.3—Community Health and Safety	Chapter 3.3 shares similar objectives to Chapter 3.2 of protecting the health and safety of communities, of which workers are members. The community health and safety risk and impact assessment process includes collaboration with <u>workers</u> as per criteria 3.3.5. Also, criteria 3.3.4 has requirements that pertain to <u>workers/employees</u> that are triggered if there are significant risks to <u>workers/communities</u> related to HIV/AIDS, TB or malaria.
3.4—Mining in Conflict-Affected or High-Risk Areas	There may be particular risks to <u>workers</u> when projects are located in <u>conflict-affected</u> or <u>high-risk areas</u> . These risks may include potential impacts on health or safety, as well as risks to human rights. The conflict risk assessment should evaluate such risks to <u>workers</u> , and the information should be integrated in the H&S risk assessment (or vice versa).

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the Glossary of Terms at the end of the IRMA Standard document.

Affected Communities

A community that is subject to potential risks or impacts from a project.

Associated Facilities

Any facility managed by the operating company that would not have been constructed, expanded or acquired but for the exploration or development of the mine (including ore processing facilities, stationary physical property such as power plants, port sites, roads, railroads, borrow areas, fuel production or preparation facilities, parking areas, shops, offices, housing facilities, storage facilities, etc.).

Biological Exposure Indices (BEI)

The concentration of chemicals in the body that would correspond to inhalation exposure at a specific concentration in air.

Competent Authority

The government department or other authority having power to issue and enforce regulations, orders or other instructions having the force of law in respect of the subject matter of the provision concerned.

Competent Professionals

In-house staff or external consultants with relevant education, knowledge, proven experience, necessary skills and training to carry out the required work. Competent professionals would be expected to follow scientifically robust methodologies that would withstand scrutiny by other professionals. Other equivalent terms used may include: competent person, qualified person, qualified professional. For independent reviews (in IRMA Chapter 4.1) competent professionals must not be in-house staff.

Comprehensible Manner

In forms and languages that are easily understood by workers and/or other stakeholders.

Consultation

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. In principle, the company should take into account the concerns and views expressed by stakeholders in the final decision.

Contractor

An individual, company, or other legal entity that carries out duties related to a mining project that are subject to a contractual agreement that defines, for example, work, duties or services, pay, hours or timing, duration of agreement, and that remains independent for employment, tax, and other regulatory purposes. This includes sub-contractors.

Corporate Owner

The corporation(s) or other business institution(s) including any private or state-run enterprises that have complete or partial financial interest in or ownership of a mining project.

Grievance

A perceived injustice evoking an individual's or a group's sense of entitlement, which may be based on law, contract, explicit or implicit promises, customary practice, or general notions of fairness of aggrieved communities. For the purposes of the IRMA Standard, the words grievances and complaints will be used interchangeably.

Hazard

A potential source of harm or adverse health effect on something or someone under certain conditions at work.

Health Surveillance

Procedures and investigations to assess workers' health in order to detect and identify an abnormality. The results of surveillance should be used to protect and promote health of the individual, collective health at the workplace, and the health of exposed working population. Health assessment procedures may include, but are not limited to, medical examinations, biological monitoring, radiological examinations, questionnaires or a review of health records.

Inform

The provision of information to inform stakeholders of a proposal, activity or decision. The information provided may be designed to help stakeholders in understanding an issue, alternatives, solutions or the decision-making process. Information flows are one-way. Information can flow either from the company to stakeholders or vice versa.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mining-Related Activities

Physical activities (e.g., land disturbance and clearing, road building, sampling, airborne surveys, facility construction, ore removal, ore processing, waste management, reclamation, etc.) carried out during any phase of the mine life cycle (planning, impact assessment, exploration, mine construction, mining, mine closure, post-closure).

Occupational Exposure Limit (OEL)

An upper limit on the acceptable concentration of a hazardous substance in workplace air for a particular material (e.g., gases, vapors and particles). It is typically set by competent national authorities and enforced by legislation to protect occupational safety and health.

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Practicable

Practicable means giving equal weight to environmental, social, and economic benefits and costs. This is not a technical definition. It is the discussion between the affected parties on the balance between these interrelated costs and benefits that is important.

Stakeholder

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Supplier

Those who are provide goods, services or materials to the project.

Worker

All non-management personnel.

Workers' Representative

A worker chosen to facilitate communication with senior management on matters related to working conditions, occupational health and safety or other workers' concerns. This is undertaken by the recognized trade union(s) in unionized facilities and, elsewhere, by a worker elected by non-management personnel for that purpose.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



Chapter 3.3—Community Health and Safety

BACKGROUND

Responsibly operated mines can play an important part in improving public health, but poor management of impacts can expose local populations to additional health and safety risks.

Both the identification of potential mining-related health and safety impacts, as well as the mitigation of those impacts will be most successfully achieved when undertaken in partnership with local stakeholders such as local community representatives, government officials, health service providers, public health officials, and community development workers, as well as mine workers who live in communities.³³⁶

OBJECTIVES/INTENT OF THIS CHAPTER

To protect and improve the health and safety of individuals, families, and communities affected by mining projects.

SCOPE OF APPLICATION

Chapter Relevance: This chapter is relevant for any mining projects that may have impacts on community health and/or safety. Operating companies may provide evidence that this chapter is not relevant if they can demonstrate that there are no communities that may be affected by their mining activities, or potential mine expansions. The specific provisions related to HIV/AIDS, tuberculosis and malaria (Criteria 3.3.4) are only relevant at operations where the community health and safety risk and impact assessment has identified that HIV/AIDS, tuberculosis and/or malaria pose a significant risk to worker and/or community health.

CRITICAL REQUIREMENTS IN THIS CHAPTER

The risks to community health and safety posed by the mining operation are evaluated and mitigated (3.3.1.1).

TERMS USED IN THIS CHAPTER

Affected Community ■ Collaborate ■ Contract Workers ■ Contractors ■ Ecosystem Services ■ Host Country Law ■ Mine Closure ■ Mining Project ■ Mining-Related Activities ■ Mitigation ■ Mitigation Hierarchy ■ Operating Company ■ Priority Ecosystem Services ■ Post-Closure ■ Stakeholder ■ Tailings ■ Vulnerable Group ■ Worker ■ Workers' Organizations ■

These terms appear in the text with a dashed underline and they are explained at the end of this

Community Health and Safety Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
3.3.1. Health and Safety Risk and Impact Scoping	Auditing Note for 3.3.1.1: If risks and/or impacts to community health and safety were scoped in other assessments (in addition to or in lieu of a stand-alone,	For 3.3.1.1: <ul style="list-style-type: none"> Scoping document(s) that includes of risks and impacts on community

³³⁶ ICMM. Good Practice Guidance on Health Impact Assessment. p. 32. www.icmm.com/document/792

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
<p>3.3.1.1. (Critical Requirement) The <u>operating company</u> shall carry out a scoping exercise to identify significant potential risks and impacts to community health and safety from <u>mining-related activities</u>. At minimum, the following sources of potential risks and impacts to community health and/or safety shall be considered:³³⁷</p> <ul style="list-style-type: none"> a. General mining operations; b. Operation of mine-related equipment or vehicles on public roads; c. Operational accidents; d. Failure of structural elements such as <u>tailings dams</u>, impoundments, waste rock dumps (see also IRMA Chapter 4.1);³³⁸ e. Mining-related impacts on <u>priority ecosystem services</u> (see also IRMA Chapter 4.6);³³⁹ 	<p>targeted scoping exercise on community health and safety), auditors should confirm that any significant risks to community health and safety identified elsewhere were further assessed as part of a Community Health and Safety or other assessment.</p> <p>For 3.3.1.1: Interview <u>operating company</u> and stakeholders, and review documentation to confirm that the mine has scoped whether or not any of the issues listed in 3.3.1.1.a through i pose a potential risk to community health or safety.</p>	<p>health and safety.</p> <p><u>priority ecosystem services</u> in 3.3.1.1.e may have been scoped as part of a scoping exercise as per Chapter 4.6. If so, there is no need to re-scope the issues in a standalone Community Health and Safety Scoping exercise.</p> <p>If risk and/or impacts were scoped elsewhere, there is no need to re-scope the issues in a standalone Community Health and Safety scoping exercise. Any potential risks to community health and safety identified in any scoping exercise for another chapter should be further assessed for significance as per requirement 3.3.1.1.</p> <p>What is considered as ‘significant’ will vary from site to site and activity to activity depending on specific circumstances. As a general rule of thumb, however, significant risks are those that are not trivial in nature and are capable of creating a real risk to health and/or safety which any reasonable person would appreciate and would take steps to guard against.³⁴²</p> <p>The <u>operating company</u> should be able to demonstrate that it carried out an exercise to determine whether or not the potential risks/impacts that were identified may be considered as significant. For example, a risk matrix based on probability versus severity/consequence/impact could be created to determine which issues pose the greatest risk and should</p>

³³⁷ More information on these issues will be provided in IRMA Guidance.

³³⁸ It is possible that as part of a mine’s waste management approach a scoping assessment may have been undertaken to identify risks to community safety from tailings dams, impoundments, waste rock dumps and other waste facilities. If such a scoping exercise was done, and risks to community health or safety were identified, then these risks should have been (or should be) further assessed to determine the significance of the risks to community health and safety. This may have been (or may be) done as part of the Community Health and Safety Risk and Impact Assessment in section 3.3.2 or another assessment such as an ESIA (see Chapter 2.1).

³³⁹ For example, land use changes or the loss of natural buffer areas such as wetlands, mangroves, and upland forests that mitigate the effects of natural hazards such as flooding, landslides, and fire, may result in increased vulnerability and community safety-related risks and impacts; or the diminution or degradation of freshwater may result in health-related risks and impacts. (IFC. 2012. Performance Standard 2 – Community Health, Safety and Security, Para. 8). Potential impacts on priority ecosystem services should have been identified as part of the scoping exercise for Chapter 3.7. If any of the identified potential impacts on priority ecosystem services created risks to community health or safety, those should have been (or should be) further assessed to determine the significance of those risks. This may have been (or may be) done as part of the Community Health and Safety Risk and Impact Assessment in section 2.7.2, as part of the ecosystem services impact assessment in Chapter 3.7, or as part of another assessment such as an ESIA (see Chapter 4.1).

³⁴² UK Government, Health and Safety Executive (HSE) website: Frequently Asked Questions. <http://www.hse.gov.uk/risk/faq.htm>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
<p>f. Mining-related effects on community demographics, including in-migration of mine workers and others;³⁴⁰</p> <p>g. Mining-related impacts on availability of services;³⁴¹</p> <p>h. Hazardous materials and substances that may be released as a result of mining-related activities (see also IRMA Chapter 4.1); and</p> <p>i. Increased prevalence of water-borne, water-based, water-related, and vector-borne diseases, and communicable and sexually transmitted diseases (e.g., HIV/AIDs, tuberculosis, malaria, Ebola virus disease) that could occur as a result of the mining project.</p>		<p>be considered significant. Any methods used to evaluate significance should be documented.</p> <p>Re: 3.3.1.1.a, examples of issues related to general mining operations include subsidence of surface topography into underground workings, or vibrations caused by blasting or passing of heavy mine vehicles. These can have a weakening effect on structures within the surrounding communities, which could eventually contribute to their collapse putting those in the immediate vicinity at safety risk. Also, there may be risks related to mining-related noise and light pollution (e.g., on community sleeping patterns and wellbeing). And there may be risks to community members that trespass on mine property (either due to safety hazards or as a result of incidents with security).</p> <p>Re: 3.3.1.1.b, in addition to dust, noise and vibrations caused by heavy mine vehicles operating on the mine site (mentioned in 3.3.1.1.a), there may be a risk of collisions with vehicular or foot traffic when mining-related vehicles operate on public roads.</p> <p>Re: 3.3.1.1.c, the risks and impacts of operational accidents (e.g., smoke, fumes or noxious odors from fires, or contamination from spills of chemicals or concentrate) on communities need to be scoped. There may also be risks to communities if operational accidents harm workers, as this may have implications for workers' families. (Note: The risks to mine workers should have been scoped and assessed as part of the Occupational Health and Safety scoping exercise in IRMA Chapter 3.2. Health and safety risks to mine workers in the course of their work duties do not need to be considered during Community Health and Safety scoping.)</p>

³⁴⁰ The development of mine may bring migrant workers, but also those seeking economic opportunities, into existing communities, creating the potential for cultural conflicts, as well as the potential for sexual violence or exploitation of women and children. (See Guidance for more information)

³⁴¹ For example, this may include an influx of migrant workers, which could put pressure on existing water and sewage systems, which may have an effect on community health.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
		<p>Re: 3.3.1.1.d, the potential risks to communities from the failure of <u>tailings dams</u>, <u>impoundments</u>, <u>waste rock dumps</u> or other <u>mine waste facilities</u> should have been scoped as part of IRMA Chapter 4.1, requirement 4.1.3. If any risks to community health or safety were identified they should have been (or should be) further assessed to determine the significance of those risks.</p> <p>Re: 3.3.1.1.e, land use changes or the loss of natural buffer areas such as wetlands, mangroves, and upland forests that mitigate the effects of natural <u>hazards</u> such as flooding, landslides, and fire may result in increased vulnerability and community safety-related risks and impacts; or the diminution or degradation of freshwater may result in health-related risks and impacts.³⁴³ Potential impacts on <u>priority ecosystem services</u> should have been identified as part of the scoping exercise for Chapter 4.6. If any of the identified potential impacts on <u>priority ecosystem services</u> created risks to community health or safety, those should have been (or should be) further assessed to determine the significance of those risks.</p> <p>Re: 3.3.1.1.f, the development of mine may bring an influx of migrant workers and/or those seeking economic opportunities into existing communities, creating the potential for cultural conflicts, as well as the potential for increased rates of alcoholism and substance abuse, and sexual violence or exploitation of women and children. With increased incomes as a result of mining, a strain can be placed on housing, food and other amenities, driving up the price of living.</p> <p>Re: 3.3.1.1.g, an influx of migrant workers or those seeking economic opportunities, or the mine's demand for water and power, could put pressure on existing water, utility and sewage systems; or in-migration</p>

³⁴³ International Finance Corporation (IFC). 2012. Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources. Guidance Notes. Para. 8. https://www.ifc.org/wps/wcm/connect/a359a380498007e9a1b7f3336b93d75f/Updated_GN6-2012.pdf?MOD=AJPERES

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
		<p>would stress existing school, hospital and social services. Decreased access to services may have an effect on community healthy.</p> <p>Re: 3.3.1.1.h, dust from mining operations can be generated during the course of blasting, drilling, dumping, crushing and grinding, as well from haul routes, conveyors, waste rock areas and tailings impoundments. This dust can affect surrounding communities, crops, and nearby ecosystems. Dusts may contain toxic elements such as heavy metals or radioactive elements. Where toxic fumes are released as a result of the extraction process, or in the result of mine fires, then an analysis of the impact of these fumes on human health should be undertaken. Risk of leaking contaminants from the mine, processing plant, its vehicles or sewerage should be undertaken. Evaluation of potential risk should factor in the likelihood of transportation and dilution of contaminants by water bodies, and the risk of contaminants moving through the system into water used for human consumption, whether direct or indirect (for example with water used for irrigation of crops).</p> <p>Re: 3.3.1.1.i, due to changing dynamics in water storage and use, diseases transmitted in the water itself, or by flies, mosquitoes and other insects attracted by still bodies of water (in open pits or dumps) can increase. Risk of contamination of water, and the community's ability to treat water should be considered. Sources of contamination might include increased generation of human waste, and stagnation of water bodies, which allows bacteria growth. Alternatively, disease may be related to lack of water. The mine may have an impact on distributable water volumes either through reduction in water availability as a result of its own consumption or lowering of the water table, or as a result of increased numbers of community members to consume a restricted volume of water. Calculation of average availability of clean water per community member should be made to compare water availability with volumes of water required for potable and hygiene purposes to analyze the risk of insufficient water levels.</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
<p>3.3.1.2. Scoping shall include an examination of risks and impacts that may occur throughout the mine lifecycle (e.g., construction, operation, reclamation, <u>mine closure</u> and <u>post-closure</u>).</p> <p>3.3.1.3. Scoping shall include consideration of the differential impacts of mining activities on <u>vulnerable groups</u> or susceptible members of <u>affected communities</u>.</p>	<p>For 3.3.1.2: Confirm that scoping identified potential risks and impacts for all of the phases of mining, from construction through <u>post-closure</u>.</p> <p>For 3.3.1.3: Review document to confirm that scoping considered potential risks and impacts on vulnerable or susceptible members of <u>affected communities</u>.</p>	<p>Also, a majority male workforce and increased expendable incomes can lead to an increased level of sexual promiscuity, an increase in the sex trade, potential sex trafficking and/or increased transmission of sexually transmitted diseases. Towns or camps become more crowded, and migrant <u>workers</u> can bring with them new communicable diseases. Some degree of comparison should be undertaken to analyze the risk of sexual and communicable disease transmission by drawing examples from communities in similar geographic and socio-cultural areas, degree of isolation, and number of migrant <u>workers</u>.</p> <p>Explanatory Note for 3.3.1.2: Some risks may only be present during a certain stage or stages of the mine life cycle. By understanding the timing of the potential impacts, the <u>operating company</u> can better develop and prioritize <u>avoidance</u> and <u>mitigation</u> measures to better protect community health and safety.</p> <p>Explanatory Note for 3.3.1.3: Depending on the types of risks, <u>vulnerable groups</u> or susceptible members may include children, the elderly, women (especially pregnant women), sex trade workers, ethnic or other minorities, health-compromised individuals, <u>workers</u> (who may be exposed to certain risks at both at work and in the community), those living closest to particular mine <u>facilities</u>, those relying on particular <u>ecosystem services</u> that may be affected by the mine, etc.</p> <p>By understanding the differential risks and impacts on individuals or <u>vulnerable groups</u> within <u>affected communities</u>, the <u>operating company</u> will better be able to target <u>mitigation</u> measures to protect those who are most in need of protection.</p>
<p>3.3.2. Risk and Impact Assessment</p>	<p>For 3.3.2.1: Interview <u>operating company</u> and review documentation related to risk and impact assessment, either as part of</p>	<p>For 3.3.2.1:</p> <ul style="list-style-type: none"> • Risk and impact assessment. • A procedure document explaining the <p>Explanatory Note for 3.3.2.1: Some or all of these risks and impacts may have been assessed as part of the ESIA (IRMA Chapter 2.1), risks in 3.3.1.1.d may have been assessed as part of a mine waste risk</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES	EXPLANATORY NOTES
<p>3.3.2.1. The <u>operating company</u> shall carry out an assessment of risks and impacts to:</p> <ol style="list-style-type: none"> Predict the nature, magnitude, extent and duration of the potential risks and impacts identified during scoping; and Evaluate the significance of each impact, to determine whether it is acceptable, requires <u>mitigation</u>, or is unacceptable. 	<p>other assessments or as a standalone community health and safety risk and impact assessment.</p>	<p>process to quantify the significance and consequence of risks and impacts on community health and safety.</p> <ul style="list-style-type: none"> A list of all risks and impacts that were deemed unacceptable, with rationale. 	<p>assessment (Chapter 4.1), and risks to human health and safety related to impacts on <u>priority ecosystem services</u> in 3.3.1.1.e may have been assessed as part of a scoping exercise as per Chapter 4.6. If the full range of risks to community health and safety were assessed elsewhere, there is no need to duplicate efforts.</p>
<p>3.3.3. Risk and Impact Management and Mitigation</p> <p>3.3.3.1. The <u>operating company</u> shall document and implement a community health and safety risk management plan that includes:</p> <ol style="list-style-type: none"> Actions to be taken to <u>mitigate</u> the significant risks and impacts identified during its risk and impact assessment; and Monitoring that will be conducted to ensure that measures to prevent or <u>mitigate</u> impacts remain effective. 	<p>For 3.3.3.1: Interview <u>operating company</u> and review documents to confirm that risks to community health and safety are addressed in management plans (e.g., a community health and safety risk management plan and/or other relevant documents such as an emergency response plan, etc.).</p>	<p>For 3.3.3.1:</p> <ul style="list-style-type: none"> Community health and safety risk management plan or its equivalent. A procedure document explaining the process to identify effective controls to mitigate risks and impacts on community health and safety, which should include a method of quantifying control effectiveness. A list of all controls that have been implemented to mitigate risks and impacts that were deemed unacceptable in the assessment. A procedure document explaining the process to measure and monitor controls. A record of the monitoring (internal and/or third party) undertaken to monitor risks. 	<p>Explanatory Note for 3.3.3.1: Ideally, in addition to documenting in a risk management plan the actions to be taken to reduce identified risk and impacts, and then carrying out monitoring of the effectiveness of those actions, the <u>operating company</u> would also assign a person to be responsible and accountable for implementing sufficient <u>controls</u> and monitoring and evaluating their effectiveness to reduce risk or impact to an acceptable level, and for ensuring updates of <u>controls</u> occur if required. While not required in this chapter, this is a recommended best practice.</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION		EXPLANATORY NOTES
<p>3.3.3.2. Mitigation measures shall prioritize the avoidance of risks and impacts over minimization and compensation.</p>	<p>For 3.3.3.2: Confirm that prevention/avoidance is prioritized over minimization and compensation.</p>	<ul style="list-style-type: none"> • A list of persons responsible for ensuring effective implementation of controls and monitoring. • A record of updates made to address ineffective controls. <p>For 3.3.3.2:</p> <ul style="list-style-type: none"> • Community health and safety risk management plan or its equivalent. • A decision tree or similar mapping the possible options to mitigate each risk and impact identified in the assessment. 	<p>Explanatory Note for 3.3.3.2: This requirement is meant to align with the <u>mitigation hierarchy</u>, which is referred to throughout the IRMA Standard (in particular see IRMA Chapters 2.1 and 4.6).</p> <p>As mentioned in 3.3.5.1, the <u>operating company</u> must <u>collaborate</u> with relevant community members and <u>stakeholders</u> from <u>affected communities</u> in the development of <u>mitigation strategies</u>. If there is a technically and economically feasible option to <u>avoid</u> impacts rather than minimize them, but that option is not preferable to potentially affected <u>stakeholders</u> even after they have been fully informed of the risks related to the various options, then the <u>operating company</u> will not be expected to implement the <u>avoidance</u> measures as a priority.</p>
<p>3.3.3.3. The community health and safety risk management plan shall be updated, as necessary, based on the results of risk and impact monitoring.</p>	<p>For 3.3.3.3: Review any updates to the risk management plan/other relevant documents, and monitoring reports that informed the development of strategies to manage risks to community health and safety. Confirm that if monitoring has indicated impacts or unanticipated problems, that the management plan has been updated to reflect alternative <u>mitigation strategies</u> to be implemented to avoid or minimize the impacts.</p>	<p>For 3.3.3.3:</p> <ul style="list-style-type: none"> • Current and past versions of the community health and safety risk management plan (or equivalent). 	<p>Explanatory Note for 3.3.3.3: Updates may include new or revised <u>mitigation strategies</u>, changes in monitoring methods or frequency of monitoring, etc.</p> <p>“as necessary” should be interpreted as meaning that plans should be updated whenever monitoring or other information indicates that impacts on community health and safety have occurred, or that changes to the <u>mining project</u> (e.g., expansions, changes in operations and practices, etc.) may create new risks that need to be <u>mitigated</u>.</p>
<p>3.3.4. Specific Provisions Related to HIV/AIDS, Tuberculosis, Malaria and Emerging</p>	<p>For 3.3.4.1: Interview <u>operating company</u> and review relevant policies and</p>	<p>For 3.3.4.1:</p> <ul style="list-style-type: none"> • Risk assessment document 	<p>Explanatory Note for 3.3.4: These requirements will not be relevant for every mine site, as these diseases are not present everywhere. Where</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION		EXPLANATORY NOTES
<p>Infectious Diseases</p> <p>3.3.4.1. If the <u>operating company's</u> risk and impact assessment or other information indicates that there is a significant risk of community exposure to HIV/AIDS, tuberculosis, malaria or another emerging infectious disease related to mining activities, the <u>operating company</u> shall develop, adopt and implement policies, business practices, and targeted initiatives:</p> <p>a. In partnership with public health agencies, <u>workers' organizations</u> and other relevant <u>stakeholders</u>, create and fund initiatives to educate affected and vulnerable communities about these infections and modes of prevention of them, commensurate with the risks posed by mining;</p> <p>b. Operate in an open and transparent manner and be willing to share best practice for the prevention and treatment of these diseases with <u>workers' organizations</u> (e.g., trade unions), other companies, civil society organizations and policymakers; and</p> <p>c. Make information publicly available on its infectious disease <u>mitigation</u> program.</p>	<p>procedures, and interview representatives from public health agencies, <u>workers' organizations</u> and other relevant <u>stakeholders</u> (e.g., community groups working on education or access to treatment, etc.) to confirm that the company has implemented HIV/AIDS, TB and/or malaria initiatives, and the sharing of best practices on treatment and prevention, as appropriate. Review company website for publicly available information on infectious diseases.</p>	<p>demonstrating assessment of risk of community exposure to HIV/AIDS, tuberculosis, malaria or another emerging infectious disease related to mining activities.</p> <ul style="list-style-type: none"> • Policy and/or procedure documents explaining commitments to and procedures for: 1) Supporting initiatives to educate affected and vulnerable communities about these infections and modes of prevention of them, commensurate with the risks posed by mining; 2) Operating in an open and transparent manner regarding the risks and impacts of these infections and best practice prevention and treatment of these infections; 3) Publicly sharing information on the company's infectious disease mitigation program. • A list of the community members that these education initiatives have reached. • Photographic, audio/video or other documentation (e.g., sign-in sheets) of training programmes. • A list of workers' organizations with whom it has shared its knowledge and experience about the prevention and treatment of these infections. • A list of URLs or locations where publicly available information 	<p>certain diseases are present in the region where a mine is operating there may be specific risks to the company's operations such as reduced operations due to worker illness or restrictions on local and international travel, which can lead to a complete shutdown of operations. In such cases, any operating company should take steps to prevent and mitigate the impact on its operations from these diseases.</p> <p>Good corporate citizens should also contribute to the health and welfare of the communities where they operate.</p> <p>The requirements in criteria 3.3.4 of this chapter on community health and safety are relevant if there is a significant risk of worker and community exposure to HIV/AIDS, tuberculosis, malaria or another emerging infection disease that is in some way related to the <u>mining project</u>. For example, if there is the potential that mine workers may contract the diseases, if the spread of these diseases may be increased due to the movement or presence of mine employees in affected communities or the presence of sex workers who may engage with mine workers, if there are shared housing conditions that may promote the spread of disease, if standing water on the mine site provides grounds for mosquito breeding, or if pressures on medical services are created from in-migration related to mine development (reducing community access to medical services when suffering from HIV/AIDS, tuberculosis, malaria or another emerging infection disease).</p> <p>There may be diseases other than HIV/AIDS, tuberculosis, malaria or other emerging infectious diseases that may present risks for some <u>mining projects</u> and communities (e.g., Ebola virus disease, Zika virus, sexually transmitted diseases, etc.). If significant risks related to other infectious or communicable diseases are identified during the community health and safety risk and impact assessment process, then companies would be expected to take steps to mitigate and monitor their impacts.</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION		EXPLANATORY NOTES
<p>3.3.4.2. If the assessment demonstrates a significant risk of community exposure to HIV/AIDS, tuberculosis or malaria from <u>mining-related activities</u>, the following prevention and <u>mitigation</u> strategies shall be applied, as appropriate:</p> <p>d. In relation to HIV/AIDS, the <u>operating company</u> shall, at minimum:</p> <p>i. Provide free, voluntary and confidential HIV testing and counseling for all mine <u>workers</u> and employees;</p>	<p>For 3.3.4.2: Review HIV/AIDS, tuberculosis, malaria and/or Ebola policies procedures or action plans.</p> <p>For 3.3.4.2.a: If relevant, <u>interview operating company</u> and <u>mine workers</u> to confirm that free testing and counseling are available, and that treatment if provided if not affordably provided elsewhere. Confirm, too that the testing and counseling ensure that workers' HIV status is kept confidential.</p>	<p>pertaining to the operating company's infectious disease mitigation program can be accessed.</p> <p>For 3.3.4.2:</p> <ul style="list-style-type: none"> • Risk assessment document demonstrating assessment of risk of community exposure to HIV/AIDS, tuberculosis, malaria related to mining activities. • Policy document demonstrating the operating company's commitment to, and procedure document explaining how access is granted to provision of testing, treatment and education related to HIV/AIDS, and/or tuberculosis and/or malaria. • List of educational and preventative 	<p>This chapter highlights HIV/AIDS, TB and malaria in particular, because the mining industry has significant exposure to those diseases in some parts of the world, and best practices have been established by mining companies to minimize their impact in relation to those diseases.³⁴⁴ But recent experience with Ebola virus in Liberia has demonstrated that mining operations can also play a key role in combating other infectious diseases that threaten their workers and communities.³⁴⁵</p> <p>Explanatory Note for 3.3.4.1: Re: 3.3.4.1.a, "other relevant stakeholders" may include representatives from local and foreign hospitals and health centers; national, foreign and international health research and disease prevention organizations; national health agency (or equivalent government led role); local and international NGOs, private voluntary organizations, or civil society organizations that develop initiatives for local health awareness and disease prevention.</p> <p>Explanatory Note for 3.3.4.2: Re: 3.3.4.2.a.i, any testing and counseling that is conducted should ensure that workers' HIV status is kept confidential. Or, if workers' HIV status is voluntarily disclosed by the <u>worker</u> to the company, the company must make sure that it is adhering to requirement 3.1.3.1 in IRMA Chapter 3.1, which says that decisions about the job are not made based on personal characteristics, such as HIV status, if those characteristics are unrelated to inherent job requirements.</p>

³⁴⁴ International Council on Mining and Metals (ICMM). 2008. Good Practice Guidance on HIV/AIDS, Tuberculosis and Malaria. <https://www.icmm.com/website/publications/pdfs/health-and-safety/314.pdf>

³⁴⁵ US Geological Survey. 2015. Fact Sheet: The Ebola Virus Disease Outbreak and the Mineral Sectors of Guinea, Liberia, and Sierra Leone. <https://pubs.usgs.gov/fs/2015/3033/pdf/fs2015-3033.pdf>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
<p>ii. Provide HIV/AIDS treatment for <u>workers</u> and employees where it cannot reasonably be assumed that this will be provided in an effective manner by public or private insurance schemes at an affordable rate;</p> <p>iii. Provide access for <u>contractors</u> to education and other preventative programs, and to work with the <u>operating company's</u> or facility's contracting companies or others to identify ways for <u>contract workers</u> to access affordable treatment; and</p> <p>iv. Work with public health authorities, communities, <u>workers' organizations</u> and other <u>stakeholders</u> towards ensuring universal access to treatment for dependents of mine <u>workers/employees</u> and <u>affected community</u> members.</p> <p>e. In relation to tuberculosis, the <u>operating company</u> shall, at minimum, provide free and voluntary testing for mine <u>workers/employees</u> where it is not reasonably likely to be provided by public or private health programs at an affordable rate.</p>	<p>Interview <u>contract workers</u>, and review policies and procedures to confirm that programs are available to them.</p> <p>Interview <u>operating company</u> and relevant <u>stakeholders</u> to confirm that company is <u>collaborating</u> in efforts to ensure universal access to treatment for dependents of <u>workers/employees</u> and the community at large.</p> <p>For 3.3.4.2.b: If relevant, confirm that the company provides free and voluntary testing for TB to its employees.</p> <p>For 3.3.4.2.c: If relevant, interview <u>operating company</u> and review documentation, including policies, procedures, vector control plans or similar, related to malaria prevention measures; and inspect facilities and company-provided housing to confirm that malaria protections are in place.</p>	<p>programs available to workers, contractors, workers' families and others.</p> <ul style="list-style-type: none"> • List of the operating company's contracting companies and facility's contracting companies and others to whom the operating company has provided information on how contract workers can access affordable treatment for infectious diseases. • List of public health authorities, communities, workers' organizations and other stakeholders that the operating company has provided some support (in whatever context this might be) to access to treatment for dependents of mine workers/employees and affected community members. • A list of controls to reduce risk that the company facilities, including any company-provided housing, are not a breeding ground for malaria-carrying mosquitoes, which should include a full vector control plan. • A procedure document explaining the process to reduce risk that the company facilities, including any company-provided housing, are not a breeding ground for malaria-carrying mosquitoes.

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<p>f. In relation to malaria, the <u>operating company</u> shall, at minimum:</p> <ol style="list-style-type: none"> i. Develop a vector control plan; ii. Ensure that company facilities are not breeding environments for malaria-carrying mosquitoes; and iii. Provide protection from infection by malaria-carrying mosquitoes in company facilities and any company-provided housing. 		
<p>3.3.5. Stakeholder Engagement</p> <p>3.3.5.1. The <u>operating company</u> shall <u>collaborate</u> with relevant community members and <u>stakeholders</u>, including <u>workers who live in affected communities</u> and individuals or representatives of <u>vulnerable groups</u>, in:</p> <ol style="list-style-type: none"> a. Scoping of community health and safety risks and impacts related to mining; b. Assessment of significant community health and safety risks and impacts related to mining; c. Development of prevention or <u>mitigation strategies</u>; d. Collection of any data needed to inform the health risk and impact assessment process; and e. Design and implementation of community health and safety monitoring programs. 	<p>For 3.3.5.1: Review records of <u>stakeholders</u> who participated in the health and safety risk assessment process. Interview <u>stakeholders</u> and confirm that they were involved in <u>scoping, mitigation planning, data collection, impact assessment and monitoring</u>.</p>	<p>For 3.3.5.1:</p> <ul style="list-style-type: none"> • Communications with stakeholders encouraging or inviting their participation in community health and safety discussions and decisions. • List of consultations and participants. • Minutes or other notes taken at meetings with stakeholders. • Feedback provided by stakeholders, and the operating company's responses to input. • Communication materials used to manage the expectations of these stakeholders.
<p>IRMA STANDARD 1.0 –GUIDANCE DOCUMENT 1.2 – JUNE 2023</p> <p>www.responsiblemining.net</p>		<p>Explanatory Note for 3.3.5.1: Relevant community members include women, men, children or their representatives, other <u>vulnerable groups</u> (e.g., ethnic minorities, the elderly, health-compromised individuals, children) or their representatives, public health providers, government health agencies, and <u>workers who live in affected communities</u>. A review of government statistics on various diseases may help to reveal other relevant populations.</p> <p>The <u>operating company</u> may need to manage the expectations of <u>stakeholders</u> and be clear that <u>stakeholder</u> input and discussions will help inform decisions, but that <u>operating company</u> decisions may not always completely reflect the desires and preferences of <u>stakeholders</u>.</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION		EXPLANATORY NOTES
<p>3.3.6. Reporting</p> <p>3.3.6.1. The operating company shall make information on community health and safety risks and impacts and monitoring results publicly available.</p>	<p>For 3.3.6.1: Review operating company procedures, if any, on communicating and reporting health risks and impacts to the communities, and interested and affected parties. Interview operating company and stakeholders to confirm that information on mining-related health risks and impacts to communities, including monitoring data, are publicly available.</p>	<p>For 3.3.6.1:</p> <ul style="list-style-type: none"> • Website with information on community health and safety risks and impacts. • Materials used to communicate the operating company’s health and safety risks and impacts and monitoring results to the public. • A policy document explaining the operating company’s commitment to making information about the operating company’s health and safety risks and impacts and monitoring results available to the public. • A procedure document explaining the process for the public to request access to information on the operating company’s health and safety risks and impacts and monitoring results. 	<p>Explanatory Note for 3.3.6.1: “Publicly available” means that information should be on the company’s website, or in printed copies in publicly accessible locations.</p> <p>As per IRMA Chapter 1.2, public communications should be in formats and languages and using terminology that is respectful of cultural differences; and can be easily understood by the affected communities and stakeholders.</p>

NOTES

Infectious diseases such as HIV/AIDS, tuberculosis, malaria or other emerging infectious diseases (e.g., Ebola virus disease, sexually transmitted diseases, etc.) may present risks for some mining projects and communities. If significant risks related to infectious or communicable diseases are identified during the community health and safety risk and impact assessment process, then companies would be expected to take steps to mitigate and monitor their impacts. This chapter highlights HIV/AIDS, TB and malaria in particular, because the mining industry has significant exposure to those diseases in some parts of the world, and best practices have been established by mining companies to minimize their impact in relation to those diseases.³⁴⁶ But recent experience with Ebola virus in Liberia has demonstrated that mining operations can also play a key role in combatting other infectious diseases that threaten their workers and communities.³⁴⁷

³⁴⁶ International Council on Mining and Metals. “HIV/AIDS, tuberculosis and malaria.” www.icmm.com/page/84139/our-work/projects/articles/hiv/aids-tuberculosis-and-malaria

³⁴⁷ US Geological Survey. 2015. Fact Sheet: The Ebola Virus Disease Outbreak and the Mineral Sectors of Guinea, Liberia, and Sierra Leone. <https://pubs.usgs.gov/fs/2015/3033/pdf/fs2015-3033.pdf>

Cross References to Other Chapters	
CHAPTER	ISSUES
1.1—Legal Compliance	As per Chapter 1.1, if there are <u>host country laws</u> governing or requiring community health assessments, the <u>operating company</u> is required to abide by those laws. If IRMA requirements are more stringent than <u>host country law</u> , the company is required to also meet the IRMA requirements, as long as complying with them would not require the company to violate <u>host country law</u> .
1.2—Community and Stakeholder Engagement	<u>Stakeholder engagement</u> in community health and safety assessment, mitigation and monitoring must comply with the general <u>stakeholder engagement</u> requirements in Chapter 1.2. In particular, it may be important for some capacity building to occur, to ensure that community members can engage in the risk assessment process, including development of mitigation and monitoring, in a meaningful way. (See requirement 1.2.3.1) And 1.2.4 ensures that communications and information are in culturally appropriate formats and languages that are accessible and understandable to <u>affected communities</u> and <u>stakeholders</u> , and provided in a timely manner.
1.3—Human Rights Due Diligence	There are a number of health-related human rights (Right to Health, Right to security of person, Right to adequate housing, Right to food, Right to water, Right to clean environment, Right to adequate standard of living, Right to education, Right to privacy, Freedom from child labor, etc. ³⁴⁸) that may be affected by mining. These issues should be assessed during the human rights impact assessment process in Chapter 1.3.
1.4—Complaints and Grievances Mechanism and Access to Remedy	<u>Affected community members</u> and <u>stakeholders</u> have the right to access the operational-level <u>grievance mechanism</u> if they have concerns about community health and safety issues related to <u>mining project</u> .
2.1—Environmental and Social Impact Assessment and Management	The community health and safety risk and impact assessment does not necessarily have to be a standalone assessment. It may be carried out as part of the ESIA, as long as the elements listed in this chapter were included in that assessment.
2.5—Emergency Preparedness and Response	Mitigation measures related to community health and safety may be incorporated into or developed as part of the Emergency Response Plan (ERP) as per Chapter 2.5. For example, if risks related to particular <u>hazards</u> such as chemicals transportation accidents or breaches of <u>tailings impoundments</u> are identified, there may be the need to incorporate into the ERP appropriate methods to alert and possibly evacuate community members as quickly and safely as possible.
3.1—Fair Labor and Terms of Work	Requirement 3.1.3.1 mandates fair treatment in employment relationships, and prohibits <u>operating companies</u> from making discriminatory employment decisions on the basis of personal characteristics unrelated to inherent job requirements, such as HIV/AIDS status (see requirement 3.3.4.2).
3.2—Occupational Health and Safety	The assessment and mitigation of health and safety risks to <u>workers</u> while engaged in <u>mining-related activities</u> is addressed in Chapter 3.2. However, workers also live in communities that may be affected by <u>mining-related activities</u> , and so they are also included as <u>stakeholders</u> in community health and safety assessment, mitigation and monitoring. HIV/AIDS testing may be included in worker health surveillance mentioned in 3.2.4.2. As per 3.2.4.2.b “Health surveillance shall be carried out in a manner that protects the right to confidentiality of medical information, and is not used in a manner prejudicial to <u>workers’</u> interests.”
3.6—Artisanal and Small-Scale Mining	If artisanal and small-scale mining (ASM) is occurring in the vicinity of the industrial scale mine that is participating in IRMA, the ASM operating entities and miners would be considered <u>stakeholders</u> and/or <u>affected communities</u> , and should be included in the scoping and assessment risks to community health and safety, as well as in any programs related to HIV/AIDS, tuberculosis, malaria or emerging Infectious diseases.

³⁴⁸ Salcito, K., Utzinger, J., Krieger, G. R., Wielga, M., Singer, B. H., Winkler, M. S., & Weiss, M. G. 2015. “Experience and lessons from health impact assessment for human rights impact assessment,” BMC International Health and Human Rights, 15, 24. <http://doi.org/10.1186/s12914-015-0062-y>

Cross References to Other Chapters	
4.1—Waste and Materials Management	Chapter 4.1, requirement 4.1.2.1, requires the identification of all materials, substances, such as chemicals, and wastes (other than mine wastes) associated with the <u>mining project</u> that have the potential to cause impacts on human health, safety, the environment or communities. And requirement 4.1.3., requires the identification of chemical and physical risks associated with mine waste materials (e.g., tailings, waste rock, spent ore from heap leaches, and residues and fluid wastes from mineral processing), which could include risks to community health and safety.
4.2—Water Management	Requirement 4.2.5.2 requires a company to develop and implement procedures for rapidly communicating with <u>stakeholders</u> in the event that there are changes in water quantity or quality that pose an imminent threat to human health or safety.
4.6—Biodiversity, Ecosystem Services and Protected Areas	4.6.1.1.e requires scoping of mining-related impacts on priority <u>ecosystem services</u> . This may have been done during the ESIA, or as part of a biodiversity and ecosystem assessment as per Chapter 4.6, or scoped as part of the community health and safety scoping (3.3.1). Regardless of when the scoping occurred, if there were risks community health and safety related to potential impacts on priority ecosystem services, those risks should be further evaluated in the community health and safety risk and impact assessment process (3.3.2).

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the Glossary of Terms at the end of the IRMA Standard document.

Affected Community

A community that is subject to risks or impacts from a project.

Collaboration

The process of shared decision-making in which all stakeholders constructively explore their differences and develop a joint strategy for action. It is based on the premise that, through dialogue, the provision of appropriate information, collectively defined goals, and the willingness and commitment to find a solution acceptable to all parties, it is possible to overcome the initially limited perspectives of what is achievable and to reach a decision which best meets the interests of the various stakeholders. At this level, responsibility for decision-making is shared between stakeholders.

Contract Workers

Workers engaged through third parties (for example contractors, brokers, agents, or intermediaries) who are performing work or providing services directly related to core business processes of the mining project for a substantial duration (i.e., employment other than on a casual or intermittent basis) at the project location. These workers may be engaged at any point during the mine lifecycle (including prior to or during construction phase).

Contractors

An individual, company, or other legal entity that carries out duties related to a mining project that are subject to a contractual agreement that defines, for example, work, duties or services, pay, hours or timing, duration of agreement, and that remains independent for employment, tax, and other regulatory purposes. This includes sub-contractors.

Ecosystem Services

The benefits people obtain from ecosystems. These include provisioning services such as food, water, timber, and fibre; regulating services that affect climate, floods, disease, wastes, and water quality; cultural services that provide recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation, photosynthesis, and nutrient cycling.

Mine Closure

A period of time when ore-extracting and processing activities of a mine have ceased, and final decommissioning and mine reclamation are occurring. It typically includes pre-closure (detailed closure design and planning), closure (actual activities of closure of mine workings and construction/decommissioning) and post-closure (mainly long-term reclamation, monitoring, and treatment) periods, each with its own specific activities.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mining-Related Activities

Encompasses any activities that may occur during any phase of the mine life cycle (planning, impact assessment, exploration, mine construction, mining, mine closure), and includes all physical activities (e.g., land disturbance and clearing, sampling, airborne surveys, construction, ore removal, ore processing, waste management, reclamation, etc.).

Mitigation

Actions taken to reduce the likelihood of a certain adverse impact occurring.

Mitigation Hierarchy

The mitigation hierarchy is a set of prioritized steps to alleviate environmental (or social) harm as far as possible through avoidance, minimization (or reduction) and restoration of adverse impacts. Compensation/offsetting are only considered to address residual impacts after appropriate avoidance, minimization and restoration measures have been applied. (See Glossary for full definition)

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Post-Closure

The period after the reclamation surety holder declares the activities required by the reclamation and closure plan are complete; any significant objections raised during the public comment period on the final release of the financial surety have been resolved; and the reclamation surety has been returned to the operator, or it has been converted to a post-closure trust fund or equivalent (i.e. if there is a need to fund long-term management and monitoring of the site). This phase continues until final sign-off and relinquishment can be obtained from the regulator and stakeholders.

Priority Ecosystem Services

Ecosystem services are considered priority under the following circumstances: (i) Project operations are likely to result in a significant impact on the ecosystem service; the impact will result in a direct adverse impact on affected communities' livelihood, health, safety and/or cultural heritage; and the project has direct management control or significant influence over the service; or (ii) The project directly depends on the service for its primary operations; and the project has direct management control or significant influence over the service.

Stakeholder

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Tailings

The waste stream resulting from milling and mineral concentration processes that are applied to ground ore (i.e., washing, concentration, and/or treatment). Tailings are typically sand to clay-sized materials that are considered too low in mineral values to be treated further. They are usually discharged in slurry form to a final storage area commonly referred to as a tailings storage facility (TSF) or tailings management facility (TMF).

Vulnerable Group

A group whose resource endowment is inadequate to provide sufficient income from any available source, or that has some specific characteristics that make it more susceptible to health impacts or lack of economic opportunities due to social biases or cultural norms (e.g., may include households headed by women or children, people with disabilities, the extremely poor, the elderly, at-risk children and youth, ex-combatants, internally displaced people and returning refugees, HIV/AIDS-affected individuals and households, religious and ethnic minorities, migrant workers, and groups that suffer social and economic discrimination, including indigenous peoples, minorities and in some societies, women).

Worker

All non-management personnel.

Workers' Organizations

Typically called trade unions or labor unions, these organizations are voluntary associations of workers organized on a continuing basis for the purpose of maintaining and improving their terms of employment and workplace conditions.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



Chapter 3.4—Mining and Conflict-Affected or High-Risk Areas

READ GUIDANCE NOTE

Guidance Note for Auditors and Mines on Chapter 3.4-Mining and Conflict-Affected or High-Risk Areas

Background

The *OECD Due Diligence Guidance on Responsible Mineral Supply Chains in Conflict-Affected and High-Risk Areas* (OECD Guidance) provides detailed recommendations to help companies respect human rights and avoid contributing to conflict when purchasing minerals and metals. In addition to companies sourcing minerals and metals, OECD Guidance is for use by any company that produces minerals or metals or transports these materials through conflict-affected and high-risk areas.

IRMA Chapter 3.4 – Mining in Conflict-Affected or High-Risk Areas is meant to align with the OECD Due Diligence Guidance, with the objective of preventing mines that operate in, source minerals from, or transport minerals through conflict-affected or high-risk areas from contributing to conflict or the perpetration of serious human rights abuses.

By carrying out such due diligence, mines can provide purchasers and others with added assurance that extraction, processing and transport of minerals or metals from these mines are not contributing to the financing of conflict or serious abuses of human rights.

Early Learnings

As of March 2020, IRMA has observed two mine site assessments. Based on the interviews with mine staff, evidence provided during these assessments, and discussions between IRMA and the auditors, it has become clear that both mines and auditors need further clarification on some of the requirements of Chapter 3.4-Mining in Conflict-Affected or High-Risk Areas.

Some of the issues and questions raised during the first two audits include:

- What constitutes adequate screening to determine if a mine is in a Conflict-Affected or High-Risk Areas (CAHRA)? How many sources of information must the mine consult to come to its determination? Are there some sources that are more credible and therefore should always be checked as part of the screening exercise?
- How do auditors check the veracity of a mine's conclusions regarding whether they are or are not in a CAHRA? Should auditors do their own research? The definition of what is a CAHRA is broad and open to interpretation. What happens if auditors' opinion differs from the mine's regarding whether or not the mine is located in a CAHRA?

- Does screening only need to cover the country or should it drill down to the state/provincial and local levels?
- Does a mine automatically have to carry out added due diligence if the country is considered a CAHRA, even if conflict is not present at the local or regional level (and/or other high-risk-area indicators are not present)?
- Do mineral transportation routes need to be included in the screening exercise? Are there some cases when mines would not need to factor in transportation routes, e.g., if ore or concentrate is purchased by traders or smelters at the mine gate?
- How does the chapter get scored if the screening exercise was not done, or it was deemed insufficient? Does a mine score zero on the remainder of the chapter requirements?

Challenges

To date, the application of the OECD Guidance and other supply chain transparency efforts (e.g., Conflict Mineral Reports filed with the U.S. Securities and Exchange Commission) have overwhelmingly been focused at and downstream of smelters and refiners.

Up until recently, existing application of conflict-related due diligence focused on only four minerals/metals: tin, tantalum, tungsten and gold, and also focused on particular “conflict-affected and high-risk areas” such as the Democratic Republic of Congo and surrounding countries. It is only more recently that the due diligence framework developed by OECD has come to be applied more broadly to all minerals and metals and across the entire globe.

While there is fairly detailed guidance for downstream entities in the supply chain, the guidance for upstream entities such as large-scale mines is less detailed, especially at the conflict-screening stage.

Path Forward

During the next revision of the Standard, IRMA will re-evaluate this chapter and develop new guidance for mines on this chapter. This will be made available to mines and auditors as soon as it has been completed.

IRMA does not wish to penalize the first mines that have come forward to be audited during IRMA’s Launch Phase. IRMA also recognizes that some mines may have carried out detailed due diligence on this topic area because purchasers or others have required them to report on whether or not they are operating in, sourcing from or transporting minerals through conflict-affected or high-risk areas.

As a result, if a mine has its initial audit in the launch phase it will be audited against this chapter (so that IRMA can understand the current state of knowledge on this topic) but can choose one of the following options:

1. **Default option:** A mine can choose to not have its Chapter 3.4 score factored into the overall achievement level score (e.g., a mine that did not fully understand how to carry out a conflict-screening may wish to choose this option). During the mine’s surveillance audit (12 to 18 months after the initial audit has been concluded) the chapter will be scored, and the score will then factor into the overall achievement level of the mine.

2. A mine can choose to be scored against the chapter and have the score factored into its achievement level score (e.g., a mine may be able to demonstrate that it has fulfilled some or all of the requirements of the chapter and wish to have its results shared publicly). **Mines wishing to be scored must let the CB know during the audit planning stage.**

After new guidance is published, mines entering the system will be audited and scored against the chapter, according to the expectations and explanations laid out in the new guidance.

BACKGROUND

Mining projects may take place in areas where there are existing or potential conflicts or socio-political instability that can adversely affect the project and local stakeholders. In some cases, conflict may be external to the company's operation, and in other cases conflict may be caused, exacerbated or supported by a company's activities or presence in an area.

"Companies and their investors are paying increased attention to the challenges and opportunities of doing business in conflict-affected and high-risk areas. These areas differ significantly from more stable operating environments and require companies and investors to take into consideration additional factors."³⁴⁹

Developing suitable responses when operating in or sourcing minerals from conflict-affected or high-risk areas is challenging, but guidance exists to assist companies in identifying, assessing and mitigating risks and impacts associated with operating in those areas. The most widely accepted framework is the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas.³⁵⁰

Such guidance is increasingly being used as a means of cultivating transparent mineral supply chains and corporate engagement in the mineral sector, with a view to enabling countries to benefit from their mineral resources and preventing the extraction and trade of minerals from becoming a source of conflict, human rights abuses, and insecurity.³⁵¹

OBJECTIVES/INTENT OF THIS CHAPTER

To prevent contribution to conflict or the perpetration of serious human rights abuses in conflict-affected or high-risk areas.

SCOPE OF APPLICATION

³⁴⁹ UN Global Compact and PRI (2010). They elaborate that "The following conditions often prevail in conflict-affected and high-risk areas: human rights violations; presence of an illegitimate or unrepresentative government; lack of equal economic and social opportunity; systematic discrimination against parts of the population; lack of political participation; poor management of revenues, including from natural resources; endemic corruption; and chronic poverty with associated heightened risks and responsibilities." (UN Global Compact and PRI. 2010. *Guidance on Responsible Business in Conflict-Affected and High Risk Areas: A Resource for Companies and Investors*. https://www.unglobalcompact.org/docs/issues_doc/Peace_and_Business/Guidance_RB.pdf)

³⁵⁰ IRMA Guidance will include references for resources related to due diligence for mining in conflict-affected areas, as well as resources on how to carry out a conflict sensitive approach to business practices.

³⁵¹ Organisation for Economic Cooperation and Development (OECD). 2016. OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas. (3rd Ed.) <https://mneguidelines.oecd.org/mining.htm>

TERMS USED IN THIS CHAPTER

Affected Community ■ Business Relationships ■ Certification Body ■ Collaboration ■ Competent Professionals ■ Confidential Business Information ■ Conflict-Affected or High-Risk Area ■ Conflict Risk ■ Consultation ■ Contractor ■ Corporate Owner ■ Existing Mine ■ Grievance ■ Grievance Mechanism ■ Human Rights Defender ■ Human Rights Risks ■ Mining Project ■ Mining-Related Activities ■ Mitigation ■ New Mine ■ Operating Company ■ Remediation/Remedy ■ Serious Human Rights Abuses ■ Stakeholder ■ Worker ■ Vulnerable Group ■

Chapter Relevance: All mines assessed under IRMA are expected to have undertaken conflict screening (Criterion 3.4.1) to determine if they are in a conflict-affected or high-risk area. The due diligence requirements that follow 3.4.1 are relevant for mines that are proposed or located in conflict-affected or high-risk areas, as well as mines that have product that is transported through conflict-affected or high-risk areas (if the material is in the custody or ownership of the operating company).³⁵²

New vs. Existing Mines: New mines are expected to undertake conflict screening, and any required due diligence, as early as possible during the mining project investment phase. Existing mines will not be expected to have carried out conflict screening prior to project investment. They will, however, be required to undertake screening, and any other required due diligence, prior to applying for IRMA independent assessment.

Important Cross References with other IRMA Chapters: The risk of committing, contributing to or being linked to human rights violations are increased in conflict-affected and high-risk areas. When mining projects are located in conflict-affected or high-risk areas, operating companies must ensure that risks to human rights are addressed as per Chapter 1.3 Human Rights Due Diligence. For cross references with other chapters, see the Cross References table near the end of the chapter.

CRITICAL REQUIREMENTS IN THIS CHAPTER

If operating in a conflict-affected or high-risk area, the mine has committed to not support any parties that contribute to conflict or the infringement of human rights (3.4.2.1).

Mining and Conflict-Affected or High-Risk Area Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.4.1. Conflict-Affected High-Risk Area Screening</p> <p>3.4.1.1. The <u>operating company</u> shall conduct a screening analysis, based on evidence from credible sources,³⁵³ to determine whether or not the <u>mining project</u> is located in and/or sources</p>	<p>For 3.4.1.1: Review the <u>operating company</u> documentation and rationale for its determination of whether or not the operation is in a <u>conflict-affected or high-risk area</u>. If there is any question about the determination, e.g., from <u>stakeholders</u>, compare company analysis with sources of “credible evidence”.</p>	<p>For 3.4.1.1:</p> <ul style="list-style-type: none"> • Screening procedures. • Screening analysis report(s). • Any procedures, methodologies or definitions used to define what is a conflict-affected or high-risk area • List or index of sources reviewed to make determination of whether or not the mining project is located in and/or sources minerals from a conflict-affected or high-risk area. 	<p>Explanatory Note for 3.4.1.1: This requirement is based on a similar requirement found in the World Gold Council’s Conflict-Free Gold Standard. A2.2, which has some guidance on how to make a determination of whether or not a project is located in a <u>conflict-affected or high-risk area</u>.³⁵⁶</p>

³⁵² This is based on a similar requirement found in the World Gold Council’s Conflict-Free Gold Standard. A2.2. Available at: www.gold.org/gold-mining/responsible-mining/conflict-free

³⁵³ **Credible sources** may include reports and other information (e.g., maps, statements) from governments, international organizations, NGOs, industry, media, United Nations or others (e.g., ethical pension funds) relating to mineral extraction, and its impact on conflict, human rights or environmental harm in the country of potential origin, as well as criteria and indicators of conflict-affected or high-risk areas developed through multi-stakeholder initiatives. Links to credible sources will be provided in Guidance.

³⁵⁶ World Gold Council. 2012. Conflict-Free Gold Standard. pp. 12 - 15. https://www.gold.org/sites/default/files/documents/Conflict_Free_Gold_Standard_English.pdf

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>minerals from a <u>conflict-affected or high-risk area</u>.³⁵⁴</p> <p>3.4.1.2. If a determination is made that the <u>mining project</u> is located in a <u>conflicted-affected or high-risk area</u> or it sources minerals from such areas, then the <u>operating company</u> shall undertake the additional due diligence steps outlined in the remainder of this chapter.</p> <p>3.4.1.3. If a determination is made that the project is not located in a <u>conflicted-affected or high-risk area</u>, and no minerals are sourced from those areas, then conflict-related risks shall be monitored at a level commensurate with the potential that the project area may become a <u>conflict-affected or high-risk area</u> and/or minerals from such areas may enter the mine’s supply chain.³⁵⁵ If new risks emerge or previously identified risks intensify, screening shall take place to determine if risks are significant enough to warrant undertaking the additional due diligence steps in the remainder of this chapter.</p>	<p>Establish if the mine sources minerals from ASM or other large-scale mines, and if so, confirm that there is documentation of purchasing or other agreements. Confirm that a determination is made of whether or not minerals sourced from other mining operations are from conflict-affected or high-risk areas.</p> <p>Interview <u>operating company</u> and review documentation to confirm that <u>stakeholders</u> and expert opinion helped to inform the screening. Interview <u>stakeholders</u> and experts to confirm that their input was reflected in the company’s screening analysis.</p> <p>For new mines, screening should have occurred prior to mine development. Note that <u>existing mines</u> are not expected to have carried out conflict screening prior to mine development. They are, however, required to have undertaken screening, and any other required due diligence, prior to applying for IRMA independent assessment.</p> <p>For 3.4.1.2: If the mining project is located in a conflict-affected or high-risk area, continue auditing the remainder of</p>	<ul style="list-style-type: none"> • Documentation of all sources of mined material that are purchased or otherwise sourced by the mine site (e.g., from ASM or other large-scale mines). • Documentation of updated screening assessments, including rationale for frequency of re-screening. <p>For 3.4.1.2:</p> <ul style="list-style-type: none"> • Screening analysis report(s). • Risk assessment report(s). • Monitoring report(s). <p>For 3.4.1.3:</p> <ul style="list-style-type: none"> • Screening procedures. • Screening analysis report(s). • Country-risk monitoring reports. • Contact information for person responsible to carry out additional screening. 	<p>There is no single definition of what is a conflict-affected and/or high-risk area. Two commonly cited definitions are from the OECD and the EU.³⁵⁷</p> <p>OECD’s definition of conflict-affected and high-risk areas is: “Conflict-affected and high-risk areas are identified by the presence of armed conflict, widespread violence or other risks of harm to people. Armed conflict may take a variety of forms, such as a conflict of international or non-international character, which may involve two or more states, or may consist of wars of liberation, or insurgencies, civil wars, etc. High-risk areas may include areas of political instability or repression, institutional weakness, insecurity, collapse of civil infrastructure and widespread violence. Such areas are often characterised by widespread human rights abuses and violations of national or international law.”</p> <p>The EU definition of conflict-affected and high-risk areas is: “Areas in a state of armed conflict, fragile post-conflict areas, as well as areas witnessing weak or non-existing governance and security, such as failed states, and widespread and systematic violations of international law, including human rights abuses.”</p> <p>Re: 3.4.1.1, In addition to determining whether or not the mining project is located in or sources minerals from small or large mines located in a conflict-affected or high-risk area, operating companies should also evaluate whether or</p>

³⁵⁴ Ideally, this should take place early in the project investment phase.

³⁵⁵ For example, mines located in many parts of the United States, Canada or Australia may not need to perform regular monitoring because the areas are stable, have good governance, high standards of living, etc. However, in other countries where peace and security may exist but be somewhat fragile, or even in some regions of so-called stable countries, there may be the need to monitor the situation more closely (e.g., areas where there is potential for localized conflicts or protests to arise, etc.).

³⁵⁷ Responsible Minerals Initiative website: “Conflict Affected and High-Risk Areas (CAHRAs).” <http://www.responsiblemineralsinitiative.org/emerging-risks/conflict-affected-and-high-risk-areas/>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
	<p>this chapter. If the mining project is not located in such an area, and does not source minerals from those areas, then proceed to 3.4.1.3.</p> <p>For 3.4.1.3: Confirm that there is someone within the company who has the responsibility to monitor conflict issues, and interview them and/or review any documentation or mechanisms being used to monitor the situation and update screening analyses. Confirm that additional screening occurs during an appropriate timeframe, e.g., when new conflicts or risks emerge or intensify in a host country, or new sources of minerals enter the mine’s supply chain. Companies should provide rationale for the frequency of their reviews (e.g., less frequent if they are not located in conflict-affected or high-risk areas).</p>		<p>not mineral transportation routes are through a conflict-affected or high-risk area.</p> <p>Sourcing of minerals may include the purchase of mined materials by the operating company that get mixed with its own mined materials, but it may also include agreements to process ore or materials from other sources at beneficiating facilities (e.g., mill, processing plants, smelters, refineries) that are co-located with the mine.</p> <p>If the mine sources materials from others, but segregates the materials, this should be noted.</p> <p>Requirement 3.4.1.1 says that “credible sources” should be used to determine if the mining project is located in, or the project will source from (or transport minerals through) conflict-affected or high-risk areas. In addition to using and documenting credible sources, the company should document the definition(s) and criteria it used to determine what is a conflict-affected or high-risk area. For example, did it include a screen for areas where there is a high risk for money laundering and/or financing of terrorism, did it look at corruption indices, were human rights allegations and sanctions reviewed for government officials?</p> <p>“Credible sources” may include reports and other information (e.g., maps, statements) from governments, international organizations, NGOs, industry, media, United Nations or others (e.g., ethical pension funds) relating to mineral extraction, and its impact on conflict, human rights or environmental harm in the country of potential origin, as well as criteria and indicators of <u>conflict-affected or high-risk areas</u> developed through <u>multi-stakeholder initiatives</u>. Sources would be considered credible if they are</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
			<p>trusted and/or referred to by a range of stakeholders, including competent professional who work on human rights and/or conflict-affected areas.</p> <p>Some examples of sources that might be used to make the determination of whether or not the project is in a Mining and Conflict-Affected or High-Risk Area include:³⁵⁸</p> <p>Fund for Peace. Fragile States Index. Heidelberg Institute for International Conflict Research. Conflict Barometer - research on the emergence, dynamics and settlement of political conflicts worldwide. International Alert Screening Tool contained in Conflict Sensitive Business Practices (2005). Chapter 3, Screening tool. Know your Country (country reports of money laundering and sanction information) Maplecroft's political risk atlas which evaluates traditional political risks including: conflict; terrorism; rule of law; and the regulatory and business environment; as well as structural challenges affecting political stability, such as resource security; infrastructure readiness; and human rights. Includes: 50 political risk indices and interactive maps, in addition to scorecards for 197 countries. Responsible Mining Initiative Conflict-Affected and High-Risk Areas: Key Resources. Transparency International Corruption Reports (by country).</p>

³⁵⁸ Fund for Peace. Fragile States Index. <http://fundforpeace.org/fsi/>; Heidelberg Institute for International Conflict Research. Conflict Barometer. <https://hiik.de/conflict-barometer/current-version/?lang=en>; International Alert. 2005. Conflict Sensitive Business Practices. https://www.international-alert.org/sites/default/files/Economy_2005_CSBPGuidanceForExtractives_All_EN_v2013.pdf; Know your Country (country reports of money laundering and sanction information). <https://www.knowyourcountry.com/>; Maplecroft. Political Risk Atlas. <http://maplecroft.com/risk-atlases/>; Responsible Mining Initiative. Conflict-Affected and High-Risk Areas: Key Resources. <http://www.responsiblemineralsinitiative.org/emerging-risks/conflict-affected-and-high-risk-areas/>; Transparency International. Corruption Reports (by country). <https://www.transparency.org/country>; World Gold Council. 2012. Conflict-Free Gold Standard. https://www.gold.org/sites/default/files/documents/Conflict_Free_Gold_Standard_English.pdf; World Bank Group. Harmonized List of Fragile Situations. <http://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
			<p>World Gold Council. 2012. Conflict-Free Gold Standard. World Bank Group. Harmonized List of Fragile Situations.</p> <p>Ideally, screening should initially take place during the project investment phase. However, for new and existing mines entering the IRMA system, the most important thing is that screening does take place, and if it demonstrates that a mining project is located in or sources minerals from a conflict-affected or high-risk area, that subsequent due diligence takes place. As required in 3.4.1.3, screening should also take place periodically after the initial screening.</p> <p>Explanatory Note for 3.4.1.2: The additional due diligence steps include those found in requirement 3.4.1.3, and in all of the requirements in criteria 3.4.2, 3.4.3, 3.4.4, 3.4.5. and 3.4.6.</p> <p>Explanatory Note for 3.4.1.3: For example, unless they are sourcing from outside concessions/traders/exporters that are located in a conflict-affected or high-risk areas, mining projects located in many parts of the United States, Canada or Australia may not need to perform regular monitoring because the areas are stable, have good governance, high standards of living, etc. However, in other countries where peace and security may exist but be somewhat fragile, or even in some regions of so-called stable countries, there may be the need to monitor the situation more closely (e.g., areas where there is potential for localized conflicts or protests to arise, etc.).</p> <p>Additionally, if new sources of materials are entering the mine’s mineral supply chain then those suppliers should be screened immediately to determine if those sources are</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.4.2. Company Management Systems</p> <p>3.4.2.1. (Critical Requirement) When operating in or sourcing minerals from a <u>conflict-affected or high-risk area</u>, the <u>operating company</u> shall not knowingly or intentionally cause, contribute to or be linked to conflict or the infringement of human rights by any party, or knowingly provide direct or indirect support to non-state armed groups or their affiliates, public security forces, or private security forces who:</p> <ol style="list-style-type: none"> Illegally control mine sites, transportation routes and upstream actors in the supply chain; Illegally tax or extort money or minerals at point of access to mine sites, along transportation routes or at points where minerals are traded; or Illegally tax or extort intermediaries, export companies or international traders. 	<p>For 3.4.2.1: Review credible sources (e.g., reports and other information from the United Nations, governments, international organizations, NGOs, media, United Nations), to determine if the company has been implicated in knowingly contributing to conflict as per 3.4.2.1.</p> <p>For 3.4.2.2.a: Confirm that the <u>operating company</u> or its <u>corporate owner</u> has a policy on conflict-affected areas, and find out how it has been communicated to <u>stakeholders</u>. Confirm, e.g., through visiting the company or <u>corporate owner</u> website, that the policy is publicly available.</p> <p>For 3.4.2.2.b: Interview relevant <u>operating company</u> staff to confirm that the company maintains the required documentation. Confirm that documentation as per 3.4.2.1.b has been made available to downstream purchasers and others. Review the documentation to ensure that it has been kept up to date.</p>	<p>For 3.4.2.1:</p> <ul style="list-style-type: none"> Screening analysis report(s). List or index of sources reviewed or locations visited to understand if the company and mining project might be associating with public or private security forces or other parties such as government officials or business partners that may be infringing on human rights or carrying out illegal acts as outlined in 3.4.2.1.a, b and c. Risk assessment report(s). Monitoring report(s). <p>For 3.4.2.2:</p> <ul style="list-style-type: none"> Policy statements or other documents that include commitments related to operating in conflict-affected or high-risk areas. Documentation of expectations of suppliers and business partners (e.g., Codes of Conduct or contracts that contain clauses related to the operating company’s expectations regarding respect for human rights, prohibition against providing support to non-state armed groups, etc.). Documentation related to agreements with public and private security forces is also required in Chapter 3.5) Records of communication with public and 	<p>from a conflict-affected or high risk-area, or the minerals are being transported through such an area.</p> <p>Explanatory Note for 3.4.2.1: The <i>OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas</i> recommends that businesses operating in <u>conflict-affected or high-risk areas</u> adopt and commit to the items reflected in 3.4.2.1 as part of their supply chain policies.³⁶⁰ This IRMA requirement builds on that commitment such that IRMA expects companies to also show that they have undertaken due diligence to assert, with reasonable confidence, that they are not knowingly or intentionally supporting human rights abuses or those who commit those abuses or carry out other illegal acts.</p> <p>“Direct or indirect support” includes, but is not limited to, procuring minerals from, making payments to or otherwise providing logistical assistance or equipment to non-state armed groups or public or private security forces; it does not include legally required forms of support, including legal taxes, fees, and/or royalties that companies pay to the government of a country in which they operate.³⁶¹</p> <p>"by any party" could include state or government officials, departments, security forces, etc., as well as those with whom the operating company has business relationships (see IRMA Chapter 1.3, requirement 1.3.2.1, which requires the company to assess the potential human rights risks related to its business relationships).</p>

³⁶⁰ OECD. 2016. OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas. (3rd Ed.) Annex II. <https://mneguidelines.oecd.org/mining.htm>

³⁶¹ OECD. 2016. OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas. (3rd Ed.) p. 66. <https://mneguidelines.oecd.org/mining.htm>

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<p>3.4.2.2. When operating in a <u>conflict-affected or high-risk area</u>, the <u>operating company</u> shall:</p> <p>a. Adopt and communicate to the public and <u>stakeholders</u> a commitment that when operating in a <u>conflict-affected or high-risk area</u> the <u>operating company</u> will not knowingly or intentionally cause, contribute to or be linked to conflict or the infringement of human rights by any party;</p> <p>b. Maintain documentation on the quantity and dates of mineral extraction; quantity and dates of minerals obtained from other sources (e.g., from ASM); locations where minerals are consolidated, traded or processed; all mining-related taxes, fees, royalties or other payments made to governmental officials for the purposes of extraction, trade, transport and export of minerals; all taxes and other payments made to public or private security forces or other armed groups; identification of all actors in the upstream supply chain; and transportation routes.</p>	<p>For 3.4.2.2.c: Determine who is the <u>operating company</u> senior staff in charge of the conflict screening and due diligence process, and confirm that he or she has the competence, knowledge and experience to be in that position.</p> <p>For 3.4.2.2.d: Interview <u>operating company</u> staff and/or to confirm that there is a <u>grievance mechanism</u> in place to address conflict-related issues. Determine if <u>stakeholders</u> had input in the design of the mechanism (as per Chapter 1.4). Interview <u>stakeholders</u> to determine if they know about and would feel comfortable using the existing <u>grievance mechanism(s)</u> for conflict-related concerns.</p>	<p>stakeholders.</p> <ul style="list-style-type: none"> • Documentation on the quantity and dates of mineral extraction. • Documentation of all sources of mined material that are purchased or otherwise sourced by the mine site (e.g., from ASM or other large-scale mines), and transportation routes from these sources to the mine. • Documentation from the company or government sources on the payments made to governments (e.g., fees, royalties, taxes) and to public security forces, private security forces or other armed groups. (See also Chapters 1.5 and 3.5 for similar documentation requirements) • Qualifications of staff assigned to oversee the conflict due diligence processes. • Grievance procedures. • Record of lodged grievances, and company responses. • Any other due-diligence-related report(s). 	<p>“Control” of mines, transportation routes, points where minerals are traded and upstream actors in the supply chain means: i) Overseeing extraction, including by granting access to mine sites and/or coordinating downstream sales to intermediaries, export companies or international traders; ii) Making recourse to any forms of forced or compulsory labor to mine, transport, trade or sell minerals; or iii) Acting as a director or officer of, or holding beneficial or other ownership interests in, upstream companies or mines.³⁶²</p> <p>“Extort” from mines, transportation routes, points where minerals are traded or upstream companies means the demanding, under the threat of violence or any other penalty, and for which the person has not voluntarily offered, sums of money or minerals, often in return for granting access to exploit the mine site, access transportation routes, or to transport, purchase, or sell minerals.³⁶³</p> <p>Explanatory Note for 3.4.2.2.a: The commitment may be integrated into an existing policy, such as a human rights policy, or be a public statement regarding operations in conflict-affected areas. Additionally, the operating company may develop its own policy, or adopt a <u>corporate owner’s</u> policy as long as it clearly communicates the operating company’s commitment to abide by the corporate-level policy.</p> <p>Operating companies should also clearly convey their expectations of suppliers, business partners and others (e.g., governments) with whom they are engaged while</p>

³⁶² OECD. 2016. OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas. (3rd Ed.) p. 21. <https://mneguidelines.oecd.org/mining.htm>

³⁶³ Ibid.

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<p>This information shall be made available to downstream purchasers and auditors and to any institutionalized mechanism, regional or global, with the mandate to collect and process information on minerals from <u>conflict-affected and high-risk areas</u>.³⁵⁹</p> <p>c. Assign authority and responsibility to senior staff with the necessary competence, knowledge and experience to oversee the conflict due diligence processes; and</p> <p>d. Ensure that <u>stakeholders</u> have access to and are informed about a mechanism to raise conflict-related concerns or <u>grievances</u>.</p>			<p>operating in or sourcing minerals that have been produced or transported through a conflict-affected or high-risk area. These expectations may be laid out in Codes of Conduct, and also integrated into contracts with suppliers.</p> <p>As per IRMA Chapter 1.2, criterion 1.2.4, communications and information must be in culturally appropriate formats and languages that are accessible and understandable to <u>affected communities and stakeholders</u>, and provided in a timely manner.</p> <p>Explanatory Note for 3.4.2.2.b: The requirements in 3.4.2.2.b are based on OECD.³⁶⁴</p> <p>Documentation for some of these items is required in IRMA Chapter 1.5 (e.g., quantities of minerals produced; mining-related taxes, fees, royalties and other payments made to governments). See requirements 1.5.1.2 and 1.5.2.2. Documentation on those particular items does not need to be provided to auditors for the purposes of this chapter if the mine has already been verified as meeting the relevant requirements of Chapter 1.5.</p> <p>The company may exclude information that compromises the safety of any individual or is legitimate <u>confidential business information</u>. Justification will need to be provided to auditors for information that is omitted.</p> <p>Explanatory Note for 3.4.2.2.c: The requirement 3.4.2.2.c is based on OECD.³⁶⁵</p>

³⁵⁹ The company may exclude information that compromises the safety of any individual or is legitimate confidential business information. Justification shall be provided for information that is omitted.

³⁶⁴ OECD. 2016. OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas. (3rd Ed.) pp. 39, 82, 83, 99, 100. <https://mneguidelines.oecd.org/mining.htm>

³⁶⁵ OECD. 2016. OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas. (3rd Ed.) pp. 44, 70. <https://mneguidelines.oecd.org/mining.htm>

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<p>3.4.3. Conflict Risk Assessment</p> <p>3.4.3.1. The <u>operating company</u> shall assess the risks to the company, <u>workers</u> and communities associated with operating in or sourcing minerals from the <u>conflict-affected or high-risk area</u>. Assessments shall include, at minimum:</p> <p>a. Analysis of structural, root and proximate causes of the current</p>	<p>For 3.4.3.1: Review the <u>conflict risk assessment</u> to ensure that it included:</p> <ul style="list-style-type: none"> • An analysis of the structural/root and proximate causes, and triggers. • A review of factual circumstances of the <u>operating company's</u> mineral extraction, transport and, if relevant, processing. Review the OECD Guidance (in particular Annex II)³⁷² and IRMA guidance to compare the types of risks 	<p>For 3.4.3.1:</p> <ul style="list-style-type: none"> • Conflict risk assessment/analysis report(s). • Documentation on the quantity and dates of mineral extraction. • Documentation on known armed groups operating in the region. • Documentation on risks along transportation routes. • Documentation on the payments made to governments (e.g., fees, royalties, taxes) and to public 	<p>In addition to assigning authority and responsibility to senior staff to oversee the conflict due diligence process, the operating company should ensure that any staff who are implementing due diligence have the expertise or receive training (including periodic refresher training) to be able to perform their tasks.</p> <p>Explanatory Note for 3.4.2.2.d: The requirements in 3.4.2.2.d are based on OECD.³⁶⁶</p> <p>The operational-level <u>grievance mechanism</u> developed as per IRMA Chapter 1.4 may be used as the mechanism to receive all types of concerns or complaints, including conflict-related <u>grievances</u>, or a separate mechanism may be created to handle only conflict-related complaints and <u>grievances</u>. If a separate mechanism is developed, it shall be done in a manner consistent with IRMA Chapter 1.4.</p> <p>Explanatory Note for 3.4.3.1: Identification and assessment of risks in the supply chain is part of OECD's Five-Step Framework for Risk-Based Due Diligence in the Mineral Supply Chain (OECD, 2016, p.18) OECD has also produced a Guiding Note for Upstream Company Risk Assessment (pp. 54-60) and detailed guidance for large-scale gold mining companies (pp. 78-85).³⁷³</p> <p>At minimum, the risks outlined in Annex II of the OECD Guidance should be evaluated. These include:</p> <ul style="list-style-type: none"> • Serious abuses associated with the extraction, transport

³⁶⁶ OECD. 2016. OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas. (3rd Ed.) pp. 44, 70. <https://mneguidelines.oecd.org/mining.htm>

³⁷² Organisation for Economic Cooperation and Development (OECD). 2016. OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas. (3rd Ed.) <https://mneguidelines.oecd.org/mining.htm>

³⁷³ Ibid.

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<p>conflict, and potential triggers of conflict in the area of operation;³⁶⁷</p> <p>b. Review of the factual circumstances of the <u>operating company's</u> mineral extraction, transport, and, if relevant, mineral sourcing and/or processing;³⁶⁸ and</p> <p>c. Analysis of the risk that any of the company's activities may lead to the direct or indirect or infringement of human rights, support of armed groups or otherwise contribute to conflict.</p> <p>3.4.3.2. Assessments shall follow a recognized risk assessment methodology,³⁶⁹ and be carried out and documented by <u>competent professionals</u>.³⁷⁰</p> <p>3.4.3.3. Assessments shall be based on credible evidence including on-the-ground research, expert advice, and information from <u>consultations</u> with relevant <u>stakeholders</u>, including men,</p>	<p>that the company should have included in its assessment with the ones that were assessed. If the risk assessment lacks an adequate level of detail, interview members of the assessment team to determine the rationale for why certain risks were not assessed.</p> <ul style="list-style-type: none"> An analysis of the potential for company activities to lead to direct or indirect infringements of human rights or support of armed groups. <p>For 3.4.3.2: Review on-the-ground assessment report(s) or other documentation to confirm that it followed a recognized methodology, and review documentation (e.g., resumes). The operating company shall allow access to company sites and all documentation and records of supply chain due diligence. Review qualifications of the professionals who carried out the assessment.</p>	<p>security forces, private security forces or other armed groups.</p> <ul style="list-style-type: none"> Communications with relevant stakeholders (e.g., meeting minutes, communications between the company and stakeholders, written input from stakeholders and company responses to the input, etc.). <p>For 3.4.3.2:</p> <ul style="list-style-type: none"> Documentation of the risk assessment, e.g., a conflict risk assessment/analysis report. Documentation that shows the methodology used during the risk assessment. Documentation of qualifications of those carrying out the assessment. <p>For 3.4.3.3:</p> <ul style="list-style-type: none"> Documentation of the risk assessment, e.g., a conflict risk assessment/analysis report. Documentation that shows the methodology used during the risk assessment. Documented evidence of on-the-ground research and consultations with experts and relevant stakeholders. 	<p>or trade of minerals;</p> <ul style="list-style-type: none"> Any forms of torture, cruel, inhuman and degrading treatment; Any forms of forced or compulsory labor; The worst forms of child labor; Other gross human rights violations and abuses such as widespread sexual violence; War crimes or other serious violations of international humanitarian law, crimes against humanity or genocide; Direct or indirect support to non-state armed groups; Direct or indirect support to public or private security forces; Bribery and fraudulent misrepresentation of the origin of minerals; Money laundering. Non-payment of taxes, fees and royalties to governments. <p>Re: 3.4.3.1.a, structural/root factors are long-term, deep-rooted factors underlying conflict; proximate/intermediate factors are visible, recent manifestations of the conflict, and factors; and triggers are actions that contribute to</p>

³⁶⁷ IRMA Guidance will provide more information on what is meant by structural, root and proximate causes, as well as potential triggers of conflict.

³⁶⁸ IRMA Guidance will provide more information on what is meant by “factual circumstances” and examples of the types of information that might be relevant to review. Mineral sourcing refers to situations where the operating company purchases ore or mined materials from other mines, and processes it at the mine site. These materials may come from other large-scale mines or artisanal and small-scale mining (ASM) operations (See also Chapter 3.6). Mine sites may also perform milling and processing on a fee basis for other large-scale mines or ASM (sometimes referred to as “toll processing or toll milling).

³⁶⁹ Guidance will cover this more extensively, but risk assessments typically include: establishment of scope; identification of risks; assessment of risks; development of risk treatment and mitigation measures; monitoring and revision; as well as stakeholder engagement and communication requirements.

³⁷⁰ As per the definition of competent professional, this may be in-house staff or external consultants with relevant education, knowledge, proven experience, necessary skills and training to carry out the required work; would be expected to follow scientifically robust methodologies that would withstand scrutiny by other professionals.

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<p>women, children (or their representatives) and other <u>vulnerable groups</u>.³⁷¹</p> <p>3.4.3.4. <u>Conflict risk</u> assessments shall be updated at minimum, on an annual basis, and more often if necessitated by the situation.</p>	<p>For 3.4.3.3: Confirm the assessment was based on credible evidence, on-the-ground assessment report(s) or other documentation and expert advice. Interview <u>stakeholders</u> regarding their involvement in the risk assessment process.</p> <p>For 3.4.3.4: Interview company and review documentation to confirm that <u>conflict risk</u> assessments are updated at least annually (see Explanatory Note for 3.4.3.4 for appropriate times to update assessments).</p>	<p>For 3.4.3.4:</p> <ul style="list-style-type: none"> • Documentation of the risk assessment, e.g., a conflict risk assessment/analysis report. • Updated conflict risk assessments (e.g., evidence that new assessments have been conducted due to more recent information being obtained). 	<p>further escalation of the conflict. For example, there may be existing ethnic or religious conflicts in a region, and company hiring practice may be viewed as favoring a particular group, which could exacerbate tensions between the groups or provoke negative actions against the company and mining project. (For more information on structural, root and proximate causes, as well as potential triggers of conflict, see UNDG, 2016).³⁷⁴</p> <p>This analysis may also be referred to as conflict analysis.</p> <p>Re: 3.4.3.1.b, this requirement is meant to align with OECD Due Diligence Guidance. For more details on factual circumstances see, for example, OECD (2016, p. 82).</p> <p>Assessment of these factors may be conducted jointly with other stakeholders or individually by the operating company.</p> <p>Mineral sourcing refers to situations where the operating company purchases ore or mined materials from other mines, and processes it at the mine site. These materials may come from other large-scale mines or <u>artisanal and small-scale mining</u> (ASM) operations (See also IRMA Standard, Chapter 3.6).</p>

³⁷¹ "credible evidence" may include reports and other information (e.g., maps, statements) relating to mineral extraction, and its impact on conflict, human rights or environmental harm. Sources of evidence would be considered credible if they are trusted and/or referred to by a range of stakeholders, including competent professional and experts who work on human rights and/or conflict-affected areas. Such sources may include governments, international organizations, NGOs, industry, media, United Nations, academics or others.

"expert advice" includes drawing on not only expertise and cross-functional consultation within the company, but also to consult externally with credible independent experts, including from Governments, civil society (e.g., human rights defenders), national human rights institutions and relevant multi-stakeholder initiatives. (See, e.g., UN Guiding Principles on Business and Human Rights, Commentary for Principle 23. http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf)

"Relevant stakeholders" may include local government or community leaders; civil society organizations; other companies operating in the area; or independent experts with local knowledge and expertise. Special effort should be made to include women, children or their representatives, and other groups who may be particularly vulnerable to impacts from security arrangements (e.g., this might include ASM operators, human rights defenders, and youth)

³⁷⁴ UN Development Group (UNDG). 2016. Conducting a Conflict and Development Analysis. pp. 59-64. https://undg.org/wp-content/uploads/2016/10/UNDP_CDA-Report_v1.3-final-opt-low.pdf

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			<p>Some of the factual circumstances to be assessed may include risks associated with:</p> <p>Production of the mineral/metal: For example, is there a risk that the mining operation will contribute to conflict through hiring practices, security arrangements, direct or indirect payments to armed groups, security forces or officials implicated in human rights abuses?</p> <p>Transportation of the extracted product to the point of sale: For example, will a company's product travel through <u>conflict-affected or high-risk areas</u>? If so, can the company put systems in place to ensure that transport does not fuel conflict/contribute to human rights abuses?</p> <p>Purchase of any minerals/metals from <u>artisanal or small-scale mining operations</u> that may be smelted or processed by the company at its operation: For example, do any of these products originate in a <u>conflict-affected or high-risk area</u>?</p> <p>Re: 3.4.3.1.c, the risk of <u>child labor</u> and <u>forced labor</u> should be assessed, as these risks are heightened in conflict-affected areas (See also IRMA Chapter 3.1). The OECD has developed a specific tool for addressing <u>child labor</u> in mineral supply chains.³⁷⁵ IFC has developed guidance on assessing risks of <u>forced labor</u> in supply chains.³⁷⁶</p> <p>Explanatory Note for 3.4.3.2: Risk assessments typically include:</p> <p>Establishment of scope; Identification of risks;</p>

³⁷⁵ OECD. 2017. Practical Actions for Companies to Identify and Address the Worst Forms of Child Labour in Mineral Supply Chains. <http://mneguidelines.oecd.org/Practical-actions-for-worst-forms-of-child-labour-mining-sector.pdf>

³⁷⁶ International Finance Corporation (IFC). 2018. Good Practice Note on Managing Risks Associated with Modern Slavery. https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/publications/publications_gpn_modernslavery

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			<p>Assessment of risks; Development of risk treatment and <u>mitigation</u> measures; Monitoring and revision; and <u>Stakeholder</u> engagement and communication requirements.</p> <p><u>Competent professionals</u> can be in-house staff or external consultants with relevant education, knowledge, proven experience, necessary skills and training to carry out the required work. <u>Competent professionals</u> would be expected to follow established and scientifically robust methodologies that would withstand scrutiny by other professionals.</p> <p>Explanatory Note for 3.4.3.3: "credible evidence" may include reports and other information (e.g., maps, statements) relating to mineral extraction, and its impact on conflict, human rights or environmental harm. Sources of evidence would be considered credible if they are trusted and/or referred to by a range of <u>stakeholders</u>, including competent professionals and experts who work on human rights and/or conflict-affected areas. Such sources may include governments, international organizations, NGOs, industry, media, United Nations, academics or others.</p> <p>"Expert advice" includes drawing on not only expertise and cross-functional consultation within the company, but also to <u>consult</u> externally with credible independent experts, including from governments, civil society (e.g., <u>human rights defenders</u>), national human rights institutions and relevant multi-stakeholder initiatives.³⁷⁷</p>

³⁷⁷ Ruggie, J. 2011. Guiding Principles on Business and Human Rights. Principle 23. http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf

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			<p>“Relevant <u>stakeholders</u>” may include local government or community leaders; civil society organizations; other companies operating in the area; artisanal and small-scale mining operators, or independent experts with local knowledge and expertise. Special effort should be made to include women, children or their representatives, and other groups who may be particularly vulnerable to impacts from conflict-related risks and security arrangements in <u>conflict-affected or high-risk areas</u> (e.g., <u>vulnerable groups</u> may include <u>human rights defenders</u>, and youth, certain ethnic groups, etc.).</p> <p><u>Stakeholders</u> such as civil society organizations, security firms, other companies, home governments, multilateral institutions can potentially provide important information to companies regarding human rights abuses and perpetrators of those abuses. Also, local community leaders and members may contribute critical information on community conflict dynamics and root causes of conflicts.³⁷⁸</p> <p>Companies need to pay special attention to ensure that their <u>consultations</u> and actions to not exacerbate conflicts between <u>stakeholder</u> groups. The UN Global Compact has created guidance for responsible business in <u>conflict-affected and high-risk areas</u>. The document lays out various challenges that may be faced during <u>stakeholder engagement in conflict-affected/high-risk areas</u>.³⁷⁹</p> <p>Explanatory Note for 3.4.3.4: Situations that may necessitate an update of the <u>conflict risk</u> assessment could</p>

³⁷⁸ ICMM, ICRC, IFC and IPIECA. 2011. pp. 13-24. Voluntary Principles on Security and Human Rights Implementation Guidance Tools. http://www.voluntaryprinciples.org/wp-content/uploads/2013/03/VPs_IGT_Final_13-09-11.pdf and Voluntary Principles on Security and Human Rights (VPSHR). 2014. p. 2. <http://www.voluntaryprinciples.org/what-are-the-voluntary-principles/>

³⁷⁹ United Nations Global Compact (UNGC). 2010. Guidance on Responsible Business in Conflict-affected and High-risk Areas: a Resource for Companies and Investors. p. 6. http://unglobalcompact.org/docs/issues_doc/Peace_and_Business/Guidance_RB.pdf

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<p>3.4.4. Conflict Risk Management</p> <p>3.4.4.1. The <u>operating company</u> shall develop and implement a risk management plan that includes actions to be taken to prevent or <u>mitigate</u> risks identified through the risk assessment process.</p> <p>3.4.4.2. The <u>operating company</u> shall <u>collaborate</u> with relevant <u>stakeholders</u> to develop culturally appropriate strategies to prevent or <u>mitigate</u> risks that are relevant to them; to develop performance objectives, timelines and indicators to measure the effectiveness of the risk management strategies; and to update or revise its prevention and <u>mitigation</u> strategies as needed.</p>	<p>For 3.4.4.1: Review risk management plan to ensure strategies have been developed to address risks identified in the assessment.</p> <p>For 3.4.4.2: Interview company and <u>stakeholders</u> involved in risk management planning to confirm that <u>stakeholders</u> have been involved in developing prevention and <u>mitigation</u> strategies, as well as plans to monitor the effectiveness of the risk management measures (e.g., objectives, indicators and timelines).</p> <p>For 3.4.4.3: If relevant, confirm that risks to human rights have been addressed as per the requirements of Chapter 1.3 (e.g., prevention and <u>mitigation</u> of human rights infringements caused by the company; and plans for the company to</p>	<p>For 3.4.4.1:</p> <ul style="list-style-type: none"> • Documentation of the risk assessment, e.g., a conflict risk assessment/analysis report. • Documentation of planned risk management measures with timelines and performance objectives, e.g., a risk management plan. <p>For 3.4.4.2:</p> <ul style="list-style-type: none"> • Documented evidence of collaboration with relevant stakeholders (e.g., meeting minutes, communications between the company and stakeholders, written input from stakeholders and company responses to the input, etc.). • Documentation of planned risk management measures with timelines and performance objectives (e.g., a risk management plan). • Documented processes/methods for monitoring the effectiveness of risk management plan 	<p>include (but are not limited to) changes in the country or regional political leadership; conflict outbreaks or escalation in the country, region or neighboring countries; expansion of operations into new areas; influx of migrant labor; changes in security arrangements; and changes in mineral suppliers. Also, updates should occur if there have been changes in the factual circumstances of mineral extraction, transport and/or sourcing (see 3.4.3.1.b).</p> <p>If there are no major changes that change the analysis in the risk assessment, updates may simply indicate this fact.</p> <p>Explanatory Note for 3.4.4.1: Following an assessment to identify potential risks and impacts, risk management planning should take place to develop strategies to minimize the negative consequences and maximize the positive consequences of operating in or sourcing from conflict-affected or high-risk areas. Strategies may include a spectrum of possible interventions where at one extreme proposed company activities are designed to 'do no harm' (<u>avoid</u> negative consequences) and at the other extreme, they are designed to 'do good' (promote change that will alleviate tensions, ameliorate inequality and encourage reconciliation).³⁸¹</p> <p>When developing strategies for risk management, companies should identify those factors over which they have direct control and those over which they only have indirect influence. The types of interventions and the resources allocated should vary accordingly.</p>

³⁸¹ UN Global Compact. 2002. Business Guide for Conflict Impact Assessment and Risk Management. UN Global Compact. 2002. Business Guide for Conflict Impact Assessment and Risk Management. https://www.unglobalcompact.org/docs/issues_doc/Peace_and_Business/BusinessGuide.pdf

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.4.4.3. If risks to human rights are identified in the assessment, the <u>operating company</u> shall adhere to the requirements in IRMA Chapter 1.3.³⁸⁰</p>	<p>use its <u>leverage</u> related to <u>human rights risks</u> that it may contribute to or be linked to).</p>	<p>implementation (including indicators of effectiveness).</p> <p>For 3.4.4.3:</p> <ul style="list-style-type: none"> • Documentation of the operating company’s practices to prevent, mitigation and remediate infringements of human rights. • Documentation showing that risks to human rights have been addressed as per the requirements of IRMA Chapter 1.3. 	<p>According to OECD (2016, p. 44), when risks are identified during an assessment that related to a supplier, the operating company should mitigate risks by either:</p> <ul style="list-style-type: none"> • Continuing trade throughout the course of measurable risk mitigation efforts; • Temporarily suspending trade while pursuing ongoing measurable risk mitigation; • Disengaging with a supplier after failed attempts at mitigation or where a company reasonably deems risk mitigation not feasible or unacceptable. <p>Strategies are documented in a risk management plan or its equivalent.</p> <p>Explanatory Note for 3.4.4.2: <u>Stakeholder</u> involvement in the development, monitoring and updating of <u>mitigation</u> strategies can facilitate improved <u>stakeholder</u> relations and result in more focused strategies that may help the <u>operating company</u> avoid unintended negative impacts and help maximize the positive.</p> <p>For this requirement, "relevant <u>stakeholders</u>", at minimum, should include those who have the potential to be directly affected (either actual individuals or their representatives) by the risks identified by the company.</p> <p>"culturally appropriate" strategies would be those that are aligned with the cultural norms of the <u>affected communities</u>. <u>Stakeholders</u> can help to define for the company what is considered culturally appropriate. (For more on culturally appropriate engagement, see IRMA Chapter 1.2)</p>

³⁸⁰ IRMA Chapter 1.3—Human Rights Due Diligence. (See specifically, requirement 1.3.3.2).

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.4.5. Monitoring</p> <p>3.4.5.1. The <u>operating company</u> shall implement and monitor the effectiveness of its risk management plan as per the performance objectives, timelines and indicators developed with <u>stakeholders</u>.</p> <p>3.4.5.2. If through monitoring or some other means it is discovered that the <u>operating company</u> has unknowingly or unintentionally been complicit in armed conflict or serious human rights abuses in <u>conflicted-affected or high-risk areas</u>, the operating company shall immediately cease or change the offending action, <u>mitigate or remediate</u> the impact, and carry out external</p>	<p>For 3.4.5.1: Review documentation and interview relevant company staff to confirm that the site has a process in place whereby it gathers information that would allow it to become knowledgeable about its own impacts in the conflict context. Confirm that monitoring has been carried out in accordance with timelines, and effectiveness has been evaluated based on performance objectives and indicators developed in <u>collaboration with stakeholders</u>. Review any updates to strategies (e.g., revisions plans) based on monitoring results.</p> <p>For 3.4.5.2: Review documentation (meeting notes, memos) or interview senior management and relevant <u>stakeholders, contractors and mine workers</u> and other employees, to confirm</p>	<p>For 3.4.5.1:</p> <ul style="list-style-type: none"> • Documentation of planned risk management measures with timelines and performance objectives, e.g., a risk management plan. • Documented processes/methods for monitoring the effectiveness of risk management plan implementation (including indicators of effectiveness). • Monitoring reports. <p>For 3.4.5.2:</p> <ul style="list-style-type: none"> • Documented monitoring reports, including results of any external monitoring. • Communication records with stakeholders, contractors and mine workers and other employees regarding potential company complicity in armed conflict or serious human rights abuses. • Records of lodged grievances. • Risk management plan and any updates to the plan. 	<p>Explanatory Note for 3.4.4.3: The risk of committing, contributing to or being linked to human rights violations is increased in <u>conflict-affected and high-risk areas</u>.³⁸²</p> <p>When <u>mining projects</u> are located in <u>conflict-affected or high-risk areas</u>, companies must ensure that identified risks to human rights are addressed as per IRMA Chapter 1.3, Human Rights Due Diligence. This includes steps to prevent, <u>mitigate and remediate</u> potential and <u>actual human rights impacts</u>.</p> <p>Explanatory Note for 3.4.5.1: Due diligence related to conflict-affected or high-risk areas will be a dynamic process that requires on-going risk monitoring. After implementing a risk mitigation strategy (3.4.4), companies should repeat a risk assessment (3.4.3) to ensure effective management of risk. Additionally, any changes in operating environment or mineral supply chain may require some steps to be repeated in order to prevent or mitigate adverse impacts.</p> <p>Monitoring the effectiveness of the risk management plan is important to determine whether there are any gaps and to make improvements in policies, procedures, and <u>mitigation strategies</u>. Monitoring may be conducted internally or externally by <u>competent professionals</u>.</p> <p>Ideally, monitoring the progress of risk mitigation should occur, at minimum, every six months, or at a frequency agreed to with mine stakeholders.</p> <p>Steps could include for example:</p>

³⁸² International Alert. 2018. Human Rights Due Diligence in Conflict-affected Settings: Guidance for Extractives Industries. p. 10. https://www.international-alert.org/sites/default/files/Economy_HumanRightsDueDiligenceGuidance_EN_2018.pdf

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>monitoring of its due diligence activities as per as per IRMA Chapter 1.3.³⁸³</p>	<p>that they were made aware of monitoring results. Determine, through interviews with company staff and <u>stakeholders</u>, review of <u>grievance mechanism</u> findings, review of monitoring results, or other sources of information, if the company has been implicated in the repeat human rights infringements, or <u>serious human rights abuses</u>. If so, review evidence to confirm that the company has undertaken credible actions to cease or change operations and <u>mitigate</u> and <u>remediate</u> impacts, and confirm that external monitoring of the company’s human rights due diligence occurred.</p>	<ul style="list-style-type: none"> • Documentation of mitigation measures and remediation taken. 	<p>Comparing the outcomes of a risk management plan with its objectives: were all potential risks reviewed? Did mitigation strategies adequately address risks that were identified? Did the plan meet performance objectives, timelines and indicators? Did the plan meet <u>stakeholder</u> expectations?</p> <p>Evaluating if the activities defined in the plan are effective: consider each activity of a risk management plan. Was each activity implemented successfully? Were the activities sufficient to address risks?</p> <p>Evaluating the operating environment: have there been changes in the operations or the surrounding political/legal/socio-economic context that may affect the risk identification, management and mitigation process?</p> <p>Updating the plan/strategies/activities: After evaluating the effectiveness of all the activities, make changes in the action plan accordingly.</p> <p>Reporting progress to senior management and relevant <u>stakeholders</u>: communicate internally and externally regarding the effectiveness of the plan and any planned improvements or changes.</p> <p>Explanatory Note for 3.4.5.2: Re: the reference to “complicit” could mean that the operating company itself caused or contributed to armed conflict or serious human rights abuses in conflicted-affected or high-risk areas, or that the mine’s suppliers (e.g., those from whom the mine sourced minerals) caused or contributed to conflict or human rights abuses.</p> <p>See, in particular, requirements 1.3.3.3 and 1.3.4.2 in IRMA Chapter 1.3.</p>

³⁸³ IRMA Chapter 1.3—Human Rights Due Diligence. (See specifically, requirements 1.3.3.3. and 1.3.4.2.).

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.4.6. Reporting</p> <p>3.4.6.1. The findings of <u>conflict risk assessments</u>, <u>risk management plans</u> and <u>monitoring</u> shall be reported to senior management of the <u>operating company</u>; and <u>stakeholders</u>, <u>contractors</u>, <u>mine workers</u> and other employees shall be informed of findings that are relevant to them.</p> <p>3.4.6.2. On an annual basis, where the <u>operating company</u> is operating in or sourcing minerals from a <u>conflict-affected or high-risk area</u>, the company or its <u>corporate owner</u> shall publicly report on due diligence undertaken to ensure that its actions are not supporting armed conflict or the infringement of human rights in those areas.³⁸⁴</p>	<p>For 3.4.6.1: Review documentation (e.g., meeting notes, memos) interview senior management and relevant <u>stakeholders</u> (e.g., those identified in the risk assessment as being potentially affected, and <u>contractors</u>, <u>workers</u> and other employees who have the potential to infringe upon human rights or whose safety may be affected by armed conflict) to confirm that they have been informed of the major findings of the risk assessments, plans and monitoring.</p> <p>For 3.4.6.2: Confirm that annual reports are publicly available and provide information on the due diligence undertaken by the company to ensure that its <u>mining-related activities</u> are not supporting armed conflict or infringement of human rights. See explanatory note for information that should be contained in reports.</p>	<p>For 3.4.6.1:</p> <ul style="list-style-type: none"> • Risk assessment reports and summaries of major findings. • Risk management plans. • Monitoring reports. • Any reports summarizing the effectiveness of the company's risk management activities. • Documented evidence of communication/reporting to senior management of the operating company, and stakeholders, contractors, mine workers and other employees. <p>For 3.4.6.2:</p> <ul style="list-style-type: none"> • Annual reports that are made publicly available. 	<p>Explanatory Note for 3.4.6.2: This reporting may be integrated into the reporting on human rights due diligence as per IRMA requirement 2.4.5.1, or it may be done in a standalone manner.</p> <p>Specific Recommendations for the annual report:</p> <p>The operating company should ensure that the report details the company management system. Therefore the report should detail the company's supply chain due diligence policy; explain the management structure responsible for the company's due diligence and who in the company is directly responsible; describe the control systems over the mineral supply chain put in place by the company, explaining how this operates and what data it has yielded that has strengthened the company's due diligence efforts in the reporting period covered; describe the company's database and record-keeping system and explain the methods for disclosing all suppliers, down to the mine of origin, to downstream actors; disclose information on payments made to governments in line with EITI criteria and principles (if applicable).</p> <p>Additionally, the report should outline the operating company's risk assessment methodology, practices and information yielded by the on-the-ground assessment, and the operating company's risk management approach.</p> <p>The report should describe the steps taken to manage risks, including a summary report on the strategies for risk mitigation in the risk management plan, and capability-training, if any, and the involvement of affected stakeholders.</p>

³⁸⁴ This report may be integrated into the reporting on human rights due diligence as per IRMA requirement 2.4.5.1. More information will be provided in IRMA Guidance.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
			<p>The OECD Due Diligence Guidance recommends, at least for some mineral supply chains, that companies publish the risk assessments, with due regard taken of business confidentiality, and other competitive concerns, and the safety of the company, workers and communities. Mines may opt to do this.</p> <p>Annual reporting should include disclosure of efforts made to monitor and track due diligence performance.</p>

NOTES

The most widely recognized due diligence framework for minerals sourced from conflict zones is the *OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas* (OECD Guidance).³⁸⁵ The OECD Guidance formed the basis for many of the requirements in this chapter. IRMA Guidance will provide information on where IRMA requirements align with the OECD.

IRMA reserves the right to delay audits for operations located in conflict-affected or high-risk areas if, through consultation with certification bodies, auditors and the operating company, IRMA or certification bodies determines that armed conflict in the vicinity of the mine makes it impossible for auditors to safely visit the operation.

Requirement 3.4.2.1 prohibits a company from knowingly contributing to conflict. While this requirement mentions that companies shall not infringe upon human rights, IRMA Chapter 1.3 is the primary chapter that addresses IRMA's expectations related to the unknowing or unintentional infringement of human rights. If a company knowingly contributes to serious human rights abuses, whether in a conflict-affected area or not, IRMA, through its Policy on Association, may refuse to approve independent assessment or recognize levels of achievement, suspend or withdraw a mine's achievement recognition, or end its association with a company. The IRMA Policy on Association will not be put into effect until after the IRMA Launch Phase. IRMA welcomes comments on its draft policy, available at: www.responsiblemining.net/images/uploads/IRMA_Policy_On_Association_Draft_v1.0.pdf.

Cross References to Other Chapters	
CHAPTER	ISSUES
1.2—Community and Stakeholder Engagement	All <u>stakeholder</u> engagement in Chapter 3.4 must conform with the requirements of Chapter 1.2. In particular, criterion 1.2.3 is important to ensure that affected <u>stakeholders</u> have the capacity to fully understand their rights and participate effectively in the assessment and development of <u>prevention/mitigation</u> plans, monitoring, and <u>remedies</u> for impacts on their safety and human rights in <u>conflict-affected or high-risk areas</u> . And 1.2.4 ensures that communications and information are in culturally appropriate formats and languages that are accessible and understandable to <u>affected communities and stakeholders</u> , and provided in a timely manner.

³⁸⁵ Organisation for Economic Cooperation and Development (OECD). 2016. OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas. (3rd Ed.) <https://mneguidelines.oecd.org/mining.htm>

Cross References to Other Chapters	
1.3—Human Rights Due Diligence	Information from human rights impact assessments may feed into the <u>conflict risk</u> assessment, and vice versa, and public reporting on conflict due diligence (i.e., requirement 3.4.6.3) may be integrated into the public reporting on human rights due diligence reporting, as per requirement 1.3.5.1, if human rights due diligence reporting is done on an annual basis. Strategies developed to prevent, <u>mitigate</u> and <u>remediate</u> potential or <u>actual human rights impacts</u> related to mining in conflict-affected areas must conform with the relevant requirements in Criteria 1.3.3. External monitoring as per requirement 1.3.4.2 shall occur if a company’s conflict-related due diligence failed to prevent it from unknowingly causing or contributing to armed conflict or <u>serious human rights abuses</u> .
1.4—Complaints and Grievance Mechanism and Access to Remedy	As mentioned in 3.4.2.1.d, the <u>operating company</u> shall ensure that <u>stakeholders</u> are informed of the existence of mechanisms for raising conflict-related concerns. The operational-level <u>grievance mechanism</u> developed as per Chapter 1.4 may serve this purpose. It may be deemed necessary, however, to create a separate mechanism or separate procedures for handling complaints from <u>stakeholders</u> in conflict-affected areas. If a separate mechanism or procedures are created, they must be developed in a manner that aligns with Chapter 1.4.
1.5—Revenue and Payments Transparency	Information gathered to fulfill requirements in Chapter 3.4 (e.g., 3.4.2.1, 3.4.3.1) may feed into the reporting requirements in Chapter 1.5 (e.g., requirements 1.5.1.3 and 1.5.3.2) regarding payments to governments. Also, in <u>conflict-affected or high-risk areas</u> , ensuring strict adherence to anti-corruption requirements (1.5.5) is important.
2.1—ESIA and Management	Conflict screening may occur as part of the Environmental and Social Impact Assessment process.
3.1—Fair Labor and Terms of Work	Incidents of <u>child labor</u> or <u>forced labor</u> are addressed in Chapter 3.1. However, the potential for <u>child labor</u> and <u>forced labor</u> in conflict-affected areas should be considered during the <u>conflict risk</u> assessment in Chapter 3.4. (See Guidance for more details)
3.5—Security Arrangements	Information related to security arrangements from <u>conflict risk</u> assessments (e.g., the use of private or public security forces at the mine site or along transportation routes, payments made to these entities, history of infringement of human rights by security forces, etc.) may feed into the security risk assessments, and vice versa.
3.6—Artisanal and Small-Scale Mining	If the mine is sourcing minerals from <u>ASM</u> entities located in conflict-affected areas, requirements in this chapter are also relevant in Chapter 3.6 (see requirement 3.6.4.2).

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the Glossary of Terms at the end of the IRMA Standard document.

Affected Community

A community that is subject to potential risks or impacts from a project.

Business Relationships

Relationships a business enterprise has with business partners, entities in a value chain, and any other non-State or State entity directly linked to business operations, products or services. They include indirect business relationships in its value chain, beyond the first tier, and minority as well as majority shareholding positions in joint ventures.

Certification Body

Also known as a conformity assessment body, is an entity that performs auditing and conformity assessment services to determine if specified requirements are fulfilled (in this case conformity with the IRMA *Standard for Responsible Mining*).

Collaboration

The process of shared decision-making in which all stakeholders constructively explore their differences and develop a joint strategy for action. It is based on the premise that, through dialogue, the provision of appropriate information, collectively defined goals, and the willingness and commitment to find a solution acceptable to all parties, it is possible to overcome the initially limited perspectives of what is achievable and to reach a decision which best meets the interests of the various stakeholders. At this level, responsibility for decision-making is shared between stakeholders.

Competent Professionals

In-house staff or external consultants with relevant education, knowledge, proven experience, necessary skills and training to carry out the required work. Competent professionals would be expected to follow scientifically robust methodologies that would withstand scrutiny by other professionals. Other equivalent terms used may include: competent person, qualified person, qualified professional. For independent reviews (in IRMA Chapter 4.1) competent professionals must not be in-house staff.

Confidential Business Information

Material that contains trade secrets or commercial or financial information that has been claimed as confidential by its source. The information must be secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question; it must have commercial value because it is secret; and it must have been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret.

Conflict-Affected or High-Risk Areas

Areas identified by the presence of armed conflict, widespread violence, including violence generated by criminal networks, or other risks of serious and widespread harm to people. Armed conflict may take a variety of forms, such as a conflict of international or non-international character, which may involve two or more states, or may consist of wars of liberation, or insurgencies, civil wars. High-risk areas are those where there is a high risk of conflict or of widespread or serious abuses as defined in paragraph 1 of Annex II of the OECD Guidance (more information in full IRMA Glossary). Such areas are often characterized by political instability or repression, institutional weakness, insecurity, collapse of civil infrastructure, widespread violence and violations of national or international law.

Conflict Risk

Any conflicts that may emerge or be exacerbated because of a company's presence, activities or relationships; and the likelihood that such conflicts will occur.

Consultation

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. In principle, the company should take into account the concerns and views expressed by stakeholders in the final decision.

Contractor

An individual, company, or other legal entity that carries out duties subject to a contractual agreement that defines, for example, work, duties or services, pay, hours or timing, duration of agreement, and that remains independent for employment, tax, and other regulatory purposes. This includes sub-contractors.

Corporate Owner(s)

The corporation(s) or other business institution(s) including any private or state-run enterprises that have complete or partial financial interest in or ownership of a mining project.

Existing Mine

A mine that was operational prior to the date that the IRMA standard was published in final (June 2018).

Grievance

A perceived injustice evoking an individual's or a group's sense of entitlement, which may be based on law, contract, explicit or implicit promises, customary practice, or general notions of fairness of aggrieved communities. For the purposes of the IRMA Standard, the words grievances and complaints will be used interchangeably.

Grievance Mechanism

Any routinized, State-based or non-State-based, judicial or non-judicial process through which mining-project-related complaints or grievances, including business-related human rights abuses stakeholder complaints, and/or labor grievances, can be raised and remedy can be sought.

Human Rights Defender

Any person or group of persons working to promote human rights and contributing to the effective elimination of all violations of human rights and fundamental freedoms of peoples and individuals. Defenders can be of any gender, of varying ages, from any part of the world and from all sorts of professional or other backgrounds, i.e., not only found within NGOs and intergovernmental organizations but might also, in some instances, be government officials, civil servants or members of the private sector and individuals working within their local communities.

Human Rights Risk

Human rights risks are understood to be the business enterprise's potential adverse human rights impacts. (May also be referred to as potential human rights impacts).

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mining-Related Activities

Encompasses any activities that may occur during any phase of the mine life cycle (planning, impact assessment, exploration, mine construction, mining, mine closure), and includes all physical activities (e.g., land disturbance and clearing, sampling, airborne surveys, construction, ore removal, ore processing, waste management, reclamation, etc.).

Mitigation (including in relation to Human Rights Impacts)

Refers to actions taken to reduce the likelihood of a certain adverse impact occurring. The mitigation of adverse human rights impact refers to actions taken to reduce its extent, with any residual impact then requiring remediation.

New Mine

A mine that becomes operational and applies for IRMA verification after the date that the IRMA standard was published in final (June 2018).

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Remediation/Remedy (including in relation to Human Rights Impacts):

Remediation and remedy refer to both the processes of providing remedy for an (adverse human rights) impact and the substantive outcomes that can counteract, or make good, the adverse impact. These outcomes may take a range of forms, such as apologies, restitution, rehabilitation, financial or non-financial compensation, and punitive sanctions (whether criminal or administrative, such as fines), as well as the prevention of harm through, for example, injunctions or guarantees of non-repetition.

Stakeholder

Persons/groups directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project or the ability to influence its outcome, positively or negatively.

Vulnerable Group

A group whose resource endowment is inadequate to provide sufficient income from any available source, or that has some specific characteristics that make it more susceptible to health impacts or lack of economic opportunities due to social biases or cultural norms (e.g., may include households headed by women or children, people with disabilities, the extremely poor, the elderly, at-risk children and youth, ex-combatants, internally displaced people and returning refugees, HIV/AIDS-affected individuals and households, religious and ethnic minorities, migrant workers, and groups that suffer social and economic discrimination, including indigenous peoples, minorities and in some societies, women).

Worker

All non-management personnel.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



Chapter 3.5—Security Arrangements

BACKGROUND

Security risks to mining operations may result from political, economic, civil or social factors. The role of public or private security forces used in relation to mining operations should be to maintain the rule of law, including safeguarding human rights; provide security to mine workers, equipment and facilities; and protect the mine site or transportation routes from interference with legitimate extraction and trade.

Mine security arrangements that are founded on a substantial understanding of the context, stakeholders and international best practice can help a company reduce the potential for violent conflicts with communities or workers; contribute to peace and stability in the regions where it operates; and demonstrate respect for the human rights of stakeholders affected by their operations.

OBJECTIVES/INTENT OF THIS CHAPTER

To manage security in a manner that protects mining operations and products without infringing on human rights.

SCOPE OF APPLICATION

Chapter Relevance: The majority of the requirements in this chapter are relevant for any mining project that employs security personnel (e.g., security guards, public or private security forces) at its mine site, or in relation to transportation of its products or ore. Some requirements in this chapter are only relevant for companies that have security arrangements involving private security providers (3.5.1.3 and 3.5.4.1), and others are only relevant if public security forces such as police or military personnel are used (i.e., 3.5.1.4, 3.5.3.2, 3.5.4.2, and 3.5.6.4).

CRITICAL REQUIREMENTS IN THIS CHAPTER

The mine has policy and procedures in place that align with best practices to limit the use of force and firearms by security personnel (3.5.1.2).

Security Arrangements Requirements

TERMS USED IN THIS CHAPTER

Affected Community ■ Artisanal or Small-Scale Mining (ASM) ■ Collaboration ■ Competent Authority ■ Competent Professional ■ Conflict Analysis ■ Conflict Risk ■ Consultation ■ Contractors ■ Grievance ■ Human Rights Risk ■ Mining Project ■ Mining-Related Activities ■ Mitigation ■ Operating Company ■ Potential Human Rights Impact ■ Remediation/Remedy ■ Stakeholder ■ Vulnerable Group ■ Worker ■ Workers' Representative ■

These terms appear in the text with a dashed underline, and they are explained at the end of this chapter

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.5.1. Policies and Commitments Related to Security and Human Rights</p> <p>3.5.1.1. The operating company shall adopt and make public a policy acknowledging a commitment to respect human rights in its efforts to maintain the safety and security of its mining project; and a commitment that it will not provide support to public or private security forces that have been credibly implicated in the infringement of human rights, breaches of international humanitarian law or the excessive use of force.</p> <p>3.5.1.2. (Critical Requirement) The operating company shall have a policy and procedures in place regarding the use of force and firearms that align with the best practices expressed in UN <i>Basic Principles on the Use of Force and Firearms</i>. At minimum, the company's procedures shall require that:</p> <ol style="list-style-type: none"> a. Security personnel take all reasonable steps to exercise restraint and utilize non-violent means before resorting to the use of force; b. If force is used it shall not exceed what is strictly necessary, and shall be 	<p>For 3.5.1.1: Confirm with the operating company that it has a policy in place related to security and human rights. The company's security policy may be integrated into a broader human rights or other policy. Ensure relevant policies and commitments are publicly available, e.g., published on operating company website or in materials distributed by the company, etc.</p> <ul style="list-style-type: none"> • Review company documentation (e.g., risk assessments, records related to revenue transparency, payments and equipment transfers, human rights screening) to determine if it may be supporting security forces that are infringing on human rights. • Review other sources of credible information, including interviews with relevant stakeholders or experts, to determine if the company may be operating in contravention to its policy commitments. 	<p>For 3.5.1.1:</p> <ul style="list-style-type: none"> • Policy on security and human rights. • Public communication regarding the policy (website; sustainability report; press release etc.) 	<p>Explanatory Note for 3.5.1.1: These commitments may be made in a broader Human Rights Policy, or another relevant policy.)</p> <p>“support” includes, but is not limited to, procuring minerals from, making payments to or otherwise providing logistical assistance or equipment to non-state armed groups or public or private security forces; it does not include legally required forms of support, including legal taxes, fees, and/or royalties that companies pay to the government of a country in which they operate.³⁸⁶</p> <p>The expectation is that the policy includes a commitment to not support security forces implicated in the infringement of human rights, breaches of international humanitarian law or the excessive use of force, but there may be minor non-conformance with the wording of such commitment, as long as the general intent is being conveyed.</p> <p>There are many human rights that may be affected by the actions of security providers. Voluntary Principles on Security and Human Rights Implementation Guidance Tool (VP-IGT) includes a list of human rights articles and the potential for security arrangements to infringe upon those rights.³⁸⁷</p> <p>According to the VP-IGT:</p> <p>"International humanitarian law (IHL) specifically regulates situations of armed conflict, which is why this body of law is also known as 'the law of armed conflict' or 'the law of war'. Its fundamental premise is that even in times of armed conflict</p>

³⁸⁶ OECD. 2016. OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas. 3rd Ed. <https://mneguidelines.oecd.org/mining.htm>

³⁸⁷ ICMM, ICRC, IFC and IPIECA. 2011. Voluntary Principles on Security and Human Rights: Implementation Guidance Tools. Annex B. http://www.voluntaryprinciples.org/wp-content/uploads/2013/03/VPs_IGT_Final_13-09-11.pdf

proportionate to the threat and appropriate to the situation; and
c. Firearms shall only be used for the purpose of self-defense or the defense of others if there is an imminent threat of death or serious injury.

For 3.5.1.2: Confirm through interviews with relevant operating company staff and document review that policy and procedures are in place related to the use of force and firearms, and that these are consistent with best practices.

For 3.5.1.2:

- Policy and procedures on use of force.
- Training materials for security personnel and/or contractors.
- Contracts with security providers.

3.5.1.3. If private security is used in relation to the mining operation, the operating company shall have a signed

For 3.5.1.3: If relevant, review signed contracts with private security providers to confirm that they include principles and requirements consistent with the Voluntary Principles on

For 3.5.1.3:

- Contracts with security providers.

human dignity must be respected and protected. . .The International Committee of the Red Cross (ICRC) has produced a document outlining the rights and obligations of business under IHL."³⁸⁸

The VP-IGT also describes that:

"In principle, the use of force and firearms by private security providers may not exceed what is strictly necessary and proportionate for the purpose of self defence or the defence of others against imminent threats of death and serious injury. For the principles governing the use of force and firearms by public security providers, refer to the United Nations Basic Principles on the Use of Force and Firearms by Law Enforcement Officials."

Explanatory Note for 3.5.1.2: The document Voluntary Principles on Security and Human Rights: Implementation Guidance Tools contains tools and resources to help companies consider their approaches and develop procedures on the use of force and firearms.³⁸⁹

The UN Basic Principles on the Use of Force and Firearms by Law Enforcement Officials is available at:
www.ohchr.org/EN/ProfessionalInterest/Pages/UseOfForceAndFirearms.aspx

Explanatory Note for 3.5.1.3: Private security may be mining company employees or private security firms contracted by the operating company to provide security services to the mining project.

³⁸⁸ ICMM, ICRC, IFC and IPIECA. 2011. Voluntary Principles on Security and Human Rights: Implementation Guidance Tools. p. 9. http://www.voluntaryprinciples.org/wp-content/uploads/2013/03/VPs_IGT_Final_13-09-11.pdf and International Committee of the Red Cross (ICRC). 2006. Business and International Humanitarian Law: An Introduction to the Rights and Obligations of Business Enterprises under International Humanitarian Law. <https://www.icrc.org/en/publication/0882-business-and-international-humanitarian-law-introduction-rights-and-obligations>

³⁸⁹ ICMM, ICRC, IFC and IPIECA. 2011. Voluntary Principles on Security and Human Rights: Implementation Guidance Tools. Annex H. http://www.voluntaryprinciples.org/wp-content/uploads/2013/03/VPs_IGT_Final_13-09-11.pdf

contract with private security providers that at minimum:

- a. Sets out agreed on principles that are consistent with the Voluntary Principles on Security and Human Rights and the operating company's procedures on the use of force and firearms;
- b. Delineates respective duties and obligations with respect to the provision of security in and around the operation and, if relevant, along transport routes; and
- c. Outlines required training for security personnel.

3.5.1.4. If public security forces are used to provide security to the mining project and/or transport routes, the operating company shall make a good faith effort to sign a Memorandum of Understanding (MoU) with public security providers that includes similar provisions to those in 3.5.1.3.

Security and Human Rights. Review signed contracts for delineation of respective duties and obligations with respect to the provision of security in and around the operation, including associated facilities, and any security provision along transport routes used to move minerals, if the company has contracted security on or along those routes. Review signed contracts for outline of required training for security personnel.

For 3.5.1.4: If relevant, review MoU with public security providers. If no MoU has been signed, determine, through interviews with relevant operating company staff, that good-faith efforts were made to establish an MoU.

For 3.5.1.4:

- MoU with public security providers.
- Public security provider training material.
- Security provider policies and procedures.
- Records of communications and meetings between the operating company and public security providers (what was discussed, when, any formal or informal outcomes or agreements, etc.).

The Voluntary Principles on Security and Human Rights. (2014) can be found at: www.voluntaryprinciples.org

Explanatory Note for 3.5.1.4: According to the VP-IGT, some companies have successfully established MoUs with public security providers around deployment and conduct.³⁹⁰

There are number of steps that are typically involved in the establishment of MoUs:

Develop trust with public security provider
Develop support from other stakeholders
Develop and agree on MOU content
Establish a monitoring system

Despite best efforts, operating companies may not be successful at establishing MOUs with public security. In the absence of an MOU, companies should still try to work with public security providers to ensure that they operate in a manner that aligns with the Voluntary Principles on Security

³⁹⁰ See Tip 11: Establishing MoUs with Public Security Provider in: ICMM, ICRC, IFC and IPIECA. 2011. Voluntary Principles on Security and Human Rights: Implementation Guidance Tools. p. 45. Available at: <https://www.commdev.org/voluntary-principles-on-human-rights-implementation-guidance-tools-igt/>

and Human Rights and the appropriate use of force and firearms. Operating company efforts could include conducting training with public security forces that covers the provisions of 3.5.1.3.³⁹¹

Explanatory Note for 3.5.2.1: The assessment of security risks may be integrated in existing risk assessment processes.

Assessment of risks related to use of security forces is required by the Voluntary Principles on Security and Human Rights, and also by institutions like the International Finance Corporation for projects that receive funding from the corporate.³⁹³

There are several resources available that have more information on assessing risks from security arrangements (e.g., IFC, 2017; ICMM et al., 2011).³⁹⁴

Risks include not only risks to the company but also risks to communities, workers and other stakeholders (see requirement 3.5.2.3).

Risk assessments in 3.5.2 are not one-time occurrences. According to the Voluntary Principles on Security and Human Rights (VP) Implementation Guidance Tools:

“Any major decision relating to a project or company might represent an appropriate time to conduct or renew a risk

3.5.2. Security Risk Assessment and Management

3.5.2.1. The operating company shall assess security risks and potential human rights impacts that may arise from security arrangements. Assessments of security-related risks and impacts shall be updated periodically, including, at minimum: when there are significant changes in mining-related activities, security arrangements, or in the operating environment.³⁹²

For 3.5.2.1: Confirm that security risk assessment was conducted and periodically updated, and if not, the company’s rationale for not doing so. Interview stakeholders to determine if they agree with the company’s rationale.

For 3.5.2.1 – 3.5.2.3:

- Security risk assessment and related documentation (e.g., final report, supporting information, lists of sources, etc.).
- Risk assessment policies and procedures.

³⁹¹ Ibid. pp. 40-45.

³⁹² Risk assessments in 3.5.2 are not one-time occurrences. According to the Voluntary Principles on Security and Human Rights (VP) Implementation Guidance Tools, “Any major decision relating to a project or company might represent an appropriate time to conduct or renew a risk assessment, e.g., a project expansion, an acquisition or merger or any other major business decision. Major changes in external circumstances may bring about the need to conduct a VPs risk assessment. This may include a change in government, the outbreak of conflict, an economic crisis, or a major political or policy decision (ICMM, IFC and IPIECA. 2012. Voluntary Principles on Security and Human Rights Implementation Guidance Tools. p. 24. <https://www.commdev.org/voluntary-principles-on-human-rights-implementation-guidance-tools-igt/>)

³⁹³ IFC. 2012. Performance Standard 4: Community Health, Safety and Security. Para.12. https://www.ifc.org/wps/wcm/connect/dc3f4b80498007dca17ff3336b93d75f/Updated_GN4-2012.pdf?MOD=AJPERES

³⁹⁴ For example: IFC. 2017. Use of Security Forces: Assessing and Managing Risks and Impacts (Good Practice Handbook). Voluntary Principles on Security and Human Rights. 2014. http://www.voluntaryprinciples.org/wp-content/uploads/2018/06/p_handbook_SecurityForces_2017.pdf and ICMM, IFC and IPIECA. 2012. Voluntary Principles on Security and Human Rights Implementation Guidance Tools. <https://www.commdev.org/voluntary-principles-on-human-rights-implementation-guidance-tools-igt/>

3.5.2.2. Assessments, which may be scaled to the size of the company and severity of security risks and potential human rights impacts, shall:

- a. Follow a credible process/methodology;³⁹⁶
- b. Be carried out and documented by competent professionals; and
- c. Draw on credible information obtained from a range of perspectives, including men, women, children (or their representatives) and other vulnerable groups, relevant stakeholders and expert advice.³⁹⁷

For 3.5.2.2: Review assessment methodology to ensure followed a typical risk assessment process.

Confirm that assessment was carried out by competent professionals.

Review documentation of the stakeholders and others who were consulted (e.g., gov't representatives, security firms, other companies, human rights institutions, civil society, independent experts, etc.), and the materials reviewed (e.g., reports, other assessments, human rights records, laws) during the assessment.

For 3.5.2.1 – 3.5.2.3:

- Security risk assessment and related documentation (e.g., methodology, final report, supporting information, lists of sources, etc.).
- Risk assessment policies and procedures.
- CVs for personnel who carried out security risk assessment.

assessment, e.g., a project expansion, an acquisition or merger or any other major business decision. Major changes in external circumstances may bring about the need to conduct a VPs risk assessment. This may include a change in government, the outbreak of conflict, an economic crisis, or a major political or policy decision.”³⁹⁵

Explanatory Note for 3.5.2.2: Risk assessments may be more or less detailed based on the size of the company and severity of security risks. The Voluntary Principles on Security and Human Rights: Implementation Guidance Tools provide information and an example of how to determine the potential scope of the assessment.³⁹⁸

Re: 3.5.2.2.a, credible risk assessments typically include:³⁹⁹

- Establishment of scope
- Identification of sources of risk
- Identification of risks
- Assessment of risks
- Development of risk treatment and mitigation measures, and
- Communications, Monitoring and Assessment and Revision

³⁹⁵ ICMM, IFC and IPIECA. 2012. Voluntary Principles on Security and Human Rights Implementation Guidance Tools. p. 24. <https://www.commdev.org/voluntary-principles-on-human-rights-implementation-guidance-tools-igt/>

³⁹⁶ Guidance will cover this more extensively, but risk assessments typically include: Establishment of scope; Identification of sources of risk; Identification of risks; Assessment of risks; Development of risk treatment and mitigation measures; and Communications, Monitoring and Assessment and Revision (Source: Voluntary Principles Implementation Guidance Tool. p. 23). The assessment of security risks may be integrated in existing risk assessment processes.

³⁹⁷ Special effort should be made to include women, children or their representatives, and other groups who may be particularly vulnerable to impacts from security arrangements (e.g., this might include ASM operators, human rights defenders, and youth) Other relevant local stakeholders may include local government or community leaders; civil society organizations; other companies operating in the area. Expert advice may come from governments, multi-stakeholder initiatives, human rights institutions and civil society or academics with local knowledge and expertise. See IRMA Guidance for more information.

³⁹⁸ Ibid. pp. 25-26, 80-86.

³⁹⁹ ICMM, IFC and IPIECA. 2012. Voluntary Principles on Security and Human Rights Implementation Guidance Tool. p. 23. <https://www.commdev.org/voluntary-principles-on-human-rights-implementation-guidance-tools-igt/> and IFC. 2017. Use of Security Forces: Assessing and Managing Risks and Impacts (Good Practice Handbook). Voluntary Principles on Security and Human Rights. 2014. http://www.voluntaryprinciples.org/wp-content/uploads/2018/06/p_handbook_SecurityForces_2017.pdf

3.5.2.3. The scope of the security risk assessment shall include, but need not be limited to:

- a. Identification of security risks to the company, workers and communities, paying particular attention to risks to women, children and other vulnerable groups;
- b. Analysis of the political and security context in the host country context

For 3.5.2.3: Confirm that the scope of the assessment included identification of security risks, the political context, a conflict analysis and risks related to equipment transfers.

For 3.5.2.1 – 3.5.2.3:

- Security risk assessment and related documentation (e.g., final report, supporting information, lists of sources, etc.).
- Risk assessment policies and procedures.

Re 3.5.2.2.b, a professional is competent when he/she acts responsibly and effectively according to given standards of performance. See IRMA's definition of competent professionals. Competent professionals should be able to demonstrate competency through their qualifications, certifications and track record.

Re: 3.5.2.2.c, special effort should be made to include women, children or their representatives, and other groups who may be particularly vulnerable to impacts from security arrangements (e.g., this might include ASM operators, human rights defenders, and youth). Other relevant local stakeholders may include local government or community leaders; civil society organizations; other companies operating in the area.

“Expert advice” may come from governments, multi-stakeholder initiatives, human rights institutions and civil society or academics with local or specific issue knowledge and expertise. For example, UNICEF has developed guidance on child rights, and a checklist for companies to enable them to assess whether their security arrangements are attentive to and protective of children's rights.⁴⁰⁰

Explanatory Note for 3.5.2.3: Risk assessments may be more or less detailed based on the size of the company and severity of security risks. For example, higher security risks will be present when mines are located in conflict-affect or high-risk areas (see Chapter 3.4), or when there have been reports of security forces illegally controlling nearby mine sites or transportation routes.

Re: 3.5.2.3.a, the assessment of security risks should evaluate risks to stakeholders, not just security risks to the company.

⁴⁰⁰ UNICEF. 2017. Child Rights and Security Checklist. https://www.unicef.org/csr/files/Child_rights_and_Security_Checklist_ENG.pdf

- (e.g., the human rights records of the government and public and private security forces; adherence to the rule of law; corruption);
- c. Analysis of current and potential conflicts or violence in the host country and affected communities; and
 - d. Risks associated with equipment transfers.

Vulnerable groups such as women, children, and indigenous peoples should be considered separately. For example, if female workers are employed on a night shift that ends before daylight, additional security measures may need to be provided to ensure women are escorted home. IFC includes guidance on gender considerations, and UNICEF has guidance related to risk to children from security arrangements.⁴⁰¹

Re: 3.5.2.3.b and c, the political analysis should answer questions about the conflict situation in the country and surrounding countries (if the operation is near a border), for example, is there a recent history of, or potential for violent conflict in the country? Are there any insurgency, armed separatist, guerrilla or paramilitary groups operating in the country/region? Are there unsettled territorial or political claims? Is there a high proliferation of firearms and other weapons?⁴⁰²

Re: 3.5.2.3.d, equipment transfers from the company may include the provision of equipment such as vehicles, weapons, or access to facilities, etc., to public security forces. As part of its risk assessment, the company should consider any relevant past incidents involving previous equipment transfers, such as the use of company-provided equipment in the perpetration of human rights abuses.⁴⁰³

3.5.2.4. The operating company shall develop and implement a risk management plan that includes actions to

For 3.5.2.4: Review the risk management plan to confirm that the company documented the actions to be taken to address identified risks,

For 3.5.2.4:

- Security risk assessment and related documentation (e.g., final report, supporting

Explanatory Note for 3.5.2.4: A risk management plan (or its equivalent) should be based on an identification and assessment of risks based on their severity or consequence (to

⁴⁰¹ IFC. 2017. Use of Security Forces: Assessing and Managing Risks and Impacts (Good Practice Handbook). Voluntary Principles on Security and Human Rights. 2014. http://www.voluntaryprinciples.org/wp-content/uploads/2018/06/p_handbook_SecurityForces_2017.pdf and UNICEF. 2017. Child Rights and Security Checklist. https://www.unicef.org/csr/files/Child_rights_and_Security_Checklist_ENG.pdf

⁴⁰² ICMM, IFC and IPIECA. 2012. Voluntary Principles on Security and Human Rights Implementation Guidance Tools. pp. 25 and 26. <https://www.commdev.org/voluntary-principles-on-human-rights-implementation-guidance-tools-igt/>

⁴⁰³ Ibid. p. 27.

be taken to prevent or mitigate identified risks, and monitoring that will be conducted to ensure that mitigation measures are effective.

3.5.2.5. If the security risk assessment reveals the potential for conflicts between affected community members or workers and mine security providers, then the operating company shall collaborate with communities and/or workers to develop mitigation strategies that are culturally appropriate and take into consideration the needs of women, children and other vulnerable groups. If specific risks to human rights are identified in the assessment, the mitigation strategies shall conform with requirements in IRMA Chapter 1.3.

including monitoring to ensure that its actions were effective.

For 3.5.2.5: If risks to affected community members or workers were identified, review evidence (e.g., minutes of meetings) that the company and relevant community members/workers collaboratively developed prevention or mitigation strategies that are culturally appropriate and take into consideration the specific requirements of vulnerable groups. If necessary, follow up with stakeholder interviews. If human rights risks were identified, confirm that prevention/mitigation strategies were designed as per IRMA Chapter 1.3.

information, lists of sources, etc.).

- Risk management plan (or its equivalent).
- Risk management policies and procedures.

For 3.5.2.5:

- Security risk assessment and related documentation (e.g., final report, supporting information, lists of sources, etc.).
- Risk management plan (or its equivalent).
- Risk management policies and procedures.
- Documentation of engagement (e.g., meetings, communications, written or verbal input and company responses) with affected communities and workers.

the company and/or communities) and probability. The risk management plan should establish a risk response for each risk that seeks to avoid or mitigate that risk to the greatest extent possible. In some cases, this may require allocation of personnel and budget to specific risk mitigation measures.⁴⁰⁴

Explanatory Note for 3.5.2.5: One reason why it may be important to engage with communities in the development of mitigation strategies is that "security measures that are viewed as 'heavy-handed' may end up creating, rather than reducing security risks by endangering parallel efforts to develop community trust."⁴⁰⁵

"culturally appropriate" strategies would be those that are aligned with the cultural norms of the affected communities. Stakeholders can help to define for the company what is considered culturally appropriate. (For more on culturally appropriate engagement, see IRMA Chapter 1.2, requirement 1.2.1.3).

It is recognized that individual affected community members may not feel safe or for other reasons may not wish to collaborate with the operating company. If this is the case, then efforts should be made to work with others who can represent the views of affected peoples, such as issue advocates (e.g., those working on child rights), individuals who legitimately represent the views of certain groups, etc.

Interactions with security forces have the potential to affect the human rights of individuals and communities. For example, the use of lethal force could result in loss of life. The use of excessive force, as well as unlawful detention, also may

⁴⁰⁴ Ibid. p. 32, 33.

⁴⁰⁵ ICMM, IFC and IPIECA. 2012. Voluntary Principles on Security and Human Rights Implementation Guidance Tools. p. 20. <https://www.commdev.org/voluntary-principles-on-human-rights-implementation-guidance-tools-igt/>

threaten the right to liberty and security of the person. Other possible impacts include limitations to freedom of movement or assembly or expression, or even restrictions on employees' freedom of association.⁴⁰⁶

If the risk assessment reveals the potential for risks to human rights, then mitigation measures should conform with the requirements in IRMA Chapter 1.3 on Human Rights Due Diligence. See specifically, requirement 1.3.3.2.

Explanatory Note for 3.5.3.1: Companies are expected to carry out due diligence in their vetting and hiring of security providers. For example, IFC Performance Standard 4 requires that companies "make reasonable inquiries to ensure that those providing security are not implicated in past abuses."⁴⁰⁸

Additionally, mining companies should determine if there is evidence or reports of private security providers illegally controlling any mine site or transportation route.

Due diligence includes research or investigations to vet prospective private security providers and security personnel such as:

history of respect for/violations of human rights law and international humanitarian law;
personal/business reputation;
management style and ethics of key executives;
litigation and criminal offence history;

3.5.3. Due Diligence Prior to Hiring Security Personnel

3.5.3.1. The operating company shall develop and implement due diligence procedures⁴⁰⁷ to prevent the hiring of company security personnel and private security providers who have been convicted of or credibly implicated in the infringement of human rights, breaches of international humanitarian law or the use of excessive force.

For 3.5.3.1: Review due diligence procedures and documentation showing that these procedures were used prior to hiring company security (e.g., as employees) and private security firms (e.g., as contractors). If the operating company is relying on the private security provider's own due diligence screening of its employees, the auditor should review any documentation provided by the private security company.

Review external documentation that define and/or credibly suggest which security forces are infringing human rights, e.g. UN Group of Experts report or credible Human Rights NGO reports to check if due diligence has been implemented effectively.

For 3.5.3.1:

- Due diligence procedures on vetting and hiring private security providers.
- Due diligence reports on security personnel or security providers.
- Contracts with private security providers.

⁴⁰⁶ IFC. 2017. Use of Security Forces: Assessing and Managing Risks and Impacts (Good Practice Handbook). Voluntary Principles on Security and Human Rights. 2014. p. 11. http://www.voluntaryprinciples.org/wp-content/uploads/2018/06/p_handbook_SecurityForces_2017.pdf

⁴⁰⁷ Due diligence includes research or investigations to vet prospective private security providers and security personnel such as: history of respect for/violations of human rights law and international humanitarian law; personal/business reputation; management style and ethics of key executives; litigation and criminal offence history; procedures on use of force and firearms; compliance with health, safety and environmental regulations; etc. (VP Implementation Guidance Tool. pp. 52, 53. <https://www.commddev.org/voluntary-principles-on-human-rights-implementation-guidance-tools-igt/>).

⁴⁰⁸ IFC. 2012. Performance Standard 4: Community Health, Safety and Security. Para. 12. https://www.ifc.org/wps/wcm/connect/dc3f4b80498007dca17ff3336b93d75f/Updated_GN4-2012.pdf?MOD=AJPERES

3.5.3.2. The operating company shall make a good faith effort to determine if public security personnel providing security to the mine have been convicted of or credibly implicated in the infringement of human rights, breaches of international humanitarian law or the use of excessive force.

For 3.5.3.2: Review any operating company procedures and documentation related to efforts to determine if public security personnel have been credibly implicated in human rights abuses, breaches of international humanitarian law or excessive use of force.

For 3.5.3.2:

- Security risk assessment and related documentation (e.g., final report, supporting information, lists of sources, etc.).
- Risk assessment policies and procedures.
- Due diligence reports on public security personnel and/or providers.
- Records of communications with stakeholders, experts or other credible sources.
- Agreements/MoUs with public security providers.

procedures on use of force and firearms; compliance with health, safety and environmental regulations; etc.⁴⁰⁹

Provider history can be determined through background checks on individuals and the use of specialist research firms or investigators to examine the history of conduct of private security firms and their reputation among other companies, governments and other entities.⁴¹⁰

Security providers may also be certified to the International Code of Conduct (ICOC) for Private Security Companies which can provide assurance that an independent third party has verified a firm's respect for international human rights.⁴¹¹

Explanatory Note for 3.5.3.2: As part of a comprehensive security risk assessment, the company should evaluate public security providers' reputation for and history of human rights abuses, whether their conduct or competence has been called into question. Additionally, mining companies should determine if there is evidence or reports of public security forces illegally controlling any mine site or transportation route.

This may require investigation by competent professionals and/or input from experts, international NGOs and other credible sources.

IFC cautions, however, that:

"Discussions about the background, reputation, or concerns regarding individuals or units can be quite delicate, so

⁴⁰⁹ ICMM, IFC and IPIECA. 2012. VP Implementation Guidance Tool. pp. 52, 53. <https://www.commdev.org/voluntary-principles-on-human-rights-implementation-guidance-tools-igt/>

⁴¹⁰ ICMM, IFC and IPIECA. 2012. VP Implementation Guidance Tool. pp. 52, 53. <https://www.commdev.org/voluntary-principles-on-human-rights-implementation-guidance-tools-igt/> and IFC. 2017. Use of Security Forces: Assessing and Managing Risks and Impacts (Good Practice Handbook). p. 46. http://www.voluntaryprinciples.org/wp-content/uploads/2018/06/p_handbook_SecurityForces_2017.pdf

⁴¹¹ Code of Conduct (ICOC) Association website: "Certification." <https://www.icoca.ch/en/certification>

companies are advised to assess their relationship with public security forces to determine the most effective way to proceed—and use as much caution and discretion as the situation requires."⁴¹²

Explanatory Note for 3.5.4.1: Training should be based on the Voluntary Principles on Security and Human Rights and ideally would be conducted by the operating company prior to deployment of security personnel, with refresher courses on quarterly or bi-annual basis. Training should be documented and should include mandatory testing and certification for all security personnel.⁴¹³

The operating company will not need to carry out training if contracted private security personnel have received training from the private security provider. However, ideally, the operating company would obtain independent, credible assurance that this training has been provided (for example, through certification of the provider to the ICOC - see Note for 3.5.3.1).

3.5.4. Training

3.5.4.1. Prior to deployment of company or private security personnel, the operating company shall provide training that incorporates, at minimum, information related to ethical conduct and respect for the human rights of mine workers and affected communities, with particular reference to vulnerable groups, and the company's policy on the appropriate use of force and firearms. Initial training and refresher courses shall be mandatory for all operating company personnel involved in security, and for private security contractors that have not received equivalent training from their employers.

For 3.5.4.1: Review records of training sessions, including whether participants were company employees, private contractors, public security, or others. Review procedures for training new security employees and providing refresher courses. Review training materials to confirm that they at least covered topics of human rights of workers and community members, ethical conduct, appropriate use of force and firearms, and that they include reference to considerations that must be given to particular vulnerable groups such as women, children. If artisanal or small-scale mining (ASM) is occurring on or near the site, confirm that reference is made in the training to this particular group (See also Chapter 3.6, requirement 3.6.3.1).

If private security contractors are being used but their employees have not been trained by the operating company, review the contract between the company and security provider and interview the operating company to confirm that the private security personnel received appropriate training.

For 3.5.4.1:

- Training records (e.g., attendance sign-in sheets, agendas/curricula).
- Training materials.
- Contracts with private security providers. Records of private security contractor certification.

⁴¹² IFC. 2017. Use of Security Forces: Assessing and Managing Risks and Impacts (Good Practice Handbook). p. 70. http://www.voluntaryprinciples.org/wp-content/uploads/2018/06/p_handbook_SecurityForces_2017.pdf

⁴¹³ ICMM, IFC and IPIECA. 2012. VP Implementation Guidance Tool. p. 54. <https://www.commdev.org/voluntary-principles-on-human-rights-implementation-guidance-tools-igt/>

3.5.4.2. If public security forces are to be used, the operating company shall determine if public security personnel are provided with training on human rights and the appropriate use of force and firearms. If this training is not occurring, the company shall offer to facilitate training for public security personnel that provide mine-related security.

For 3.5.4.2: If public security providers are being used but they have not been trained on human rights and the appropriate use of force, determine if the operating company has made efforts to facilitate such training by another party.

For 3.5.4.2:

- Training records.
- Training materials.
- Agreements/MoUs with public security providers.

Explanatory Note for 3.5.4.2: According to International Council on Mining and Metals (ICMM) and others, one of the most common and potentially effective ways to address gaps identified in the competence of public security providers is for a company to encourage the government to develop an adequate training program, and possibly to assist it in doing so, if necessary.⁴¹⁴

They elaborate that there are a number of steps that should be considered in facilitating a training program for public security providers:

- Establish if there are existing training programs in human rights, international humanitarian law and rules of engagement for public security providers
- Establish the willingness of public providers or host government to participate
- Identify partners
- Support training delivery
- Follow up

Explanatory Note for 3.5.5.1: Guidance related to 3.5.5.1.a and b can be found in the Voluntary Principles on Security and Human Rights: Implementation Guidance Tool (Step 3.5 "Respond to human rights abuses" and Step 4.4 "Respond to private security provider misconduct"),⁴¹⁶ and also IFC Guidance related to "Preparing a Security Management Plan" and "Assessing Allegations or Incidents Related to Security Personnel."⁴¹⁷

3.5.5. Management of Security Incidents

3.5.5.1. The operating company shall:

- a. Develop and implement systems for documenting and investigating security incidents, including those involving impacts on human rights or the use of force;
- b. Take appropriate actions, including disciplinary measures, to prevent and

For 3.5.5.1: Review operating company procedures for documenting and recording/tracking and investigating security incidents, as well as adherence of security personnel to relevant company policies; how it determines appropriate disciplinary actions for different types of incidents; procedures for mitigating and remediating impacts related to human rights, injuries or fatalities; procedures for reporting security incidents to appropriate

For 3.5.5.1:

- Security management plan or equivalent.
- Disciplinary policies or procedures.
- Incident management policies and procedures (e.g., how to file allegations, reporting procedures, confidentiality clauses).
- Stakeholder complaint and grievance procedures and records.

⁴¹⁴ See Tip 9: Establishing relationship with public security provider, ICMM, IFC and IPIECA. 2012. VP Implementation Guidance Tool. <https://www.commdev.org/voluntary-principles-on-human-rights-implementation-guidance-tools-igt/>

⁴¹⁶ ICMM, IFC and IPIECA. 2012. VP Implementation Guidance Tool. <https://www.commdev.org/voluntary-principles-on-human-rights-implementation-guidance-tools-igt/>

⁴¹⁷ IFC. 2017. Use of Security Forces: Assessing and Managing Risks and Impacts (Good Practice Handbook). pp. 79 - 96. http://www.voluntaryprinciples.org/wp-content/uploads/2018/06/p_handbook_SecurityForces_2017.pdf

- deter abusive or unlawful acts by security personnel and acts that contravene the company’s policies on rules of engagement, the use of force and firearms, human rights, and other relevant policies;
- c. Take appropriate actions to mitigate and provide remediation for human rights impacts (as per IRMA Chapter 1.3⁴¹⁵), injuries or fatalities caused by security providers;
 - d. Report security incidents, including any credible allegations of human rights abuses by private or public security providers, to the competent authorities and national human rights institutions, and cooperate in any investigations or proceedings;
 - e. Provide medical assistance to all injured persons, including offenders; and
 - f. Ensure the safety of victims and those filing security-related allegations.

3.5.5.2. In the event of security-related incidents that result in injuries, fatalities or alleged human rights impacts on community members or workers, the company shall provide communities

authorities; procedures and facilities available for provision of medical aid; procedures to protect those filing security-related allegations. Interview relevant operating company staff to confirm that they understand the procedures.

Determine if there are cases of inappropriate use of force through review of complaints and company annual reports; and interviews with the company, workers/workers’ representatives and community members). If inappropriate force has been used, confirm that appropriate disciplinary action was taken by the company, and follow-up (e.g., medical aid; report to authorities) occurred.

For 3.5.5.2: Review documents related to actual security incidents. Review records filed with authorities and compare to the operating company records of incidents. Conduct interviews with community members or workers involved in security incidents to

- Training materials for security personnel, employees and affected communities.
- Records or documentation of incident management (e.g., reports to competent authorities, internal reports, follow up, medical services provided, remediation, compensation etc.).

For 3.5.5.2:

- Incident management policies and procedures (e.g., how to file allegations, reporting procedures, confidentiality clauses).

Re 3.5.5.1.c, see specifically, requirement 1.3.3.3 (IRMA Standard, Chapter 1.3—Human Rights Due Diligence).

Re: 3.4.4.1.d, the competence of local authorities should be determined through the security risk assessment. If state mechanisms cannot manage the investigation, operating companies may need to conduct an intervention via home government, NGOs or other stakeholders.⁴¹⁸

Re: 3.4.4.1.f, victims should be protected to the fullest extent possible from any retaliation. This may include having appropriate measures for maintaining the confidentiality of the complainant,⁴¹⁹ and working with state authorities, NGOs or host governments to ensure the safety of complainants and victims during and after the investigation

Explanatory Note for 3.5.5.2: Information provided to communities and/or workers regarding incidents and any investigations that are underway should not put the complainant(s) or victim(s) at risk.⁴²⁰ In such cases, it may be

⁴¹⁵ IRMA Standard, Chapter 1.3—Human Rights Due Diligence. (See specifically, requirement 1.3.3.3).

⁴¹⁸ ICMM, IFC and IPIECA. 2012. VP Implementation Guidance Tool. p. 46. <https://www.commddev.org/voluntary-principles-on-human-rights-implementation-guidance-tools-igt/>

⁴¹⁹ IFC. 2017. Use of Security Forces: Assessing and Managing Risks and Impacts (Good Practice Handbook). p. 94. http://www.voluntaryprinciples.org/wp-content/uploads/2018/06/p_handbook_SecurityForces_2017.pdf

⁴²⁰ Ibid. p. 96.

and/or workers with information on the incidents, any investigations that are underway, and shall consult with communities and/or workers to develop strategies to prevent the recurrence of similar incidents.

3.5.6. Communication and Disclosure

3.5.6.1. If requested by a representative community structure, the operating company shall offer a briefing for community stakeholders on the company's procedures on the use of force and firearms.

3.5.6.2. The operating company shall consult regularly with stakeholders, including host governments and affected communities, about the impact of their security arrangements on those communities; and shall report to stakeholders annually on the company's security arrangements and their efforts to manage security in a manner that respects human rights.

confirm that they have access to information on the incidents and related investigations, and that they have been consulted to develop strategies to prevent the recurrence of similar incidents.

For 3.5.6.1: Determine, through interviews with the operating company, whether or not there have been any community requests for such briefings, and if so, confirm that they were carried out as per the request.

For 3.5.6.2: Interview operating company and stakeholders and review documentation (e.g., records of consultations or meetings with the community members, agendas, written materials, etc.) to confirm that company carries out regular consultations with relevant stakeholders. Confirm, that the company has reported verbally to stakeholders, or has published annual reports on the company's security-related arrangements and management.

- Stakeholder complaint and grievance procedures and records.

Records of communications and consultations (e.g., meetings, correspondence) with stakeholders.

For 3.5.6.1:

- Community briefing materials.
- Records of communications and consultations (e.g., meetings, correspondence) with stakeholders.
- Security policies and procedures.

For 3.5.6.2:

- Documentation related to annual reporting on security arrangements.
- Records of communications and consultations (e.g., meetings, correspondence) with stakeholders.
- Agreements/MoUs with host governments and communities.

prudent to disclose some information only to those who have been directly affected.

Explanatory Note for 3.5.6.1: According to the International Finance Corporation (IFC):

"Through its Community Relations function, a company can share information with communities about security arrangements, the company's security policies, and the expected conduct of security personnel. Dialogue with communities about security issues can also help a company identify potential risks and local concerns, and can serve as an early warning system."⁴²¹

A "representative community structure" could be a local government, a community-based organization, etc."

Explanatory Note for 3.5.6.2: There is no definition for "consult regularly." Generally, however, if security is a concern for members of affected communities companies should provide opportunities for stakeholder questions and input on the topic whenever they meet with them (e.g., it can be a regular agenda item in community consultations and meetings). If security is not a major concern for stakeholders, then providing information and seeking feedback on security arrangements will need to happen less often.

The operating company may either report verbally, for example at a public meeting, or publish a report (such as an annual progress report produced by companies participating in the

⁴²¹ IFC. 2017. Use of Security Forces: Assessing and Managing Risks and Impacts (Good Practice Handbook). p. 9. http://www.voluntaryprinciples.org/wp-content/uploads/2018/06/p_handbook_SecurityForces_2017.pdf

3.5.6.3. Stakeholders shall have access to and be informed about a mechanism to raise and seek recourse for concerns or grievances related to mine security.

For 3.5.6.3: Confirm that stakeholders have been informed of a mechanism to raise security-related concerns. Interview complainants, if possible, and other stakeholders to determine accessibility and effectiveness of the operating company's management of security related grievances.

For 3.5.6.3:

- Incident management and/or grievance mechanism policies and procedures.
- Documentation of communications with relevant stakeholders related to the grievance mechanism (e.g., accessibility to the mechanism).

3.5.6.4. If public security forces are providing security for any aspect of the mining project, the operating company shall encourage host governments to permit making security arrangements, such as the purpose and nature of public security, transparent and accessible to the public, subject to any overriding safety and security concerns.

For 3.5.6.4: Determine if public security providers have been used at the site, and if so, interview relevant operating company staff to determine if security arrangements were made public, and if not, why not.

For 3.5.6.4:

- Public reporting on security arrangements.
- Agreements/MoUs with host governments/public security providers.
- Records of communications between operating company and host government related to permitting security information to be made public.

Voluntary Principles on Security and Human Rights) that is available to stakeholders.

As per IRMA Chapter 1.2, criteria 1.2.4, communications and information must be in culturally appropriate formats and languages that are accessible and understandable to affected communities and stakeholders, and provided in a timely manner.

Explanatory Note for 3.5.6.3: The operational-level grievance mechanism developed as per IRMA Chapter 1.4 may be used as the mechanism to receive and address security-related grievances, or a separate mechanism may be created to handle only security-related concerns. If a separate mechanism is developed, it shall be done in a manner consistent with Chapter 1.4.

Explanatory Note for 3.5.6.4: This requirement aligns with a similar provision in the Voluntary Principles on Security and Human Rights. Similarly, IFC states that their clients will, "encourage the relevant public authorities to disclose the security arrangements for the client's facilities to the public, subject to overriding security concerns."⁴²²

IFC adds that, "As part of their overall approach to stakeholder engagement, companies should communicate their security arrangements to workers and communities, subject to overriding safety and security needs."⁴²³

As explained in the Voluntary Principles Implementation Guidance Tool,⁴²⁴ information that could create security and

⁴²² International Finance Corporation (IFC). 2012. Performance Standard 4: Community Health, Safety and Security. Guidance Note. Para. 13. https://www.ifc.org/wps/wcm/connect/dc3f4b80498007dca17ff3336b93d75f/Updated_GN4-2012.pdf?MOD=AJPERES

⁴²³ International Finance Corporation (IFC). 2012. Performance Standard 4: Community Health, Safety and Security. Guidance Note. GN26. https://www.ifc.org/wps/wcm/connect/dc3f4b80498007dca17ff3336b93d75f/Updated_GN4-2012.pdf?MOD=AJPERES

⁴²⁴ ICMM, IFC and IPIECA. 2012. Voluntary Principles on Security and Human Rights Implementation Guidance Tools. p. 47. <https://www.commddev.org/voluntary-principles-on-human-rights-implementation-guidance-tools-igt/>

safety concerns or human rights risks would include specific troop movements, supply schedules, company personnel movements, locations of valuable or hazardous equipment, etc.

NOTES

This chapter draws on the Voluntary Principles on Security and Human Rights (“Voluntary Principles”), which provides a widely recognized framework for risk assessment and management of security providers that is respectful of human rights.⁴²⁵ Companies are encouraged to become corporate participants in the Voluntary Principles Initiative, to learn from and share knowledge with other companies and participants regarding best practices related to security and human rights.⁴²⁶

Cross References to Other Chapters	
CHAPTER	ISSUES
1.2—Community and Stakeholder Engagement	All <u>stakeholder</u> engagement in Chapter 3.5 must conform with the requirements of Chapter 1.2. Chapter 1.2, Criterion 1.2.3 is important to ensure that affected <u>stakeholders</u> have the capacity to fully understand their rights and participate effectively in the assessment and development of prevention/ <u>mitigation</u> plans, monitoring, and remedies for impacts on their safety and human right. And 1.2.4 ensures that communications and information are in culturally appropriate formats and languages that are <u>accessible</u> and understandable to affected communities and stakeholders, and provided in a timely manner.
1.3—Human Rights Due Diligence	There is considerable potential for integration between Chapters 3.5 and 1.3. For example: <ul style="list-style-type: none"> • The security policy may be integrated into a human rights policy in Chapter 1.3. • Information from security risk assessment may feed into the assessment of risks to or impacts on human rights. • If human rights risks or impacts are identified in the security risk assessment, prevention, <u>mitigation</u> or <u>remediation</u> strategies shall be designed as per the requirements in Chapter 1.3, criteria 1.3.3. Reporting on security management (requirement 3.5.6.1) may be done through a company’s human rights reporting (requirement 1.3.5.1), if the latter occurs on an annual basis.
1.4—Complaints and Grievance Mechanism and Access to Remedy	The filing of security-related complaints or <u>grievances</u> may be done through the operational-level <u>grievance mechanism</u> required in Chapter 1.4, or through a security-specific mechanism. If a separate mechanism or procedures are created specifically for security-related complaints, they should be developed in a manner that aligns with Chapter 1.4.
1.5—Revenue and Payments Transparency	If information on payments to made to governments (e.g., for the provision of public security forces or other related in-kind payments of equipment, etc.) was collected for the security risk assessment, it may feed into reporting requirements in Chapter 1.5 (i.e., 1.5.1.3 and 1.5.3.2).

⁴²⁵ Voluntary Principles on Security and Human Rights. 2014. www.voluntaryprinciples.org

⁴²⁶ *ibid.* “Voluntary Principles Initiative – Guidance on Certain Roles and Responsibilities of Companies.” www.voluntaryprinciples.org/wp-content/uploads/2014/10/VPs - Roles and Responsibilities - Corporate Pillar1.pdf

Cross References to Other Chapters	
2.1—Environmental and Social Impact Assessment and Management	Information from the security risk assessment, such as potential social impacts, may feed into the Environmental and Social Impact Assessment or vice versa.
3.4—Mining and Conflict Affected Areas	Information from the security risk assessment may feed into conflict screening/ <u>conflict risk</u> assessment, or vice versa. As per requirement 3.4.2.1. When operating in a <u>conflict-affected or high-risk area</u> , the <u>operating company</u> shall not knowingly provide direct or indirect support to public security or private security forces who: a. Illegally control mine sites, transportation routes and upstream actors in the supply chain; b. Illegally tax or extort money or minerals at point of access to mine sites, along transportation routes or at points where minerals are traded; or c. Illegally tax or extort intermediaries, export companies or international traders. Requirement 3.5.2.3 in the Chapter 3.4 mentions current and potential sources of conflict. If in a <u>conflict-affected or high-risk area</u> , this analysis will have been done as part of the <u>conflict risk</u> assessment (3.4.3.3.a).
3.6—Artisanal and Small-Scale Mining.	If <u>ASM</u> is occurring on or near the mine site, requirement 3.6.3.1 is relevant (relates to requirement 3.5.4.1 in Chapter 23.5).

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the [Glossary of Terms](#) at the end of the IRMA Standard document.

Affected Community

A community that is subject to potential risks or impacts from a project.

Artisanal and Small-Scale Mining (ASM)

Formal or informal operations with predominantly simplified forms of exploration, extraction, processing and transportation. ASM is normally low capital intensive and uses high labour intensive technology. ASM can include men and women working on an individual basis as well as those working in family groups, in partnership or as members of cooperatives or other types of legal associations and enterprises involving hundreds or thousands of miners. For example, it is common for work groups of 4-10 individuals, sometimes in family units, to share tasks at one single point of mineral extraction (e.g. excavating one tunnel). At the organisational level, groups of 30-300 miners are common, extracting jointly one mineral deposit (e.g. working in different tunnels), and sometimes sharing processing facilities.

Collaboration

The process of shared decision-making in which all stakeholders constructively explore their differences and develop a joint strategy for action. It is based on the premise that, through dialogue, the provision of appropriate information, collectively defined goals, and the willingness and commitment to find a solution acceptable to all parties, it is possible to overcome the initially limited perspectives of what is achievable and to reach a decision which best meets the interests of the various stakeholders. At this level, responsibility for decision-making is shared between stakeholders.

Competent Authority

The government department or authority having power to issue and enforce regulations, orders or other instructions having the force of law in respect of the subject matter of the provision concerned.

Competent Professionals

In-house staff or external consultants with relevant education, knowledge, proven experience, necessary skills and training to carry out the required work. Competent professionals would be expected to follow scientifically robust methodologies that would withstand scrutiny by other professionals. Other equivalent terms used may include: competent person, qualified person, qualified professional. For independent reviews (in IRMA Chapter 4.1) competent professionals must not be in-house staff.

Conflict Analysis

The systematic study of the profile, issues and stakeholders that shape an existing or potential conflict, as well as factors in the interaction between the three. It helps companies gain a better understanding of the environment in which they operate and their role in that context.

Conflict Risk

Any conflicts that may emerge or be exacerbated because of a company's presence, activities or relationships; and the likelihood that such conflicts will occur. Conflicts may arise within or between communities and/or stakeholder groups, or between the company and communities/stakeholders.

Consultation

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. In principle the company should take into account the concerns and views expressed by stakeholders in the final decision.

Contractor

An individual, company, or other legal entity that carries out duties subject to a contractual agreement that defines, for example, work, duties or services, pay, hours or timing, duration of agreement, and that remains independent for employment, tax, and other regulatory purposes. This includes sub-contractors.

Grievance

A perceived injustice evoking an individual's or a group's sense of entitlement, which may be based on law, contract, explicit or implicit promises, customary practice, or general notions of fairness of aggrieved communities. For the purposes of the IRMA Standard, the words grievances and complaints will be used interchangeably.

Human Rights Risk

Human rights risks are understood to be the business enterprise's potential adverse human rights impacts. (May also be referred to as potential human rights impacts).

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mining-Related Activities

Encompasses any activities that may occur during any phase of the mine life cycle (planning, impact assessment, exploration, mine construction, mining, mine closure), and includes all physical activities (e.g., land disturbance and clearing, sampling, airborne surveys, construction, ore removal, ore processing, waste management, reclamation, etc.).

Mitigation (including in relation to Human Rights Impacts)

Refers to actions taken to reduce the likelihood of a certain adverse impact occurring. The mitigation of adverse human rights impact refers to actions taken to reduce its extent, with any residual impact then requiring remediation.

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Potential Human Rights Impact

An adverse impact on human rights that may occur but has not yet done so. (May also be referred to as human rights risk).

Remediation/Remedy (including in relation to Human Rights Impacts):

Remediation and remedy refer to both the processes of providing remedy for an (adverse human rights) impact and the substantive outcomes that can counteract, or make good, the adverse impact. These outcomes may take a range of forms, such as apologies, restitution, rehabilitation, financial or non-financial compensation, and punitive sanctions (whether criminal or administrative, such as fines), as well as the prevention of harm through, for example, injunctions or guarantees of non-repetition.

Stakeholder

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Vulnerable Group

A group whose resource endowment is inadequate to provide sufficient income from any available source, or that has some specific characteristics that make it more susceptible to health impacts or lack of economic opportunities due to social biases or cultural norms (e.g., may include households headed by women or children, people with disabilities, the extremely poor, the elderly, at-risk children and youth, ex-combatants, internally displaced people and returning refugees, HIV/AIDS-affected individuals and households, religious and ethnic minorities, migrant workers, and groups that suffer social and economic discrimination, including indigenous peoples, minorities and in some societies, women).

Worker

All non-management personnel.

Workers' Representatives

A worker chosen to facilitate communication with senior management on matters related to working conditions, occupational health and safety or other workers' concerns. This is undertaken by the recognized trade union(s) in unionized facilities and, elsewhere, by a worker elected by non-management personnel for that purpose.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



Chapter 3.6—Artisanal and Small-Scale Mining

BACKGROUND

It has been estimated that there are between 20 and 30 million men, women and children involved in artisanal and small-scale mining (ASM) worldwide, and that the ASM sector is responsible for 15 to 20 percent of the production of global minerals and metals.⁴²⁷

While there is no single definition of artisanal and small-scale mining (ASM), it is generally understood to encompass a range of activities, including prospecting, exploration, extraction, processing and transportation, and use more simplified and labor-intensive technologies and practices than large-scale industrial mining.

The ASM sector is complex and diverse. It includes individuals or families mining to earn or supplement their livings, as well as small-scale commercial mining operations that employ numerous workers. Much of ASM is informal, with entities operating in contravention to laws, or in the absence of an appropriate legal framework, although some ASM operators do have permits, pay taxes and abide by social and environmental regulations.⁴²⁸ In some contexts, there may be a criminal element to ASM activities, such as smuggling, tax evasion, money laundering, trafficking in illegal chemicals, or financing of conflict.⁴²⁹

Sometimes ASM occurs in areas close to or on large-scale mining (LSM) concessions. ASM miners may have traditionally operated in those areas, full-time or seasonally, or in other cases miners may have arrived during LSM exploration or after the development of the large-scale mine.

Given the diversity within the ASM sector, it is understandable that interactions between LSM and ASM entities can also take on a variety of forms, from violent confrontation to harmonious co-existence.⁴³⁰

TERMS USED IN THIS CHAPTER

Accessible ■ Affected Communities ■ Artisanal and Small-Scale Mining (ASM) ■ Child Labor ■ Collaboration ■ Consultation ■ Conflict-Affected or High-Risk Area ■ Forced Labor ■ Grievance Mechanism ■ Indigenous Peoples ■ Inform ■ Mining Project ■ Mitigation ■ Operating Company ■ Stakeholder ■ Vulnerable Groups ■ Worker ■

These terms appear in the text with a dashed underline, and they are explained at the end of this chapter

⁴²⁷ Buxton, A. 2013. Responding to the Challenge of Artisanal and Small-Scale Mining: How can knowledge networks help? Institute for Environment and Development (IIED), London. p. 3. <http://pubs.iied.org/16532IIED/>

⁴²⁸ *ibid.* p. 4; Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF). 2017. IGF Guidance for Governments: Managing Artisanal and Small-Scale Mining. International Institute for Sustainable Development (IISD).p. 5. <http://igfmining.org/wp-content/uploads/2017/01/igf-guidance-for-governments-asm.pdf>

⁴²⁹ IGF, 2017, p. 12; and Echavarría, C. 2014. 'What is legal?' Formalising Artisanal and Small-Scale Mining in Colombia. Institute for Environment and Development (IIED), London and Alliance for Responsible Mining (ARM), Columbia. P. 23. <http://pubs.iied.org/pdfs/16565IIED.pdf>

⁴³⁰ Communities and Small-Scale Mining (CASM), the World Bank/International Finance Corporation Oil, Gas and Mining Sustainable Community Development Fund (CommDev) and International Council on Mining and Metals (ICMM). 2010. Working Together - How Large-Scale Mining Can Engage with Artisanal and Small-Scale Miners. p. 5. <http://hub.icmm.com/document/789>

ASM is playing a growing role in many national economies,⁴³¹ and holds the potential to provide decent livelihoods if conducted in an organized and responsible manner and afforded more secure access to capital and markets. Large-scale mines that operate in the same regions as ASM, or that purchase minerals produced by ASM, have the opportunity to contribute to positive transformations in the ASM sector.

OBJECTIVES/INTENT OF THIS CHAPTER

To avoid conflict and, where possible within the scope of national law, foster positive relationships between large-scale mines and artisanal and small-scale mining (ASM) entities, and support the development of ASM that provides positive livelihood opportunities and is protective of human rights, health, safety and the environment.

SCOPE OF APPLICATION

Chapter Relevance: This chapter is relevant to any large-scale mining operation that has the potential to interact with ASM entities due to proximity or through commercial relationships such as sourcing ore or minerals from ASM entities.

Artisanal and Small-Scale Mining Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.6.1. Understand the ASM Context</p> <p>3.6.1.1. When the large-scale mining (LSM) <u>operating company</u> has identified the presence of <u>artisanal and small-scale mining (ASM)</u> entities on the LSM concession or in close proximity to LSM operations, the <u>operating company</u> shall carry out a scoping process to understand the legal, social and environmental context in which <u>ASM</u> activities are occurring.</p>	<p>For 3.6.1.1: Review written materials to confirm that the <u>operating company</u> has an understanding of and has documented information on the <u>ASM</u> activities and the legal, social and environmental context in which they are taking place.</p>	<p>For 3.6.1.1:</p> <ul style="list-style-type: none"> • A scoping report or equivalent documenting the company's research into the legal, social and environmental context in which ASM are operating. • Documentation of efforts to identify ASM entities and operations in close proximity to the mining project. 	<p>Explanatory Note for 3.6.1.1: “in close proximity” should be taken to mean located adjacent to the LSM operation or near enough that there are likely to be current or future interactions between <u>ASM</u> and LSM activities or personnel, and/or the actions of one may have an impact on the other.</p> <p>“<u>ASM entities</u>” may include <u>ASM</u> miners/producers, processors, traders, transporters; they may be individuals or groups, formal or informal, and they may or may not be operating in compliance with legal frameworks.</p> <p>Prior to investment in large-scale mining (LSM) projects, companies typically scope the political, economic, legal, social and environmental context of the operating area to understand the potential risks related to such large capital investments. When ASM is present, the LSM <u>operating company</u> should also strive to understand and document the various risks and opportunities related to ASM in the area. Information gathered during this stage will help to inform strategies to create positive opportunities for ASM and <u>affected communities</u> (See 3.6.3.2). If</p>

⁴³¹ Freundenberger, M., Ali, S., Fella, T. and Pennes, S. 2013. Property Rights and Artisanal Mining: Clarifying and Strengthening Rights: Options for Policymakers. USAID Issue Brief. p. 1. <https://www.land-links.org/wp-content/uploads/2016/09/Property-Rights-and-Artisanal-Mining.pdf>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
			<p>not done pre-investment, LSM companies should establish the ASM context as early as possible in the mine development life cycle.</p> <p>Important factors to consider in establishing the ASM context include, but need not be limited to:</p> <p>Who are the ASM miners? For example, are both women and men involved,⁴³² are children involved,⁴³³ are miners from local communities, are they migrants, or is it a mix,⁴³⁴ is there the potential that forced labor may be occurring?⁴³⁵</p> <p>Is ASM a traditional activity, recent, or post-LSM; are activities seasonal, year-round?</p> <p>What are the types of ASM-related activities taking place locally (e.g., mining, processing, trading, transport)?</p> <p>What is the relationship between ASM entities, including migrant and transient miners if relevant, and the local community?</p> <p>Is there the potential that ASM entities are being controlled by militant or rogue government forces, or armed criminal groups?</p> <p>What role does ASM income play in local/regional economies or livelihoods of local/regional communities?</p> <p>What are the current or potential environmental and social impacts of ASM activities?</p> <p>Who holds surface and mineral rights in the area? Are there customary tenure claims?⁴³⁶</p> <p>What is the regulatory and legal framework for ASM in the country (e.g., Is ASM legal? Is enforcement of laws occurring?)</p> <p>If there is not a legal framework for ASM, are government efforts underway to</p>

⁴³² See Eftimie et al. 2012. Gender Dimensions of Artisanal and Small-Scale Mining: A Rapid Assessment Toolkit. <https://openknowledge.worldbank.org/handle/10986/2731>

⁴³³ See UNICEF, 2015. Child Rights and the Mining Sector. UNICEF Extractive Pilot. https://www.unicef.org/csr/files/UNICEF_REPORT_ON_CHILD_RIGHTS_AND_THE_MINING_SECTOR_APRIL_27.pdf

⁴³⁴ See Communities and Small-Scale Mining (CASM) and the World Bank/IFC Community Development Fund (CommDev). 2009. Mining Together - Large-Scale Mining Meets Artisanal Mining: A Guide for Action. https://commdev.org/wp-content/uploads/2015/05/P_Mining_Together_Large-Scale_Mining_Meets_Artisanal_Mining.pdf

⁴³⁵ See Hidron and Koepke. 2014. Addressing Forced Labor in Artisanal and Small-scale Mining (ASM): A Practitioner's Toolkit. Alliance for Responsible Mining. <https://www.solidaridadnetwork.org/sites/solidaridadnetwork.org/files/publications/ForcedLaborToolkit%20-%20Solidaridad%20ARM.pdf>

⁴³⁶ For example, see Freundenberger et al. 2013. Property Rights and Artisanal Mining: Clarifying and Strengthening Rights: Options for Policymakers. USAID Issue Brief. <https://www.land-links.org/wp-content/uploads/2016/09/Property-Rights-and-Artisanal-Mining.pdf>

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<p>3.6.2. Engage with ASM Entities and Communities</p> <p>3.6.2.1. When the <u>operating company</u> has identified the presence of ASM on or in close proximity to its <u>mining project</u>, and where there is no material risk to company personnel, it shall:</p> <p>a. Make a good faith effort to engage with <u>ASM</u> entities including, where relevant, <u>informal ASM operators</u> and <u>formal ASM associations</u>, as part of <u>ongoing stakeholder engagement efforts</u> (See IRMA Chapter 1.2);</p> <p>b. Make a good faith effort to <u>consult with informal and formal ASM entities</u> during relevant risk and impact assessments and closure planning;</p>	<p>For 3.6.2.1.a: Confirm that efforts have been made to engage <u>ASM</u> entities. This may be done through engagement with <u>ASM</u> associations, individuals or groups of formal or informal miners, and/or leaders that are acknowledged as being representative of certain groups of <u>ASM</u> miners.</p> <p>Refer also to IRMA Chapter 1.2—Community and <u>Stakeholder Engagement</u>. Identification of <u>ASM</u> entities (miners, processors, traders, etc.) should be done during <u>stakeholder mapping</u> (1.2.1.1); engagement processes should be <u>accessible</u>, culturally appropriate (e.g., in line with cultural protocols, norms and rights of <u>indigenous peoples</u>) and inclusive of the range of <u>ASM stakeholders</u>, including, if relevant, women, children or their</p>	<p>For 3.6.2.1:</p> <ul style="list-style-type: none"> • Stakeholder engagement strategy. • Records of ASM stakeholders consulted (e.g., list of those consulted, description of the consultation content and process). • Records of local community stakeholders affected by interactions ASM and/or between LSM and ASM consulted (e.g., list of those consulted, description of the consultation content and process). • Materials used to promote the operational-level grievance mechanism for ASM and local communities, and an explanation of the distribution method used. 	<p>formalize or legalize ASM production (or conversely, is government passive, or actively working against formalization or the development of a legal framework that supports ASM?)</p> <p>Is there the potential for ASM materials to enter the mine’s supply chain either from local or more distant sources?</p> <p>Explanatory Note for 3.6.2.1.a: To the extent possible, good faith efforts should be made to engage and <u>consult</u> with a range of <u>artisanal and small-scale mining</u> (ASM) individuals or entities to reflect the concerns and opinions of the diversity of those who may be affected or have the potential to affect the LSM mine (e.g., diversity in gender, age, ethnicities, formal/informal entities, different sizes of ASM operations, and the range of types of ASM activities, including miners, processors, traders, transporters).</p> <p>Formal ASM entities may include cooperatives, associations, enterprises or other entities that are registered with the government and/or are able to apply for a formal mining license or permit.⁴³⁷</p> <p>Informal ASM refers to those working outside the legal framework, e.g., they may lack of ownership of legitimate mineral titles, permits or claims.⁴³⁸</p> <p>The term “good faith effort” is used in 3.6.2.1 because it is recognized that there may be legitimate reasons for not engaging with some <u>ASM</u> entities, e.g., those linked to armed groups or criminal activity. Or there may be situations where engagement is unlikely, e.g., with transient miners or unpermitted miners who fear being arrested or expelled. Where direct engagement is not possible, efforts should be made to engage with civil society, community organizations or others who have knowledge of the challenges, risks, impacts and opportunities related to <u>ASM</u>. Where it is not deemed safe to engage, or where good faith efforts have not led to engagement, LSM operators should provide explanations to auditors.</p>

⁴³⁷ Communities and Small-Scale Mining (CASM) and the World Bank/IFC Community Development Fund (CommDev). 2009. Mining Together - Large-Scale Mining Meets Artisanal Mining: A Guide for Action. p. 23. https://commdev.org/wp-content/uploads/2015/05/P_Mining_Together_Large-Scale_Mining_Meets_Artisanal_Mining.pdf

⁴³⁸ Communities and Small-Scale Mining (CASM) et al. 2010. Working Together - How Large-Scale Mining Can Engage With Artisanal and Small-Scale Miners. p. 7. <http://www.eisourcebook.org/cms/June%202013/Working%20Together.%20How%20Large-scale%20Mining%20can%20Engage%20with%20ASM.pdf>

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<p>c. Engage with communities that are or may be affected by <u>ASM</u> operations and/or interactions between LSM and <u>ASM</u> entities; and</p> <p>d. <u>Inform ASM</u> entities and communities that there is an operational-level <u>grievance mechanism</u> available to raise concerns and resolve conflicts related to the LSM operation (See IRMA Chapter 1.4).</p>	<p>representatives, illiterate <u>workers</u>, miners from different cultural or ethnic groups, and other potentially marginalized or <u>vulnerable groups</u> (1.2.2.4). Also, <u>ASM</u> entities should be included, when possible, in <u>stakeholder</u> planning (1.2.1) and capacity building (1.2.3). Confirm that efforts have been made to engage vulnerable or marginalized <u>ASM</u> miners.</p> <p>For 3.6.2.1.b: Confirm that good faith efforts have been made to include both formal and informal (if both exist) <u>ASM</u> entities in <u>consultations</u> during risk and impact assessments and closure planning. A list of risk and impact assessments that may be relevant, depending on the <u>ASM</u> context, can be found in Explanatory Note for this Chapter). Requirements related to reclamation and closure planning are found in IRMA Chapter 2.6 (Note: the IRMA Standard requires that <u>affected communities</u> be involved in assessments/closure planning).</p> <p>For 3.6.2.1.c: Confirm that engagement has occurred with relevant <u>stakeholders</u> from communities that may be affected</p>		<p>As per IRMA Chapter 1.2, criteria 1.2.4, communications and information must be in culturally appropriate formats and languages that are accessible and understandable to affected communities and <u>stakeholders</u>, and provided in a timely manner.</p> <p>The appropriate or optimal engagement strategies will vary based on the particular <u>ASM</u> context. Engagement may be through meeting with <u>ASM</u> representatives (individuals or groups), <u>ASM</u> community forums held by the company or in partnership with others (e.g., government, civil society, development agencies, etc.), LSM-ASM committees or other approaches. Engagement may be with <u>ASM</u> entities alone, or may encompass <u>affected communities</u> more broadly in an effort to promote active, ongoing cooperation between LSM operations, artisanal mining operations and local communities. As outlined in Chapter 1.2, there may be the need for different engagement/<u>consultation</u> strategies, such as separate meetings, for women, or <u>vulnerable groups</u>.</p> <p>Explanatory Note for 3.6.2.1.b: Within the IRMA Standard there are a number of IRMA chapters that require LSM companies to carry out risk or impact assessments. All of these assessments include <u>consultation</u> with <u>stakeholders</u>, so if <u>ASM</u> mining is occurring on or in close proximity to LSM, then <u>ASM</u> entities should be invited to engaged in any relevant risk/impact assessment processes undertaken by the LSM. For example:</p> <p>The <u>operating company's</u> security risk assessment required in Chapter 3.5 is an example of where <u>ASM</u> miners need to be consulted, as there may be risks relating to interactions between mine site security personnel and <u>ASM</u>, and <u>ASM</u> miners can provide input into how to best mitigate the potential for violent interactions or human rights abuses with mine security providers. CASM et al. (2010) provide further guidance on assessing and minimizing the risks to security and human rights when there are interactions between LSM and <u>ASM</u>.⁴³⁹ Inclusion of <u>ASM</u> entities and local communities in reclamation and <u>mine closure</u> planning is also important, as <u>ASM</u> frequently occurs on historic LSM sites (e.g.,</p>

⁴³⁹ Communities and Small-Scale Mining (CASM) et al. 2010. Working Together - How Large-Scale Mining Can Engage With Artisanal and Small-Scale Miners. pp. 73-78. <http://www.eisourcebook.org/cms/June%202013/Working%20Together,%20How%20Large-scale%20Mining%20can%20Engage%20with%20ASM.pdf>

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	<p>positively or negatively by ASM operations, or may be affected positively or negatively by interactions between the LSM and <u>ASM</u> entities. (See Explanatory Notes for more information)</p> <p>For 3.6.2.1.d: Confirm that <u>ASM</u> entities and communities have been informed that concerns or complaints related to <u>ASM-LSM</u> interactions may be brought to the LSM company through its <u>grievance mechanism</u>. (See also IRMA Chapter 1.4)</p>		<p>reworking of tailings or mining of low-grade ore rejected by the LSM). By including ASM miners and communities in closure planning early in LSM mine development (see IRMA Chapter 2.6), there may be opportunities to enable ASM to mine certain areas of the LSM site concurrent with LSM operations; and the adoption of “innovative approaches to rehabilitation that benefit both the legacy of the LSM company and the livelihoods of ASM miners can be identified.”⁴⁴⁰</p> <p>Other assessments that should include ASM, if present, are those found in: IRMA Chapter 1.3—Human Rights, Chapter 2.1—Environmental and Social Impact Assessment, Chapter 2.4—Resettlement, Chapter 3.2—Occupational Health and Safety (e.g., if ASM is occurring on the LSM concession, as the ASM activities may pose health and safety risks to LSM workers and ASM workers), Chapter 3.3—Community Health and Safety, Chapter 3.4—Conflict-Affected Areas, Chapter 3.5—Security Arrangements, and/or Chapter—4.6 Biodiversity, Ecosystem Services and Protected Areas.</p> <p>Explanatory Note for 3.6.2.1.c: Communities located in the vicinity of the LSM and ASM operations are also <u>stakeholders</u> of the LSM mine. Depending on the context, all or some of the individuals working for ASM entities may live in or use services provided by nearby communities. These communities can offer important input on the ASM context, the potential impacts from ASM operations, the role ASM plays in the local community, the potential impacts that may occur as a result of negative (or violent) interactions between LSM and ASM, and the potential impacts (positive or negative) that might occur as a result of LSM strategies or initiatives related to ASM.</p> <p>Explanatory Note for 3.6.2.1.d: It is important that ASM entities and communities affected by the interactions between LSM and ASM understand that they have avenues for raising concerns and seeking remedy for perceived impacts that are related to the LSM operations. IRMA Chapter 1.4 addresses the development of an operational-level grievance mechanism. Requirement 3.6.2.1.d simply clarifies that</p>

⁴⁴⁰ Ibid. pp. 16, 85-87.

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<p>3.6.3. Foster Positive Relationships and Opportunities for ASM and Communities</p> <p>3.6.3.1. The operating company shall ensure that mine security personnel are trained in respecting the human rights of individuals engaged in ASM activities, and members of affected communities.</p>	<p>For 3.6.3.1: Refer to IRMA Chapter 3.5—Security Arrangements. As per the Voluntary Principles on Security and Human Rights, requirements 3.5.4 (and 3.6.3.1) require that private security personnel used by LSM be given training that incorporates, at minimum, ethical conduct and respect for the human rights of workers and affected communities. (See additional security requirements in Chapter 3.5).</p> <p>Confirm, through review of documentation such as training attendance records, training manuals, and interviews with relevant workers and company management, that appropriate training has occurred.</p>	<p>For 3.6.3.1:</p> <ul style="list-style-type: none"> • Training records (e.g., attendance sign-in sheets, agendas/curricula). • Training materials. • Contracts with private security providers. • Records of private security contractor certification. 	<p>as LSM stakeholders ASM entities and affected communities need to be made aware of the existence of such a mechanism.</p> <p>Explanatory Note for 3.6.3: “Positive opportunities” will vary depending on the context. For example, in some cases, participating in formalization of the ASM sector may be possible, however, in other cases creating alternative livelihood opportunities for communities may have the potential to yield more positive benefits.</p> <p>Explanatory Note for 3.6.3.1: Security concerns and potential impacts on human rights can arise as a result of interactions between: artisanal and small-scale mining (ASM) entities and security providers; different groups of ASM miners competing for valuable territory; ASM miners and local communities, e.g., when miners are not from the community; and LSM operators and ASM miners, e.g., when incursions onto LSM concessions occur, or there is theft or vandalism of LSM property.⁴⁴¹ There may be elevated risks for children in these situations.⁴⁴²</p> <p>IRMA Chapter 3.5 addresses security arrangements in more detail, and requires that operating companies, as per the Voluntary Principles on Business and Human Rights, provide human rights training to private security forces, and offer similar training to public security forces that provide mine-related security if they are not receiving that sort of training through other means. Requirement 3.6.3.1 simply clarifies that when ASM is occurring on or in close proximity to the mining project, that in addition to the human rights of mine workers and affected communities the human rights of individuals engaged in ASM activities are specifically included as part of that training.</p> <p>For information on training of mine security personnel, see IRMA Chapter 3.5, and the Voluntary Principles on Security and Human Rights.⁴⁴³ As per Chapter 3.5, requirement 3.5.4.1, training should be based on the Voluntary Principles on</p>

⁴⁴¹ Communities and Small-Scale Mining (CASM) et al. 2010. Working Together - How Large-Scale Mining Can Engage With Artisanal and Small-Scale Miners. p. 73. <http://www.eisourcebook.org/cms/June%202013/Working%20Together,%20How%20Large-scale%20Mining%20can%20Engage%20with%20ASM.pdf>

⁴⁴² UNICEF. 2016. Child Rights and the Mining Toolkit. p. 66. https://www.unicef.org/csr/files/FINAL_Child_Rights_and_Mining_Toolkit_060217.pdf

⁴⁴³ Voluntary Principles on Security and Human Rights. 2014. <http://www.voluntaryprinciples.org/>

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<p>3.6.3.2. The operating company shall demonstrate that it has considered opportunities to enhance positive safety, environmental and social impacts of ASM activities for the benefit of ASM entities and host communities.</p>	<p>For 3.6.3.2: Review documentation related to the company’s investigations and efforts at creating positive opportunities for ASM entities and communities that could be affected positively or negatively by the ASM operations and interactions between ASM and LSM. Documentation may include meeting notes or other evidence of outreach and efforts to support or work in partnership with governments, development agencies, NGOs, ASM associations or individual entities, community organizations or others involved in promoting or developing positive opportunities for the ASM sector in the host country.</p>	<p>For 3.6.3.2:</p> <ul style="list-style-type: none"> • Scoping study (or equivalent) - e.g., documentation of the potential social and environmental risks (positive and negative) associated with the ASM entities with whom the operating company has a commercial relationship. • Assessment report (or equivalent) documenting an analysis of the significance of the identified potential risks and impacts. • Documentation of entities that have an impact on ASM entities & host communities through their work. • Records of activities and consultations with stakeholders and others to investigate opportunities for enhancing the safety, environmental and social impacts of local ASM activities. 	<p>Security and Human Rights, be conducted quarterly or bi-annually, be documented, and there should include mandatory testing and certification for all security personnel.</p> <p>Explanatory Note for 3.6.3.2: In this case, host community refers to the community or communities that are affected by the ASM and LSM operations, e.g., those that may be providing goods, services, labor, etc. for those operations.</p> <p>In addition to reducing the potential for conflict and potential human rights abuses by security provided, LSM should take proactive steps to build positive relationships by creating positive opportunities for artisanal and small-scale mining (ASM) entities and communities. Strategies to create “positive opportunities” will vary based on the operating context. They may include but need not be limited to:</p> <ul style="list-style-type: none"> Participating in efforts (led by the host government, NGOs, development agencies or others) to support the formalization or professionalization of the ASM sector in the country Facilitating access of ASM entities to technical training, resources or programs to promote more responsible social and environmental practices Exploring opportunities to develop agreements with ASM entities to safely and legally mine on or source materials (e.g., waste rock, tailings) from large-scale mining concessions Exploring opportunities for the LSM to source ore or mined materials from ASM entities Collaborating with others (e.g., governments, NGOs, development agencies, ASM associations, individual ASM entities, affected community organizations) to improve livelihood options for local communities (e.g., through local procurement of goods and services, micro-financing for business start-ups, etc.) Responding to community infrastructure or other needs related to influx of migrant ASM workers⁴⁴⁴ Improving women’s conditions in ASM communities through gender awareness

⁴⁴⁴ International Finance Corporation (IFC). 2009. A Handbook for Addressing Project-Induced In-Migration. http://www.ifc.org/wps/wcm/connect/f12c2800488555b3b7c4f76a6515bb18/Influx_Full.pdf?MOD=AJPERES

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			<p>and empowerment programs⁴⁴⁵</p> <p>Formalization is often viewed as a critical step toward positive transformation of the ASM sector, as “informality deprives the state of important financial resources, while the current poor environmental, social, health and safety, labour, technical and trading conditions prevent the sector from delivering on important social objectives, such as generating formal employment and improving quality of life in mining communities.”⁴⁴⁶</p> <p>“Formalization is a process that seeks to integrate [ASM] into the formal economy. The process of formalization includes the development or adaptation of mining (and other) laws or policies to address the challenges of [ASM]. . . In particular, the lack of access to formal credit markets as a result of the informal (and sometimes illegal) nature of the sector is a barrier for miners to implement changes. Miners require access to capital for better equipment that allows the use of these alternative processes and can increase efficiency and profits, and formalization tends to foster positive economic conditions for miners and local communities. . . Legalization is just one dimension of the process of formalization. . . For the most part, [ASM] activities are not incorporated into formal legal and institutional structures because the sector is generally considered more complicated to regulate than larger-scale mining operations and governments lack the capacity, resources or will to formalize it.”⁴⁴⁷</p> <p>It is not the responsibility of mining companies to spearhead the formalization of the ASM sector in the country of operation.⁴⁴⁸ However, if government or multi-</p>

⁴⁴⁵ Organisation for Economic Cooperation and Development (OECD). 2016. OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas. 3rd Ed. p. 27. <https://mneguidelines.oecd.org/mining.htm> and Responsible Jewellery Council. 2013. Standards Guidance. http://www.responsiblejewellery.com/files/RJC_Standards_Guidance_2013_eng.pdf

⁴⁴⁶ Echavarría, C. 2014. ‘What is legal?’ Formalising Artisanal and Small-Scale Mining in Colombia. Institute for Environment and Development (IIED), London and Alliance for Responsible Mining (ARM), Columbia. p. 14. <http://pubs.iied.org/pdfs/16565IIED.pdf>

⁴⁴⁷ United Nations Environment Programme (UNEP). 2012. Analysis of Formalization Approaches in the Artisanal and Small-scale Gold Mining Sector Based on Experiences in Ecuador, Mongolia, Peru, Tanzania and Uganda. pp. 1, 2. https://wedocs.unep.org/bitstream/handle/20.500.11822/11357/Formalization_Document_Final_June_2012.pdf?sequence=1&isAllowed=y

⁴⁴⁸ Communities and Small-Scale Mining (CASM) and the World Bank/IFC Community Development Fund (CommDev). 2009. Mining Together - Large-Scale Mining Meets Artisanal Mining: A Guide for Action. p. 21. https://commdev.org/wp-content/uploads/2015/05/P_Mining_Together_Large-Scale_Mining_Meets_Artisanal_Mining.pdf

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			<p>stakeholder-led initiatives exist, LSM operators should consider participating, either as an individual company as part of an industry association. Such initiatives may include, e.g., creating or updating legal frameworks, including social and environmental regulations, so that they are appropriate for and supportive of responsible ASM mining.</p> <p>Companies can also provide legal, financial and technical assistance to support ASM-driven formalization and professionalization efforts,⁴⁴⁹ or professional skills training and development of ASM operators in areas such as mining, geology, ore processing, health and safety, environmental management, financial management, marketing, and sector organizing (e.g., establishing cooperatives, associations or other membership structures).⁴⁵⁰</p> <p>LSM can investigate other strategies to support the formalization or professionalization of ASM operators including signing of agreements or subcontracts directly with ASM miners to enable them to work legally on LSM mining leases.</p> <p>LSM companies do not have to take the lead on efforts, but rather, are encouraged to explore partnerships with others who are already working to promote positive transformations in the ASM sector, such as host country government-led initiatives; ASM certification schemes and others promoting responsible supply chains for minerals, including ASM-produced materials (e.g., Alliance for Responsible Mining, Better Gold Initiative, Diamond Development Initiative, Fairtrade, and others); or ASM development initiatives through the World Bank,</p>

⁴⁴⁹ Echavarría, C. 2014. 'What is legal?' Formalising Artisanal and Small-Scale Mining in Colombia. Institute for Environment and Development (IIED), London and Alliance for Responsible Mining (ARM), Columbia. p. 117, 118. <http://pubs.iied.org/pdfs/16565IIED.pdf>; Bocangel, D. 2001. Small-Scale Mining in Bolivia: National Study. Report 71, commissioned by Mining, Minerals and Sustainable Development (MMSD) project of the Institute for Environment and Development (IIED). p. 18. <http://pubs.iied.org/pdfs/G00713.pdf> and Communities and Small-Scale Mining (CASM) and the World Bank/IFC Community Development Fund (CommDev). 2009. Mining Together - Large-Scale Mining Meets Artisanal Mining: A Guide for Action. pp. 22, 23. https://commdev.org/wp-content/uploads/2015/05/P_Mining_Together_Large-Scale_Mining_Meets_Artisanal_Mining.pdf

⁴⁵⁰ Communities and Small-Scale Mining (CASM) and the World Bank/IFC Community Development Fund (CommDev). 2009. Mining Together - Large-Scale Mining Meets Artisanal Mining: A Guide for Action. pp. 22, 23. https://commdev.org/wp-content/uploads/2015/05/P_Mining_Together_Large-Scale_Mining_Meets_Artisanal_Mining.pdf; and Swiss Agency for Development and Cooperation (SDC). 2016. Professionalising Artisanal Mining in Mongolia. <http://www.eisourcebook.org/cms/April%202016/Mongolia,%20Professionalizing%20Artisanal%20Mining.pdf>; and Responsible Jewellery Council. 2013. Standards Guidance. p. 186. http://www.responsiblejewellery.com/files/RJC_Standards_Guidance_2013_eng.pdf

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<p>3.6.4. Perform Due Diligence in Commercial Relationships with ASM</p> <p>3.6.4.1. When the LSM mine sources minerals from or has other commercial relationships with ASM entities, the operating company shall:</p> <ol style="list-style-type: none"> Regularly assess the social and environmental risks and impacts related to the ASM entities with whom they have a commercial relationship; Collaborate with those ASM entities with whom it can legally and legitimately engage to develop and implement a plan to 	<p>For 3.6.4.1: Determine if the operating company purchases ore, or has other commercial relationships with ASM entities. If sourcing or other commercial relationships exist, confirm that the company has assessed the range of social, environmental and business integrity/reputational risks that may be associated with entering into commercial relationships with ASM. (The range of potential risks are elaborated on in Explanatory Notes) If some types of risks have not been assessed, the company should provide reasonable justification for why those risks were not assessed.</p>	<p>For 3.6.4.1:</p> <ul style="list-style-type: none"> Scoping study (or equivalent) - e.g., documentation of the potential social and environmental risks (positive and negative) associated with the ASM entities with whom the operating company has a commercial relationship. Assessment report (or equivalent) documenting an analysis of the significance of the identified potential risks and impacts. Risk management plan (or equivalent) that documents actions to be taken to mitigate/minimize identified significant risks associated 	<p>United Nations Development Program, the International Labor Organization, International Institute for Sustainable Development, NGOs and practitioners.⁴⁵¹</p> <p>Such partnerships could result in support for formalization initiatives, information and technology programs, capacity building, education and training programs to promote improved practices (e.g., working conditions, health and safety, chemical management, women’s rights, elimination of child labor, and protection of the environment), the creation of formal supply chains for ASM, and access of ASM to fair prices and premiums that can then be spent on improving business practices, quality of life and community services such as education, clean water and healthcare.</p> <p>Explanatory Note for 3.6.4: Some LSM operations choose to purchase mined ore or minerals from artisanal and small-scale mining (ASM) operations as part of their business model and/or to support ASM producers in their pursuit of a livelihood and other economic opportunities. While this practice can provide a more secure market for ASM materials, it may also create potential liabilities for LSM,⁴⁵² for example, by introducing material into the LSM supply chain that may not have been “responsibly” produced.</p> <p>Requirement 3.6.4.1 is only relevant if the LSM has a commercial or business relationship with an ASM entity. The ASM entity need not be located in the same country as the LSM mine.</p> <p>The primary commercial relationships that are applicable in criterion 3.6.4 are those that involve the potential entry of ASM materials into the LSM supply chain, through purchase of ore, mined materials, or through an agreement whereby the LSM processes ASM materials. LSM with these types of commercial relationships with ASM must carry out 3.6.4 in addition to 3.6.1, 3.6.2 ad 3.6.3.</p>

⁴⁵¹ Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF). 2017. IGF Guidance for Governments: Managing Artisanal and Small-Scale Mining. International Institute for Sustainable Development (IISD). https://www.iisd.org/sites/default/files/publications/igf-guidance-for-governments-asm_0.pdf

⁴⁵² Communities and Small-Scale Mining (CASM) et al. 2010. Working Together - How Large-Scale Mining Can Engage With Artisanal and Small-Scale Miners. p. 59. <http://www.eisourcebook.org/cms/June%202013/Working%20Together,%20How%20Large-scale%20Mining%20can%20Engage%20with%20ASM.pdf>

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<p>eliminate or <u>mitigate</u> the most significant risks, and over time, address other social and environmental risks related to those <u>ASM</u> operations; and</p> <p>c. Periodically monitor the effectiveness of <u>mitigation</u> strategies, and adapt plans as necessary to facilitate continued minimization of risks.</p>	<p>Assessment may occur through a stand-alone assessment, or be integrated into one or more of the assessments in 3.6.2.1.b. Review any assessments. If the assessment(s) reveal risks, confirm, through document review and interviews with <u>operating company</u> and relevant <u>stakeholders</u> that the company is working with the <u>ASM</u> operators from whom it is sourcing, and potentially others, such as NGOs or <u>ASM</u> certification schemes, government or development agencies, etc., to explore and develop strategies to <u>mitigate</u> those risks.</p> <p>Confirm that assessments are updated as necessary, to determine if risks have changed over time.</p> <p>For 3.6.4.1.b: Review the assessments to determine the risks identified as being most significant (e.g., determine if any of those listed in the footnote are present), and confirm that the LSM operator has a plan in place to work with the <u>ASM</u> entities/business</p>	<p>with each ASM entity with whom the LSM has a commercial relationship.</p> <ul style="list-style-type: none"> List of metrics used to measure the social and environmental impacts of ASM entities. Reports documenting the results of monitoring of the effectiveness of mitigation strategies. Updates to risk management plan (or equivalent) and/or the operating company’s strategy to assist ASM entities in accessing technical assistance and financial investments to facilitate changes to their practices. 	<p>Note that there may be other business relationships between LSM and ASM (such as where the LSM markets ASM minerals, leases equipment to ASM, or provides logistical support to ASM) that do not result in the introduction of ASM materials into the LSM supply chain. In those circumstances, due diligence is recommended if there is the potential that the business relationship may create risks for the LSM companies or their downstream purchasers. However, the primary focus of due diligence efforts should be on those ASM entities that are part of the LSM value chain and a directly linked to the LSM operations, products or services.</p> <p>Explanatory Note for 3.6.4.1.a: An array of social and environmental issues at ASM operations may pose social and environmental risks. These include, but are not limited to lack of legal compliance, bribery and corruption, <u>child labor</u>, <u>forced labor</u>, low wages, lack of labor rights, poor occupational health and safety (e.g., exposure of workers and communities to toxic chemicals such as mercury and cyanide), lack of gender equality, security risks, human rights abuses, especially in conflict-affected areas, environmental pollution and degradation from poor waste management practices; operating in <u>protected areas</u> or <u>key biodiversity areas</u>.</p> <p>In the assessment of risks, LSM should keep in mind that ASM activities can have impacts on all workers and community members, but there are some groups that may be particularly vulnerable in certain contexts. For example:</p> <p>In some countries women are responsible for processing ASM gold. Often this involves using mercury, and the processing occurs in the home, creating health problems in women and health risks for the entire family.⁴⁵³</p> <p>ASM operations can pose risks to children including forced <u>child labor</u>, health and safety risks, potential for sexual exploitation and violence, and, particularly in conflict-affected areas, the potential to be recruited into militias that have links to ASM operations that support criminal activities, armed groups and human rights abuses.⁴⁵⁴</p>

⁴⁵³ Eftimie et al. 2012. Gender Dimensions of Artisanal and Small-Scale Mining: A Rapid Assessment Toolkit. pp. 8-10. <https://openknowledge.worldbank.org/handle/10986/2731>

⁴⁵⁴ UNICEF. 2015. Child Rights and the Mining Sector. UNICEF Extractive Pilot. p. 16. https://www.unicef.org/csr/files/UNICEF_REPORT_ON_CHILD_RIGHTS_AND_THE_MINING_SECTOR_APRIL_27.pdf and Organisation for Economic Cooperation and Development (OECD). 2016. Practical Actions for Companies to Identify and Address the Worst Forms of Child Labour in the Minerals Supply Chain. Draft. <https://mneguidelines.oecd.org/OECD-Practical-Actions-for-WFCL-in-Mining.pdf>

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	<p>associates to eliminate and <u>mitigate</u> the most significant risks.</p> <p>If <u>child labor</u> and/or forced labor are identified in <u>ASM</u> operations, confirm that <u>operating company</u> has met the remediation requirements in IRMA Chapter 3.1 related to <u>child labor</u> and <u>forced labor</u> in its supply chain.</p> <p>For 3.6.4.1.c: Confirm that the effectiveness of <u>mitigation</u> strategies is reviewed periodically, and that mitigation plans are updated as necessary, either because existing strategies or not working or because strategies have been effective and the LSM company is able to work with the <u>ASM</u> entities to minimize other risks.</p>		<p><u>Forced labor</u> often affects the more <u>vulnerable groups</u> such as women, youth and children, has been reported in small-scale mining, and the risks of it occurring are higher in remote or informal mining areas.⁴⁵⁵</p> <p>There is no definition for "regularly assess." As a rule of thumb, assessments should be reviewed and updated on an annual basis (or at a frequency that is commensurate with the risks). For example, if there are numerous risks that may be significant, assessments should be updated more frequently than if there are few known risks.</p> <p>Assessments should also be updated as needed. Situations that may necessitate an update of could include (but are not limited to) changes in the local or national political context; changes in the ASM's operating context (e.g., new actors move in, conflict situations arise) or the LSM mine's ASM suppliers expand their operations into new areas, etc. If there are no major changes that alter the analysis in the risk assessment, updates may simply indicate this fact.</p> <p>Explanatory Note for 3.6.4.1.b: The most significant risks will vary, depending on the ASM operations. (See Appendix I, Explanatory Notes for more information). However, if present, the following should always be considered "significant risks": <u>serious human rights abuses</u>, including the worst forms of <u>child labor</u>, <u>forced labor</u>, torture, cruel, inhuman or degrading treatment, widespread sexual violence, war crimes or serious violations of international humanitarian law, crimes against humanity or genocide.</p> <p>If <u>child labor</u> and/or <u>forced labor</u> are identified in <u>ASM</u> operations, and the <u>mining project</u> sources materials from those operations, the <u>operating company</u> must provide <u>remediation</u> as per requirements in IRMA Chapter 3.1 (i.e., requirements related to <u>child labor</u> and <u>forced labor</u> in its supply chain). See requirements 3.1.7.6 and 3.1.8.2.</p> <p>Following the assessment of the range of risks, and identification of the most significant risks to address first, the LSM company should develop and implement</p>

⁴⁵⁵ Hidron and Koepke. 2014. Addressing Forced Labor in Artisanal and Small-scale Mining (ASM): A Practitioner's Toolkit. Alliance for Responsible Mining. pp. 21, 22.
<https://www.solidaridadnetwork.org/sites/solidaridadnetwork.org/files/publications/ForcedLaborToolkit%20-%20Solidaridad%20ARM.pdf>

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			<p>short-term plans to start working on the elimination of the most serious risks, and longer-term plans to mitigate other risks. To increase the chances of uptake and success, mitigation measures should be discussed and agreed to by ASM entities, and plans should indicate clear timelines and benchmarks for expected improvements.⁴⁵⁶</p> <p>Collaboration may involve, on the part of the operating company, efforts to assist ASM entities to attain the resources they require to implement change (e.g., this may be through technical assistance, financial investment or other means).</p> <p>It is recognized that it may not always be clear when it is appropriate to "legally and legitimately engage" with ASM entities. Companies should be prepared to explain and document their decisions to commercially engage with ASM entities, particularly as they relate to such grey areas as sourcing from informal ASM sites.</p> <p>The concept of legitimacy should be considered in line with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk.⁴⁵⁷</p> <p>OECD writes that:</p> <p>"While legislation across countries varies, the Due Diligence Guidance encourages buying ASM gold, provided that ASM activities are legitimate and that adequate due diligence is carried out and risks identified and managed accordingly. The Guidance defines legitimacy of ASM using a number of criteria, including that it must be consistent with applicable national laws, and/or that [ASM] miners should demonstrate good faith efforts to operate within the legal framework and that they engage in opportunities for formalization. Mining activities cannot be considered legitimate when they contribute to conflict and serious abuses associated with the extraction, transport or trade of minerals as defined in Annex II of the Due Diligence Guidance.</p>

⁴⁵⁶ Organisation for Economic Cooperation and Development (OECD). 2016b. FAQ: Responsible Supply Chains in Artisanal and Small-Scale Gold Mining. p. 6. http://www.oecd.org/daf/inv/investment-policy/FAQ_Sourcing-Gold-from-ASM-Miners.pdf

⁴⁵⁷ Organisation for Economic Cooperation and Development (OECD). 2016. OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas. (3rd Ed.) <https://mneguidelines.oecd.org/mining.htm>

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<p>3.6.4.2. When the LSM mine has commercial relationships with <u>ASM</u> entities that are located in <u>conflict-affected or high-risk areas</u>, the <u>operating company</u> shall carry out due diligence related to those <u>ASM</u> entities as required in IRMA Chapter 3.4.</p>	<p>For 3.6.4.2: If the LSM is sourcing from or handling materials from <u>ASM</u> entities located in <u>conflict-affected and high-risk areas</u>, confirm that the required due diligence has been conducted as per IRMA Chapter 3.4 (i.e., in a manner consistent with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals</p>	<p>For 3.6.4.2:</p> <ul style="list-style-type: none"> • Conflict screening analysis or report. • Conflict risk assessments. • Documentation of planned risk management measures with timelines and performance objectives, e.g., a risk management plan. • Monitoring reports and reports 	<p>In many producing countries the legal framework stipulates that ASM activities are either outright illegal or that miner have to be registered and/or mine in areas that are designated for ASM activities. Given the particular due diligence challenges of assessing largely informal, often illegal ASM activities and the large number of actors, the Due Diligence Guidance proposes a range of measures to work towards formalization and legalisation and to create economic and development opportunities for artisanal and small-scale miners in its Appendix."⁴⁵⁸</p> <p>OECD also addresses the question "According to the Due Diligence Guidance can I buy from artisanal miners that are not legally registered in their own countries?" OECD suggests that "artisanal miners generally should have some form of registration and/or identification and should ideally be organized in some form of legal entity." OECD goes on to write that the Guidance is to cultivate responsible investment and trade in producing countries, and so offers other options for companies when dealing with artisanal miners that are not legally registered. See OECD (2016) for more information.⁴⁵⁹</p> <p>Re: 3.6.4.1.c, there is no definition for "periodically update." A good rule of thumb is to review monitoring results on a quarterly basis, and update strategies and plans if it is clear that <u>mitigation</u> measures are not effectively minimizing risks.</p> <p>Explanatory Note for 3.6.4.2: See IRMA Chapter 3.4, "Mining in Conflict-Affected and High-Risk Areas." In particular, as <u>mining project stakeholders</u>, <u>artisanal and small-scale mining (ASM)</u> entities should be involved in the following due diligence steps:</p> <p>Conflict risk assessment (see requirement 3.4.4.2) Development of risk <u>mitigation</u> strategies (see 3.4.4.2) Development of systems to monitor the effectiveness of <u>mitigation</u> (see 3.4.5.1) Reporting to <u>stakeholders</u> on major findings from due diligence efforts (see 3.4.6.1 and 3.4.6.2)</p>

⁴⁵⁸ Organisation for Economic Cooperation and Development (OECD). 2016b. FAQ: Responsible Supply Chains in Artisanal and Small-Scale Gold Mining. p. 5. http://www.oecd.org/daf/inv/investment-policy/FAQ_Sourcing-Gold-from-ASM-Miners.pdf

⁴⁵⁹ Ibid. p. 6.

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	from Conflict-Affected or High-Risk Areas.	<p>summarizing the effectiveness of the company's risk management activities.</p> <ul style="list-style-type: none"> Documented evidence of collaboration with ASM entities (e.g., meeting minutes, communications between the company and stakeholders, written input from stakeholders and company responses to the input, etc.) in assessment, and the development of mitigation strategies and monitoring indicators. Documented evidence of communication/reporting to senior management of the operating company, and stakeholders (including ASM entities), contractors, mine workers and other employees. 	

NOTES

Cross References to Other Chapters	
CHAPTER	ISSUES
1.1—Legal Compliance	<p>As per Chapter 1.1, if a <u>host country law</u> is more protective of human rights, health and/or the environment than an IRMA requirement, the <u>host country law</u> shall supersede the IRMA requirement (i.e., companies are required, at minimum to follow <u>host country law</u>). But if an IRMA requirement is more protective than <u>host country law</u>, the company is required to also meet the IRMA requirement, as long as doing so would not require the company to violate <u>host country law</u>.</p> <p>Chapter 1.1 also requires that <u>contractors</u> adhere to the IRMA Standard. So if there are <u>contractors</u> of the <u>mining project</u> who may be engaging with <u>ASM</u>, they should be aware of the <u>operating company's</u> policies and approaches regarding engagement with and respect for the human rights of <u>ASM</u> entities.</p>

Cross References to Other Chapters	
1.2—Community and Stakeholder Engagement	ASM entities are stakeholders of the mining project, and also often members of the affected communities. As such, the engagement process with ASM must conform with the requirements in Chapter 1.2.
1.3—Human Rights Due Diligence	2.14.2.1.b requires that an operating company consults with ASM entities during relevant risk and impact assessments. This includes the operating company's human rights related impact assessment (which is covered in Chapter 1.3, requirement 1.3.2.1). If it is discovered (e.g., through the human rights, security or conflict risk assessments) that the operating company may contribute to or be linked to potential or actual human rights impacts as a result of sourcing from ASM operations the operating company's mitigation measures will be expected to adhere to the requirements in IRMA Chapter 1.3. (See specifically, requirements 1.3.3.2.b and c and 1.3.3.3.b, and c).
1.4—Complaints, Grievances and Access to Remedy	3.6.2.1.d requires that ASM entities and communities be informed that there is an operational-level grievance mechanism available to raise concerns and resolve conflicts related to the LSM (large-scale mine). Such a grievance mechanism is required in Chapter 1.4.
2.1—Environmental and Social Impact Assessment and Management	3.6.2.1.b requires that operating companies consult with ASM associations and miners during relevant risk and impact assessments. This should include the Environmental and Social Impact Assessment in Chapter 2.1 (see especially criteria 2.1.4).
2.4—Resettlement	3.6.2.1.b requires that an operating company consults with ASM entities during relevant risk and impact assessments. If there are ASM miners, processors or other ASM entities that may be affected by resettlement, consultations with ASM entities will be required as part of the resettlement risk and impact assessment (see criteria 2.4.1). Additionally, ASM activities should be included in socio-economic baseline studies carried out prior to resettlement, and ASM entities should be afforded mitigation, compensation and livelihood opportunities in the Resettlement Action Plan and/or Livelihood Restoration Plan.
2.6—Planning and Financing Reclamation and Closure	Chapter 2.6 requires that affected communities be involved in assessments/closure planning. If present in the area, ASM entities should be involved in mine closure planning.
3.1—Fair Labor and Terms of Work	Chapter 3.1, criteria 3.1.7 and 3.1.8 relate to child labor and forced labor, respectively. If an LSM mining project sources from or has other commercial relationships with ASM (i.e., there is a supply chain relationship), the LSM operator is required in Chapter 3.1 to carry out due diligence to determine if child labor and/or forced labor are occurring at those ASM operations (see requirements 3.1.7.4 and 3.1.8.2, respectively). If child labor or forced labor are discovered, the LSM operating company is required to carry out remediation.
3.2—Occupational Health and Safety	3.6.2.1.b requires that an operating company consults with ASM entities during relevant risk and impact assessments. If ASM entities are operating on LSM concessions, they may pose occupational health and safety risks for LSM workers and employees. These risks should be assessed as part of the OHS health and safety risk assessment process in 3.2.1.
3.3—Community Health and Safety	3.6.2.1.b requires that an operating company consults with ASM entities during relevant risk and impact assessments. This includes the operating company's community health and safety scoping and, if relevant, risk and impact evaluation (3.3.1).

Cross References to Other Chapters	
3.4—Mining in Conflict-Affected and High-Risk Areas	3.6.2.1.b requires that an <u>operating company consults with ASM</u> entities during relevant risk and impact assessments. If a large-scale mine (LSM) seeking IRMA independent assessment is located in a conflict-affected area, consultations with ASM will be required as part of the conflict risk assessment (See chapter 3.4, requirement 3.4.3.4). As per 3.6.4.2, if the LSM sources from or has other commercial relationships with ASM operations located in a conflict-affected or high-risk area, the LSM is required to carry out the due diligence steps outlined in Chapter 3.4.
3.5—Security Arrangements	3.6.2.1.b requires that an <u>operating company consults with ASM</u> associations and miners during relevant risk and impact assessments. This includes the <u>operating company's</u> security risk assessment (requirement 3.5.2.1). Requirement 3.5.4 in Chapter 3.5 requires that private security personnel be given training that incorporates, at minimum, information related to ethical conduct and respect for the human rights of mine workers and affected communities, and the company's policy on the appropriate use of force and firearms. Requirement 3.6.3.1 simply clarifies that in addition to human rights of mine workers and affected communities, that the human rights of ASM miners be specifically included when <u>ASM</u> is located on or in close proximity to the <u>operating company's</u> mining operation.
4.8—Mercury Management	Chapter 4.8 prohibits LSM operating companies from selling or giving away mercury to <u>ASM</u> entities (See 4.8.2.2.b).

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the Glossary of Terms at the end of the IRMA Standard document.

Accessible

In reference to grievance mechanism or engagement processes, means being known to all stakeholder groups for whose use they are intended, and providing adequate assistance for those who may face particular barriers to access.

Affected Community

A community that is subject to risks or impacts from a project. [Note: in this chapter, an affected community may be affected by LSM activities, or ASM activities, or the interaction between LSM and ASM entities]

Artisanal and Small-Scale Mining (ASM)

Formal or informal operations with predominantly simplified forms of exploration, extraction, processing and transportation. ASM is normally low capital intensive and uses high labour intensive technology. ASM can include men and women working on an individual basis as well as those working in family groups, in partnership or as members of cooperatives or other types of legal associations and enterprises involving hundreds or thousands of miners. For example, it is common for work groups of 4-10 individuals, sometimes in family units, to share tasks at one single point of mineral extraction (e.g. excavating one tunnel). At the organizational level, groups of 30-300 miners are common, extracting jointly one mineral deposit (e.g. working in different tunnels), and sometimes sharing processing facilities.

Child Labor

Work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development.

Collaboration

The process of shared decision-making in which all stakeholders constructively explore their differences and develop a joint strategy for action. It is based on the premise that, through dialogue, the provision of appropriate information, collectively defined goals, and the willingness and commitment to find a solution acceptable to all parties, it is possible to overcome the initially limited perspectives of what is achievable and to reach a decision which best meets the interests of the various stakeholders. At this level, responsibility for decision-making is shared between stakeholders.

Conflict-Affected or High-Risk Areas

Areas identified by the presence of armed conflict, widespread violence, including violence generated by criminal networks, or other risks of serious and widespread harm to people. Armed conflict may take a variety of forms, such as a conflict of international or non-international character, which may involve two or more states, or may consist of wars of liberation, or insurgencies, civil wars. High-risk areas are those where there is a high risk of conflict or of widespread or serious abuses as defined in paragraph 1 of Annex II of the OECD Guidance (more information in full IRMA Glossary). Such areas are often characterized by political instability or repression, institutional weakness, insecurity, collapse of civil infrastructure, widespread violence and violations of national or international law. (Source: OECD, 2016a)

Consultation

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. In principle, the company should take into account the concerns and views expressed by stakeholders in the final decision.

Forced Labor

Any work or service not voluntarily performed that is exacted or coerced from an individual under threat of force or penalty. This covers any kind of involuntary or compulsory labor, such as indentured labor, bonded labor or similar labor-contracting arrangements required to pay off a debt; or slavery or slavery-like practices. It also includes requirements of excessive monetary deposits, excessive limitations on freedom of movement, excessive notice periods, substantial or inappropriate fines, and loss or delay of wages that prevent workers from voluntarily ending employment within their legal rights.

Grievance Mechanism

Any routinized, State-based or non-State-based, judicial or non-judicial process through which complaints or grievances, including business-related human rights abuses, stakeholder complaints and/or labor grievances, can be raised and remedy can be sought.

Indigenous Peoples

An official definition of “indigenous” has not been adopted by the United Nations system due to the diversity of the world’s indigenous peoples. Instead, a modern and inclusive understanding of “indigenous” includes peoples who: identify themselves and are recognized and accepted by their community as indigenous; demonstrate historical continuity with pre-colonial and/or pre-settler societies; have strong links to territories and surrounding natural resources; have distinct social, economic or political systems; maintain distinct languages, cultures and beliefs; form non-dominant groups of society; and resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities. In some regions, there may be a preference to use other terms such as: tribes, first peoples/nations, aboriginals, ethnic groups, Adivasi and Janajati. All such terms fall within this modern understanding of “indigenous.”

Inform

The provision of information to inform stakeholders of a proposal, activity or decision. The information provided may be designed to help stakeholders in understanding an issue, alternatives, solutions or the decision-making process. Information flows are one-way. Information can flow either from the company to stakeholders or vice versa.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mitigation

Actions taken to reduce the likelihood of a certain adverse impact occurring.

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities. [Note: This refers to the LSM entity applying for or holding IRMA recognized achievement, not the ASM entities]

Serious Human Rights Abuses

These include: i) any forms of torture, cruel, inhuman and degrading treatment; ii) any forms of forced or compulsory labour, which means work or service which is exacted from any person under the menace of penalty and for which said person has not offered himself voluntarily; iii) the worst forms of child labour (as per ILO Convention 182); iv) other gross human rights violations and abuses such as widespread sexual violence; v) war crimes or other serious violations of international humanitarian law, crimes against humanity or genocide. (Source: OECD, 2016a, pp. 20 and 21)

Stakeholder

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Vulnerable Group

A group whose resource endowment is inadequate to provide sufficient income from any available source, or that has some specific characteristics that make it more susceptible to health impacts or lack of economic opportunities due to social biases or cultural norms (e.g., may include households headed by women or children, people with disabilities, the extremely poor, the elderly, at-risk children and youth, ex-combatants, internally displaced people and returning refugees, HIV/AIDS-affected individuals and households, religious and ethnic minorities, migrant workers, and groups that suffer social and economic discrimination, including indigenous peoples, minorities and in some societies, women).

Worker

All non-management personnel.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



Chapter 3.7—Cultural Heritage

BACKGROUND

Cultural heritage is the legacy of physical structures, landscapes and artifacts, as well as intangible attributes of a group or society, such as language, activities or knowledge that has cultural, scientific, spiritual or religious value.⁴⁶⁰

Mining and other forms of industrial development can over time both create and also result in profound and irreversible damage to cultural heritage. Most obviously, mining activities can destroy or damage tangible cultural heritage, such as historical buildings or sites of spiritual significance. But damage to intangible cultural heritage may also occur as a result of inappropriate visitation of sites or the inappropriate use of traditional knowledge.⁴⁶¹

Increasingly, mining companies are recognizing the importance of protecting and where possible promoting cultural heritage to respect the rights of, and strengthen relationships with communities wherever they operate.⁴⁶²

OBJECTIVES/INTENT OF THIS CHAPTER

To protect and respect the cultural heritage of communities and indigenous peoples.

SCOPE OF APPLICATION

Chapter Relevance: This chapter is applicable to all mines assessed under IRMA that have the potential impact indigenous peoples' cultural heritage and/or the cultural heritage of non-indigenous communities.

New vs. Existing Mines: New mines and existing mines shall meet the requirements in this chapter. Existing mines that have not carried out a cultural heritage assessment as per 3.7.1 are not expected to carry out an assessment unless there are proposed changes to the company's plans or activities that may potentially affect cultural heritage (or significantly change the nature or degree of an existing impact on cultural heritage); or if previously unknown cultural heritage is encountered by the mining company (also known as chance finds). Existing mines will, however, be expected to meet the requirements in the remainder of the chapter.

TERMS USED IN THIS CHAPTER

Affected Community ■ Associated Facilities ■ Biodiversity ■ Biosphere Reserve ■ Chance Find ■ Collaboration ■ Competent Professionals ■ Conservation Values ■ Contractor ■ Critical Cultural Heritage ■ Ecosystem Services ■ Existing Mine ■ Free, Prior and Informed Consent ■ Highly Protected Areas ■ Indigenous Peoples ■ Intangible Cultural Heritage ■ Mining-Related Activities ■ New Mine ■ Nonreplicable Cultural Heritage ■ Operating Company ■ Protected Area ■ Protected Area Management Category ■ Replicable Cultural Heritage ■ Significant Changes to Mining-Related Activities ■ Tangible Cultural Heritage ■ Tentative List for World Heritage Site Inscription ■ World Heritage Site ■

⁴⁶⁰ Adapted from: Daes, E. 1995. Protection of the heritage of Indigenous People. Final report of the Special Rapporteur, Mrs. Erica-Irene Daes, in conformity with Subcommission resolution 1993/44 and decision 1994/105 of the Commission on Human Rights. E/CN.4/Sub.2/1995/26. June 21, 1995; and IFC. 2012. IFC's Guidance Notes: Performance Standards on Environmental and Social Sustainability. Guidance Note 7, p. 17.

⁴⁶¹ E.g., some indigenous heritage sites may be gendered—safe for one sex but dangerous to the other; Indigenous Peoples' knowledge regarding the existence, location and significance of sites is often not public; and for some Indigenous Peoples, if knowledge of sacred sites is transferred inappropriately it may be dangerous to both the giver and receiver. (O'Faircheallaigh, C. 2008. Negotiating Cultural Heritage? Aboriginal-Mining Company Agreements in Australia. p. 7)

⁴⁶² E.g., see Anglo American. 2009. The Anglo Social Way: Management System Standards. p. 12. http://www.angloamerican.com/~media/Files/A/Anglo-American-PLC-V2/documents/supplier/aa_social_way.pdf; and also: Rio Tinto. 2011. Why Cultural Heritage Matters. http://www.riotinto.com/documents/ReportsPublications/Rio_Tinto_Cultural_Heritage_Guide.pdf

Cultural Heritage Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.7.1. General Stipulations</p> <p>3.7.1.1. Screening, assessment and the development and implementation of <u>mitigation</u> measures and procedures related to the management of cultural heritage shall be carried out by <u>competent professionals</u>.</p> <p>3.7.1.2. Screening, assessment and the development of <u>mitigation</u> measures and procedures related to the management of cultural heritage shall include <u>consultations</u> with relevant <u>stakeholders</u>.</p>	<p>For 3.7.1.1: Confirm, through review of credentials that professionals carrying out the screening, assessment, the development and implementation of <u>mitigation</u> measures, and the development of procedures related to cultural heritage have relevant education, knowledge, proven experience, necessary skills and training to carry out the required work.</p> <p>Review national law to determine if professionals need a particular licence or accreditation to operation in the host country.</p> <p>Confirm through review of documentation and interviews with the <u>operating company</u> and <u>stakeholders</u> (e.g., those who have knowledge of methodologies) that methodologies used are scientifically robust.</p> <p>For 3.7.1.2: Confirm that <u>stakeholder consultation</u> has occurred during screening, assessment and the development of <u>mitigation</u> measures and procedures related to cultural heritage, through review of documentation related to <u>stakeholder</u> outreach, minutes from meetings, sign-in sheets, comment letters and interviews with the <u>operating company</u> and <u>stakeholders</u>.</p>	<p>For 3.7.1.1:</p> <ul style="list-style-type: none"> Recruitment procedure. Documentation of credentials (e.g., any licences or accreditations) and curriculum vitae/resumes/biographies of professionals hired to carry out the work. Documentation of methodologies and procedures used during screening, assessment, mitigation and management of cultural heritage <p>For 3.7.1.2:</p> <ul style="list-style-type: none"> Minutes of consultation meetings. Sign-in sheets for each meeting. Communications with stakeholders (e.g., comment letters; other written or verbal forms of feedback). Interview transcripts or audio recordings of interviews. 	<p>Explanatory Note for 3.7.1.1: NOTE: If screening and assessment are not required (see 3.7.2, below), then 3.7.1.1 only applies to the development of <u>mitigation</u> measures and procedures related to cultural heritage.</p> <p><u>Competent professionals</u> can be in-house staff or external consultants with relevant education, knowledge, proven experience, necessary skills and training to carry out the required work. <u>Competent professionals</u> would be expected to follow established and scientifically robust methodologies that would withstand scrutiny by other professionals.</p> <p>Explanatory Note for 3.7.1.2: NOTE: If screening and assessment are not required (see 3.7.2, below), then 3.7.1.2 only applies to the development of <u>mitigation</u> measures and procedures related to cultural heritage.</p> <p>“Relevant <u>stakeholders</u>” may include, e.g., communities within the host country who use, or have used within living memory, the cultural heritage; academics or others with expertise on the local cultural heritage; and national or local regulatory agencies that are entrusted with the protection of cultural heritage.</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.7.1.3. Cultural heritage assessments, management plans and procedures shall be made available upon request to community <u>stakeholders</u> and other <u>stakeholders</u> who have been engaged with the mine site on cultural heritage issues.</p>	<p>For 3.7.1.3: Determine if materials are publicly available (e.g., on the company’s website), and if not, interview <u>operating company</u> and <u>stakeholders</u> to confirm that relevant <u>stakeholders</u> requesting materials were provided with access upon request.</p>	<p>For 3.7.1.3:</p> <ul style="list-style-type: none"> • Company procedure for sharing information with stakeholders. • Evidence of communications to relevant stakeholders regarding the location of materials and how they can be accessed (e.g., URL where materials are publicly available online. physical locations where they can be accessed; evidence of materials being mailed; etc.). • Records confirming that relevant stakeholders have been provided with access upon request. 	<p>As mentioned in IRMA Chapter 1.2, "Community and Stakeholder Engagement," <u>consultations</u> and other forms of engagement with <u>stakeholders</u> should be meaningful.</p> <p>“Meaningful engagement” includes a two-way exchange of information between the <u>operating company</u> and <u>stakeholders</u>, with <u>stakeholders’</u> views being taken into account in decision-making; engagement is conducted in good faith (i.e., the company genuinely intends to understand how <u>stakeholder</u> interests are affected by their actions and to address adverse impacts, and <u>stakeholders</u> honestly represent their interests, intentions and concerns); and companies are responsive to <u>stakeholder</u> input and follow through on commitments.⁴⁶³</p> <p>Explanatory Note for 3.7.1.3: In this case, community <u>stakeholders</u> would include individuals from <u>affected communities</u> (and the host country if there are those who use, or have used within living memory, the cultural heritage that may be affected by the mining activities).</p> <p>If the <u>operating company</u> engaged with other <u>stakeholders</u> (e.g., during the cultural heritage assessment process), such as academics or organizations with expertise on the local cultural heritage, or local or national regulatory agencies entrusted with the protection of cultural heritage that may be affected by the mine site, the company would be expected to share information if requested with those <u>stakeholders</u>, too.</p>

⁴⁶³ OECD. 2017. Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector. pp. 60-61. <https://www.oecd-ilibrary.org/docserver/9789264252462-en.pdf?expires=1528392703&id=id&accname=guest&checksum=CC03986844718E5E6AB3F457DF7B1C2>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.7.2. Cultural Heritage Screening and Assessment</p> <p>3.7.2.1. Prior to the development of a new mine, or when there are significant changes to mining-related activities, the operating company shall undertake a screening process to identify risks and potential impacts to replicable, non-replicable and critical cultural heritage from the proposed mining-related activities.</p>	<p>For 3.7.2.1: Interview appropriate operating company representatives and review cultural heritage screening documentation.</p> <p>As per 3.7.1.1 and 3.7.1.2, confirm that screening was carried out by competent professionals and that the operating company consulted with affected communities and other relevant stakeholders (e.g., regulatory agencies) to identify cultural heritage of importance.</p>	<p>For 3.7.2.1:</p> <ul style="list-style-type: none"> • See examples of evidence for 3.7.1.1. and 3.7.1.2. • Documentation of cultural heritage screening process and outcomes with potential risks or impacts clearly identified according to each category of replicable, non-replicable and critical cultural heritage. • Stakeholder mapping exercise to identify those who may have an interest in cultural heritage. • Documentation of participatory exercise to identify potential risks and impacts to cultural heritage in consultation with relevant stakeholders. 	<p>Explanatory Note for 3.7.2.1: Note that screening may have taken place as part of the ESIA in IRMA Chapter 1.2, or as part of the biodiversity, ecosystem services and protected areas screening in IRMA Chapter 4.6.</p> <p>Impacts to cultural heritage can result from "activities other than direct excavation or refurbishment of buildings. Some project aspects may also impact cultural heritage in less direct ways, for example, by increasing erosion to a coastal site, or building a road into a previously inaccessible area. Impacts on the natural environment that may affect the sustainability of tangible cultural heritage may require special attention. Impacts on the natural environment may affect the biodiversity or the ecosystem processes that affect things like sacred groves or cultural landscapes."⁴⁶⁴</p> <p>Screening should include, but not necessarily be limited to, a determination of whether or not:</p> <p>The mining project is in an area currently or traditionally occupied or used by indigenous peoples; The cultural heritage of other communities may be affected; There may be indigenous peoples living in voluntary isolation; or There are nearby areas that have been legally protected to preserve cultural heritage.</p> <p>If screening has not identified any risks or potential impacts to cultural heritage, then further assessment is not needed. However, over the course of the mine life if there are significant changes to mining-related activities (e.g., expansions of mining or waste disposal areas, or development of new associated facilities) then screening for cultural heritage impacts should be undertaken again.</p>

⁴⁶⁴ International Finance Corporation (IFC). 2012. Performance Standard 8: Cultural Heritage. Guidance Note. GN3. https://www.ifc.org/wps/wcm/connect/39e39000498007fda1fff3336b93d75f/Updated_GN8-2012.pdf?MOD=AJPERES

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>3.7.2.2. If the screening indicates the potential for replicable, non-replicable or critical cultural heritage to be encountered during mining-related activities, the operating company shall assess the nature and scale of the potential impacts and propose mitigation measures to avoid, minimize, restore or compensate for adverse impacts. Mitigation measures shall be consistent with the requirements below (see criteria 3.7.3, 3.7.4, 3.7.5 and 3.7.6), based on the type of cultural heritage likely to be affected.</p>	<p>For 3.7.2.2: Interview operating company representatives and review cultural heritage impact assessment document. Confirm that the assessment and proposed mitigation measures reflect the nature and scale of potential impacts (e.g., if there are only minor impacts related to replicable cultural heritage identified, then the assessment does not have to be as detailed as it would if there were potential major impacts to critical cultural heritage identified). Proposed mitigation measures must be consistent with 3.7.3 - 3.7.7, below.</p> <p>As per 3.7.1.1 and 3.7.1.2, confirm that assessment and mitigation development were carried out by competent professionals and that stakeholders were consulted in the assessment and development of mitigation measures.</p>	<p>For 3.7.2.2:</p> <ul style="list-style-type: none"> • See examples of evidence for 3.7.1.1. and 3.7.1.2. • Documentation of cultural heritage screening process and outcomes. • Documentation of cultural heritage assessment process. • Documented evidence of consideration of all feasible mitigation measures, including avoidance, and rationale for decisions made. <p>Documentation of proposed mitigation measures.</p>	<p>Explanatory Note for 3.7.2.2: As described by the International Finance Corporation (IFC) in the Guidance Note for its Cultural Heritage performance standard:</p> <p>"The screening phase of the risks and impacts identification process should identify the extent and complexity of potential cultural heritage risks and impacts in the project's area of influence. . . If the screening indicates potential adverse impacts, further analysis will be necessary to ascertain the nature and scale of these impacts and proposed mitigation measures. The breadth, depth, and type of analysis should be proportionate to the nature and scale of the proposed project's potential adverse impacts on cultural heritage resources.⁴⁶⁵</p>
<p>3.7.3. Replicable Cultural Heritage</p> <p>3.7.3.1. When tangible replicable cultural heritage that is not critical is encountered during mining-related activities the operating company shall apply mitigation measures that favor avoidance. Where avoidance is not feasible, the following mitigation hierarchy shall apply:</p>	<p>For 3.7.3.1: If the mining project (including sites used for associated facilities) contains tangible cultural heritage that is replicable and not critical, confirm with appropriate company representatives and relevant stakeholders that the operating company took all reasonable steps to avoid impacts, and where avoidance was not possible, applied the mitigation hierarchy as outlined in 3.7.3.1.</p>	<p>For 3.7.3.1:</p> <ul style="list-style-type: none"> • Documented evidence of consideration of all feasible mitigation measures, including avoidance, and rationale for decisions made. • Documentation of proposed mitigation measures. • Documentation of actual mitigation measures undertaken to address impacts 	<p>Explanatory Note for 3.7.3: NOTE: 3.7.3 is applicable even if no cultural heritage screening or assessment occurred.</p> <p>Explanatory Note for 3.7.3.1: This requirement aligns with IFC (2012, Para.11).</p> <p>Tangible cultural heritage is considered a unique and often non-renewable resource that possesses cultural, scientific, spiritual, or religious value and includes moveable or immovable objects, sites, structures, groups of structures, natural features, or landscapes that have archaeological, paleontological, historical, architectural,</p>

⁴⁶⁵ International Finance Corporation (IFC). 2012. Performance Standard 8: Cultural Heritage. Guidance Note. GN4. https://www.ifc.org/wps/wcm/connect/39e39000498007fda1ff3336b93d75f/Updated_GN8-2012.pdf?MOD=AJPERES

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>a. Minimize adverse impacts and implement restoration measures, in situ, that ensure maintenance of the value and functionality of the cultural heritage, including maintaining or restoring any ecosystem processes needed to support it;</p> <p>b. Where restoration in situ is not possible, restore the functionality of the cultural heritage, in a different location, including the ecosystem processes needed to support it;</p> <p>c. Where restoring the functionality of the cultural heritage in a different location is not feasible, permanently remove historical and archeological artifacts and structures; and where affected communities are using the <u>tangible cultural heritage</u> for long-standing cultural purposes compensate for loss of that <u>tangible cultural heritage</u>.</p> <p>3.7.3.2. All mitigation work involving <u>tangible replicable cultural heritage</u> shall be carried out and documented by <u>competent professionals</u>, using</p>	<p>For 3.7.3.2: Confirm through review of credentials that any <u>mitigation work</u> was carried out by <u>competent professionals</u>. Review methodology and, to the extent possible, verify that it aligns with international best practices.</p>	<p>on tangible replicable cultural heritage.</p> <p>For 3.7.3.2:</p> <ul style="list-style-type: none"> • See examples of evidence for 3.7.1.1. • Documentation of actual mitigation measures undertaken to address impacts on tangible replicable cultural heritage. 	<p>religious, aesthetic, or other cultural value.⁴⁶⁶ Examples of tangible cultural heritage can be found in Annex A of IFC's Cultural Heritage Performance Standard.⁴⁶⁷</p> <p><u>Replicable cultural heritage</u> is defined as tangible forms of cultural heritage that can themselves be moved to another location or that can be replaced by a similar structure or natural features to which the cultural values can be transferred by appropriate measures.⁴⁶⁸</p> <p>Explanatory Note for 3.7.3.2: As per 3.7.3.1, the <u>operating company</u> should first seek to minimize or eliminate adverse impacts and to implement restoration measures that aim to maintain the value and functionality of the cultural heritage. If minimization of impacts and/or restoration are not possible in</p>

⁴⁶⁶ Ibid. Para. 3.

⁴⁶⁷ Ibid. Annex A.

⁴⁶⁸ Ibid. Para. 11, Footnote 3.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>internationally recognized practices for the protection of cultural heritage.</p>	<p>Interview <u>stakeholders</u> to determine their views on whether or not mitigation was carried out in a responsible and respectful manner.</p>	<ul style="list-style-type: none"> Records or documentation confirming that mitigation measures have been carried out in alignment with best practices (e.g., peer reviews of proposed strategies, examples from academic or professional literature demonstrating that strategies used are considered best practices/techniques, etc.). 	<p>situ, then the company can consider restoration at a different site. In considering minimization and restoration, the company may engage international, national, and local expertise.</p> <p>Considerations around relocation of physical cultural heritage may also involve the host country government. In identifying local expertise, the recommendations of the <u>affected communities</u> with respect to recognized cultural heritage practitioners, such as elders, priests, mediums, and traditional healers should be given key consideration.</p> <p>According to the International Finance Corporation (IFC):</p> <p>"An internationally recognized practice is defined as the exercise of professional skill, knowledge, diligence, prudence and foresight that would reasonably be expected from experienced professionals engaged in the same type of undertaking under the same or similar circumstances globally. Where the client is in doubt on what constitutes internationally recognized practice, international peer reviewers are able to provide guidance."⁴⁶⁹</p> <p>Techniques proposed by the <u>competent professionals</u> could undergo a peer review by international external experts, or technical experts selected by <u>stakeholders</u>, to ensure that no better, feasible techniques are available.</p>
<p>3.7.4. Non-Replicable Cultural Heritage</p> <p>3.7.4.1. The <u>operating company</u> shall not remove any tangible nonreplicable cultural heritage, unless all of the following conditions are met:</p>	<p>For 3.7.4.1: If the <u>mining project</u> (including sites used for <u>associated facilities</u>) contains <u>tangible cultural heritage</u> that is non-replicable, confirm with appropriate company representatives that it was not removed unless the conditions in 3.7.4.1 were met. Interview <u>stakeholders</u> to determine their views on whether or not</p>	<p>For 3.7.4.1:</p> <ul style="list-style-type: none"> Records (e.g., meeting minutes, correspondence, feedback) demonstrating that affected communities were consulted as part of the analysis to determine whether or not the benefits of the mining project 	<p>Explanatory Note for 3.7.4: NOTE: 3.7.4 is applicable even if no cultural heritage screening or assessment has taken place.</p> <p>Explanatory Note for 3.7.4.1: “Nonreplicable cultural heritage” may relate to the social, economic, cultural, environmental, and climatic conditions of past peoples, their evolving ecologies, adaptive strategies, and early forms of environmental management, where (i) the cultural heritage is unique or relatively</p>

⁴⁶⁹ International Finance Corporation (IFC). 2012. Performance Standard 8: Cultural Heritage. Guidance Note. GN12. https://www.ifc.org/wps/wcm/connect/39e39000498007fda1fff3336b93d75f/Updated_GN8-2012.pdf?MOD=AJPERES

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>a. There are no technically or financially feasible alternatives to removal;</p> <p>b. The overall benefits of the mining project conclusively outweigh the anticipated cultural heritage loss from removal; and</p> <p>c. Any removal of cultural heritage is conducted using the best available technique.</p>	<p>removal was avoidable, and if unavoidable whether mitigation was carried out in a responsible and respectful manner.</p> <p>Review documentation evaluating the overall benefits of the mining project against the anticipated cultural heritage loss, such as lost benefits to particular ties to the heritage, and loss to the affected community of benefits that might arise from commercial or other use of the site.</p>	<p>outweighed the costs of losing cultural heritage.</p> <ul style="list-style-type: none"> • Documentation of evaluation of benefits of the mining project. • Records or documentation confirming that removal of tangible non-replicable cultural heritage was carried out in alignment with best practices (e.g., peer reviews of proposed strategies; examples from academic or professional literature demonstrating that strategies used are considered best practices/techniques; etc.) 	<p>unique for the period it represents, or (ii) cultural heritage is unique or relatively unique in linking several periods in the same site.⁴⁷⁰</p> <p>Re: 3.7.4.1.a, this requirement aligns with IFC (2012, Para.12).</p> <p>Like IFC, IRMA expects the company to have carried out some analysis of the benefits and costs of proceeding with the project if tangible nonreplicable cultural heritage is likely to be affected. There is no simple equation for determining if benefits outweigh the cultural heritage losses. Generally, however:</p> <p>". . .consideration of project benefits. . . should focus on the public benefits of the project, particularly for those who may have immediate ties to the heritage. The analysis should also look at whether those benefits are sustainable beyond the life of the project. Any lost benefits that would otherwise arise from commercial or other use of the site based on its existing cultural heritage should also be taken into account."⁴⁷¹</p> <p>Re: 3.7.4.1.b, as per IFC, prior to removal of the cultural heritage, the operating company should:⁴⁷²</p> <p>a) consult with or commission a peer review of proposed techniques by recognized experts to confirm that the best available techniques have been chosen for removal; and</p> <p>b) consult with the historical or traditional owners and users of the cultural heritage to consider their views.</p> <p>Explanatory Note for 3.7.4.2: Competent professionals can be in-house staff or external consultants with relevant education,</p>
<p>3.7.4.2. All mitigation work involving tangible non-replicable cultural heritage</p>	<p>For 3.7.4.2: Confirm through review of credentials that any mitigation work was carried</p>	<p>For 3.7.4.2:</p>	

⁴⁷⁰ International Finance Corporation (IFC). 2012. Performance Standard 8: Cultural Heritage. Guidance Note. Para. 12, Footnote 5. https://www.ifc.org/wps/wcm/connect/39e39000498007fda1fff3336b93d75f/Updated_GN8-2012.pdf?MOD=AJPERES

⁴⁷¹ International Finance Corporation (IFC). 2012. Performance Standard 8: Cultural Heritage. Guidance Note. GN23. https://www.ifc.org/wps/wcm/connect/39e39000498007fda1fff3336b93d75f/Updated_GN8-2012.pdf?MOD=AJPERES

⁴⁷² Ibid.GN22.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>shall be carried out and documented by <u>competent professionals</u>, using internationally recognized practices for the protection of cultural heritage.</p>	<p>out by <u>competent professionals</u>. Review methodology and, to the extent possible, verify that it aligns with international best practices.</p>	<ul style="list-style-type: none"> • See examples of evidence for 3.7.1.1. • Documentation of actual mitigation measures undertaken to address impacts on tangible non-replicable cultural heritage. • Records or documentation confirming that mitigation measures have been carried out in alignment with best practices (e.g., peer reviews of proposed strategies, examples from academic or professional literature demonstrating that strategies used are considered best practices/techniques, etc.). 	<p>knowledge, proven experience, necessary skills and training to carry out the required work. <u>Competent professionals</u> would be expected to follow established and scientifically robust methodologies that would withstand scrutiny by other professionals.</p> <p>In considering minimization and restoration, the <u>operating company</u> may engage international, national, and local expertise. Considerations around relocation of physical cultural heritage may also involve the host country government. With respect to local expertise, the recommendations of recognized cultural heritage practitioners, such as elders, priests, mediums, and traditional healers from <u>affected communities</u> should be given key consideration.</p> <p>According to the International Finance Corporation (IFC):</p> <p>"An internationally recognized practice is defined as the exercise of professional skill, knowledge, diligence, prudence and foresight that would reasonably be expected from experienced professionals engaged in the same type of undertaking under the same or similar circumstances globally. Where the client is in doubt on what constitutes internationally recognized practice, international peer reviewers are able to provide guidance."⁴⁷³</p> <p>Techniques proposed by the <u>competent professionals</u> could undergo a peer review by international external experts, or technical experts selected by <u>stakeholders</u>, to ensure that no better, feasible techniques are available.</p>
<p>3.7.5. Critical Cultural Heritage</p> <p>3.7.5.1. Except under exceptional circumstances, the <u>operating company</u></p>	<p>For 3.7.5.1: If the <u>mining project</u> (including sites used for <u>associated facilities</u>) contains <u>critical cultural heritage</u>, confirm through interviews</p>	<p>For 3.7.5.1:</p> <ul style="list-style-type: none"> • See examples of evidence for 3.7.1.1. and 3.7.1.2. 	<p>Explanatory Note for 3.7.5: NOTE: 3.7.5 is applicable even if no cultural heritage screening or assessment has taken place.</p>

⁴⁷³ International Finance Corporation (IFC). 2012. Performance Standard 8: Cultural Heritage. Guidance Note. GN12. https://www.ifc.org/wps/wcm/connect/39e39000498007fda1fff3336b93d75f/Updated_GN8-2012.pdf?MOD=AJPERES

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>shall not remove, significantly alter, or damage <u>critical cultural heritage</u>. In exceptional circumstances when impacts on <u>critical cultural heritage</u> are unavoidable, the <u>operating company</u> shall:</p> <p>a. Retain external experts to assist in the assessment and protection of <u>critical cultural heritage</u>, and use internationally recognized practices for the protection of cultural heritage; and</p> <p>b. Collaborate with <u>affected communities</u> to negotiate measures to protect <u>critical cultural heritage</u> and provide equitable outcomes for <u>affected communities</u>, and document the mutually accepted negotiation process and outcomes. (Note: Where impacts may occur to <u>indigenous peoples' critical cultural heritage</u>, negotiation shall take place through the <u>Free, Prior and Informed Consent</u> process outlined in IRMA Chapter 2.2) unless otherwise specified by the <u>indigenous peoples</u>).</p>	<p>with appropriate company representatives and relevant <u>stakeholders</u>, and document review, that <u>critical cultural heritage</u> was not removed, significantly altered or damaged unless the company collaborated with <u>affected communities</u> on protective measures and equitable outcomes, and retained external experts to assist in the assessment and protection of <u>critical cultural heritage</u>. Review credentials of external experts.</p> <p>If <u>indigenous peoples' critical cultural heritage</u> may be impacted, confirm through interviews with the <u>operating company</u> and <u>indigenous peoples' representatives</u> that negotiations occurred during the <u>FPIC</u> process unless otherwise specified by the <u>indigenous peoples</u>.</p>	<ul style="list-style-type: none"> • Documented evidence of consideration of all feasible mitigation measures, including avoidance or critical cultural heritage, and rationale for decisions made. • Records or documentation confirming that mitigation measures have been carried out in alignment with best practices (e.g., peer reviews of proposed strategies; examples from academic or professional literature demonstrating that strategies used are considered best practices/techniques; etc.). • Records of consultations/communications with affected communities to negotiate measures to protect critical cultural heritage (e.g., meetings, comment letters; other written or verbal forms of feedback). • Documentation of mutually accepted negotiation process. • Documentation of outcome (e.g., an agreement for how critical cultural heritage will be protected and communities will be provided benefits that outweigh any losses and can be sustained over the long-term). 	<p>According to the International Finance Corporation (IFC), critical cultural heritage consists of one or both of the following types of cultural heritage:</p> <p>(i) the internationally recognized heritage of communities who use, or have used within living memory the cultural heritage for long-standing cultural purposes; or</p> <p>(ii) legally protected cultural heritage areas, including those proposed by host governments for such designation.⁴⁷⁴</p> <p>Explanatory Note for 3.7.5.1: This requirement aligns with the IFC Performance Standard (Para. 14), with the intent that <u>affected communities</u> be provided the opportunity to participate in decisions about the future of <u>critical cultural heritage</u> and to negotiate equitable outcomes that may not only outweigh any loss, but provide important benefits.⁴⁷⁵</p> <p>Although IFC does not define exceptional circumstances, IFC guidance does state that:</p> <p>"The client is strongly advised to avoid any significant damage to critical cultural heritage. If it appears that a project may significantly damage critical cultural heritage, the client may proceed with such activities only after a good faith negotiation with and a documented process of informed participation of the Affected Communities. Good faith negotiation generally involves for each party: (i) willingness to engage in a process and availability to meet at reasonable times and frequency in ways acceptable to all parties; (ii) provision of information necessary for informed negotiation; (iii) exploration of key issues of importance;</p>

⁴⁷⁴ International Finance Corporation (IFC). 2012. Performance Standard 8: Cultural Heritage. Guidance Note. Para. 12. https://www.ifc.org/wps/wcm/connect/39e39000498007fda1fff3336b93d75f/Updated_GN8-2012.pdf?MOD=AJPERES

⁴⁷⁵ Ibid. GN24.

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			<p>and (iv) willingness to change initial position and modify offers where possible."⁴⁷⁶</p> <p>Also, IFC states that:</p> <p>"The client will document (i) the mutually accepted process between the client and the Affected Communities, and (ii) evidence of agreement between the parties as the outcome of the negotiations. This requires agreement by the culturally appropriate decision-making body within the Affected Community. The appropriate decision-making body will be identified through a social analysis performed by an external expert and the decision-making body will be seen by the majority as both their legitimate representative and as able to enter into a valid agreement. Agreement does not necessarily require unanimity and may be achieved even when individuals or sub-groups explicitly disagree. However, the benefits coming from an agreement must be shared by everyone in the Affected Communities, irrespective of whether they supported the project or not."⁴⁷⁷</p> <p>The latter concept of negotiated agreements is captured in IRMA 3.7.5.1.b.</p> <p>For 3.7.5.1.a, according to IFC:</p> <p>"An internationally recognized practice is defined as the exercise of professional skill, knowledge, diligence, prudence and foresight that would reasonably be expected from experienced professionals engaged in the same type of undertaking under the same or similar circumstances globally. Where the client is in</p>

⁴⁷⁶ International Finance Corporation (IFC). 2012. Performance Standard 8: Cultural Heritage. Guidance Note. GN25. https://www.ifc.org/wps/wcm/connect/39e39000498007fda1fff3336b93d75f/Updated_GN8-2012.pdf?MOD=AJPERES

⁴⁷⁷ International Finance Corporation (IFC). 2012. Performance Standard 8: Cultural Heritage. Guidance Note. GN26. https://www.ifc.org/wps/wcm/connect/39e39000498007fda1fff3336b93d75f/Updated_GN8-2012.pdf?MOD=AJPERES

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<p>3.7.5.2. When a <u>new mine</u> is proposed within a legally protected cultural heritage area, including areas proposed by host governments for such designation, or a legally defined <u>protected area</u> buffer zone, the <u>operating company</u> shall: .5.2. When a new mine is proposed within a legally protected cultural heritage area, including areas proposed by host governments for such designation, or a legally defined protected area buffer zone, the operating company shall:</p> <ol style="list-style-type: none"> Comply with the requirement 3.7.5.1; Comply with the <u>protected area's</u> management plan; Consult with agencies or bodies responsible for <u>protected area</u> governance and management, <u>affected communities</u> and other key <u>stakeholders</u> on the proposed <u>mining project</u>; and 	<p>For 3.7.5.2: Confirm that the <u>operating company</u> has carried out research to establish whether or not the exploration activities and mining are in legally <u>protected areas</u>. This may include review of documentation related to Chapter 4.6 (e.g., as part of the screening process in that chapter companies are required to document the boundaries of legally <u>protected areas</u>, and document the <u>conservation values</u> being protected in those areas.</p> <p>If the <u>mining project</u> is partially or wholly located in a legally <u>protected area</u>, confirm through review of documents and interviews with <u>operating company</u> representatives and relevant <u>stakeholders</u> that in addition to (a) meeting the requirements related to <u>critical cultural heritage</u>, that (b) the company is in compliance with existing regulations and management plans; (c) it carried out <u>consultations</u> with relevant government authorities or non-governmental <u>protected area</u> sponsors/managers and other</p>	<p>For 3.7.5.2:</p> <ul style="list-style-type: none"> Documentation of how the mining project management complies with an existing protected area management plan. Records of consultations/communications with relevant stakeholders and host governments regarding the proposed mining project. Sign-in sheets for consultation meetings. Documentation of efforts made to promote and enhance the conservation of the protected areas. See also examples of evidence for 3.7.5.1. 	<p>doubt on what constitutes internationally recognized practice, international peer reviewers are able to provide guidance."⁴⁷⁸</p> <p>Techniques proposed by <u>the competent professionals</u> could undergo a peer review by international external experts, or technical experts selected by <u>stakeholders</u>, to ensure that no better, feasible techniques are available.</p> <p>Explanatory Note for 3.7.5.2: For the purposes of this requirement, "enhancing conservation aims" could include actions undertaken to further protect, enhance or promote the protection of cultural heritage, including the <u>biodiversity</u> or ecosystem processes that may support that conservation. If the <u>protected area</u> has been designated to protect other values in addition to cultural heritage, then programs could also enhance the conservation of those values.</p> <p>Any enhancements should be discussed and agreed by relevant <u>stakeholders</u> (e.g., host governments that manage protected areas; <u>stakeholders</u> who are likely to be affected by impacts to legally <u>protected areas</u> or their buffer zones).</p> <p>"Buffer zones" are areas peripheral to a specific protected area, where restrictions on resource use and special development measures are undertaken in order to enhance the conservation values in the protected area.</p>

⁴⁷⁸ Ibid. GN12.

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<p>d. Implement additional programs, as appropriate, to promote and enhance the conservation aims of the <u>protected area</u>.</p> <p>3.7.5.3. IRMA will not certify <u>new mines</u> that are developed in or that adversely affect the following <u>protected areas</u> if those areas were designated to protect cultural values (See also Chapter 4.6).</p> <ul style="list-style-type: none"> • <u>World Heritage Sites</u>, and areas on a State Party's official <u>Tentative List for World Heritage Site Inscription</u>; • International Union for Conservation of Nature (IUCN) <u>protected area management categories I-III</u>; • Core areas of UNESCO <u>biosphere reserves</u>. 	<p><u>stakeholders</u>, and (d) implemented additional programs to promote or enhance the <u>protected area's</u> conservation aims.</p> <p>For 3.7.5.3: Confirm that the <u>operating company</u> has carried out research to establish that new exploration activities and mining are not in the areas listed in 3.7.5.3. (See Means of Verification for 3.7.5.2)</p>	<p>For 3.7.5.3:</p> <ul style="list-style-type: none"> • Documents (e.g., maps, studies) that show that exploration activities and mining are not in the listed protected areas (i.e., World Heritage Sites, and areas on a State Party's official Tentative List for World Heritage Site Inscription, International Union for Conservation of Nature (IUCN) protected area management categories I-III, and Core areas of UNESCO biosphere reserves), or do not adversely impact those areas. 	<p>Explanatory Note for 3.7.5.3: Chapter 3.7 is focused on the protection of cultural heritage, and so requirement 3.7.5.3 is specific to cultural values. A similar requirement in Chapter 4.6 (4.6.5.3) prohibits mines from meeting this requirement that are developed in or that affect <u>World Heritage Sites</u>, IUCN <u>protected area management categories I-III</u> and core areas of UNESCO <u>biosphere reserves</u> if they were designated to protect values other than cultural values (e.g., <u>biodiversity</u>, unique geological formations, etc).</p>
<p>3.7.5.4. An <u>existing mine</u> located entirely or partially in a protected area listed in 3.7.5.3 shall demonstrate that:</p> <ol style="list-style-type: none"> a. The mine was developed prior to the area's official designation; b. Management plans have been developed and are being implemented to ensure that activities during the remaining mine lifecycle will not permanently and materially damage the integrity of the cultural values for which the 	<p>For 3.7.5.4: If, through review of an <u>existing mine's</u> location, it is determined that the mine is located in a <u>World Heritage Site (WHS)</u>, or an area on a State Party's <u>Tentative List for WHS inscription</u>, or an area classified as IUCN Category I-III management area, or in a core area of a UNESCO <u>biosphere reserve</u>, and that the site was designated to protect cultural values, then:</p> <p>For 3.7.5.4.a: Confirm through review of <u>mining project</u> records or documents (construction records, mine plans, etc.) that the mine was</p>	<p>For 3.7.5.4:</p> <ul style="list-style-type: none"> • Documents (e.g., maps, studies) that show that exploration activities and/or mining occur in a listed protected area (i.e., World Heritage Sites, and areas on a State Party's official Tentative List for World Heritage Site Inscription, International Union for Conservation of Nature (IUCN) protected area management categories I-III, and Core areas of UNESCO biosphere reserves). • Documentation (e.g., permits, information on protected area 	<p>Explanatory Note for 3.7.5.4: Chapter 3.7 is focused on the protection of cultural heritage, and so requirement 3.7.5.4 is specific to cultural values. A similar requirement in Chapter 4.6 (4.6.5.4) applies to <u>existing mines</u> that may affect <u>World Heritage Sites</u>, IUCN <u>protected area management categories I-III</u> and core areas of UNESCO <u>biosphere reserves</u> if those areas were designated to protect values other than cultural values (e.g., <u>biodiversity</u>, unique geological formations, etc.).</p>

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<p>area was designated or recognized; and</p> <p>c. The <u>operating company collaborates</u> with relevant management authorities to integrate the mine's management strategies into the <u>protected area's</u> management plan.</p>	<p>developed prior to the date when the <u>protected area</u> was designated as such.</p> <p>For 3.7.5.4.b: Review relevant mine management plans (e.g., Cultural Heritage Management Plans, possibly Biodiversity and Ecosystem Services Management Plan, etc.) and <u>mitigation strategies</u>, and <u>consult with stakeholders</u> including <u>protected area managers</u> to confirm that the mine's plans are consistent with the protection of the cultural values in the <u>protected area</u>.</p> <p>For 3.7.5.4.c: Review any relevant mine management plan(s) and the <u>protected area's</u> management plan and/or interview <u>protected area managers</u> to confirm that the mine's strategies have been integrated into the overall <u>protected area management plan</u>.</p>	<p>designation) that show the mine was developed prior to protected area designation.</p> <ul style="list-style-type: none"> • Mine management plans, for example, a Cultural Heritage Management Plan, detailing mitigation strategy for impacts on cultural heritage. • Documentation of consultation meetings with relevant stakeholders confirming that the mine's management plans are aligned with the management plans of the relevant protected area. 	
<p>3.7.5.5. To safeguard irreplaceable cultural heritage and respect <u>indigenous peoples'</u> right to self-determination, the <u>operating company</u> shall not carry out new exploration or develop <u>new mines</u> in areas where <u>indigenous peoples</u> are known to live in voluntary isolation.</p>	<p>For 3.7.5.5: Review literature on known locations of <u>indigenous peoples</u> living in voluntary isolation (see Guidance), and/or <u>consult with relevant local or regional experts</u> (e.g., NGOs, academics, indigenous peoples' organizations) to confirm that there are no known <u>indigenous peoples</u> living in voluntary isolation in the <u>project area</u>.</p>	<p>For 3.7.5.5:</p> <ul style="list-style-type: none"> • Records of correspondence or meetings with stakeholders and experts to determine if territories are known to be inhabited by indigenous peoples living in voluntary isolation. • Review of proposed mine location and documentation to determine if territories are known to be inhabited by indigenous peoples living in voluntary 	<p>Explanatory Note for 3.7.5.5: Peoples in isolation are <u>indigenous peoples</u> or subgroups thereof that do not maintain regular contact with the majority population and tend to shun any type of contact with outsiders. Most isolated peoples live in tropical forests and/or in remote, untraveled areas, which in many cases are rich in natural resources. For these peoples, isolation is not a voluntary choice but a survival strategy.⁴⁷⁹</p> <p>"The principle of no contact is the expression of the right of indigenous peoples in voluntary isolation to self-determination. One of the reasons for protecting the rights of the <u>indigenous</u></p>

⁴⁷⁹ UN Human Rights Council (UNHRC). 2009. Draft Guidelines on the Protection of Indigenous Peoples in Voluntary Isolation and in Initial Contact of the Amazon Basin and El Chaco. Para. 7. https://digitallibrary.un.org/record/659795/files/A_HRC_EMRIIP_2009_6-EN.pdf

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		isolation.	<p>peoples in voluntary isolation is cultural diversity: the loss of a culture is a loss to all humankind."⁴⁸⁰</p> <p>Requirement 3.7.5.5 prohibits exploration or mining in areas where indigenous peoples are known to live in voluntary isolation, both to respect those indigenous peoples' right to self-determination,⁴⁸¹ and recognizing that free, prior and informed consent (FPIC) is not possible when indigenous peoples reject contact and the presence of persons who do not belong to their people in their lands and ancestral territories.⁴⁸²</p> <p>Companies can work with local indigenous organizations, government agencies, NGOs and civil society groups to determine if there are peoples in voluntary isolation that may be affected by a proposed exploration or mining project. They should be identified only through indirect means such as aerial photography of their camps, visits to abandoned camps, footprint analysis, abandoned implements, contacts reported by nearby peoples and/or testimony from indigenous persons who, for one reason or another, have left their isolation. The no-contact principle must always be taken as a basic requirement in the performance of such actions.⁴⁸³</p>
<p>3.7.6. Commercial Use of Cultural Heritage</p> <p>3.7.6.1. Where the operating company proposes to use the intangible cultural</p>	<p>For 3.7.6.1 and 3.7.6.2: If relevant, confirm with operating company representatives and relevant stakeholders that the company: has</p>	<p>For 3.7.6.1:</p> <ul style="list-style-type: none"> • Proposal for use of intangible cultural heritage, including the scope of this use 	<p>Explanatory Note for 3.7.6: NOTE: 3.7.6 is applicable even if no cultural heritage screening or assessment occurred.</p>

⁴⁸⁰ Inter-American Commission on Human Rights (IACHR). 2013. Indigenous Peoples in Voluntary Isolation and Initial Contact in the Americas. OEA/Ser.L/V/II, Doc. 47/13. p. 10. <http://www.oas.org/en/iachr/indigenous/docs/pdf/report-indigenous-peoples-voluntary-isolation.pdf>

⁴⁸¹ UN Human Rights Council (UNHRC). 2009. Draft Guidelines on the Protection of Indigenous Peoples in Voluntary Isolation and in Initial Contact of the Amazon Basin and El Chaco. Para. 22. https://digitallibrary.un.org/record/659795/files/A_HRC_EM RIP_2009_6-EN.pdf

⁴⁸² Doyle, C. and Carino, J. 2014. Making Free Prior & Informed Consent a Reality: Indigenous Peoples and the Extractive Sector. p. 12. <http://www.ecojesuit.com/wp-content/uploads/2014/09/Making-FPIC-a-Reality-Report.pdf> and UN Global Compact. 2012. A Business Reference Guide: UN Declaration on the Rights of Indigenous Peoples. p. 24. <http://solutions-network.org/site-fpic/files/2012/09/UN-declaration-on-IR.pdf>

⁴⁸³ UN Human Rights Council (UNHRC). 2009. Draft Guidelines on the Protection of Indigenous Peoples in Voluntary Isolation and in Initial Contact of the Amazon Basin and El Chaco. Para. 9. https://digitallibrary.un.org/record/659795/files/A_HRC_EM RIP_2009_6-EN.pdf

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<p><u>heritage</u>, including knowledge, innovations, or practices of local communities for commercial purposes, the company shall <u>inform</u> these communities of their rights under national and international law; the scope and nature of the proposed commercial development; and the potential consequences of such development.</p>	<p><u>informed</u> communities of their rights under national law, and of the scope, nature and potential consequences of the proposed commercial development; has undertaken a <u>collaborative</u> process with good faith negotiations, and has provided fair and equitable sharing of benefits, consistent with the local communities’ customs and traditions.</p>	<p>and how it may potentially impact on communities.</p> <ul style="list-style-type: none"> Records of correspondence or meetings with relevant community stakeholders related to commercial use of intangible cultural heritage. 	<p>For the purposes of this requirement, <u>intangible cultural heritage</u> refers to cultural resources, knowledge, innovations and/or practices of local communities embodying traditional lifestyles.</p> <p>At the present time, there are not clear examples of mining companies proposing to use <u>intangible cultural heritage</u> for commercial purposes. This requirement is from IFC, and the examples provided in IFC guidance include commercialization of traditional medicinal knowledge or other sacred or traditional technique for processing plants, fibers, or metals, or locally-sourced industrial design.⁴⁸⁴</p> <p>It is expected that community <u>stakeholders</u> will help to identify if there are cases where the <u>mining project</u> or <u>operating company</u> has proposed and/or used a community’s <u>intangible cultural heritage</u> for commercial purposes.</p>
<p>3.7.6.2. The <u>operating company</u> shall not proceed with such commercialization unless it:</p> <ol style="list-style-type: none"> <u>Collaborates</u> with <u>affected communities</u> using a good faith negotiation process that results in a documented outcome; and Provides for fair and equitable sharing of benefits from commercialization of such knowledge, innovation, or practice, consistent with their customs and traditions. 	<p>For 3.7.6.1 and 3.7.6.2: If relevant, confirm with <u>operating company</u> representatives and <u>relevant stakeholders</u> that the company: has <u>informed</u> communities of their rights under national law, and of the scope, nature and potential consequences of the proposed commercial development; has undertaken a <u>collaborative</u> process with good faith negotiations, and has provided fair and equitable sharing of benefits, consistent with the local communities’ customs and traditions.</p>	<p>For 3.7.6.2:</p> <ul style="list-style-type: none"> Proposal for use of intangible cultural heritage, including the scope of this use and how it may potentially impact on communities. Records of correspondence or meetings with relevant community stakeholders related to commercial use of intangible cultural heritage. Benefit-sharing agreement related to commercial use of cultural heritage. 	

⁴⁸⁴ IFC. 2012. Performance Standard 8: Cultural Heritage. Guidance Note, GN29. https://www.ifc.org/wps/wcm/connect/39e39000498007fda1fff3336b93d75f/Updated_GN8-2012.pdf?MOD=AJPERES

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<p>3.7.6.3. Where the <u>operating company</u> proposes to use <u>indigenous peoples'</u> cultural heritage for commercial uses, negotiation shall take place through the <u>Free, Prior and Informed Consent</u> process outlined in IRMA Chapter 2.2 unless otherwise specified by the <u>indigenous peoples</u>.</p>	<p>For 3.7.6.3: If <u>indigenous peoples'</u> cultural heritage is proposed for commercial use by the <u>operating company</u>, confirm through interviews with the <u>operating company</u> and <u>indigenous peoples'</u> representatives that negotiations occurred during the <u>FPIC</u> process unless otherwise specified by the <u>indigenous peoples</u>.</p>	<p>For 3.7.6.3:</p> <ul style="list-style-type: none"> Free, Prior and Informed Consent agreement (or similar agreement) that includes provisions related to company's commercial use of the indigenous peoples' cultural heritage. 	
<p>3.7.7. Cultural Heritage Management</p>	<p>For 3.7.7.1: Review the cultural heritage management plan or its equivalent. Note that the plan may be integrated into the environmental and social management plan (see IRMA Chapter 2.1) or other relevant plans. Confirm that the plan includes the actions and measures to be taken to protect cultural heritage.</p>	<p>For 3.7.7.1:</p> <ul style="list-style-type: none"> Cultural heritage management plan or its equivalent (e.g., a section on cultural heritage included in the mining project's environmental and social management plan). 	<p>Explanatory Note for 3.7.7: NOTE: 3.7.7 may be applicable even if no cultural heritage screening or assessment occurred, e.g., a cultural heritage management plan would be required if cultural heritage is encountered and <u>mitigation</u> measures implemented.</p> <p>The cultural heritage plan may be integrated into the environmental and social management plan (see IRMA Chapter 2.1).</p>
<p>3.7.7.2. If a new or existing mine is in an area where cultural heritage is expected to be found, the <u>operating company</u> shall develop procedures for:</p> <p>a. Managing <u>chance finds</u>, including, at minimum, a requirement that employees or <u>contractors</u> shall not further disturb any <u>chance find</u> until an evaluation by <u>competent professionals</u> is made and actions consistent with the requirements of this chapter are developed;</p>	<p>For 3.7.7.2: If the assessment revealed the project to be in an area where cultural heritage is expected to be found, confirm that the operating company developed a "<u>chance find</u> procedure" and other relevant procedures. As per 3.7.1.1 and 3.7.1.2 confirm that development of procedures was carried out by <u>competent professionals</u> and that the company <u>consulted</u> with <u>affected communities</u> and other relevant <u>stakeholders</u> (e.g., regulatory agencies) in their development.</p>	<p>For 3.7.7.2:</p> <ul style="list-style-type: none"> A "chance find" procedure or equivalent. Records or documentation of how this procedure was developed in collaboration with relevant stakeholders, for example: minutes of consultation meetings, and sign-in sheets for each meeting, correspondence with stakeholders, etc. A procedure for managing impacts on cultural heritage from contractors and 	<p>Explanatory Note for 3.7.7.2: A <u>chance find</u> procedure is a project-specific procedure that outlines what will happen if previously unknown heritage resources, particularly archaeological resources, are encountered during project construction or operation. The procedure includes record keeping and expert verification procedures, chain of custody instructions for movable finds, and clear criteria for potential temporary work stoppages that could be required for rapid disposition of issues related to the finds. It is important that this procedure outlines the roles and responsibilities and the response times required from both project staff, and any relevant heritage authority, as well as any agreed <u>consultation</u> procedures.⁴⁸⁵</p>

⁴⁸⁵ IFC. 2012. Performance Standard 8: Cultural Heritage. Guidance Note, GN15. https://www.ifc.org/wps/wcm/connect/39e39000498007fda1fff3336b93d75f/Updated_GN8-2012.pdf?MOD=AJPERES

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<p>b. Managing potential impacts to cultural heritage from <u>contractors</u> and visitors;</p> <p>c. Allowing continued access to cultural sites, subject to <u>consultations</u> with <u>affected communities</u> and overriding health, safety, and security considerations; and</p> <p>d. If the <u>mining project</u> affects <u>indigenous peoples'</u> cultural heritage, the <u>operating company</u> shall <u>collaborate</u> with <u>indigenous peoples</u> to determine procedures related to the sharing of information related to cultural heritage.</p>	<p>Also, confirm with company, and relevant <u>affected stakeholders</u>, that <u>chance finds</u> were not disturbed until after an assessment by <u>competent professionals</u> was made.</p> <p>Interview relevant <u>operating company</u> staff with responsibility for managing cultural heritage-related risks and impacts about their procedures for managing potential impacts to cultural heritage from operational activities, <u>contractors</u> and visitors. Review any related documentation.</p> <p>If the <u>mining project</u> site contains cultural heritage or prevents access to previously accessible cultural sites, confirm with relevant <u>affected communities</u> that access, as determined through <u>community consultation</u> process, is being provided to them.</p> <p>For 3.7.7.2.d: If relevant, interview representatives from affected <u>indigenous peoples</u> to ensure that the <u>operating company</u> has <u>collaborated</u> with them to determine what information is acceptable to share with employees and others.</p>	<p>mine site visitors.</p> <ul style="list-style-type: none"> • A procedure or agreement with affected communities allowing them continued access to certain cultural sites. • A procedure or agreement with indigenous peoples regarding what information about indigenous peoples' cultural heritage may be shared and with whom. 	<p>Procedures need not be proactively developed if cultural heritage screening or assessment has taken place and demonstrate that it is highly unlikely that cultural heritage will be found in the area where the mine is being developed. However, if cultural heritage is subsequently encountered it would be expected that chance find procedures would immediately be developed.</p>
<p>3.7.7.3. The <u>operating company</u> shall ensure that relevant employees receive training with respect to cultural awareness, cultural heritage site recognition and care, and company procedures for cultural heritage management.</p>	<p>For 3.7.7.3: Review any procedures and records related to cultural heritage training, and interview relevant employees to confirm that they understand the cultural heritage procedures and management approach.</p>	<p>For 3.7.7.3:</p> <ul style="list-style-type: none"> • Records or documentation of employee trainings (e.g., materials, attendance records, etc.) on cultural awareness, site recognition and care, and cultural heritage management (including trainings on procedures mentioned in 	<p>Explanatory Note for 3.7.7.3: "Relevant employees" may include, for example, those who are likely to be working in areas where cultural heritage sites may be encountered (e.g., those involved in excavation and earth-moving activities, biological or land surveys, etc.), as well as those who will be engaging with stakeholders on issues related to cultural heritage or cultural issues (including cross-cultural communications), such as community liaison officers, staff who attend and participate in public meetings, etc.</p>

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		3.7.7.2).	<p>Regardless of whether or not cultural heritage risks are identified in screening or assessment, relevant employees should be trained on issues related to cultural awareness and sensitivity.</p> <p>Additionally, as per IRMA Chapter 1.1, requirement 1.1.4.1, the <u>operating company</u> is required to demonstrate that it takes appropriate steps to ensure compliance with the IRMA Standard by <u>contractors</u> engaged in activities relevant to the <u>mining project</u>. Consequently, if there are any <u>contractors</u> that may engage with <u>stakeholders</u> on issues related to cultural heritage, they should undergo cultural awareness training, and if <u>contractors</u> are likely to encounter cultural heritage sites, they should also be trained in cultural heritage site recognition and care, and company procedures for cultural heritage management.</p>

NOTES

This chapter uses, as its basis, the IFC Performance Standard 8 (PS 8) Cultural Heritage.

While this chapter applies to both indigenous and non-indigenous cultural heritage, it does not specify requirements applicable to Indigenous and Community Conserved Areas (ICCAs) designated as such by indigenous peoples or local communities. These are areas governed and/or managed by the people or community in a manner that conserves nature and/or cultural values.⁴⁸⁶ Such areas may be considered by indigenous peoples as a part of their cultural heritage and, as such, could be raised during the cultural heritage screening process and addressed in Chapter 3.7, and/or addressed during the free, prior and informed consent process in Chapter 2.2.

Cross References to Other Chapters	
CHAPTER	ISSUES
1.1—Legal Compliance	Some host countries may have laws relating to the assessment and protection of cultural heritage. As per Chapter 1.1, if <u>host country laws</u> related to cultural heritage exist, a company is required to abide by those laws. However, if IRMA requirements are more stringent than <u>host country law</u> , the company is required to also meet the IRMA requirements, as long as complying with them would not require the operating company to violate <u>host country law</u> .

⁴⁸⁶ ICCA Consortium website: “Three defining characteristics for ICCAs.” <https://www.iccaconsortium.org/index.php/discover/>

Cross References to Other Chapters	
1.2—Community and Stakeholder Engagement	Engagement with <u>stakeholders</u> and <u>indigenous peoples</u> regarding cultural heritage shall conform to the requirements in Chapter 1.2. In particular, criterion 1.2.3 is important to ensure that <u>stakeholders</u> have the capacity to fully understand their rights and collaborate effectively in the development of prevention/ <u>mitigation</u> plans and monitoring processes. Also, 1.2.4 ensures that communications and information are in formats and languages that are accessible and understandable to <u>affected communities</u> and <u>stakeholders</u> , and provided in a timely, culturally appropriate manner.
1.3—Human Rights Due Diligence	If the infringement of human rights is predicted during cultural heritage assessment, or if human rights related to cultural heritage have been infringed upon at a new or <u>existing mine</u> , a company will be expected to prevent, <u>mitigate</u> and <u>remediate</u> the impacts as per Chapter 1.3. This includes the <u>mitigation</u> or <u>remediation</u> of human-rights-related impacts from past cultural heritage management activities at <u>existing mines</u> . Requirement 3.7.5.5 related to <u>indigenous peoples</u> in voluntary isolation was written not only to protect the cultural heritage of those <u>indigenous peoples</u> , but also to respect their right to self-determination, which means that their decision to remain isolated must be respected.
2.1—Environmental and Social Impact Assessment and Management	The cultural heritage assessment required in 3.7.1 may be done in coordination with or as part of the Environmental and Social Impact Assessment in Chapter 2.1, rather than as a stand-alone assessment.
2.2—Free, Prior and Informed Consent	The identification and assessment of mining activities that impact cultural heritage of indigenous peoples may be addressed as part of the <u>FPIC</u> process as per Chapter 2.2.
4.6— Biodiversity, Ecosystem Services and Protected Areas	Some <u>legally protected areas</u> are designated as such to preserve <u>critical cultural heritage</u> . The <u>operating company</u> is required in Chapter 4.6 to identify <u>legally protected areas</u> that may be affected by <u>mining-related activities</u> . That information will be applicable for requirements in 3.7.5 pertaining to areas that are designated to protect cultural heritage. Also, the requirements in Chapter 3.7 align with those in Chapter 4.6 regarding actions to be taken by the <u>operating company</u> if mines are to be developed in <u>protected areas</u> . Indigenous and Community Conserved Areas (ICCAs) designated as such by indigenous peoples, may be created to protect cultural heritage and therefore may be addressed in Chapter 3.7. However, consideration of the ecological attributes of protected ICCAs may also be addressed in Chapter 4.6 of the IRMA Standard.

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the Glossary of Terms at the end of the IRMA Standard document.

Affected Community

A community that is subject to risks or impacts from a project.

Associated Facility

Any facility managed by the operating company that would not have been constructed, expanded or acquired but for the exploration or development of the mining project (including ore processing facilities, stationary physical property such as power plants, port sites, roads, railroads, borrow areas, fuel production or preparation facilities, parking areas, shops, offices, housing facilities, storage facilities, etc.).

Biosphere Reserves

Biosphere reserves are areas comprising terrestrial, marine and coastal ecosystems. Each reserve promotes solutions reconciling the conservation of biodiversity with its sustainable use. Biosphere reserves are

'Science for Sustainability support sites' – special places for testing interdisciplinary approaches to understanding and managing changes and interactions between social and ecological systems, including conflict prevention and management of biodiversity. Biosphere reserves are nominated by national governments and remain under the sovereign jurisdiction of the states where they are located. Their status is internationally recognized.

Chance Find

The discovery of unknown cultural heritage. A chance find procedure is a project-specific procedure that outlines the actions to be taken if previously unknown cultural heritage is encountered.

Collaboration

The process of shared decision-making in which all stakeholders constructively explore their differences and develop a joint strategy for action. It is based on the premise that, through dialogue, the provision of appropriate information, collectively defined goals, and the willingness and commitment to find a solution acceptable to all parties, it is possible to overcome the initially limited perspectives of what is achievable and to reach a decision which best meets the interests of the various stakeholders. At this level, responsibility for decision-making is shared between stakeholders.

Competent Professionals

In-house staff or external consultants with relevant education, knowledge, proven experience, necessary skills and training to carry out the required work. Competent professionals would be expected to follow scientifically robust methodologies that would withstand scrutiny by other professionals. Other equivalent terms used may include: competent person, qualified person, qualified professional. For independent reviews (in IRMA Chapter 4.1) competent professionals must not be in-house staff.

Conservation Values

The ecological, biological, geomorphological, geological, cultural, spiritual, scenic or amenity values, features, processes or attributes that are being conserved.

Consultation

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. In principle the company should take into account the concerns and views expressed by stakeholders in the final decision.

Contractor

An individual, company, or other legal entity that carries out duties subject to a contractual agreement that defines, for example, work, duties or services, pay, hours or timing, duration of agreement, and that remains independent for employment, tax, and other regulatory purposes. This includes sub-contractors.

Critical Cultural Heritage

Consists of: (i) the internationally recognized heritage of communities who use, or have used within living memory the cultural heritage for long-standing cultural purposes, (ii) legally protected cultural heritage areas, including those proposed by host governments for such designation; or (iii) natural areas with cultural and/or spiritual value such as sacred groves, sacred bodies of water and waterways, sacred trees, and sacred rocks.

Ecosystem Services

The benefits people obtain from ecosystems. These include provisioning services such as food, water, timber, and fibre; regulating services that affect climate, floods, disease, wastes, and water quality; cultural services that provide recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation, photosynthesis, and nutrient cycling.

Existing Mine

A mine that was operational prior to the date that the IRMA standard was published in final (June 2018).

Free, Prior and Informed Consent

Consent based on: engagement that is free from external manipulation, coercion and intimidation; notification, sufficiently in advance of commencement of any activities, that consent will be sought; full disclosure of information regarding all aspects of a proposed project or activity in a manner that is accessible and understandable to the people whose consent is being sought; acknowledgment that the people whose consent is being sought can approve or reject a project or activity, and that the entities seeking consent will abide by the decision.

Indigenous Peoples

A modern and inclusive understanding of “indigenous” includes peoples who: identify themselves and are recognized and accepted by their community as indigenous; demonstrate historical continuity with pre-colonial and/or pre-settler societies; have strong links to territories and surrounding natural resources; have distinct social, economic or political systems; maintain distinct languages, cultures and beliefs; form non-dominant groups of society; and resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities. In some regions, there may be a preference to use other terms such as: tribes, first peoples/nations, aboriginals, ethnic groups, Adivasi and Janajati. All such terms fall within this modern understanding of “indigenous.”

Inform

The provision of information to inform stakeholders of a proposal, activity or decision. The information provided may be designed to help stakeholders in understanding an issue, alternatives, solutions or the decision-making process. Information flows are one-way. Information can flow either from the company to stakeholders or vice versa.

Intangible Cultural Heritage

Cultural resources, knowledge, innovations and/or practices of local communities embodying traditional lifestyles.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mining-Related Activities

Encompasses any activities that may occur during any phase of the mine life cycle (planning, impact assessment, exploration, mine construction, mining, mine closure), and includes all physical activities (e.g., land disturbance and clearing, sampling, airborne surveys, construction, ore removal, ore processing, waste management, reclamation, etc.).

Mitigation

Refers to actions taken to reduce the likelihood of a certain adverse impact occurring.

Mitigation Hierarchy

The mitigation hierarchy is a set of prioritized steps to alleviate environmental (or social) harm as far as possible through avoidance, minimization (or reduction) and restoration of adverse impacts. Compensation/offsetting are only considered to address residual impacts after appropriate avoidance, minimization and restoration measures have been applied. (See Glossary for full definition)

New Mine

A mine that becomes operational and applies for IRMA verification after the date that the IRMA standard was published in final (June 2018).

Nonreplicable Cultural Heritage

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May relate to the social, economic, cultural, environmental, and climatic conditions of past peoples, their evolving ecologies, adaptive strategies, and early forms of environmental management, where the (i) cultural heritage is unique or relatively unique for the period it represents, or (ii) cultural heritage is unique or relatively unique in linking several periods in the same site.

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Protected Area/Protected Area Management Categories (IUCN)

A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values. (See IRMA Glossary for an expanded definition based on IUCN protected area management categories)

Replicable Cultural Heritage

Tangible forms of cultural heritage that can themselves be moved to another location or that can be replaced by a similar structure or natural features to which the cultural values can be transferred by appropriate measures. Archeological or historical sites may be considered replicable where the particular eras and cultural values they represent are well represented by other sites and/or structures.” (IFC PS 8, Guidance Note).

Significant Changes to Mining-Related Activities

Changes in scale or scope (e.g., production increases, new or expanded activities or facilities, alterations in waste management activities, closure, etc.) that may create significant environmental, social and/or human rights impacts, or significantly change the nature or degree of an existing impact.

Tangible Cultural Heritage

A unique and often non-renewable resource that possesses cultural, scientific, spiritual, or religious value, and are considered worthy of preservation for the future. Includes moveable or immovable objects, sites, structures, groups of structures, natural features, or landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural value.

Tentative List for World Heritage Site Inscription

The list of sites that relevant State Parties are formally considering for nomination as a World Heritage Site in the next five to ten years.

World Heritage Site

A site/property inscribed on the World Heritage List, which has outstanding universal value and meets the conditions of authenticity and integrity. The World Heritage property includes within its borders all of the attributes that are recognized as being of outstanding universal value.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.

Environmental Responsibility Requirements



Chapter 4.1—Waste and Materials Management

READ GUIDANCE NOTE

BACKGROUND

The mining process uses materials that, if mismanaged, create risks to human health, safety and the environment. Fuels used by heavy machinery, chemicals, such as solvents used to clean or maintain equipment, and wastes from onsite sewage treatment facilities can be harmful to living organisms if spilled or otherwise released to the environment. Mining also generates large volumes of waste materials that may be associated with risks to health, safety and the environment, depending on the chemical and physical characteristics of the material and how it is managed.

Most mined material will remain on the site as wastes in two general forms: waste from processing ore into a concentrate or final product (e.g., tailings, spent heap leach materials, etc.), and soil and rock removed during mining that will not be processed for minerals (e.g., overburden, waste rock, sub-economic ore, etc.). These waste materials can contain target minerals and other constituents including sulfide and other metal-bearing minerals. In addition, some tailings may contain process chemicals, and waste rock may contain nitrogen-based explosives compounds.

If water treatment is necessary to remove metals or other constituents from mine-impacted waters before discharging water to the environment, the process may generate waste sludges that contain high concentrations of metals or other contaminants.

Mining-related wastes have the potential to contaminate water bodies, air and soil. Water contamination is the most prevalent problem associated with mine wastes and potentially hazardous materials used or generated as a result of mining activities. Mining wastes may also pose a risk to nearby communities, as the storage of a large volumes of material behind dams and/or in constructed impoundments holds the potential for catastrophic failure.

There are, however, existing and emerging materials, technologies, and waste management practices that aim to prevent or greatly reduce the potential for contamination from hazardous materials and mine wastes and catastrophic failures of mine waste facilities. These include implementing best practices in the handling, storage, transport and disposal of potentially hazardous materials. Also, geochemical testing can be used to determine whether mining wastes like tailings and waste rock have the potential to generate acid and/or leach metals and other contaminants, and if this potential exists, then mitigation measures can be put in place to prevent acid generation and metals leaching.

Increasingly, mining companies are also implementing: stronger accountability mechanisms such as ensuring waste facility decisions are approved at the highest levels of the company; more rigorous assessments of sources of potential contamination and physical risks posed by mine waste facilities; and independent review of waste facility siting, design, construction, operation and closure plans.

OBJECTIVES/INTENT OF THIS CHAPTER

To manage wastes and materials in a manner that minimizes their short- and long-term physical and chemical risks, and protects the health and safety of communities and future land and water uses.

TERMS USED IN THIS CHAPTER

Acid Rock Drainage (ARD) ■ Affected Communities ■ Alternatives Assessment ■ Best Available/Applicable Practice (BAP) ■ Best Available Technology (BAT) ■ Collaboration ■ Competent Professional ■ Conceptual Site Model (CSM) ■ Consultation ■ Critical Control ■ Existing Mine ■ Facility ■ Heap Leach ■ Host Country Law ■ Independent Review ■ Metals Leaching (ML) ■ Mine Closure ■ Mine Waste Facility ■ Mining Impacted Waters (MIW) ■ Mining Project ■ Mitigation ■ Mitigation Hierarchy ■ Operating Company ■ Post-Closure ■ Practicable ■ Process Water ■ Risk Control ■ Stakeholder ■ Tailings ■ Waste Rock ■ Water Balance

These terms appear in the text with a dashed underline, and they are explained at the end of this chapter.

SCOPE OF APPLICATION

Chapter Relevance: This chapter is relevant for all mines.

IRMA recognizes that some of the requirements in the IRMA Standard are emerging best practices (see Notes at the end of the chapter for more information). Consequently, during IRMA's Launch Phase we will not expect that all requirements will have been completely fulfilled. Companies will be expected, however, to have started to develop the processes and procedures necessary to fully meet the chapter requirements within a reasonable timeframe (e.g., 1 to 2 years).

CRITICAL REQUIREMENTS IN THIS CHAPTER

A risk assessment has been done to identify chemical and physical risks associated with existing mine waste (including tailings) facilities (4.1.4.1). Mine waste facility design and mitigation of identified risks shall be consistent with best available technologies and best available/applicable practices (4.1.5.1).

The operating company regularly evaluates the performance of mine waste facilities to assess the effectiveness of risk management measures, including critical controls for high consequence facilities (4.1.5.6).

The mine does not use riverine, submarine or lake disposal for mine wastes (4.1.8.1).

Guidance Note for Auditors and Mines on Chapter 4.1-Waste and Materials Management

As its title suggests, Chapter 4.1—Waste and Materials Management addresses both the management of waste materials (which in the chapter are separated into “mine wastes” and other wastes) and the management of other substances or materials such as chemicals or fuels that if not managed well could have impacts on the environment or people. A request has been made to provide clarification regarding the application of the requirements in this chapter to lithium or other types of brine extraction operations, which typically do not have the same type or scale of mine waste facilities as hardrock mining sites. Also, unlike hardrock tailings impoundments, brine waste/storage facilities generally do not tend to be associated with a high risk of catastrophic failure that could lead to significant impacts on human health, safety or the environment.

However, an analog can be drawn between an ore body and a minerals-rich brine. In both cases, the target minerals/elements extracted comprise a small fraction of the material removed from the earth. As the target minerals/elements are removed/recovered, what remains behind can be considered “waste” and must be adequately managed and/or disposed. In the case of brine operations, wastes may include liquids contained in brine evaporation ponds or other process ponds as well as salts, sludges or residues. These waste materials, if discharged or not addressed properly during operations and closure, could pose chemical or physical risks and potentially cause harm humans or the environment.

HOW THIS CHAPTER IS TO BE AUDITED:

The simplest way to clarify the intent of this chapter is to revise the definitions of some of the existing terms to incorporate brines and any residues resulting from their processing, and incorporate the facilities used to hold and process the brines and resultant waste products. Although there is no official definition of “mine wastes”, the footnote for requirement

4.1.2.1., says:

"For the purposes of this chapter, mine wastes include tailings, waste rock, spent ore from heap leaches, wastes generated during mineral processing (e.g., residues and used processing fluids, wastes from thermal processing – including mercury wastes in Chapter 4.8). It does not include chemicals that go into mineral processing that have not been used."

For lithium or other brine extraction operations, it should be assumed that mine wastes also include: brines or process solutions from which minerals are/have been extracted, salts, residues or other materials that are not recovered as a valued commodity.

The current definition of mine waste facilities is:

Facilities that contain, store, are constructed of, or come in contact with wastes that are generated or created during mining (e.g., waste rock, pit walls, pit floors or underground workings, runoff or discharge from exposed mined areas) and mineral processing (e.g., tailings, spent ore, effluent). These facilities include, but are not limited to open pits, underground mine workings and subsidence areas, waste rock facilities, tailings storage facilities, heap leach facilities, process water facilities, stormwater facilities, borrow areas for construction and/or reclamation, water treatment facilities, and water supply dams/impoundments.

For lithium or other brine extraction operations, in addition to the current definition, it should be assumed that mine waste facilities include: ponds, tanks or other facilities containing mine wastes, including brines, salts, residues or process solutions from which minerals are extracted.

For the most part, all requirements in this chapter could be applicable to brine operations. However, the table also includes a column identifying why a certain requirement might not be relevant to those operations. Further details are provided in the Explanatory Notes, where relevant.

Waste and Materials Management Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>4.1.1. Policy and Governance</p> <p>4.1.1.1. The operating company shall develop a policy for managing waste materials and mine waste facilities in a manner that eliminates, if practicable, and otherwise minimizes risks to human health, safety, the environment and communities.</p>	<p>For 4.1.1.1: Confirm through review of operating company documentation and interviews with company that a waste management policy and commitments are signed-off and in place to manage waste materials and facilities in a manner that protects human health, safety, the environment and communities. Human health and safety applies to workers as well as others who may come into contact with, or be otherwise affected by the waste.</p>	<p>For 4.1.1.1:</p> <ul style="list-style-type: none"> Mine waste management policy or its equivalent. 	<p>Explanatory Note for 4.1.1.1: A policy for managing waste materials and mine waste facilities does not need to be long or overly detailed, but should provide overall guidance for the management of wastes. It might look something like the following:</p> <p>"It is the policy of _____ to store all mine waste in a manner that will protect the human and natural environment, avoid pollutants from migrating beyond the mine site, and be protective of mine workers in placing this waste at its interim and final storage locations. Wastes will be recycled to the maximum extent possible. Hazardous wastes will be managed to minimize worker exposure and to maximize protection of the human and natural environment in the long-term."</p> <p>Note that "natural environment" also includes the subsurface environment, e.g. protection of groundwater resources, so</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>4.1.1.2. The operating company shall demonstrate its commitment to the effective implementation of the policy by, at minimum:</p> <ol style="list-style-type: none"> Having the policy approved by senior management and endorsed at the Director/Governance level of the company; Communicating the policy to employees; Having a process in place to ensure that relevant employees understand the policy to a degree appropriate to their level of responsibility and function, and that they have the competencies necessary to fulfill their responsibilities; Having procedures and/or protocols in place to implement the policy; and Allocating a sufficient budget to enable the effective implementation of the policy. 	<p>For 4.1.1.2.a: Confirm that the waste management policy (or its equivalent) is endorsed and signed by the CEO, Board of Directors or other high-level body (e.g., a subcommittee of the Board of Directors tasked with oversight of waste management activities).</p> <p>For 4.1.1.2.b: Confirm through employee interviews that they are aware of the policy; and that employees with waste management responsibilities understand how the policy influences their work, i.e., organizational structure, accountabilities, roles and responsibilities should be clearly defined. Review contracts, as the roles and responsibilities should also be outlined within those documents.</p> <p>For 4.1.1.2.c: Confirm through worker/employee interviews and review of contracts that competent personnel are in place to carry out the activities necessary to ensure the stewardship of each facility (e.g., Design engineers or Engineer of Record are in place, are qualified licensed professional engineers with sound technical knowledge, and other employees have either formal education or sufficient training and experience to carry out tasks such as construction, maintenance, surveillance, monitoring, emergency response, etc.).</p>	<p>For 4.1.1.2:</p> <ul style="list-style-type: none"> Mine waste management policy or its equivalent that has been signed off by senior management and endorsed at the director/governance level of the company. Records of communications with company employees (e.g., trainings, written materials) conveying the information contained in the waste policy and their responsibilities regarding waste management. Records of employee competencies (e.g., resumes, CVs, trainings, certifications, etc.). Operations, Maintenance and Surveillance manual that address mine waste management issues. Mine waste risk management procedures. Operating budget that contains mine waste management tasks. 	<p>the policy could be even more explicit in this regard if desired.</p> <p>Mine waste facility should be interpreted to include ponds, tanks or other facilities containing brines, salts, residues or process solutions from which minerals are or have been extracted.</p> <p>Explanatory Note for 4.1.1.2: Re: 4.1.1.2.a, senior management would be the mine manager, or a manager that reports directly to the mine manager, and to whom the mine manager has designated, in writing, the responsibility for overseeing all mine waste management at the mine. Director/Governance Level may be the CEO, Board of Directors or other high-level body (e.g., a subcommittee of the Board of Directors tasked with oversight of waste management activities).</p> <p>Re: 4.1.1.2.b, communicating this policy to relevant employees (i.e., those who have waste management responsibilities) should be done during initial employee training, and on a regular basis afterward. It should be explained verbally to relevant employees, not just presented in written documents or wall placards. The verbal explanation could be included with annual safety training requirements, since much of the waste management policy is ultimately safety oriented.</p> <p>Re: 4.1.1.2.c, procedures and protocols should include a risk management program, with responsible persons assigned and an implemented training program; an Operations, Maintenance and Surveillance (OMS) manual (see 4 1.5.5), with staff adequately trained on its use; a change management system; protocols to elevate all relevant findings of mine managers, consultants and independent</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
	<p>For 4.1.1.2.d: Confirm that: a risk management program is in place, with responsible person and implemented training program; an Operations, Maintenance and Surveillance (OMS) manual is in place (See 4.1.4.5) and is being followed, and staff have been adequately trained on its use; a change management system is in place, and active; protocols are in place to elevate all relevant findings of mine managers, consultants and independent reviewers to senior management team, above the general manager level; and an independent technical review panel or board is in place, with clear scope (See 4.1.4.9).</p> <p>For 4.1.1.2.e: Review budget, and confirm that facility capital and operating costs are included in the business planning processes; and human resources capital and expertise is sufficient to carry out the work necessary to implement the waste policy. The budget should include schedules of activities that integrate the required resources related to waste management. Examples of activities to be scheduled include timing of construction, access to construction material, reviews, inspections, and any other item critical to successfully implementing the waste management system.</p>		<p>reviewers to senior management team, above the general manager level; and an independent review panel or board, with clearly defined scope (see 4.1.6).</p> <p>Design engineers or Engineer of Record should be in place, and be qualified licensed professional engineers with sound technical knowledge. Other employees should have either formal education or sufficient training and experience to carry out tasks such as construction, maintenance, surveillance, monitoring, emergency response, etc.).</p> <p>Re: 4.1.1.2.d, budgets should include mine waste facility capital and operating costs, and costs related to human resources necessary to carry out the work and implement the waste policy. The budget should include schedules of activities that integrate the required resources related to waste management. Examples of activities to be scheduled include timing of construction, access to construction material, reviews, inspections, and any other item critical to successfully implementing the waste management system.</p>
<p>4.1.2. Safe Management of Materials Other Than Mine Wastes</p> <p>4.1.2.1. The operating company shall:</p> <p>a. Identify all materials, substances and wastes (other than mine wastes) associated with the mining project that have the potential to cause impacts on</p>	<p>Auditing Note for 4.1.2: The auditor should be familiar with national definitions of hazardous wastes, and also regional or global regulations or conventions related to the transboundary shipments of wastes (if wastes are transported and disposed outside of the host country).</p> <p>Auditors should note If mines go beyond mere disposal and are making efforts to recycle or (re)use waste materials. IRMA is considering adding requirements</p>	<p>For 4.1.2.1:</p> <ul style="list-style-type: none"> Records of materials, substances and wastes associated with the mining project (e.g., Material Safety Data Sheets (MSDS) for chemicals and other materials transported to, used or stored at the mine) that pose a potential hazard to health, safety or the environment. 	<p>Explanatory Note for 4.1.2.1: Requirement 4.1.2.1 applies to materials, substances and wastes that are <u>not considered</u> mine wastes. These may include used and unused chemicals, old tires, unused explosives, septic system wastes, cleaning fluids, solvents, fuels and any other materials, substances and wastes that may pose a risk to human health, safety the environment if not managed well.</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>human health, safety, the environment or communities; and</p> <p>b. Document and implement procedures for the safe transport, handling, storage and disposal of those materials, substances and wastes.</p>	<p>related to efficient use of materials to a future version of the Standard.</p> <p>For 4.1.2.1: Confirm, through review of documents, that the <u>operating company</u> has identified and documented the materials, substances and wastes (other than mine wastes) associated with the <u>mining project</u> that could potentially cause impacts on the environment if improperly handled, stored, transported or disposed. Perform on-site confirmation of materials locations.</p> <p>Review procedures and interview <u>operating company</u> and workers to confirm that procedures are documented and are being implemented (i.e., adhered to by workers) for their safe transport, handling, storage, and disposal of the materials, substances and wastes. Documentation should list facilities and provide their locations on a map, and provide information on storage, handling and disposal practices (indicating if measures are to be implemented on or off site).</p>	<ul style="list-style-type: none"> • Documented procedures for the transportation, handling, storage and disposal of potentially hazardous materials, substances and wastes. • Documented procedures related to hazardous materials in the Emergency Preparedness and Response Plan (or its equivalent) required in Chapter 2.5. • Documentation of programs to recycle or reuse waste materials. 	<p>For the purposes of this chapter, "mine wastes" include <u>tailings</u>, <u>waste rock</u>, spent ore from <u>heap leaches</u>, wastes generated during mineral processing (e.g., residues and used processing fluids, wastes from thermal processing – including <u>mercury wastes</u> in Chapter 4.8). It does not include chemicals that go into mineral processing that have not been used (those belong in the category of wastes that are <u>not</u> considered "mine wastes", above). Mine wastes are the primary focus of this chapter (see criteria 4.1.1 and 4.1.3 to 4.1.6).</p> <p>Re: 4.1.2.1.a, identifying and tracking these materials is standard procedure at most mines. Material Safety Data Sheets should be available at the mine for all or most of these materials. Some of these materials and substances may be included in an Emergency Preparedness and Response Plan (see IRMA Chapter 2.5). For example, that plan should include measures to prevent accidents and respond to incidents that might occur during transport of hazardous chemicals through communities or in close proximity to water courses that flow through communities.</p> <p>In addition to implementing procedures for the safe use or disposal of certain waste materials, the beneficial (re)use and recycling of some wastes may also be investigated. For example, some companies are looking at composting technologies for organic wastes to assist in remediation of areas with elevated metals, as well as general site rehabilitation efforts, especially where there is a limited availability of good quality topsoil.⁴⁸⁷ Other companies are implementing recycling programs for tires and other "waste" materials.</p>

⁴⁸⁷ For example, see US Environmental Protection Agency website: "Abandoned Mine Lands: Technical Resources. Composting at Mine Sites." <https://www.epa.gov/superfund/abandoned-mine-lands-technical-resources>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>4.1.3. Mine Waste Source Characterization and Impact Prediction</p> <p>4.1.3.1. The operating company shall identify all existing and/or proposed mine waste facilities that have the potential to be associated with waste discharges or incidents, including catastrophic failures, that could lead to impacts on human health, safety, the environment or communities.</p>	<p>Auditing Note for 4.1.3: The auditor should be familiar with the recommendations and guidance in INAP 2009 (Chapter 4), Price 2009, and MAC 2017 (Appendix 3).⁴⁸⁸</p> <p>For 4.1.3.1: Confirm through review of company documentation such as lists of facilities and their locations on a site map, and on-site confirmation that the facilities are located as per the documents.</p>	<p>For 4.1.3.1:</p> <ul style="list-style-type: none"> Map or other documentation identifying all existing mine waste management facilities, and, if expansions are planned or anticipated, the potential locations of future waste management facilities. 	<p>This requirement is not applicable to brines (we are considering brines to be “mine wastes” – see explanation below). But the requirement is relevant for brine operations, because those operations will use other materials and produce other wastes that if not adequately managed could harm people or the environment.</p> <p>As stated in the Explanatory Note for 4.1.1.1, “mine wastes” include tailings, waste rock, spent ore from heap leaches, and wastes generated during mineral processing. Mine wastes should also be interpreted to include any brines or process solutions from which minerals are or have been extracted, as well as salts, residues or other materials that are not recovered as a valued commodity during brine processing</p> <p>Explanatory Note for 4.1.3.1: “Mine waste facilities” are those that contain, store, are constructed of, or come in contact with wastes that are generated or created during mining (e.g., waste rock, pit walls, pit floors or underground workings, runoff or discharge from exposed mined areas) and mineral processing (e.g., tailings, spent ore, effluent).</p> <p>These facilities may include, but are not necessarily limited to: open pits, pit lakes, underground mine workings, subsidence areas, waste rock facilities, tailings storage facilities, heap leach facilities, process water facilities, stormwater facilities, borrow areas for construction and/or reclamation, roads or impoundments constructed from waste rock, water treatment facilities, etc.</p> <p>Mine waste facility should be interpreted to include ponds, tanks or other facilities containing brines, salts, residues or</p>

⁴⁸⁸ International Network for Acid Prevention (INAP). Global Acid Rock Drainage (GARD) Guide. <http://www.gardguide.com/>; Price 2009; and Mining Association of Canada. 2017. A Guide to the Management of Tailings Facilities (Third Ed). Appendix 3. <http://mining.ca/documents/guide-management-tailings-facilities-third-edition>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>4.1.3.2. The operating company shall perform a detailed characterization for each mine waste facility that has associated chemical risks. Characterization shall include:⁴⁸⁹</p> <p>a. A detailed description of the facility that includes geology, hydrogeology and hydrology, climate change projections, and all potential sources of mining impacted water (MIW);⁴⁹⁰</p> <p>b. Source material characterization using industry best practice to determine potential for acid rock drainage (ARD) or metals leaching (ML). This shall include:</p>	<p>For 4.1.3.2.a: Review of company documentation such as the Environmental and Social Impact Assessment (see IRMA Chapter 1.2), the Operations, Maintenance and Surveillance manual (see 4.1.5.5) or others, to confirm that the geological, hydrological, and climate characteristics of each facility have been documented. (See Explanatory Notes/Guidance for more information on what are the minimum requirements for facility descriptions).</p> <p>For 4.1.3.2.b: Review company documentation to confirm that source characterization has been completed for materials from each facility that may be associated with adverse chemical (i.e., contamination) impacts. Source material characterization should include the analyses listed in b.i through iv (for more information, see chapter 4 of the Global Acid Rock Drainage (GARD) Guide issued by the International Network for Acid Prevention⁴⁹⁴). Construction materials should be included in the analysis if mine</p>	<p>For 4.1.3.2:</p> <ul style="list-style-type: none"> • Documentation of facility descriptions (this may be contained in an Operation, Monitoring and Surveillance (OMS) Manual or equivalent). • Reports containing information on site geology, hydrogeology, hydrology. • Documentation of source characterization of mined materials/wastes (e.g., a detailed geochemical study that contains raw data from the testing, and interpretation of the data; results from numerical geochemical models). • Documentation of conceptual models/reports (e.g., descriptions of the sources, release, transport and fate of contaminants related to mine waste 	<p>process solutions from which minerals are or have been extracted. This requirement is relevant if there are mine waste facilities (see expanded definition) that could be associated with any waste discharge or incident (i.e., does not need to be from a catastrophic failure of the facility). Waste discharges could be due to human error, precipitation events, malfunctioning of equipment, etc.</p> <p>Explanatory Note for 4.1.3.2: 4.1.3.2 addresses chemical risks, while 4.1.3.3 addresses physical risks.</p> <p>Chemical risks associated with mine waste facilities refer to risks related to the chemical composition of mined materials and wastes. Risks include the potential for materials to leach contaminants to the environment. Chemical risks also include hazardous constituents (e.g., constituents that may be toxic, harmful or irritating to humans or biota, carcinogenic, mutagenic, affect reproduction, be corrosive, explosive, or otherwise dangerous to the environment) if there is the potential that these constituents may be mobilized and enter the environment.</p> <p>If a particular mine waste facility has no associated chemical risks (e.g., the facility is not constructed from materials that will leach contaminants into the environment, and does not contain or store hazardous constituents that will mobilize to the environment), then it does not need to undergo the detailed characterization in 4.1.3.2. The operating company,</p>

⁴⁸⁹ See also IRMA Chapter 4.2, criteria 4.2.2

⁴⁹⁰ Mining impacted water, also referred to as mining influenced water or MIW, includes acid rock drainage (ARD), neutral mine drainage, saline drainage, and metallurgical process waters of potential concern. In Australia, the term acid and metalliferous drainage (AMD) is used as a synonym for ARD. A key characteristic of most of these waters is that they contain elevated metals that have leached from surrounding solids (e.g., waste rock, tailings, mine surfaces, or mineral surfaces in their pathways). This fact is commonly acknowledged by the phrase “metal leaching” (ML), frequently resulting in acronyms such as ARD/ML.

⁴⁹⁴ International Network for Acid Prevention (INAP). Global Acid Rock Drainage (GARD) Guide. <http://www.gardguide.com/>

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<p>i. Analysis of petrology, mineralogy, and mineralization;</p> <p>ii. Identification of geochemical test units;</p> <p>iii. Estimation of an appropriate number of samples for each geochemical test unit; and</p> <p>iv. Performance of comprehensive geochemical testing on all samples from each geochemical test unit.</p> <p>c. A conceptual model that describes what is known about release, transport and fate of contaminants and includes all sources, pathways and receptors for each facility;⁴⁹¹</p> <p>d. <u>Water balance</u> and chemistry mass balance models for each facility;⁴⁹²</p> <p>e. Identification of contaminants of concern for the facility/source materials, and the potential resources at risk from those contaminants.⁴⁹³</p>	<p>waste materials are proposed to be used or have been used to build roads or other structures.</p> <p>For 4.1.3.2.c: Review company documentation to confirm that a Conceptual Site Model (CSM) has been developed for each facility that may be associated with adverse chemical (i.e., contamination) impacts. This should include both a visual schematic and an accompanying narrative.</p> <p>For 4.1.3.2.d: Review company documentation to confirm that a <u>water balance</u> and chemistry mass balance have been developed and calibrated for each facility that may be associated with adverse chemical (i.e., contamination) impacts. See Explanatory Notes for more guidance on chemistry mass balance.</p> <p>For 4.1.3.2.e: Review company documentation on source characterization and predictions to confirm that the operating company has identified contaminants of concern (e.g., identified those predicted to be released at levels that contravene IRMA <u>Water Quality Criteria</u> in IRMA Chapter 4.2, or those that could be released in excess of air quality standards in IRMA Chapter 4.3). Confirm that potential resources (e.g., air, water, aquatic or terrestrial plants and animals, humans, etc.) at risk have been identified, either through the facility conceptual model (4.1.3.2.c) or through other more detailed studies or modeling (e.g., see IRMA Chapter</p>	<p>facilities).</p> <ul style="list-style-type: none"> • Facility water balance and chemical mass balance models/reports. 	<p>however, should be able to provide evidence in the form of geochemical characterization that wastes and facility construction materials are not chemically reactive.</p> <p>Re: 4.1.3.2.a, “<u>mining impacted water</u>,” also referred to as mining influenced water or MIW, includes <u>acid rock drainage (ARD)</u>, neutral mine drainage, saline drainage, and metallurgical process waters of potential concern. In Australia, the term acid and metalliferous drainage (AMD) is used as a synonym for ARD. A key characteristic of most of these waters is that they contain elevated metals that have leached from surrounding solids (e.g., waste rock, tailings, mine surfaces, or mineral surfaces in their pathways). This fact is commonly acknowledged by the phrase “<u>metals leaching</u>” (ML), frequently resulting in acronyms such as ARD/ML.</p> <p>Re: 4.1.3.2.b, source material characterization should include the analyses listed in 4.1.3.1.b.i through iv (for more information, see chapter 4 of the Global Acid Rock Drainage (GARD) Guide issued by the International Network for Acid Prevention⁴⁹⁵).</p> <p>Petrology would explain the type of rocks, mineralogy the minerals that make up the rocks. Geochemical test units typically align with different rock types, but there can be exceptions. Each geochemical test unit should be sampled and tested. The GARD Guide gives guidance on how many samples are needed per geochemical unit, and what tests</p>

⁴⁹¹ This information will feed into the Conceptual Site Model required in IRMA Chapter 4.2, requirement 4.2.2.3.

⁴⁹² This information should feed into the site-wide water balance model in IRMA Chapter 4.2, requirement 4.2.2.3.

⁴⁹³ This should be done using the results from 4.1.3.2.a-d and also hydro-geochemical/hydrogeological modeling as per IRMA Chapter 4.2, if relevant. (See Chapter 4.2, requirements 4.2.2.3.b).

⁴⁹⁵ International Network for Acid Prevention (INAP). Global Acid Rock Drainage (GARD) Guide. <http://www.gardguide.com/>

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	4.2, requirement 4.2.2.3.c on hydro-geochemical and hydrogeological models).		<p>should be performed. The tests required are driven in large part by the mineralogy of the geochemical unit. If the GARD guidelines are not followed, the operating company should be able to technically justify why some other procedure was followed. Results of source material characterization should be presented for each geochemical unit, with some analysis or technical explanation of the results provided.</p> <p>Construction materials should be included in the analysis if mine waste materials are proposed to be used or have been used to build roads or other structures.</p> <p>Re: 4.1.3.2.c, a conceptual model, in this case, is a qualitative description of what is known about the sources, release, transport and fate of contaminants related to a particular facility. A <u>Conceptual Site Model (CSM)</u> should be developed for each facility that may be associated with adverse chemical (i.e., contamination) impacts. This should include both a visual schematic and an accompanying narrative report. This information will feed into the <u>Conceptual Site Model</u> required in IRMA Chapter 4.2, requirement 4.2.2.3.</p> <p>Re: 4.1.3.2.d, water must be controlled to gain access to the mine workings and is typically required in ore extraction processes. The chemical quality and quantity of mine effluents must also be managed since this water may affect the receiving environment and water users. Water and mass balance models are frequently used in the mining industry to explore water management alternatives and assess the uncertainty underlying current and future water management scenarios.</p> <p>A simple deterministic water and mass balance model built on linked Excel spreadsheets, along with sound engineering judgment, may be adequate to provide a basic understanding</p>

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			<p>of flows and effluent water quality over a given range of operating and climatic conditions.</p> <p>The mass balance calculation should include all contaminants of concern (see 4.1.3.1.e), and should document their flow through the mine's processing and waste storage systems.</p> <p>Greater model complexity will likely be required to assess more complex mining project conditions. Ultimately, simulation software should be used to develop dynamic flow models and predict long term contaminant loadings and environmental performance over the entire life of a mine using precedent precipitation data. Water chemistry parameters, contaminant loadings and rates of contaminant decay can be input into such models.⁴⁹⁶</p> <p>Re: 4.1.3.2.e, contaminants of concern should include those predicted to be released at levels that contravene host country standards or IRMA <u>Water Quality Criteria</u> in IRMA Chapter 4.2, or those that could be released in excess of air quality standards in IRMA Chapter 4.3.</p> <p>This entire requirement is relevant to lithium operations, with the following clarifications:</p> <p>In 4.1.3.2 a, mining Impacted water (MIW) includes brines and process solutions.</p> <p>For 4.1.3.2.b, the requirements for "b" are relevant for brines and process solutions but the requirement should be read/interpreted as follows:</p>

⁴⁹⁶ Golder Associates. 2011. Guidance Document on Water and Mass Balance Models for the Mining Industry. (Report submitted to Yukon Government) http://www.env.gov.yk.ca/publications-maps/documents/mine_water_balance.pdf

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<p>4.1.3.3. The operating company shall identify the potential physical risks related to <u>tailings storage facilities</u> and all other <u>mine waste facilities</u> where the potential exists for catastrophic failure resulting in impacts on human health, safety, the environment or communities. Evaluations shall be informed by the following:</p> <ol style="list-style-type: none"> Detailed engineering reports, including site investigations, seepage and stability analyses; <u>Independent technical review</u> (See 4.1.5.9); <u>Facility classification</u> based on risk level or consequence of a failure, and size of the structure/impoundment; Descriptions of facility design criteria; 	<p>Auditing Note for 4.1.3.3: The auditor should be familiar with the recommendations of CDA 2014, MAC 2011, , MAC 2017 and similar international best practice documents, as well as internal technical standards and guidelines developed and implemented by the operating company.</p> <p>For 4.1.3.3: Confirm through review of company documentation and interviews with company that the company has undertaken evaluations and inspections to identify physical (e.g., safety and stability) risks associated with <u>tailings storage facilities</u> and all other facilities where the potential exists for catastrophic failure resulting in loss of human life or environmental damage.</p> <p>For 4.1.3.3.a: Review engineering reports to determine if physical risks with the facility have been identified.</p> <p>For 4.1.3.3.b: Confirm that independent review has occurred for the facility (if necessary). If done, the review should have highlighted any physical risks related to the facility.</p>	<p>For 4.1.3.3:</p> <ul style="list-style-type: none"> Facility Engineering Design Reports. Facility Classification Reports/Memos. Independent Review Reports. Staff and EoR Inspection Reports. Hydrology and Facility Mass Balance Reports. Inundation Analysis and EPP/ERP. Facility operations, maintenance and surveillance (OMS) manual (may be contained within a larger site-wide manual). 	<p>b. Brine or process solution facility characterization using industry best practice to determine potential sources of contaminants. This shall include:</p> <ol style="list-style-type: none"> Brine or process solution chemistry including any added chemicals (i.e., whole solution chemistry for all dissolved constituents), and range of expected variation; Elemental contents in solid precipitates, sludges or other residues, and use Toxic Characteristic Leach Procedure (TCLP) or equivalent to determine leachability of the wastes. <p>Explanatory Note for 4.1.3.3: <u>Tailings dams, tailings impoundments, waste rock piles and heap leach facilities</u> are all large enough to pose potential physical risks. Not only might they fail during earthquake or flood events, they are also capable of collapsing under their own weight if not properly designed.</p> <p>Re: 4.1.3.3.a, detailed engineering reports, based on site investigations, seepage and stability analyses, should be provided for all relevant site facilities. This information should be used as the basis for <u>facility classification</u> (see 4.1.3.3.c). The level of detail should be based on the project status ranging from 30-70% completion during initial design and project permitting, 90% for projects prior to construction, and based on construction and as-built reports for existing structures.</p> <p>Re: 4.1.3.3.b, independent review required only for facilities identified as high-consequence as per 4.1.3.3.c.</p> <p>Re: 4.1.3.3.c, facility classification should be performed consistent with applicable regulatory requirements. However, if they are not similar to or consistent with various recognized guidelines for example, Australian National Committee on</p>

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<p>e. Design report(s);</p> <p>f. Short-term and long-term placement plans and schedule for <u>tailings</u> and <u>waste rock</u> or other facilities subject to stability concerns;</p> <p>g. Master <u>tailings</u> placement plan (based on life of mine);</p> <p>h. Internal and external inspection reports and audits), including, if applicable, an annual dam safety inspection report;</p> <p>i. Facility <u>water balances</u> (See also 4.1.3.2.d); and</p> <p>j. Dam breach inundation (if applicable) and <u>waste rock</u> dump runoff analyses.</p>	<p>For 4.1.3.3.c: Review documentation to confirm that a facility classification has occurred. Classification should be similar to or consistent with various recognized guidelines such as, for example, ANCOLD (2012⁴⁹⁷,⁴⁹⁸), CDA (2014)⁴⁹⁹ or similar recognized documents prepared by ICOLD⁵⁰⁰ or its member national organizations.</p> <p>For 4.1.3.3.d: Review documentation such as memoranda from the Engineer of Record (EoR) to the company, which should summarize critical design, operating and <u>mine closure</u> criteria for facility and be signed off by the EoR.</p> <p>For 4.1.3.3.e: Review documentation. Design report(s) should include all appendices and other supporting information and signed off by the EoR.</p> <p>For 4.1.3.3.f and g: Review deposition plans to determine if there are stability concerns or other physical risks posed by materials placement, and ensure there is sufficient capacity remaining for waste</p>		<p>Large Dams (ANCOLD, 2012),⁵⁰¹,⁵⁰² Canadian Dam Association (CDA, 2014)⁵⁰³ or similar recognized documents prepared by the International Commission on Large Dams (ICOLD)⁵⁰⁴ or its member national organizations, then the operator should have an independent classification performed consistent with these requirements.</p> <p>Re: 4.1.3.3.d, <u>facility</u> design criteria should be identified as a section and/or table in the detailed engineering reports/design reports, and be signed off by the Engineer of Record (EoR).</p> <p>Re: 4.1.3.3.e, detailed engineering reports are the same as design reports in 4.1.3.3.a. (requirement duplicative, will be removed in next version).</p> <p>Re: 4.1.3.3.f, short-term means one to two years in the future and long-term means life-of-facility. Short-term plans should include quarterly placement schedule and long-term plans should include yearly schedule.</p>

⁴⁹⁷ Australian National Committee on Large Dams (ANCOLD). May 2012. Guidelines on Tailings Dams; Planning, Design, Construction, Operation, and Closure. Available at: https://www.ancold.org.au/?page_id=334

⁴⁹⁸ Australian National Committee on Large Dams (ANCOLD). October 2012. Guidelines on the Consequence Categories for Dams. Available at: https://www.ancold.org.au/?page_id=334

⁴⁹⁹ Canadian Dam Association. Dam Safety Guidelines. 2007. See also, Application of Dam Safety Guidelines to Mining Dams. 2014. Both publications available at: www.imis100ca1.ca/cda/Main/Publications/Dam_Safety/CDA/Publications_Pages/Dam_Safety.aspx?hkey=52124537-9256-4c4b-93b2-bd971ed7f425

⁵⁰⁰ The International Commission on Large Dams (ICOLD). See www.icold-cigb.net for more information on over 200 technical publications.

⁵⁰¹ Australian National Committee on Large Dams (ANCOLD). May 2012. Guidelines on Tailings Dams; Planning, Design, Construction, Operation, and Closure. Available at: https://www.ancold.org.au/?page_id=334

⁵⁰² Australian National Committee on Large Dams (ANCOLD). October 2012. Guidelines on the Consequence Categories for Dams. Available at: https://www.ancold.org.au/?page_id=334

⁵⁰³ Canadian Dam Association. Dam Safety Guidelines. 2007. See also, Application of Dam Safety Guidelines to Mining Dams. 2014. Both publications available at: www.imis100ca1.ca/cda/Main/Publications/Dam_Safety/CDA/Publications_Pages/Dam_Safety.aspx?hkey=52124537-9256-4c4b-93b2-bd971ed7f425

⁵⁰⁴ The International Commission on Large Dams (ICOLD). See www.icold-cigb.net for more information on over 200 technical publications.

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	<p>deposition and water management over the life of mine.</p> <p>For 4.1.3.3.h: Review internal and external inspection reports, such as reports from the Engineer of Record, internal audits, regulatory inspection reports and external inspections/audits.</p> <p>For 4.1.3.3.i: Review <u>facility water balances</u> (see 4.1.3.2.d), which may contain information that can elucidate physical and capacity or containment risks, e.g., what levels of precipitation may cause impoundments to overtop and weaken structural stability.</p> <p>For 4.1.3.3.j: Confirm that dam breach inundation (if there are any dams associated with the <u>mining project</u>) and <u>waste rock</u> dump runout analyses have been carried out to identify potential consequences or hazard posed by such structures.</p>		<p>Re: 4.1.3.4.g, master <u>tailings</u> placement plan is the same as a long-term plan as per 4.1.3.3.f. (requirement duplicative, will be removed in next version).</p> <p>Re: 4.1.3.3.h, all high-consequence facilities require regular (daily, weekly, monthly, quarterly) inspections by the operators consistent with their operations, maintenance and surveillance manuals, an annual dam safety inspection report by the Engineer of Record, and independent review/inspections every 3-5 years or similar as per ANCOLD, CDA, or similar. (See references in 4.1.3.3.c)</p> <p>Re: 4.1.3.3.i, <u>facility water balances</u> should indicate critical indicators such as allowable pool volume and level and take into account appropriate probable maximum flood criteria.</p> <p>Re: 4.1.3.3.j, all high-consequence <u>facilities</u> will include a breach inundation and/or runout analysis and it should be applied to an Emergency Preparedness Plan (EPP) or Emergency Response Plan (ERP), addressed in IRMA Chapter 2.5. For example, an operating tailings storage facility (TSF) should include a breach inundation analysis, and a closed TSF no longer containing water, or a <u>waste rock</u> pile considered to be high-consequence, should include a run-out analysis. A breach analysis should be performed consistent with applicable regulations or in the absence of regulations current best practice as identified by Bernedo (2013).⁵⁰⁵</p> <p>As mentioned previously, mine waste facility should be interpreted to include ponds, tanks or other facilities containing brines, salts, residues or process solutions from which minerals are or have been extracted.</p>

⁵⁰⁵ Bernedo, C. 2013. "Predictive Models and Available Software," Presentation at USSD Workshop on Dam Break Analysis Applied to Tailings Dams. <https://docplayer.net/14116454-Ussd-workshop-on-dam-break-analysis-applied-to-tailings-dams.html>

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<p>4.1.3.4. Facility characterizations shall be updated periodically to inform waste management and reclamation</p>	<p>For 4.1.3.4: Confirm that facility characterizations have been updated annually or at a frequency commensurate with the risk profile of the facility.</p>	<p>For 4.1.3.4:</p> <ul style="list-style-type: none"> • Updated design or facility reports. Updated information on site geology, hydrogeology, hydrology. • Updated characterization of mined 	<p>Brine-holding and evaporation ponds, process solution ponds, and water storage ponds with large storage volume, particularly those located aboveground, may have the potential for catastrophic failure or breach, where runoff of the contents could lead to significant impacts.</p> <p>Companies are expected to provide to auditors a reasonable science-based justification (e.g., credible failure analysis) for why the failure of a pond or impoundment would not pose a potentially significant impacts to people or the environment (e.g., an engineer has documented that there are no credible failure modes, and there is evidence that there are no communities in the vicinity that would be impacted and no ecosystems that would be irreparably harmed under the various credible failure scenarios). The level of effort required for the credible failure modes analysis should be commensurate with the level of risk, i.e., will be lower than what is required for hardrock mining operations.</p> <p>If the company is able to demonstrate through its evaluation that there is "no credible risk" of catastrophic failure that could result in significant impacts on human health, safety, the environment or communities, then further identification of physical risks in 4.1.3.3.a through j are not required, and various subsequent requirements identified later in this chapter that relate to "high consequence rated mine waste facilities" will not be relevant.</p> <p>Explanatory Note for 4.1.3.4: Initial facility characterizations are based on qualitative and quantitative data that have been collected by the operating company. When new physical, hydrological or geochemical data are collected, or facility monitoring provides information that suggests that previous assumptions / characterizations are no longer valid, or there</p>

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<p>decisions throughout the mine life cycle.⁵⁰⁶</p> <p>4.1.3.5. Use of predictive tools and models for <u>mine waste facility</u> characterization shall be consistent with current industry best practice, and shall be continually revised and updated over the life of the mine as site characterization data and</p>	<p>For 4.1.3.5: Confirm that the <u>operating company</u> can cite sources and provide rationale for how the models and predictive tools are scientifically robust and consistent with those widely accepted by industry and <u>competent professionals</u> (e.g., academics, government scientists) as the best practices or tools to be using for the given purpose. Models and <u>facility water balances</u> should be calibrated prior to updating</p>	<p>materials/wastes.</p> <ul style="list-style-type: none"> • Updated conceptual models. • Updated facility water balance and chemical mass balance models/reports. • Modifications or revisions to operation and/or reclamation Plans. <p>For 4.1.3.5:</p> <ul style="list-style-type: none"> • Updated design or facility reports. • Updated information on site geology, hydrogeology, hydrology. • Documented methods for characterizing mined material/wastes; methods for developing conceptual models; methods 	<p>are changes in the <u>mining project</u> that affect <u>mine waste facilities</u> (e.g., there are changes in waste management practices, changes to materials being disposed, changes in site water management that may affect <u>facility water balance</u>, etc.) the <u>operating company</u> should update the facility's physical, hydrological or geochemical characterizations.</p> <p>Updates to <u>facility</u> characterization information should feed into updates to updates to facility designs operating plans and/or <u>reclamation</u> plans or reports. Updates to facility characterization information may also be used to update permits and/or financial assurance estimates, typically conducted every 3-5 years. See also IRMA Chapter 2.6— Planning and Financing Reclamation and Closure, 2.6.2.2.c, g, and I.</p> <p>This is applicable to brine operations. Examples of when characterizations should be updated include if there are changes/expansions to location, size/shape, brine and/or process solution volume and chemistry, and operating characteristics of waste facilities, unintended discharges, residue build-up and removal, and concurrent reclamation.</p> <p>Explanatory Note for 4.1.3.5: Any tools and models used in providing the information in Sections 4.1.3.2 and 4.1.3.3 should be consistent with current industry best practice as described in the notes for those sections.</p> <p>Also, predictive tools and models should be updated if new data on physical, hydrological or geochemistry has been collected, or if monitoring suggests that the assumptions used in predictive tools and models are no longer valid.</p>

⁵⁰⁶ See also IRMA Chapter 2.6— Planning and Financing Reclamation and Closure, 2.6.2.2.c, g, and I.

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<p>operational monitoring data are collected.</p>	<p>characterizations. (See Detailed Explanatory Notes for more guidance on best practices)</p>	<p>for calculating water balance and chemical mass balance models.</p> <ul style="list-style-type: none"> Updated characterization of mined materials/wastes (e.g., detailed geochemical study that contains raw data from the testing, and interpretation of the data; results from numerical geochemical models). Updated conceptual models. Updated facility water balance and chemical mass balance models/reports. 	<p>Models should also be updated if there are changes in the <u>mining project</u> that affect <u>mine waste facilities</u> (e.g., there are changes in waste management practices, changes to materials being disposed, changes in site water management that may affect <u>facility water balance</u>, etc.).</p> <p>For brine and other process solution facilities, models will primarily consist of solution mass balance models that will show present and predicted or planned solution flows, pond and tank volumes, solution recycle, treatment and discharge. The models should address sensitivity both due to operational characteristics but also due to variation in climate including that resulting from anthropogenic caused climate change.</p>
<p>4.1.4. Waste Facility Assessment</p> <p>4.1.4.1. (Critical Requirement) A risk-based approach to mine waste assessment and management shall be implemented that includes:</p> <ol style="list-style-type: none"> Identification of potential chemical risks (see 4.1.3.2 f) and physical risks (see 4.1.3.3) during the project conception and planning phase of the mine life cycle; A rigorous risk assessment to evaluate the potential impacts of mine waste facilities on health, safety, environment and 	<p>For 4.1.4.1: Confirm that the <u>operating company</u> has carried out a risk assessment for each facility that documents the potential chemical and physical risks and potential impacts on health, safety, environment and communities; that this has been done early in the life cycle, and has been updated over the course of the facility's life. Updates should always occur if there are mine waste management practices that affect facility operation or capacity; or if there are proposed expansions or changes to facility design.</p>	<p>For 4.1.4.1:</p> <ul style="list-style-type: none"> Risk assessment documents. 	<p>Explanatory Note for 4.1.4.1.a: The “project conception and planning phase” begins at the outset of planning of a proposed mine, and is integrated with conception and planning for the overall site, including the mine plan and plans for ore processing. General steps include: Opportunity, Concept, Pre-Feasibility, Feasibility, and Detailed engineering.</p> <p>The remainder of the mine life cycle includes phases such as: Design; Initial Construction; Ramp-up, Operations and Ongoing Construction; Standby Care and Maintenance; <u>Mine Closure</u>; and <u>Post-Closure</u>.⁵⁰⁷</p> <p>Re: 4.1.4.1.b, risk assessment and management should take into account physical and chemicals risks posed by mine waste facilities; environmental risks such as earthquakes, landslides or avalanches, which could impact facilities; short- and long-term risks related to climate change; and other risks external to the <u>operating company</u> and the <u>facility</u>, including</p>

⁵⁰⁷ Mining Association of Canada. 2017. A Guide to the Management of Tailings Facilities (Third Ed). p. 37. <http://mining.ca/documents/guide-management-tailings-facilities-third-edition>

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<p>communities early in the life cycle;</p> <p>c. Updating of risk assessments at a frequency commensurate with each facility’s risk profile, over the course of the facility’s life cycle; and</p> <p>d. Documented risk assessment reports, updated when risks assessments are revised (as per 4.1.4.1.c).</p>			<p>regulatory and permitting risks, e.g., not obtaining permits in a timely manner, or permits that are not aligned with the design intent of the facility.⁵⁰⁸</p> <p>During risk assessments consideration should be given to what might be the potential cumulative impacts from the identified risks, and how different proposed mitigation measures might decrease the cumulative impacts.</p> <p>When mine waste facilities are located near national borders or coastlines, the potential for causing transboundary impacts should also be considered.</p> <p>Re: 4.1.4.1.c, risk assessments should be completed as frequently as required to meet the tailings management objectives established for any given facility. The acceptable level of risk should be defined in the context of the facility and for its specific life phase, taking into account the likelihood and consequence of catastrophic failure, and perspectives of the owner, regulators and communities of interest.⁵⁰⁹</p> <p>As mentioned previously, “mine waste facility” should be interpreted to include ponds, tanks or other facilities containing brines, salts, residues or process solutions from which minerals are extracted.</p> <p>For the purpose of this section "mine" includes brine and process solution facilities. While we are still requiring a riskbased approach to managing these facilities, the level of effort should be commensurate with the level of risk, i.e., will</p>

⁵⁰⁸ Ibid. p. 18.

⁵⁰⁹ Ibid.

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<p>4.1.4.2. The operating company shall carry out and document an <u>alternatives assessment</u> to inform mine waste facility siting and selection of waste management practices. The assessment shall:</p> <ol style="list-style-type: none"> Identify minimum specifications and performance objectives for facility performance throughout the mine life cycle, including <u>mine closure objectives</u> and <u>post-closure land and water uses</u>; Identify possible alternatives for siting and managing mine wastes, avoiding a priori judgements about the alternatives; Carry out a screening or “fatal flaw” analysis to eliminate alternatives that fail to meet minimum specifications; Assess remaining alternatives using a rigorous, transparent decision-making tool such as Multiple Accounts Analysis (MAA) 	<p>Auditing Note for 4.1.4.2: It may be useful for auditors to review the recommendations of MAC 2017 Appendix 3: Assessment of Alternatives, to understand how to recognize the various components in an Alternatives Assessment.⁵¹⁰</p> <p>For 4.1.4.2: Confirm, through review of company documentation and interviews with company that, that as per MAC guidance, the <u>alternatives assessment</u> includes:</p> <ul style="list-style-type: none"> Identification of performance objectives, describing how the facility is expected to perform throughout the entire life cycle, including the long-term <u>mine closure objectives</u> and <u>post-closure land use</u>. Identification of possible (i.e., reasonable, conceivable, and realistic) alternatives, ensuring none have been avoided due to a priori (i.e., preconceived) judgments or biases about the alternatives. All reasonable alternatives should be given due consideration. A screening of possible alternatives to eliminate from further consideration any alternatives that do not meet the performance objectives or that otherwise have characteristics that would be “show-stoppers”. This step is also referred to as fatal-flaw 	<p>For 4.1.4.2:</p> <ul style="list-style-type: none"> Alternatives assessments (these may be as standalone report(s), or perhaps as part of a larger study like an ESIA). 	<p>be lower than what is required for hardrock mining operations.</p> <p>Explanatory Note for 4.1.4.2: Re: 4.1.4.2.a, an <u>alternatives assessment</u> is a process to identify and objectively and rigorously assess the potential impacts and benefits (including environmental, technical and socio-economic aspects) of different options so that an informed decision can be made.⁵¹²</p> <p>For the purposes of this chapter, the <u>alternatives assessment</u> evaluates different options for locating (siting and layout) <u>tailings and other mine waste facilities</u>, and informs the site-specific <u>best available technologies (BAT)</u> and <u>best available/applicable practices (BAP)</u> for designing facilities and managing wastes throughout the mine life cycle.⁵¹³</p> <p>Re: 4.1.4.2.b, alternatives assessments should identify all possible (i.e., reasonable, conceivable, and realistic) mine waste facility locations, disposal technologies, waste storage options and disposal locations. As described by Environment Canada and the Mining Association of Canada, at this early stage it is imperative that no a priori judgments be made about any of the alternatives. (Environmental Canada, 2016; MAC, 2017, p. 46)</p> <p>The government of British Columbia, in the wake of the Mt. Polley tailings dam failure, developed the following guidance (Government of BC, 2016, pp. 12, 13), which IRMA strongly recommends companies utilize when assessing options for</p>

⁵¹⁰ *ibid.*

⁵¹² Adapted from Environment Canada. 2016. Guidelines for the Assessment of Alternatives for Mine Waste Disposal. <https://www.canada.ca/en/environment-climate-change/services/managing-pollution/publications/guidelines-alternatives-mine-waste-disposal/chapter-2.html> and Mining Association of Canada. 2017. Guide to the Management of Tailings Facilities, p. 46. <http://mining.ca/sites/default/files/documents/MAC-Guide-to-the-Management-of-Tailings-Facilities-2017.pdf>.

⁵¹³ Mining Association of Canada (MAC). 2017. A Guide to the Management of Tailings Facilities (3rd Ed). <http://mining.ca/documents/guide-management-tailings-facilities-third-edition>

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<p>or its equivalent, which takes into account environmental, technical, socio-economic and project economics considerations, inclusive of risk levels and hazard evaluations, associated with each alternative;</p> <p>e. Include a sensitivity analysis to reduce potential that biases will influence the selection of final site locations and waste management practices; and</p> <p>f. Be repeated, as necessary, throughout the mine life cycle (e.g., if there is a mine expansion or a lease extension that will affect mine waste management).</p>	<p>analysis. <u>Stakeholders</u> need to be engaged in this exercise (see 4.1.6.1, below) and independent experts should review this information (See 4.1.5.1)</p> <ul style="list-style-type: none"> Assessment of remaining alternatives should take place using multiple accounts analysis or a similar decision-making tool.⁵¹¹ <u>Stakeholders</u> need to be engaged in this exercise (see 4.1.6.1, below) and independent experts should review this information (See 4.1.5.1). A sensitivity analysis must be undertaken to test the robustness and validity of the outcomes of the detailed assessment of alternatives against various biases and assumptions. Results should be documented in a comprehensive technical report. <p>The <u>alternatives assessment</u> should be repeated if there is a need to move or expand an existing facility, or to develop a new <u>mine waste facility</u>. Also, if major changes to existing waste management practices are proposed.</p>		<p>mine waste management in order to protect human health, safety and the environment:</p> <p>Physical stability is of paramount importance, and options that require a compromise to physical stability should be discarded,</p> <p>Facilities should be chemically and biologically stable, or be designed to <u>mitigate</u> transport of contaminants into the receiving environment,</p> <p>Footprint areas of the facility should be minimized, In-pit or underground backfill should be maximized, Impacts to receiving environments should be minimized, <u>Post-closure</u> land use objectives should be defined, including ecosystems support and productive uses for future generations where possible,</p> <p>All available technologies should be considered, Efforts to reduce and remove water from containment within tailings facilities should be made,</p> <p>Alternatives to water covers should be considered in planning stages.</p> <p>Re: 4.1.4.2.c, the purpose of screening is to eliminate alternatives with “fatal flaws” from further consideration and develop a short list of alternatives for more detailed assessment.</p> <p>Re: 4.1.4.2.d, Multiple accounts analysis (MAA) is a tool that is used to support decision-making related to the tailings planning and design process. For more information on</p>

⁵¹¹ For more information, see Mining Association of Canada. 2017. Guide to the Management of Tailings Facilities (3rd Ed). “Multiple Accounts Analysis”, p. 47. <http://mining.ca/sites/default/files/documents/MAC-Guide-to-the-Management-of-Tailings-Facilities-2017.pdf>; and also Environment and Climate Change Canada, 2013, Guidelines for the Assessment of Alternatives for Mine Waste Disposal. http://www.mae.gov.nl.ca/env_assessment/projects/Y2016/1851/1851_nov2_draft%20eis_guidelines_app_b.pdf

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<p>4.1.5. Mitigation of Risks and Management of Mine Waste Management Facilities</p> <p>4.1.5.1. (Critical Requirement) Mine waste facility design and</p>	<p>Auditing Note for 4.1.5.1: Auditors should also be familiar with current industry best practices related to the management of wastes including <u>tailings</u>, <u>waste</u></p>	<p>For 4.1.5.1:</p> <ul style="list-style-type: none"> Documentation of methods followed or guidance/approach used to determine the appropriate level of risk for the 	<p>Multiple Accounts Analysis, see MAC Tailings Guide, 2017, Appendix 3.⁵¹⁴</p> <p>Note that “project economics” must include not only capital and operating costs over life of mine but also closure and <u>post-closure</u> costs.</p> <p>Re: 4.1.4.2.e, any decision-making process is subject to bias and subjectivity. The goal of sensitivity analysis is to transparently manage bias and subjectivity to the point where an external reviewer would agree that the decision is justifiable and reasonable, irrespective of their own value system.⁵¹⁵</p> <p>This requirement is intended to address chemical and physical risks and the mitigation of those through waste facility siting and waste management practices.</p> <p>As the risks for brine and process solution facilities will generally be less significant than for most hardrock mining waste facilities, the alternatives assessment can also be less rigorous than described by this section. For example, a document describing the siting rationale, including why no alternatives were considered, may be considered adequate to meet this requirement, if facility and other operational risks are considered low.</p> <p>Explanatory Note for 4.1.5.1: Existing sites cannot turn back the clock if they did not use BAT at the time that the facility was designed. So to fully meet this requirement, existing sites must be able to demonstrate, instead, that they are using</p>

⁵¹⁴ Mining Association of Canada (MAC). 2017. A Guide to the Management of Tailings Facilities (3rd Ed). <http://mining.ca/documents/guide-management-tailings-facilities-third-edition>

⁵¹⁵ Environment Canada. 2016. Guidelines for the Assessment of Alternatives for Mine Waste Disposal. <https://www.canada.ca/en/environment-climate-change/services/managing-pollution/publications/guidelines-alternatives-mine-waste-disposal/chapter-2.html>

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<p>mitigation of identified risks shall be consistent with best available technologies (BAT) and best available/applicable practices (BAP).</p>	<p>rock, heap leaches, MIW, etc. (More information will be provided in Detailed Explanatory Notes)</p> <p>For 4.1.5.1: Confirm that the company can provide evidence that it is employing BAT & BAP in the management of tailings and other mine waste facilities that could pose a significant risk to human safety and the environment.</p>	<p>design of each waste facility.</p> <ul style="list-style-type: none"> Documentation of methods followed or guidance/approach used to determine the BAT/BAP to mitigate identified risks. 	<p>best practices available to them to mitigate the risks as they are currently known.</p> <p>Mining companies or organizations or governments across the world may have developed internal standards or guidelines that are similar in nature, or aligned with BAP in this area, and adherence to these is acceptable as long as best practice is implemented.</p> <p>Re: BAT, there are several reference documents that contain useful information including, for example: European Commission (2009)⁵¹⁶ and MEND (2017)⁵¹⁷.</p> <p>Best industry design criteria have been used for tailings dams and other structures that may be subject to catastrophic failures, and that the criteria have been designed to prevent catastrophic events during operations and post-closure. Examples of industry accepted quality guidelines include ANCOLD,⁵¹⁸ CDA,⁵¹⁹ or equivalent.</p> <p>Currently, we do not have Guidance developed on BAT/BAP for brine and process solution facility design and mitigation measures. For the purposes of this requirement, to receive full marks companies will be expected to provide reasonable justification to auditors for why the design and mitigation approaches are considered to align with BAT/BAP.</p> <p>Auditors will be expected to reference the justification (or give specific examples of guidance or best practices</p>

⁵¹⁶ European Commission. 2009. Reference Document on Best Available Techniques for the Management of Tailings and Waste-Rock in Mining activities. http://eippcb.jrc.ec.europa.eu/reference/BREF/mmr_adopted_0109.pdf

⁵¹⁷ MEND Secretariat. 2017. Study of Tailings Management Technologies. Mine Environment Neutral Drainage (MEND) Project Report 2.50.1. Prepared by Klohn Crippen Berger. http://mend-nedem.org/wp-content/uploads/2.50.1Tailings_Management_TechnologiesL.pdf

⁵¹⁸ Australian National Committee on Large Dams (ANCOLD). Visit www.ancold.org.au.

⁵¹⁹ Canadian Dam Association. Dam Safety Guidelines. 2007. See also, Application of Dam Safety Guidelines to Mining Dams. 2014. Both publications are available at: www.imis100ca1.ca/cda/Main/Publications/Dam_Safety/CDA/Publications_Pages/Dam_Safety.aspx?hkey=52124537-9256-4c4b-93b2-bd971ed7f425

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<p>4.1.5.2. Mitigation of chemical risks related to <u>mine waste facilities</u> shall align with the <u>mitigation hierarchy</u> as follows:</p> <ol style="list-style-type: none"> Priority shall be given to source control measures to prevent generation of contaminants; Where source control measures are not <u>practicable</u> or effective, migration control measures shall be implemented to prevent or minimize the movement of contaminants to where they can cause harm; and If necessary, <u>MIW</u> shall be captured and treated to remove contaminants before water is returned to the environment or used for other purposes. 	<p>For 4.1.5.2: Confirm that the <u>operating company</u> has applied mitigation measures for chemical risks (i.e., risk of contamination from <u>mine waste facilities</u>) in a manner that aligns with the <u>mitigation hierarchy</u>.</p>	<p>For 4.1.5.2:</p> <ul style="list-style-type: none"> Documentation of mitigation strategies implemented, over time, at each waste management facilities. 	<p>implemented at the site in their narrative/basis for rating) so that stakeholders can understand what practices have been followed or implemented.</p> <p>Explanatory Note for 4.1.5.2: The <u>mitigation hierarchy</u> prioritizes avoidance or prevention of impacts, and if that is not technically feasible or <u>practicable</u> then moves to minimization of impacts, then restoration/rehabilitation of impacted areas, and finally, if impacts remain, requires compensation, or offsetting, for ecological impacts. (See full definition of mitigation hierarchy for more information)</p> <p>Source <u>control</u> is given priority because it combines efforts to prevent the formation of contamination (e.g., measures to prevent sulfur oxidation and generation of <u>acid rock drainage</u>) and formation and migration of leachate. Source control typically involves the use of chemical mitigation such as neutralizing agents and more commonly geosynthetic liners and covers and/or store and release soil covers to prevent oxygen and meteoric water infiltration.</p> <p>Migration control does not stop contaminant generation, but aims to minimize the impacts on the environment by physically containing contaminants (e.g., using a pumpback system). Capture and treatment is also a method to minimize impacts on the environment by capturing and removing pollutants from contaminated waters.</p> <p>The lower tiers of the mitigation hierarchy, i.e., restoration or rehabilitation of impacted areas and compensation for <u>residual impacts</u> are not explicitly required here. Mines that have impacts requiring restoration/rehabilitation and/or compensation for residual impacts should refer to the</p>

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<p>4.1.5.3. For high-consequence rated mine waste facilities, a <u>critical controls</u> framework shall be developed that aligns with a generally accepted industry framework, such as, for example, the process outlined</p>	<p>For 4.1.5.3: Confirm that <u>critical controls</u> framework includes: identification of facilities high-consequence ratings (see 4.1.4.1), and their plausible failure modes (i.e., how unwanted events might happen, e.g., by overtopping of a dam); development of actions designed to manage high-consequence risks; implementation of actions; identification of measurable performance indicators and surveillance requirements; and performance monitoring. Confirm that performance monitoring (internal, external or</p>	<p>For 4.1.5.3:</p> <ul style="list-style-type: none"> • Documentation (e.g., report or memo) of the high-consequence analysis by a professional engineer or similarly qualified person using an appropriate hazard classification system. • Documentation of critical controls framework for each high-consequence facility (e.g., may be found in Operation, 	<p>requirements in other IRMA chapters (e.g., Chapters 2.6, 4.2 and 4.6).</p> <p>Re: 4.1.5.2.c, it may not always be necessary to treat <u>mining impacted waters (MIW)</u> prior to re-use. For example, recycling of <u>MIW</u> for use in ore processing may not require any treatment.</p> <p>There may be chemical risks related to brine and process solution facilities, so this requirement is relevant.</p> <p>Re: 4.1.5.2.a, source control measures are not generally applicable to brine and process facilities, so this does not need to be factored into the assessment.</p> <p>Re: 4.1.5.2.b, migration control measures for spills and leakage can be implemented, if necessary, such as pond liners, leak detection and mitigation, and double-containment.</p> <p>Re: 4.1.5.2.c, brine and process solutions are considered to be MIW (see Guidance for 4.1.3.2). If brine or process solutions escape containment they should be captured and treated if required before water is discharged or used for other purposes.</p> <p>Explanatory Note for 4.1.5.3: A <u>critical controls</u> framework should be developed for all <u>mine waste facilities</u> that have a high-consequence rating (see 4.1.3.3.c for a related requirement). These ratings should be based on the consequences of unwanted events or failures, as opposed to the risk (i.e., probability is ignored in the development of the consequence rating).</p> <p><u>Mine waste facilities</u> with a high consequence rating would include those where the consequences of unwanted events</p>

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in Mining Association of Canada’s Tailings Management Guide. ⁵²⁰	preferably both) has occurred and that the controls are being effective, or, if not effective that the framework has been revised to improve its effectiveness.	<p>Monitoring and Surveillance (OMS) Manual or other document).</p> <ul style="list-style-type: none"> • Emergency Prevention/Emergency Response Plan. • Inundation analysis. 	<p>or potential catastrophic failures could lead to unacceptable short or long-term impacts on human health, safety, environmental resources or cultural resources, or lead to economic losses for communities and financial and/or reputational damage to companies (e.g., a tailings facility where a breach could result in loss of life and property; a water treatment facility that could cause fish kills if unwanted releases of contaminated water were to occur, or that could affect the environment and water supplies in perpetuity If funding to operate the facility was to cease, etc.).</p> <p>The Mining Association of Canada's (MAC) Guide to the Management of Tailings Facilities says that processes for management of critical controls should be implemented, the key elements of which are as follows:⁵²¹</p> <p>Identify risk controls associated with potential failure modes and causes;</p> <p>Identify those risk controls deemed to be critical on an owner or facility-specific basis;</p> <p>Appoint a “risk owner” and “critical control owner” for that risk;</p> <p>Define the critical controls and their performance criteria, measurable performance indicators, and surveillance requirements;</p> <p>Identify pre-defined actions to be executed if control is lost;</p> <p>Verify execution of critical controls by the critical control owner or designate, at a frequency commensurate with the frequency of control execution;</p> <p>Report deficiencies in critical controls to the Responsible Person(s) and, where appropriate, the Accountable Executive</p>

⁵²⁰ Mining Association of Canada. 2017. A Guide to the Management of Tailings Facilities (Third Ed). Section 4.4.3. <http://mining.ca/documents/guide-management-tailings-facilities-third-edition>

⁵²¹ Mining Association of Canada. 2017. A Guide to the Management of Tailings Facilities (Third Ed). p. 24. <http://mining.ca/documents/guide-management-tailings-facilities-third-edition>

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<p>4.1.5.4. Mine waste management strategies shall be developed in an interdisciplinary and interdepartmental manner and be informed by site-specific characteristics, modeling and other relevant information.</p>	<p>Auditing Note for 4.1.5.4: The auditor should be familiar with the recommendations of INAP 2009 Chapter 4 and Figure 4-1, which shows the integration of the processes and Table 4-2 Characterization Activities by Mine Phase. The approach taken for environmental and community health and safety protections by the operating company should recognize and use information in a highly similar manner.</p> <p>For 4.1.5.4. Confirm through review of company documentation and interviews with <u>operating company</u> that the development of waste management strategies has followed an interdisciplinary approach. (See Explanatory Notes for more information)</p>	<p>For 4.1.5.4:</p> <ul style="list-style-type: none"> • Documentation of meetings or correspondence (e.g., meeting attendee lists, interdepartmental memos/reports) involving personnel from various disciplines and departments. • Operation, Monitoring and Surveillance (OMS) Manual or equivalent. • See also examples of evidence from 4.1.3, 4.1.4 and 4.1.5. 	<p>Officer, and identify actions to address those deficiencies; Track implementation of actions to address critical control deficiencies, and report to the Responsible Person(s) and, where appropriate, the Accountable Executive Officer; and</p> <p>Periodically review and update risk controls and critical controls, based on updated risk assessments, risk management plans, and past performance.</p> <p>For brine and other process solution facilities, this requirement is not relevant unless a credible risk to human health, safety, the environment or communities has been identified as per 4.1.3.3, i.e., the facility is deemed a “highconsequence rated” waste facility.</p> <p>Explanatory Note for 4.1.5.4: “Interdisciplinary” in this context means that mine waste management strategies may need the input and interaction of personnel with different expertise, such as geochemists, hydrogeologists, hydrologists, and geotechnical experts. For example, hydrogeological modeling can provide critical information on the necessity for different approaches to waste management (e.g., whether or not acid generation/<u>metals leaching</u> will occur).</p> <p>“Interdepartmental” in this context means that development of mine waste management strategies may need the input and interaction of several relevant business or operational departments or unit at the mine site (e.g., those responsible for ore processing will need to be involved, at least for some aspects of the risk management strategies. Also, if mine water is managed with <u>tailings</u>, then those responsible for ore extraction operations my also need to be involved).</p> <p>It is assumed that if <u>operating company</u> has carried out facility-specific source material characterization, developed</p>

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<p>4.1.5.5. The operating company shall develop an Operation, Maintenance and Surveillance (OMS) manual (or its equivalent) aligned with the performance objectives, risk management strategies, <u>critical controls</u> and closure plan for the facility, that includes:</p> <ol style="list-style-type: none"> a. An operations plan that documents practices that will be used to transport and contain wastes, and, if applicable, effluents, residues, and <u>process waters</u>, including recycling of <u>process waters</u>;⁵²² b. A documented maintenance program that includes routine, predictive and event-driven 	<p>Auditing Note for 4.1.5.5: See Detailed Explanatory Notes for more guidance on the Operation, Maintenance and Surveillance (OMS) manual.</p> <p>For 4.1.5.5.a: Confirm that an operations plan has been developed for each <u>mine waste facility</u> that includes practices for the transport, containment and, if applicable, recycling of wastes.</p> <p>For 4.1.5.5.b: Confirm that a maintenance program is in place to ensure that relevant parameters are maintained, including (if present), but not limited to the following: site access; ditch, spillway and drop structure capacity; support structure integrity; equipment availability and reliability; pipeline wear and thickness criteria; minimum <u>tailings</u> line thickness and associated requirements; process and surveillance instrumentation controls; switches, interlocks and meters; erosion; vegetation; design economic life.</p>	<p>For 4.1.5.5:</p> <ul style="list-style-type: none"> • Operation, Monitoring and Surveillance (OMS) Manual or equivalent. 	<p>facility-specific conceptual models and water and chemistry mass balances, evaluated physical risks posed by each facility, and carried out risk assessments for each relevant <u>mine waste facility</u>.</p> <p>This requirement is relevant, as management strategies, even for brine and process solution facilities, should always be developed in an interdisciplinary manner and be informed by site-specific characteristics and modeling (e.g., see 4.1.3.5).</p> <p>Explanatory Note for 4.1.5.5: Re: 4.1.5.5.a, some of the water-related issues may be covered in the <u>adaptive management plan</u> for water (or its equivalent) as per IRMA Chapter 4.2 (see requirement 4.2.4.4).</p> <p>The general requirements for an Operation, Maintenance and Surveillance (OMS) manual are provided by the Mining Association of Canada (MAC, 2011).⁵²⁴ MAC is currently revising this guidance and the new guidance when published should be used.</p> <p>For lithium brine operations, <u>an operations, maintenance and surveillance plan</u>, or its equivalent, should be in place for any waste facility. The level of detail can be commensurate to the risks to health, safety or the environment.</p>

⁵²² Some of the water-related issues may be covered in the Adaptive Management Plan for water (or its equivalent) as per IRMA Chapter 4.2 (see requirement 4.2.4.4).

⁵²⁴ Mining Association of Canada (MAC). 2011. Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities. <http://mining.ca/sites/default/files/documents/DevelopingAnOMSManualforTailingsandWaterManagementFacilities2011.pdf>

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<p>maintenance to ensure that all relevant parameters (e.g., all civil, mechanical, electrical and instrumentation components of a <u>mine waste facility</u>) are maintained in accordance with performance criteria, company standards, <u>host country law</u> and sound operating practices;</p> <p>c. A surveillance program that addresses surveillance needs associated with the risk management plan and <u>critical controls</u> management, and includes inspection and monitoring of the operation, physical and chemical integrity and stability, and safety of <u>mine waste facilities</u>, and a qualitative and quantitative comparison of actual to expected behavior of each facility;</p> <p>d. Documentation of facility-specific performance measures as indicators of effectiveness of <u>mine waste management actions</u>; and</p> <p>e. Documentation of <u>risk controls</u> and <u>critical controls</u> (see also 4.1.5.3), associated performance</p>	<p>For 4.1.5.5.c: Confirm that a monitoring and surveillance plan is in place⁵²³ and documented in OMS manual. Surveillance could include, but is not limited to:</p> <ul style="list-style-type: none"> • Visual indicators, such as cracks, slumps, seepage or anomalous vegetation, dead or ill birds, wildlife or livestock in or near facilities, and actions that should be taken if those indicators are observed. • Criteria for special event-driven inspections and actions, such as first filling, earthquakes, extreme precipitation events, floods, operational upsets. • Instrumentation to monitor facility behavior in comparison to performance criteria • Periodic facility inspections and review of data • Periodic reviews/audits of the surveillance program <p>Determine if mortalities of migratory birds, local birds or wildlife, or livestock have been documented. If so, confirm that the <u>operating company</u> has revised its mitigation approaches in an effort to prevent future mortalities.</p> <p>For 4.1.5.5.d: Confirm that technical performance indicators and maintenance indicators have been developed.</p> <p>For 4.1.5.5.e: Confirm that pre-defined actions have been defined for steps that will be taken if performance indicators are not met, or if controls are not effective at the <u>mine waste facilities</u>.</p>		

⁵²³ For more information, see Mining Association of Canada. 2011. *Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities*. Note: updates to the 2011 version of the OMS Manual are in progress. <http://mining.ca/oms-guide>

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<p>criteria and indicators, and descriptions of pre-defined actions to be taken if performance criteria are not met or control is lost.</p> <p>4.1.5.6. (Critical Requirement) On a regular basis, the operating company shall evaluate the performance of mine waste facilities to:</p> <ol style="list-style-type: none"> Assess whether performance objectives are being met (see 4.1.4.2.a and 4.1.5.5.c); Assess the effectiveness of risk management measures, including critical controls (see 4.1.5.5.e); Inform updates to the risk management process, (see 4.1.4.1.c) and the OMS (see 4.1.5.5); and Inform the management review to facilitate continual improvement (see 4.1.5.8). 	<p>For 4.1.5.6: Confirm that a process is in place to regularly evaluate the performance of mine waste facilities, and that the results from these evaluations feed into the updates to the risk management process, the OMS and management reviews.</p>	<p>For 4.1.5.6:</p> <ul style="list-style-type: none"> Documentation (e.g., reports and/or memos documenting evaluations) of regular internal and/or external performance evaluations. 	<p>Explanatory Note for 4.1.5.6: Re: on a regular basis: "Performance evaluation occurs at various timescales, from hourly or daily, to annual or more, depending on the aspect of performance being evaluated."⁵²⁵ Performance evaluations related to high risk facilities should occur at least once per year, although for some performance objectives related to these facilities evaluations may need to be more frequent.</p> <p>Re 4.1.5.6.a, performance objectives and measurable indicators should be documented in the Operation, Maintenance and Surveillance (OMS) manual or an equivalent document that outlines mine waste management plans and actions. According the Mining Association of Canada, "The OMS manual documents facility-specific performance measures as indicators of progress on management actions and objectives. These measures include technical performance indicators as well as indicators tied to management actions, including maintenance activities."⁵²⁶ Performance criteria, measurable indicators and surveillance requirements should be developed for all risk management measures (e.g., risk controls and critical controls).⁵²⁷</p>

⁵²⁵ Mining Association of Canada (MAC). 2017. Tailings Management Protocol. Towards Sustainable Mining. p. 34. <http://mining.ca/sites/default/files/documents/TSM-Tailings-Management-Protocol-2017.pdf>

⁵²⁶ Mining Association of Canada (MAC). 2017. Tailings Management Protocol. Towards Sustainable Mining. p. 25. <http://mining.ca/sites/default/files/documents/TSM-Tailings-Management-Protocol-2017.pdf>

⁵²⁷ Ibid. pp. 24, 25.

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			<p>Re: 4.1.5.6.b, typically the determination of whether or not <u>mine waste facilities</u> are being effectively operated or maintained is made as a result of internal surveillance (e.g., inspections and monitoring), or external input (e.g., regulatory inspections). According to the Mining Association of Canada, "Surveillance involves inspection and monitoring of the operation, structural integrity and safety of a <u>facility</u>. It consists of both qualitative and quantitative comparison of actual to expected behaviour. Regular review of surveillance information can provide an early indication of performance trends that, although within specification, warrant further evaluation or action."⁵²⁸</p> <p>Re 4.1.5.6.c, updates to the risk management process include updates to the risk assessments (as per 4.1.4.1.c) and the Operation, Maintenance and Surveillance manual (as per 4.1.5.7). If current risk management measures and controls are not effectively minimizing risks associated with <u>mine waste facilities</u> (e.g., if physical or chemical risks such as instability, unanticipated seeps from wastes, overtopping of impoundments, etc. are present despite <u>mitigation</u> measures) then there may be the need to carry out additional risk assessment and/or revise management strategies in the OMS.</p> <p>This requirement is relevant for lithium brine operations, as the performance of all facilities that have the potential to discharge contaminants to the environment or that may pose potential risks to human health or safety should be evaluated on a regular basis.</p>

⁵²⁸ Mining Association of Canada (MAC). 2011. Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities. Section 7-1. <http://mining.ca/sites/default/files/documents/DevelopinganOMSManualforTailingsandWaterManagementFacilities2011.pdf>

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<p>4.1.5.7. The OMS manual shall be updated and new or revised risk and critical control strategies implemented if information reveals that mine waste facilities are not being effectively operated or maintained in a manner that protects human health and safety, and prevents or otherwise minimizes harm to the environment and communities.</p>	<p>For 4.1.5.7: Determine if mitigation strategies are being effective at preventing impacts on human health, safety and environment. For example, determine if monitoring or surveillance have uncovered any problems, or if any deviations from performance criteria for facilities have been experienced as per 4.1.4.5.b. (e.g., tailings characteristics do not meet design specifications). If there is any indication that management strategies are not being entirely effective or that operational conditions have changed, confirm that the strategies/risk controls/critical controls have been revised and updated as necessary. Monitoring and surveillance plans may also need to be revisited.</p>	<p>For 4.1.5.7:</p> <ul style="list-style-type: none"> • Company and regulatory inspection reports. • Maintenance reports. • Corrective action plans. • OMS, and revisions to the manual. • Records of worker grievances related to the management of mine waste facilities. 	<p>Explanatory Note for 4.1.5.7: As mentioned in the notes for 4.1.5.6, typically the determination of whether or not mine waste facilities are being effectively operated or maintained is made as a result of internal surveillance (e.g., inspections and monitoring), or external input (e.g., regulatory inspections). According to the Mining Association of Canada (MAC):</p> <p>"Surveillance involves inspection and monitoring of the operation, structural integrity and safety of a facility. It consists of both qualitative and quantitative comparison of actual to expected behaviour. Regular review of surveillance information can provide an early indication of performance trends that, although within specification, warrant further evaluation or action."⁵²⁹</p> <p>For example, performance or stability of a waste facility may be affected if tailings characteristics begin to deviate from design specifications.</p> <p>In addition to looking for deviations from expected behavior, the operating company should have developed actual performance criteria or indicators for mine waste facilities. According to MAC:</p> <p>"The OMS manual documents facility-specific performance measures as indicators of progress on management actions and objectives. These measures include technical performance indicators as well as indicators tied to management actions, including maintenance activities."⁵³⁰</p>

⁵²⁹ Mining Association of Canada (MAC). 2011. Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities. Section 7-1. <http://mining.ca/sites/default/files/documents/DevelopinganOMSManualforTailingsandWaterManagementFacilities2011.pdf>

⁵³⁰ Mining Association of Canada (MAC). 2017. Tailings Management Protocol. Towards Sustainable Mining. p. 25. <http://mining.ca/sites/default/files/documents/TSM-Tailings-Management-Protocol-2017.pdf>

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<p>4.1.5.8. The operating company shall implement an annual management review to facilitate continual improvement of tailings storage facilities and all other mine waste facilities where the potential exists for contamination or catastrophic failure that could impact human health, safety, the environment or communities. The review shall:</p> <p>a. Align with the steps outlined in the Mining Association of Canada's Tailings Management</p>	<p>For 4.1.5.8: Confirm that annual reviews of tailings storage facilities and/or other mine waste facilities where the potential exists for catastrophic failure resulting impacts on human health, safety, the environment or communities, have been subject to an annual review. Confirm that the review aligned with the MAC Tailings Protocol, and that the review was documented and results reported to an accountable executive officer.</p>	<p>For 4.1.5.8:</p> <ul style="list-style-type: none"> • Annual Management Review report or other documentation. • Records showing that an accountable executive officer has received a report on the annual management review of relevant mine waste management facilities. (e.g., meeting minutes, signature or correspondence indicating that the report has been received). 	<p>If, through surveillance or some other means (e.g., input from government inspectors, grievances from workers or stakeholders) a company becomes aware that it is not meeting its performance criteria or objectives, the company would be expected to develop new or revised risk controls and critical control strategies. Mines that suggest no evidence of operational or maintenance issues would be considered exceptional. In most cases mines will have some history of these issues and should be able to demonstrate how changes were implemented to address them.</p> <p>This requirement is relevant for lithium brine operations, as OMS manual or equivalent plans and mitigation strategies for all waste facilities should be reviewed for effectiveness, and updated, if necessary.</p> <p>Explanatory Note for 4.1.5.8: Re: 4.1.5.8.a, the review should align with the Mining Association of Canada's (MAC) Tailings Management Protocol (indicator 4) and Guide to the Management of Tailings Facilities, i.e., "Guide" (Section 7). See also the MAC Tailings Management Protocol Table of Conformance for more information on steps in the review process.⁵³²</p> <p>Although the MAC protocol and guidance are specific to tailings facilities, IRMA expects that a similar review would take place for any mine waste facility where the potential exists for contamination or catastrophic failure that could impact human health, safety or the environment.</p> <p>According to the MAC Guide: "the management review should identify and evaluate the potential significance of</p>

⁵³² In particular, see MAC Draft Tailings Management Table of Conformance (June 2017) or any final version, for the steps that should take place in the annual management review.

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<p>Protocol⁵³¹ or a similar framework; and</p> <p>b. Be documented, and the results reported to an accountable executive officer.</p>			<p>changes since the previous management review that are relevant to the tailings management system, including:</p> <p>Changes to regulatory requirements, standards and guidance, industry best practice, and commitments to communities of interest;</p> <p>Changes in mine operating conditions (e.g., production rate) or site environmental conditions;</p> <p>Changes outside the mine property that may influence the nature and significance of potential impacts resulting from the tailings facility on the external environment or vice versa; and</p> <p>Changes in the risk profile of the tailings facility.</p> <p>The management review should also provide a summary of significant issues related to the overall performance of the tailings facility and tailings management system, updated since the previous management review."⁵³³</p> <p>Re: 4.1.5.8.b, according to the MAC Guide "the management review for continual improvement is reported to the Accountable Executive Officer to ensure that the Owner is satisfied that the tailings management system is effective and continues to meet the needs of the facility."⁵³⁴</p> <p>An accountable executive officer is someone designated by the company's Board of Directors or other governance body to be responsible for tailings management. According to the Mining Association of Canada, this person should:⁵³⁵</p>

⁵³¹ Mining Association of Canada (MAC). 2017. Tailings Management Protocol. Towards Sustainable Mining. <http://mining.ca/sites/default/files/documents/TSM-Tailings-Management-Protocol-2017.pdf>

⁵³³ Mining Association of Canada (MAC). 2017. Tailings Management Protocol. Towards Sustainable Mining. Section 7. <http://mining.ca/sites/default/files/documents/TSM-Tailings-Management-Protocol-2017.pdf>

⁵³⁴ Ibid.

⁵³⁵ Ibid. p. 20.

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<p>4.1.6. Independent Review of Mine Waste Management Facilities</p> <p>4.1.6.1. The siting and design or re-design of tailings storage facilities and other relevant mine waste facilities,⁵³⁶ and the selection and modification of strategies to manage chemical and physical risks associated with those facilities shall be informed by</p>	<p>For 4.1.6.1: Confirm that independent reviews have been carried out prior to the siting of tailings storage facilities or other relevant mine waste facilities.</p>	<p>For 4.1.6.1:</p> <ul style="list-style-type: none"> • Policy regarding independent review of tailings storage facilities and other high risk mine waste facilities. • Procedures or terms of reference governing the independent review process. • Evidence of independent review of all high-risk facilities such as reports from 	<p>Be aware of key outcomes of tailings facility risk assessments and how these risks are being managed; Have accountability and responsibility for putting in place an appropriate management structure; Assign responsibility and appropriate budgetary authority for tailings management and define the personnel duties, responsibilities and reporting relationships, supported by job descriptions and organizational charts, to implement the tailings management system through all phases in the facility life cycle; and Provide assurance to the operating company Board or governance body and communities of interest that tailings or other mine waste management facilities are managed responsibly.</p> <p>For brine and other process solution facilities, this requirement is not relevant unless a credible risk to human health, safety, the environment or communities has been identified as per 4.1.3.3, i.e., the facility is deemed a “high-consequence rated” waste facility</p> <p>Explanatory Note for 4.1.6.1: All tailings storage facilities must meet this requirement.</p> <p>Other “relevant facilities” would include mine waste facilities where the potential exists for contamination or catastrophic failure that would result in impacts on human health, safety, the environment, or the livelihoods of communities.</p> <p>Independent reviews should occur during all life-cycle stages of facility, from concept to post-closure.</p>

⁵³⁶ Relevant facilities would be other mine waste facilities where the potential exists for catastrophic failure that would result in impacts on human health, safety, the environment, or the livelihoods of communities

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<p><u>independent reviews</u> throughout the mine life cycle.⁵³⁷</p> <p>4.1.6.2. Reviews shall be carried out by <u>independent review</u> bodies, which may be composed of a single reviewer or several individuals. At high-risk <u>mine waste facilities</u>, a panel of three or more subject matter experts shall comprise the <u>independent review</u> body.</p>	<p>For 4.1.6.2: Confirm that independent review bodies are composed of the appropriate number of reviewers for the risk-level of the facilities, and that reviewers have appropriate and complementing expertise.</p>	<p>the independent reviewers, memos, meeting minutes.</p> <p>For 4.1.6.2:</p> <ul style="list-style-type: none"> • Policy regarding independent review of tailings storage facilities and other high risk mine waste facilities. • Procedures or terms of reference governing the independent review process. • Documentation such as letters of engagement identifying independent review body members. 	<p>The frequency of reviews should be commensurate with the risks/consequences related to the <u>facility</u>. At minimum, independent technical review should happen when there are any changes to <u>facility</u> designs or operations, or modification to waste management practices that could affect the chemical or physical stability of the <u>facility</u>.</p> <p>For brine and other process solution facilities, this requirement is not relevant unless a credible risk to human health, safety, the environment or communities has been identified as per 4.1.3.3, i.e., the facility is deemed a “highconsequence rated” waste facility.</p> <p>Explanatory Note for 4.1.6.2: For the purposes of this requirement, “high-risk facilities” are, at minimum, those where a breach could result in inundation of residence(s) and loss of life (on or off property).⁵³⁸</p> <p>According to the Mining Association of Canada, the particular expertise of the subject matter experts who make up the <u>independent review</u> bodies will vary based on the risks posed by the <u>facility</u>. For example:</p> <p>“At high-risk facilities, (where a breach could plausibly result in inundation of residence(s) and loss of life) a panel of three or four subject-matter experts with different but complementary areas of expertise and experience may be required to cover the various disciplines associated with management of the facility (e.g., geotechnology, hydrology, hydrogeology, and geochemistry). In other instances, temporary [<u>independent review</u> (IR)] involvement for niche</p>

⁵³⁷ Independent reviewers should not be directly involved with the design or operations of the facility; but rather, should review all key documents and information, analyses, design values and conclusions related to the decisions made by others.

⁵³⁸ Adapted from MAC, 2017, p. 58. Mining Association of Canada (MAC). 2017. Tailings Management Protocol. Towards Sustainable Mining. <http://mining.ca/sites/default/files/documents/TSM-Tailings-Management-Protocol-2017.pdf>

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4.1.6.3. Independent reviewers shall be objective, third-party, competent professionals.	For 4.1.6.3: Confirm that independent reviews have been carried out by competent professionals that do not have conflicts of interest (i.e., that are sufficiently independent of the operating company and project). (See Detailed Explanatory Notes for more information).	For 4.1.6.3: <ul style="list-style-type: none"> • Procedures or terms of reference governing the independent review process. • Documentation such as letters of engagement identifying independent review body members. • Documentation of independent reviewer qualifications (e.g., curriculum vitae, resume, biographies, etc.). 	<p>disciplines (e.g., paleo seismology, seismic hazard assessment) outside the expertise of the core IR body may be required. Redundancy of technical disciplines within the IR body should be considered in accordance with a facility’s risk profile.”⁵³⁹</p> <p>For brine and other process solution facilities, this requirement is not relevant unless a credible risk to human health, safety, the environment or communities has been identified as per 4.1.3.3, i.e., the facility is deemed a “highconsequence rated” waste facility.</p> <p>Explanatory Note for 4.1.6.3: Independent reviews should be carried out by competent professionals and/or internationally recognized subject matter experts who are not employed at the mining project, are not directly involved with the design or operations of the facility, and do not have any other relevant conflict of interest.</p> <p>The Mining Association of Canada includes the following description based on Robertson and Shaw (2003):</p> <p>“the reviewer generally reviews all key documents and does at least “reasonableness of results” checks on key analyses, design values, and conclusions. Design, construction and operational procedures are reviewed at a level sufficient to develop an independent opinion of the adequacy and efficiency of the designs, construction and operations. The reviewer generally relies on the representations made to the reviewer by key project personnel, provided the results and representations appear reasonable and consistent with what the reviewer would expect. A review report is produced which documents the reviewer’s observations as to the</p>

⁵³⁹ Ibid. p. 58.

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<p>4.1.6.4. <u>Independent review</u> bodies shall report to the operation's general manager and an accountable executive officer of the <u>operating company</u> or its <u>corporate owner</u>.</p>	<p>For 4.1.6.4: Confirm that the reports are received by the mine operation's general manager and also by an accountable executive officer.</p>	<p>For 4.1.6.4:</p> <ul style="list-style-type: none"> • Procedures or terms of reference governing the independent review process. • Documentation of reporting to operation's general manager and an accountable executive officer of the operating company or its corporate owner (e.g., memos or other communications). 	<p>adequacy of the design, construction and operations and indicates any recommendations that flow from these."⁵⁴⁰</p> <p>For brine and other process solution facilities, this requirement is not relevant unless a credible risk to human health, safety, the environment or communities has been identified as per 4.1.3.3, i.e., the facility is deemed a "highconsequence rated" waste facility.</p> <p>Explanatory Note for 4.1.6.4: There may be a process in place for the <u>independent review</u> body to report directly to a <u>mining project</u> representative who is not the general manager (e.g., the environmental manager who reports to the operation's general manager). If that is the case, it would be acceptable, as long as the results are also shared with the general manager and an accountable executive officer.</p> <p>An accountable executive officer is someone designated by the company's Board of Directors or other governance body to be responsible for tailings management. According to the Mining Association of Canada, this person should:⁵⁴¹</p> <p>Be aware of key outcomes of <u>tailings</u> facility risk assessments and how these risks are being managed; Have accountability and responsibility for putting in place an appropriate management structure; Assign responsibility and appropriate budgetary authority for <u>tailings</u> management and define the personnel duties, responsibilities and reporting relationships, supported by job descriptions and organizational charts, to implement the <u>tailings</u> management system through all phases in the <u>facility</u>.</p>

⁵⁴⁰ Mining Association of Canada (MAC). 2017. Tailings Management Protocol. Towards Sustainable Mining. p. 57. <http://mining.ca/sites/default/files/documents/TSM-Tailings-Management-Protocol-2017.pdf>

⁵⁴¹ Mining Association of Canada (MAC). 2017. Tailings Management Protocol. Towards Sustainable Mining. p. 20. <http://mining.ca/sites/default/files/documents/TSM-Tailings-Management-Protocol-2017.pdf>

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<p>4.1.6.5. The <u>operating company</u> shall develop and implement an action plan in response to commentary, advice or recommendations from an <u>independent review</u>, document a rationale for any advice or recommendations that will not be implemented, and track progress of the plan’s implementation. All of this information shall be made available to IRMA auditors.⁵⁴²</p>	<p>For 4.1.6.5: Review recommendations from independent technical reviews. Confirm that the <u>operating company</u> has developed action plans in response to concerns raised or recommendations made by the independent review team/board/panel. If there are recommendations that are not being followed, confirm that the company has documented a rationale for not doing so. Confirm that action plans are being implemented.</p>	<p>For 4.1.6.5:</p> <ul style="list-style-type: none"> • Independent reviewer comments/report. • Documentation of company's response to independent reviewer comments (e.g., written response/report, or meeting notes where comments and responses were provided informally). • Action plan or other documentation of company's intended actions flowing from independent reviewer recommendations. • Documentation of operating company progress on implementing independent reviewer recommendations (e.g., written reports, memos or meeting notes where progress was reported to accountable executive officer or mining project management). 	<p>life cycle; and Provide assurance to the <u>operating company's</u> Board or governance body and communities of interest that tailings or other mine waste management facilities are managed responsibly. For brine and other process solution facilities, this requirement is not relevant unless a credible risk to human health, safety, the environment or communities has been identified as per 4.1.3.3, i.e., the facility is deemed a “highconsequence rated” waste facility.</p> <p>Explanatory Note for 4.1.6.5: This requirement is based on guidance from the Mining Association of Canada.⁵⁴³</p> <p>Non-disclosure agreements will be signed by IRMA auditors, but even so, <u>confidential business information</u> may be withheld as long as the company provides to auditors a description of the confidential information or materials that are being withheld and an explanation of the reasons for classifying the information as confidential; and if a part of a document is confidential, only that confidential part shall be redacted, allowing for the release of non-confidential information. (See IRMA Chapter 1.1, requirement 1.1.6.4)</p> <p>In the interest of transparency and accountability, <u>independent review</u> findings and recommendations could also be shared publicly (e.g., summarized for public disclosure in a manner that protects confidential information).</p> <p>For brine and other process solution facilities, this requirement is not relevant unless a credible risk to human</p>

⁵⁴² See Explanatory Note for 4.1.6.3 for more information.

⁵⁴³ Ibid. p. 59.

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<p>4.1.7. Stakeholder Engagement in Mine Waste Management</p> <p>4.1.7.1. <u>Stakeholders</u> shall be consulted during the screening and assessment of <u>mine waste facility</u> siting and management alternatives (see 4.1.4.2), and prior to the finalization of the design of the facilities.</p>	<p>Auditing Note for 4.1.7.1: At existing mines, where waste facility screening, siting and assessment of facilities occurred without stakeholder engagement, mines that did not engage with stakeholders will not be expected to have met this requirement. (A note should be added that this was an existing site, and that stakeholder engagement did not occur as per the requirement. If existing mines did carry out stakeholder engagement as per the requirement, they may be scored accordingly).</p> <p>Mines are expected to demonstrate, however, that they have informed a broad range of stakeholders about the current design and management of the facilities.</p> <p>For 4.1.7.1: Interview <u>stakeholders</u> and independent review experts/panels/boards if relevant, to confirm that they were <u>consulted</u> during the screening and assessment of alternatives for siting of facilities that pose a risk to community health and safety and the environment; that they were <u>consulted</u> on the mitigation strategies to be employed to prevent or minimize impacts from these facilities; and also that they were <u>consulted</u> prior to the company’s sign off on the final design of the facilities.</p>	<p>For 4.1.7.1:</p> <ul style="list-style-type: none"> • Documentation of outreach to stakeholders related to mine waste facility siting and waste management options, and the final design of mine waste facilities. • Documentation of meetings and correspondence with stakeholders (e.g., meeting minutes, electronic communications, written input from stakeholders and company responses, records of phone calls or in-person conversations) related to mine waste facility siting and waste management options, and the final design of mine waste facilities. • Documentation of communications with stakeholders on current design and management of mine waste facilities. 	<p>health, safety, the environment or communities has been identified as per 4.1.3.3, i.e., the facility is deemed a “highconsequence rated” waste facility.</p> <p>Explanatory Note for 4.1.7.1: At existing mines, where waste facility screening, siting and assessment of facilities occurred without stakeholder engagement, mines will not be expected to have met this requirement. But given the attention and concern over the potential for catastrophic failure of mines waste facilities, mines will be expected to have informed stakeholders about the current design and management of mine waste facilities. And if there are any new waste management facilities proposed, mines will be expected to conform with this requirement.</p> <p>It is possible that screening and assessment of mine waste facility siting and management alternatives will take place as part of the Environmental and Social Impact Assessment (see Chapter 2.1). However, it is important that stakeholders be engaged specifically on <u>mine waste facility</u> siting and management alternatives, which may or may not always occur during an ESIA.</p> <p>If outreach occurred, but no <u>stakeholders</u> participated, mines should be able to demonstrate that they at least made good faith efforts to carry out stakeholder <u>consultation</u> on these issues.</p> <p>According to the Mining Association of Canada, "There are a number of aspects that are important for an effective alternatives assessment. . . External input is required through the steps described above. Input of [communities of interest</p>

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			<p>(COI)], including regulators, informs the process, and Independent Reviewers should also be engaged."⁵⁴⁴</p> <p>Communities of interest should also be engaged during the screening of alternatives, detailed assessment of alternatives, and facility definition/final design of tailings facility.⁵⁴⁵</p> <p>The Mining Association of Canada defines communities of interest as:</p> <p>". . .all individuals and groups who have an interest in, or believe they may be affected by, decisions respecting the management of operations. They include, but are not restricted to: employees; Aboriginal or Indigenous peoples; mining community members; suppliers; neighbours; customers; contractors; environmental organizations and other non-governmental organizations; governments; the financial community; and shareholders."⁵⁴⁶</p> <p>This is similar to IRMA's definition of <u>stakeholders</u>, i.e., "Persons or groups who are directly or indirectly affected by a project, such as <u>rights holders</u>, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively."</p> <p>The appropriate stakeholders will vary from mine to mine, but should include host governments, rights holders such as indigenous peoples if present, representatives from potentially affected communities (e.g., local emergency response providers, local governments, public health agencies), and people living close to the mine. Other stakeholders might include NGOs, academics, investors, or</p>

⁵⁴⁴ Ibid. p. 47.

⁵⁴⁵ Ibid. p. 48.

⁵⁴⁶ Ibid. p. 4.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>4.1.7.2. Emergency preparedness plans or emergency action plans related to catastrophic failure of <u>mine waste facilities</u> shall be discussed and prepared in consultation with <u>potentially affected communities</u> and <u>workers</u> and/or <u>workers' representatives</u>, and in <u>collaboration</u> with first responders and relevant government agencies. (See also IRMA Chapter 2.5)</p>	<p>For 4.1.7.2: Confirm through review of company documentation and interviews with company that <u>consultations</u> with representatives of the <u>affected community</u> and local government have occurred.</p>	<p>For 4.1.7.2:</p> <ul style="list-style-type: none"> • Emergency preparedness plan or its equivalent. • Records of meetings or communications with stakeholders (e.g., meeting minutes, memos, written communications, reports) related to the development of the emergency preparedness plan or its equivalent. 	<p>other with an interest in responsible mine waste management.</p> <p>As in the Explanatory Note for 4.1.7.1, at existing lithium brine operations where brine or process solution facility screening, siting and assessment occurred without stakeholder engagement, operations can mark this as not relevant, unless there are any new brine or process solution facilities or other waste management facilities being proposed. In that case, operations will be expected to conform with this requirement.</p> <p>Explanatory Note for 4.1.7.2: As described by the Mining Association of Canada, "an emergency preparedness and response plan is an essential component of a tailings management system. This plan should be developed in collaboration with local first responders, [communities of interest], and relevant regulators, and is an important component of an effective communications strategy."⁵⁴⁷</p> <p>IRMA Chapter 2.5 is the primary chapter that addresses Emergency Preparedness and Response related to mining projects. However, fatalities in downstream communities from <u>tailings</u> facility failures underscore the critical need to include community representatives in emergency preparedness and response planning related to mine waste facilities. Consequently, emergency preparedness and response requirements have also been included in Chapter 4.1.</p> <p>Emergency preparedness plans may go by other names (e.g., emergency preparedness and response plans., emergency action plans, etc.). These plans should be developed and</p>

⁵⁴⁷ Ibid. p. 28.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>4.1.7.3. Emergency and evacuation drills (desktop and live) related to catastrophic failure of <u>mine waste facilities</u> shall be held on a regular basis. (See also IRMA Chapter 2.5)</p>	<p>For 4.1.7.3: Interview <u>stakeholders</u> and review company records to confirm that emergency and evacuation drills have taken place.</p>	<p>For 4.1.7.3:</p> <ul style="list-style-type: none"> Records of meetings, memos or reports related to emergency and evacuation drills. 	<p>documented for each <u>facility</u> that may be associated with waste discharges or incidents, including catastrophic failures, that could lead to impacts on human safety or the environment. The facility-level plans may be separate documents but they should all be integrated with the overall site-level emergency response plan. The overall mine site emergency response plan, in turn, should be integrated into any Community Preparedness Plans developed to address all potential types of emergencies (i.e., not just mining) in a community.</p> <p>See Chapter 2.5 and resources mentioned in that chapter for examples of relevant government agencies to include in the planning process.</p> <p>For brine and other process solution facilities, this requirement is not relevant unless a credible risk to human health, safety, the environment or communities has been identified as per 4.1.3.3, i.e., the facility is deemed a “highconsequence rated” waste facility</p> <p>Explanatory Note for 4.1.7.3: One of the key elements of an emergency response plan is "alerting the public and coordinating evacuation using sirens or other warnings; well-rehearsed warnings, evacuation procedures and easily reached shelters."⁵⁴⁸</p> <p>The United Nations has developed an Awareness and Preparedness for Emergencies at the Local Level (APELL) for Mining, which is the basis for IRMA Chapter 2.5. The UN APELL states that: "Initial testing [of the emergency response plan] should take place without involving the public, to uncover deficiencies in coordination among groups and in the</p>

⁵⁴⁸ United Nations Environment Programme (UNEP). 2001. Awareness and Preparedness for Emergencies at the Local Level (APELL) for Mining. (Technical Report 41). p. 25. <http://www.unep.fr/shared/publications/pdf/WEBx0055xPA-APELLminingEN.pdf>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>4.1.7.4. If requested by <u>stakeholders</u>, the <u>operating company</u> shall report to <u>stakeholders</u> on <u>mine waste facility</u> management actions, monitoring and surveillance results, <u>independent</u></p>	<p>For 4.1.7.4: Interview <u>stakeholders</u> and <u>operating company</u> to determine if requests have been made regarding sharing of information on waste management (e.g., operational plans, maintenance,</p>	<p>For 4.1.7.4:</p> <ul style="list-style-type: none"> • Documentation of fulfillment of information requests (e.g., records of initial requests, and records of information mailed or sent electronically 	<p>training that has taken place so far." They add, however, that "Nothing can replace a full scale emergency drill as a means of identifying further areas for improvement."⁵⁴⁹</p> <p>The UN APELL also provides guidance on emergency drills and informing communities about evacuation procedures.⁵⁵⁰</p> <p>There is no definition of "regular basis," as the frequency of drills should be commensurate with the risks posed by a catastrophic failure of a mine waste facility. As a rule of thumb, however, the Mining Association of Canada's Crisis Management and Communications Protocol requires that "table top" crisis simulations exercises be conducted annually, and that full crisis simulations are conducted every three years at mining facilities.⁵⁵¹ MAC provides guidance and examples of crisis simulations.⁵⁵²</p> <p>For brine and other process solution facilities, this requirement is not relevant unless a credible risk to human health, safety, the environment or communities has been identified as per 4.1.3.3, i.e., the facility is deemed a "highconsequence rated" waste facility.</p> <p>Explanatory Note for 4.1.7.4: Engagement with <u>stakeholders</u> or "communities of interest" (COI) plays an important role in the effective implementation of a <u>mine waste management</u> strategies. According to the Mining Association of Canada (MAC), "Such engagement is two-way, providing COI with</p>

⁵⁴⁹ United Nations Environment Programme (UNEP). 2001. Awareness and Preparedness for Emergencies at the Local Level (APELL) for Mining. (Technical Report 41). p. 29. <http://www.unep.fr/shared/publications/pdf/WEBx0055xPA-APELLminingEN.pdf>

⁵⁵⁰ Ibid. pp. 29-31.

⁵⁵¹ Mining Association of Canada (MAC). 2017. Tailings Management Protocol. Towards Sustainable Mining. p. 7. <http://mining.ca/sites/default/files/documents/TSM-Tailings-Management-Protocol-2017.pdf>

⁵⁵² Ibid. pp. 29, 30.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>reviews and the effectiveness of management strategies.</p>	<p>monitoring or surveillance information, independent reviews and effectiveness of mitigation strategies).</p>	<p>to stakeholders).</p> <ul style="list-style-type: none"> Records of meetings with stakeholders (e.g., meeting minutes, copies of presentations, attendee lists) where requested information was conveyed in person or in a presentation to the community, etc. 	<p>opportunity to ask questions about tailings management, provide information, and express their concerns. It is also an opportunity for the Owner [or operating company] to respond to proactively provide information, and address concerns and questions as they arise.”⁵⁵³</p> <p>As per IRMA Chapter 1.2, there may be limits to what is reported to stakeholders. That chapter says that any information that relates to the mine’s performance against the IRMA Standard must be made available to relevant stakeholders upon request, unless the operating company deems the request to be unreasonable or the information requested is legitimate confidential business information. If part of a document is confidential only that confidential part can be redacted, allowing for the release of non-confidential information. Also, if original requests for information are deemed unreasonable, efforts must be made by the operating company to provide stakeholders with overviews or summaries of the information requested.</p> <p>This is relevant for lithium brine operations. If a stakeholder requests information about the management of a brine or process solution facility the company would be expected to provide the stakeholder with that information.</p>
<p>4.1.8. Additional Considerations</p> <p>4.1.8.1. (Critical Requirement) At the present time, mine sites using riverine, submarine and lake disposal of mine waste materials will not be certified by IRMA.</p>	<p>For 4.1.8.1: Confirm, through review of company documentation, on-site observations and interviews with company, that riverine, submarine and lake disposal of mine wastes is not occurring.</p>	<p>For 4.1.8.1:</p> <ul style="list-style-type: none"> Mine waste facility design reports. OMS manual or other documents describing mine waste disposal practices. 	<p>Explanatory Note for 4.1.8.1: The definition of rivers and streams includes watercourses that are perennial (flow year-round) and intermittent (flow for part of the year). It does not include water courses that are ephemeral (flow only in response to precipitation).</p>

⁵⁵³ Mining Association of Canada (MAC). 2017. Tailings Management Protocol. Towards Sustainable Mining. p. 4. <http://mining.ca/sites/default/files/documents/TSM-Tailings-Management-Protocol-2017.pdf>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
			<p>Lake is defined as any permanent, non-flowing body of water surrounded by land.</p> <p>Submarine tailings disposal is also sometimes referred to as marine disposal of mine <u>tailings</u> or deep sea tailings placement. It refers to disposal of mine tailings into marine waters via a pipeline. According to a report prepared for the International Maritime Organization, "Marine disposal is no longer practiced along shorelines in shallow water."⁵⁵⁴ At the present time neither shallow nor deep sea tailings placement is allowed by IRMA.</p> <p>IRMA's leadership believes that riverine <u>tailings</u> disposal is not consistent with IRMA's guiding principles.</p> <p>IRMA participants have divergent views on the issue of waste disposal into lakes and oceans. Further work is required to determine the specific requirements under which such disposal methods could be considered, and we welcome contributions from interested parties to help advance this debate.</p> <p>If lake or marine disposal is occurring at <u>existing mines</u>, those mines may still be scored against the IRMA Standard, but at the present time they will not be considered eligible for achieving IRMA 100. IRMA encourages feedback on this current position.</p> <p>This applies to brine and process solution disposal into rivers, oceans/seas or lakes. If operations use such disposal practices, they will not meet this requirement.</p>

⁵⁵⁴ International Maritime Organization (IMO) and United Nations Environment Programme (UNEP). 2013. International Assessment of Marine and Riverine Disposal of Mine Tailings. p. 9. <http://www.imo.org/en/OurWork/Environment/LCLP/newandemergingissues/Documents/Mine%20Tailings%20Marine%20and%20Riverine%20Disposal%20Final%20for%20Web.pdf>

NOTES

This chapter aims to align with requirements in the Mining Association of Canada’s (MAC) 2017 Tailings Management Protocol and Guide to the Management of Tailings Facilities (Tailings Guide).⁵⁵⁵ The IRMA Standard, however, applies the MAC protocol and guidance to mine waste facilities other than tailings storage facilities, as other large mine waste facilities such as waste rock or heap leach facilities (which are used to process/extract metals from ores, but also end up as long-term waste sites) need to be similarly managed to protect human health, safety, the environment and communities in the short- and long-term.

The MAC Tailings Management Protocol is one of the most recent standards being applied for tailings management at the global level. It was updated based on recommendations from external independent experts and an internal working group following a 2014 tailings dam failure at a Canadian mine. The changes in the new 2017 MAC Tailings Management Protocol and Tailing Guide have been viewed by leading experts and MAC companies as an important step in preventing future tailings disasters and adverse effects on the environment, human health and safety.⁵⁵⁶

The 2017 version of the MAC Tailings Management Protocol does not take effect for MAC members until 2019. IRMA recognizes that the MAC Tailings Protocol, and therefore some of the requirements in the IRMA Standard, are new. Consequently, during IRMA’s Launch Phase we will not expect that all requirements will have been completely fulfilled. Companies will be expected, however, to have started to develop the processes and procedures necessary to fully meet the chapter requirements within a reasonable timeframe.

IRMA’s leadership believes that riverine tailings disposal is not consistent with IRMA’s guiding principles. IRMA participants have divergent views on the issue of waste disposal into lakes and oceans. Further work is required to determine the specific requirements under which such disposal methods could be considered, and we welcome contributions from interested parties to help advance this debate.

Cross References to Other Chapters	
CHAPTER	ISSUES
1.1—Legal Compliance	Some host countries may have laws relating to the assessment and protection of cultural heritage. As per Chapter 1.1, if <u>host country laws</u> related to cultural heritage exist, a company is required to abide by those laws. However, if IRMA requirements are more stringent than <u>host country law</u> , the company is required to also meet the IRMA requirements, as long as complying with them would not require the operating company to break the <u>host country law</u> .
1.2—Community and Stakeholder Engagement	4.1.7 addresses stakeholder engagement related to mine waste management. Any engagement with stakeholders must conform with requirements in Chapter 1.2. For example, 1.2.4 ensures that communications and information are in culturally appropriate formats and languages that are accessible and understandable to <u>affected communities</u> and <u>stakeholders</u> , and provided in a timely manner, and 1.2.2.2 requires dialogue and meaningful engagement that includes providing <u>stakeholders</u> with feedback on how stakeholder input has been taken into account.
1.4—Complaints and Grievance Mechanism and Access to Remedy	<u>Stakeholders</u> who have complaints related to an <u>operating company’s</u> waste and materials management, can raise complaints through the company’s operational-level <u>grievance mechanism</u> . As per Chapter 1.4, the <u>operating company</u> is required to have an operational-level <u>grievance mechanism</u> available to <u>stakeholders</u> , including procedures for filing complaints, and having complaints recorded, investigated and resolved in a timely manner.
2.1—ESIA and Management	Potential impacts on the environment or communities from mine wastes and materials such as chemicals should be scoped, at least in a general manner, during the ESIA process (see 2.1.3). In 2.1.3.3, screening of potential impacts on wildlife should include those related to mine wastes and storage, transport and disposal of other materials.

⁵⁵⁵ Mining Association of Canada. 2017. Toward Sustainable Mining (TSM) Tailings Management Protocol. <http://mining.ca/towards-sustainable-mining/protocols-frameworks/tailings-management-protocol/>; and Mining Association of Canada. 2017. A Guide to the Management of Tailings Facilities (Third Ed). <http://mining.ca/documents/guide-management-tailings-facilities-third-edition>

⁵⁵⁶ Mining Association of Canada. 2017. A Guide to the Management of Tailings Facilities (Third Ed). pp. iii - v. <http://mining.ca/documents/guide-management-tailings-facilities-third-edition>

Cross References to Other Chapters	
2.5—Emergency Preparedness and Response	The protection of communities and workers from catastrophic failures of <u>mine waste facilities</u> and during emergencies related to the transport and storage of hazardous materials (e.g., spills) should be addressed in Emergency Response Planning. Chapter 2.5 mandates coordination between the mine and emergency responders in adjacent communities.
2.6—Planning and Financing Reclamation and Closure	As per Chapter 2.6, the planning of reclamation and closure of mine waste facilities should include progressive remediation, and take into consideration post-closure land-use, long-term stability, <u>long-term water treatment</u> , backfilling of pits, underground workings
3.2—Occupational Health and Safety	Risks to workers related to mine waste management and handling of other materials (e.g., chemicals, other wastes) should be evaluated as part of the occupational health and safety risk assessment process in Chapter 3.2.
3.3—Community Health and Safety	Risks to communities from incidents/failures/accidents related to mine waste or other materials (e.g., chemicals, other wastes) should be evaluated as part of the Community Health and Safety Assessment in Chapter 3.3.
4.2—Water Management	Mine waste management has potential implications for water management. As a result, Chapter 4.2, similar to 4.1, addresses characterization of wastes, water balance, chemical modeling and Conceptual Site Models (see 4.2.2), prevention of water contamination through management of mine wastes (see 4.2.3), and mitigation and monitoring of waters that may be contaminated by mine wastes (see 4.2.3 and 4.2.4, respectively).
4.4—Air Quality Management	Mine waste management may contribute to air quality emissions (e.g., particulate matter/dust). Chapter 4.2 addresses the assessment of potential emissions, and their mitigation and monitoring of actual emissions.
4.6—Biodiversity, Ecosystem Services and Protected Areas	Mine waste management approaches may pose risks to <u>threatened or endangered species</u> , <u>biodiversity</u> , <u>ecosystem services</u> or <u>protected areas</u> . These risks may be identified and evaluated during the screening, and if necessary, assessment processes in Chapter 4.6. The risks may also be identified during the Waste Facility Assessment process (4.1.4). Mitigation strategies may be developed as per 4.1.5, or developed as part of or integrated into the Biodiversity Management Plan (see 4.6.4). Any assessment and mitigation development processes should include input from experts and stakeholders that have expertise in <u>biodiversity</u> , <u>ecosystem services</u> or <u>protected areas</u> issues.
4.7—Cyanide Management	Chapter 4.7 requires that discharges to surface waters (e.g., from cyanide-bearing wastes) shall not contaminate water. If cyanide is used at the mining project, <u>risk controls</u> to manage cyanide should be included in the OMS plan (4.1.5.5.a), and monitoring for potential impacts on ecosystems and wildlife from cyanide-containing wastes should take place as per 4.1.5.5.c.
4.8—Mercury Management	Chapter 4.8 contains requirements related to <u>mercury wastes</u> , which, if they are derived from thermal processing of ore, are considered mine wastes. If such wastes are being considered for on-site storage (e.g., co-disposal in <u>tailings</u> impoundments), requirement 4.8.2.3.a requires a risk-based evaluation (this may be done as part of the risk assessment in 4.1.4.1), and allows on-site storage if the risk of long-term contamination is low. If disposal is to occur, however, the tailings storage facility must be lined as per 4.8.2.3.b. If <u>mercury wastes</u> are stored or disposed of on-site, relevant information should be included in the (include in OMS plan) as per 4.1.5.5.a. As per requirement 4.8.2.2, if wastes are not disposed of on site, they shall only be sold for an end use listed in Annex A (Products) or Annex B (Processes) of the Minamata Convention on Mercury or sent to a regulated repository.

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the Glossary of Terms at the end of the IRMA Standard document.

Acid Rock Drainage (ARD)

The drainage produced when rocks with sulfide or other acid-producing minerals are under oxidizing conditions (exposed to water and oxygen) and generate an acidic water stream. Acid rock drainage generally contains elevated concentrations of metals, sulfate, and other constituents and has a pH < 6. The terms acid mine drainage and acid and metalliferous drainage (both AMD) are sometimes used as synonyms for ARD.

Affected Community

A community that is subject to potential risks or impacts from a project.

Alternatives Assessment

Generally, a process to identify and objectively and rigorously assess the potential impacts and benefits (including environmental, technical and socio-economic aspects) of different options so that an informed decision can be made.⁵⁵⁷ For IRMA purposes, it refers to a process to assess options for locating tailings and other waste facilities, and for selecting the site-specific best available technologies and practices for managing wastes throughout the mine life cycle. Technologies and practices may need to be reassessed during different stages of the life cycle, for example if there is a mine expansion that requires additional waste storage and processing, or a mine life extension.

Best Available Technology (BAT)

Site-specific combination of technologies and techniques that are economically achievable and that most effectively reduce risks (e.g., physical, geochemical, ecological, social, financial and reputational) to an acceptable level during all stages of operation and closure, and support an environmentally and economically viable mining operation.

Best Available/Applicable Practice (BAP)

Encompasses management systems, operational procedures, techniques and methodologies that, through experience and demonstrated application, have proven to reliably manage risk and achieve performance objectives in a technically sound and economically efficient manner. BAP is an operating philosophy that embraces continual improvement and operational excellence, and which is applied consistently throughout the life of a facility, including the post-closure period.

Collaboration

The process of shared decision-making in which all stakeholders constructively explore their differences and develop a joint strategy for action. It is based on the premise that, through dialogue, the provision of appropriate information, collectively defined goals, and the willingness and commitment to find a solution acceptable to all parties, it is possible to overcome the initially limited perspectives of what is achievable and to reach a decision which best meets the interests of the various stakeholders. At this level, responsibility for decision-making is shared between stakeholders.

Competent Professionals

In-house staff or external consultants with relevant education, knowledge, proven experience, necessary skills and training to carry out the required work. Competent professionals would be expected to follow scientifically robust methodologies that would withstand scrutiny by other professionals. Other equivalent terms used may include: competent person, qualified person, qualified professional. For independent reviews (in IRMA Chapter 4.1) competent professionals must not be in-house staff.

⁵⁵⁷ Adapted from Environment Canada. <https://www.canada.ca/en/environment-climate-change/services/managing-pollution/publications/guidelines-alternatives-mine-waste-disposal/chapter-2.html> and MAC, Tailings Guide, p. 46.

Conceptual Site Model (CSM)

A qualitative description, based on site measurements and observations, of what is known about the release, transport and fate of contaminants at a site. A CSM includes a schematic or diagram and an accompanying narrative description.

Consultation

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. In principle, the company should take into account the concerns and views expressed by stakeholders in the final decision.

Critical Control

An action, object (engineered) or system (combination of action and object) put in place to prevent or reduce the likelihood of an unwanted event, or to minimize or mitigate consequences if an unwanted event occurs, in particular for high-consequence risks.

Existing Mine

A mine that was operational prior to the date that the IRMA standard was published in final (June 2018).

Heap Leach/Heap Leaching

An industrial mining process to extract precious metals, copper and other compounds from ore. Typically, mined ore is crushed and heaped on an impermeable leach pad, and chemicals (reagents) are applied that percolate through the ore and absorb specific minerals and metals. The solution is collected and target metals are recovered from the solution.

Host Country Law

May also be referred to as national law, if such a phrase is used in reference to the laws of the country in which the mining project is located. Host country law includes all applicable requirements, including but not limited to laws, rules, regulations, and permit requirements, from any governmental or regulatory entity, including but not limited to applicable requirements at the federal/national, state, provincial, county or town/municipal levels, or their equivalents in the country where the mine is located. The primacy of host country laws, such as federal versus provincial, is determined by the laws of the host country.

Independent Review

Independent evaluation of all technical aspects of the design, construction, operation, maintenance of a tailings or other mine waste facility by competent, objective, third-party review on behalf of the operating company/mine owner.

Metals Leaching

The release of metals by contact with solvents. Leaching may be natural or induced (e.g., related to mining operations). Mining commonly accelerates metal leaching. Metals leaching can also be referred to as “contaminant” leaching.

Mine Closure

A period of time when ore-extracting and processing activities of a mine have ceased, and final decommissioning and mine reclamation are occurring. It typically includes pre-closure (detailed closure design and planning), closure (actual activities of closure of mine workings and construction/decommissioning) and post-closure (mainly long-term reclamation, monitoring, and treatment) periods, each with its own specific activities.

Mine Waste Facility

Facilities that contain, store, are constructed of, or come in contact with wastes that are generated or created during mining (e.g., waste rock, pit walls, pit floors or underground workings, runoff or discharge from exposed mined areas) and mineral processing (e.g., tailings, spent ore, effluent). These facilities include, but are not limited to open pits, underground mine workings and subsidence areas, waste rock facilities, tailings storage facilities, heap leach facilities, process water facilities, stormwater facilities, borrow areas for construction and/or reclamation, water treatment facilities, and water supply dams/impoundments.

Mining Impacted Waters (MIW)

Any water whose chemical composition has been affected by mining or mineral processing. Also referred to as mining influenced waters or mine impacted waters. Includes acid rock drainage (ARD), acid mine drainage or acid and metalliferous drainage (AMD), neutral mine drainage, saline drainage, and metallurgical process waters of potential concern. A key characteristic of most mining impacted waters (also known as mining influenced waters) is that they contain elevated metals that have leached from surrounding solids (e.g., waste rock, tailings, mine surfaces, or mineral surfaces in their pathways). This fact is commonly acknowledged by the phrase “metals leaching” (ML), frequently resulting in acronyms such as ARD/ML.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mitigation

Actions taken to reduce the likelihood of a certain adverse impact occurring.

Mitigation Hierarchy

The mitigation hierarchy is a set of prioritized steps to alleviate environmental (or social) harm as far as possible through avoidance, minimization (or reduction) and restoration of adverse impacts. Compensation/offsetting are only considered to address residual impacts after appropriate avoidance, minimization and restoration measures have been applied. (See Glossary for full definition)

New Mine

A mine that becomes operational and applies for IRMA verification after the date that the IRMA standard was published in final (June 2018).

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Post-Closure

The period after the reclamation surety holder declares the activities required by the reclamation and closure plan are complete; any significant objections raised during the public comment period on the final release of the financial surety have been resolved; and the reclamation surety has been returned to the operator, or it has been converted to a post-closure trust fund or equivalent (i.e. if there is a need to fund long-term management and monitoring of the site). This phase continues until final sign-off and relinquishment can be obtained from the regulator and stakeholders.

Practicable

Practicable means giving equal weight to environmental, social, and economic benefits and costs. This is not a technical definition. It is the discussion between the affected parties on the balance between these interrelated costs and benefits that is important.

Process Water

Water that is used to process ore using hydrometallurgical extraction techniques. It commonly contains process chemicals.

Risk Control

An action, object (engineered) or system (combination of action and object) put in place to prevent or reduce the likelihood of an unwanted event, or to minimize or mitigate consequences if an unwanted event occurs.

Stakeholder

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Tailings

The waste stream (gangue and other material) resulting from the milling and mineral concentration processes that are applied to ground ore (i.e., washing, concentration, and/or treatment). Tailings are typically sand to clay-sized materials that are considered too low in mineral values to be treated further. They are usually discharged in slurry form (i.e., mixture of solids and fluids) to a final storage area commonly referred to as a tailings storage facility (TSF) or tailings management facility (TMF).

Waste Rock

Barren or mineralized rock that has been mined but is of insufficient value to warrant treatment and, therefore, is removed ahead of the metallurgical processes and disposed of on site. The term is usually used for wastes that are larger than sand-sized material and can be up to large boulders in size; also referred to as waste rock dump or rock pile.

Water Balance

An accounting of the inflow to, outflow from, transfers and storage changes of water over a fixed period.

Water Quality Criteria

Numerical concentrations or a narrative statement recommended to support and maintain a designated water use. Criteria are based on scientific information about the effects of water pollutants on a specific water use.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



Chapter 4.2—Water Management

BACKGROUND

Mine operations can affect water quality in many ways, including: the discharge of mine water to the environment; seepage through mine wastes to groundwater and surface water; breaches or failures of tailings and water storage facilities; chemical spills; and the release of uncontrolled stormwater.

Remediation of mining-caused pollution can be extremely costly, and the design of mine systems to prevent surface and groundwater contamination should be the goal of the mining operation. Responsible mining operators can minimize water pollution by using a variety of source control approaches including: limiting infiltration of air and water to acid-generating/metal leaching waste and mined materials; collecting mine-influenced water as close to the source as possible; and carefully controlling the discharge of stormwater and treated water to the environment.

Mines are often a large water user for their locale, even if not over a large region. The impacts of water used by a mining project are highly location-specific, depending on the local climate as well as on competition for water for uses other than mining. In arid regions water scarcity may be a critical concern, whereas in high rainfall regions or areas where the water table is above the level of the mine challenges arise from the need to divert water in order to develop a mine. The depletion of groundwater, surface water, and springs by mine dewatering operations and water usage by large mine facilities can take decades to replenish after mining ceases, and in some instances, groundwater levels and flow directions can be altered indefinitely.

Responsible mining operators can protect water resources by using water efficiently; ensuring that total withdrawals maintain environmental flows in nearby streams, springs, lakes, wetlands and any other surface water resources; minimizing groundwater drawdown; and treating mine-influenced water and discharging it in ways that minimize harm to surrounding water users and environmental resources. Responsible mining operations can also clean up previously impacted water to make it usable, and in some cases provide a water supply from an alternative source.

Responsible mining operators are also aware of their context and aware of not only their impacts, but their dependencies and opportunities as well. Mining operations can contribute positively by participating in collective action that addresses shared water challenges and opportunities among diverse stakeholders, and by adopting approaches that lead to positive water governance outcomes at the local and regional levels. The proactive and collaborative identification of potential water quality and quantity issues and the development of suitable management strategies adapted throughout the life cycle of a mine can help prevent or minimize surface water and groundwater contamination and impacts on water quantity.

OBJECTIVES/INTENT OF THIS CHAPTER

To manage water resources in a manner that strives to protect current and future uses of water.

SCOPE OF APPLICATION

Chapter Relevance: This chapter is applicable to all mines assessed under IRMA.

TERMS USED IN THIS CHAPTER

Acid Rock Drainage (ARD) ■ Adaptive Management ■ Affected Community ■ Background ■ Baseline ■ Basin/Catchment/Watershed ■ Collaboration ■ Competent Professionals ■ Conceptual Flow Model (CFM) ■ Conceptual Site Model (CSM) ■ Consultation ■ Dewatering ■ Ecosystem Services ■ Host Country Law ■ Metals Leaching (ML) ■ Mine Closure ■ Mining Project ■ Mitigation ■ Mitigation Hierarchy ■ Mixing Zone ■ Natural Seep/Spring ■ Operating Company ■ Pit Lake ■ Point of Compliance ■ Post-Closure ■ Practicable ■ Stakeholder ■ Stormwater ■ Tailings ■ Waste Rock ■ Water Balance ■ Water Quality Criteria ■ Whole Effluent Toxicity

These terms appear in the text with a dashed underline, and they are explained at the end of this chapter (before the water

CRITICAL REQUIREMENTS IN THIS CHAPTER

Water quality and quantity are being monitored at the mine site (4.2.4.1.a through e) and adverse impacts resulting from the mining operation are being mitigated (4.2.4.4).

Water Management Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION		EXPLANATORY NOTE
<p>4.2.1. Water Management Context and Collaboration at the Local and Regional Level</p> <p>4.2.1.1. The <u>operating company</u> shall identify water users, <u>water rights holders</u> and other <u>stakeholders</u> that may potentially affect or be affected by its mine water management practices.</p>	<p>For 4.2.1.1: Confirm through review of <u>operating company</u> documentation and interviews with the company and <u>stakeholders</u>, that efforts have been made to identify water users (from individuals to large industrial users) and <u>water rights holders</u> and <u>stakeholders</u> who may affect and be affected by the mine’s water management practices.</p> <p>Identification may have occurred through various forms of outreach and research (e.g., discussions with regulators and review of government records such as permits or licenses and maps related to water rights, locations of groundwater wells in the area, etc.; meetings with <u>stakeholders</u> to identify other users and community water sources; outreach to community organizations; observing who is using surface waters; etc.).</p>	<p>For 4.2.1.1:</p> <ul style="list-style-type: none"> • Up-to-date documentation of existing water rights holders, non-water rights users, and stakeholders, including contact details. • Documentation of mapping or similar exercise with stakeholders to identify water users and other stakeholders who might have an interest in the mine's water management. • Records of meetings with stakeholders (e.g., meeting minutes, correspondence from stakeholders) where they contributed input on the identity of water users and other water stakeholders. • Records of decisions made following meetings with stakeholders and records of action plans proposed for implementation. 	<p>Explanatory Note for 4.2.1.2: This includes identification of surface and groundwater users, whether these users have official water rights or not. Companies should also identify the type of water use (e.g., domestic, industrial, irrigation, etc.), as this will feed into 4.2.1.2.</p> <p><u>Stakeholders</u> who may potentially affect or be affected by mine water management practices could include government entities, local authorities, non-government entities that work on water issues, etc. This part of the requirement aligns with the International Council on Mining and Metals' position statement on water stewardship, which states that to collaborate to achieve responsible and sustainable water use companies should, "Identify and engage proactively and inclusively with stakeholders that may influence or be affected by a site’s water use and discharge."⁵⁵⁸</p>
<p>4.2.1.2. The <u>operating company</u> shall conduct its own research and <u>collaborate</u> with relevant <u>stakeholders</u> to identify current and potential future</p>	<p>For 4.2.1.2: Confirm, through review of <u>operating company</u> documentation (e.g., research, meetings with <u>stakeholders</u>), and <u>operating company</u> and <u>stakeholder</u> interviews, that the company has met</p>	<p>For 4.2.1.2:</p> <ul style="list-style-type: none"> • Records of meetings with stakeholders (e.g., meeting minutes, correspondence from stakeholders) where they contributed 	<p>Explanatory Note for 4.2.1.2: The intent of 4.2.1.2 is to ensure that the company understands the water-use context in which they are operating. This includes the current and projected future supply/availability of water (both groundwater and surface waters)</p>

⁵⁵⁸ International Council on Mining and Metals (ICMM). 2017. Position Statement on Water Stewardship. <https://www.icmm.com/water-ps>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION		EXPLANATORY NOTE
<p>uses of water, at the local and regional level that may be affected by the mine’s water management practices.</p>	<p>with <u>stakeholders</u> and used their input and its own research to comprehensively identify how water is currently being used (for what purposes, how much) locally and regionally, and also how water is likely to be used in the future (e.g., what are likely uses in the next 30 to 50 years, and what are the likely volumes needed and potential sources to meet the projected demand).</p> <p>Discussions should have considered potential current and future uses such as drinking water, water used for cultural/spiritual, agricultural, industrial, commercial recreational, or washing/bathing purposes, water needed to support aquatic organisms that are harvested or raised for food or sale. Current and future potential uses may also include water-dependent natural resources (e.g., aquatic ecosystems and organisms, riparian ecosystems, wetlands, wildlife, etc.) and <u>ecosystem services</u> that could be affected if there are mining-induced changes to water quality or quantity.</p>	<p>input on the current and potential future uses of water locally and regionally.</p> <ul style="list-style-type: none"> • Documentation of company research (e.g., social surveys, reports, studies, ESIA, etc.) into current and potential future uses of water at the local and regional level. • Modelling and reporting (e.g., water balance report, surface water modelling reports, and/or numerical groundwater modelling reports) assessing water consumption and/or impact of mining on local and regional water supplies. 	<p>and also the current and future uses/consumption of water by other users. Also, as per IRMA Chapter 1.1, if there are legislative or regulatory requirements that require surface or groundwater to be protected for a current or future use(s), then those requirements must also be met.</p> <p>“relevant stakeholders” should include water users, <u>water rights holders</u>, downstream communities (or communities that may be affected by surface or groundwater withdrawals or contamination), government regulators, others engaged in work related to water management at the local or regional level, and others who may affect, be affected by or have an interest in the mine’s management of water.</p> <p>“local and regional level” is meant to encompass the areas that may be affected by a mine site’s water use or water management practices. For IRMA purposes, the “local” area should be considered to be the particular <u>basin/catchment/watershed</u> where the site is located, whereas “regional” encompasses areas beyond the immediate <u>basin/catchment/watershed</u>. Mines may affect local surface water and groundwater quality and quantity (e.g., through discharges, and through water extraction/dewatering), and they may also have an effect on regional water uses (e.g., by supplying water to other areas/regions, or by using water that originates in other regions).</p> <p>“current and potential future uses” could include drinking water, water used for cultural/spiritual, agricultural, industrial, commercial recreational, or washing/bathing purposes, water needed to support aquatic organisms, and water used for aquatic fauna and/or plants that are harvested or raised for food or sale, or are <u>threatened or protected species</u> (see Chapter 3.7 for more on protected, <u>threatened and endangered species</u>). Current and future potential uses may also include water-dependent natural resources such as aquatic ecosystems and riparian vegetation,</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTE
		<p>which may be sensitive to certain contaminants; wildlife that drink water from streams, lakes, springs, etc. that may be affected by mining; wetlands, which may be affected if mine dewatering dries up natural springs or groundwater that feed wetlands, etc.⁵⁵⁹</p> <p>Water-related ecosystem services are important uses to consider.⁵⁶⁰ Water-related ecosystem services may be discussed in 4.2.1.2, but are otherwise required to be scoped, assessed and mitigated as per Chapter 4.6—Biodiversity, Ecosystem Services and Protected Areas.</p> <p>Some or all of the data needed to determine uses may have been collected as part of the Environmental and Social Impact Assessment or Biodiversity, Ecosystem Services and Protected Areas assessment (See Chapters 2.1 and 4.6, respectively).</p> <p>Many regulatory jurisdictions will have formal “use designations” for surface waters and groundwaters. Formal designations may be made at a national, regional, or local level. The company should have a record of these designations, if they have been made.</p> <p>Lacking a formal designation for the present and/or future uses of surface and ground waters, the company should initiate dialog with local/regional/national stakeholders to discuss identified water quality and quantity impacts to water resources. If there is no formal use designation, then “uses” can be discussed with stakeholders using the use categories of the IRMA Water Quality Criteria by End-Use Tables.</p> <p>It is recognized that it is probably not possible to project “future uses” in a reliable way too far into the future, but it should be</p>

⁵⁵⁹ Water-related ecosystem services are important uses to consider. (See, e.g., Grizzetti, B et al., 2016. “Assessing water ecosystem services for water resource management,” Environmental Science and Policy. 61:194-203. <https://www.sciencedirect.com/science/article/pii/S1462901116300892>) Water-related ecosystem services may be discussed in 4.2.1.2, but are otherwise required to be scoped, assessed and mitigated as per Chapter 4.6—Biodiversity, Ecosystem Services and Protected Areas.

⁵⁶⁰ Grizzetti, B et al., 2016. “Assessing water ecosystem services for water resource management,” Environmental Science and Policy. 61:194-203. <https://www.sciencedirect.com/science/article/pii/S1462901116300892>

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<p>4.2.1.3. The <u>operating company</u> shall conduct its own research and <u>collaborate with relevant stakeholders</u> to identify and address shared water challenges and opportunities at the local and regional levels, and shall take steps to contribute positively to local and regional water stewardship outcomes.</p>	<p>For 4.2.1.3: Review documentation, records of meetings, project data, etc., and interview <u>stakeholders</u> to confirm that the company has worked cooperatively with relevant <u>stakeholders</u> to identify water challenges at the local and regional level that may also pose a risk to the environment, water uses and mine (e.g., water shortages; flooding; contamination; etc.), and to identify shared opportunities to improve water stewardship outcomes.</p> <p>Confirm that the company has investigated ways to make a positive difference in the management of water, and over time, that they have implemented measures to deliver positive water management outcomes.</p>	<p>For 4.2.1.3:</p> <ul style="list-style-type: none"> • Records of meetings with stakeholders (e.g., meeting minutes, correspondence from stakeholders) where they contributed input on shared water challenges at the local and regional level. • Documentation of company research (e.g., reports, studies, ESIA, etc.) into shared water challenges at the local and regional level. • Documentation of company actions to contribute positively to local and regional water stewardship outcomes (e.g., provision of support to government or NGO-led initiatives related to water stewardship; participation in meetings with other water stakeholders seeking to address water challenges; participation in local or regional water planning processes; 	<p>reasonable to forecast somewhere in the range of 30 to 50 years. So, as a guideline for estimating future uses, companies and <u>stakeholders</u> should consider potential uses that might be applicable during that sort of timeframe.</p> <p>During review of modelling and reporting associated with water balance and/or numerical groundwater and/or surface water modelling particular focus should be made with regard to how data inputs were obtained i.e., can the assumptions be substantiated or have they been assumed due to a lack data. If there is a lack of data, can that be improved upon through stakeholder engagement? If so, additional outreach to stakeholders should occur.</p> <p>Explanatory Note for 4.2.1.3: The intent of 4.2.1.3 is to recognize that many companies are now going beyond a narrow site-focused water management approach, and instead, are evaluating their water stewardship practices in relationship to the broader local or regional water governance context. Many mines are working with others to identify and work together to address shared water challenges; and more and more companies are proactively looking for opportunities to have a positive impact on water challenges faced by local communities or regional managers (e.g., by providing water treatment to communities; providing water from mining operations for beneficial uses elsewhere, such as irrigation or industrial uses; minimizing a mine’s water footprint in drought-prone regions; considering if and how <u>pit lakes</u> might provide opportunities (e.g., recreational or economic) for communities <u>post-closure</u>, etc.).</p> <p><u>Collaborative</u> efforts may include participation in local, regional or <u>basin/catchment/watershed</u>-level water planning/governance processes; participation in meetings or workshops with various public and private water users, providers and regulators; or</p>

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<p>4.2.2. Site Characterization and Prediction of Potential Impacts</p> <p>4.2.2.1. The <u>operating company</u> shall gather <u>baseline</u> or <u>background</u> data to reliably determine:</p> <p>a. The seasonal and temporal variability in:</p> <p>i. The physical, chemical and biological conditions of surface waters, <u>natural seeps/springs</u> and groundwaters that may be affected by the <u>mining project</u>;</p> <p>ii. <u>Water quantity</u> (i.e., flows and levels of surface waters, <u>natural seeps/springs</u> and groundwaters) that may be affected by the <u>mining project</u>; and</p>	<p>For 4.2.2.1: Confirm, through review of data and any relevant studies, that <u>baseline</u> data were collected prior to the development of the mine. Or, if <u>baseline</u> data were not collected prior to mine development, that appropriate reference site(s) were found, and the data necessary to determine <u>background</u> levels has been collected (See Explanatory Note for 4.2.2.1 for more information).</p> <p>For 4.2.2.1.a.i: Confirm that data were gathered on the following characteristics of surface waters, <u>natural springs/seeps</u> and groundwaters. See Explanatory Note for 4.2.2.1.a.i for more details on what is meant by physical, chemical and biological conditions)</p> <p>For 4.2.2.1.a.ii: See Explanatory Note for 4.2.2.1.a.ii.</p>	<p>etc.).</p> <ul style="list-style-type: none"> • Documentation of collaborative research into water use and/or impact on a local and/or regional level. <p>For 4.2.2.1:</p> <ul style="list-style-type: none"> • Documentation of surface and groundwater <u>baseline</u> or <u>background</u> <u>water quality</u> and quantity (e.g., raw data, a summary report). • Documentation of sampling methodologies used. • Equipment calibration and QA/QC documentation. • Records and documentation including mapping confirming the location of data points and/or identification of data gaps. 	<p>support for other initiatives spearheaded by the company or others aimed at addressing shared water challenges and opportunities, such as those "that promote better water use, effective catchment management and contribute to improved water security and sanitation."⁵⁶¹</p> <p>Examples of collaborative (multi-stakeholder) research may include company contribution to regional studies conducted by a number of mining companies or other entities operating in the same area designed to understand the combined effect of their individual operations on the local and/or regional environment.</p> <p>Explanatory Note for 4.2.2.1: The purpose of this section is to ensure that water management strategies are based on sound science that reflects an understanding of the state of the water resources, and ecological resources that are supported by the water resources, prior to mining (i.e., the <u>baseline water quality and quantity</u>).</p> <p><u>Baseline water quality</u> sampling is used to establish the level of naturally-occurring substances and existing non-mine pollution present in waterbodies and the variability in water quantity before the mine is developed. Documentation of <u>baseline</u> conditions can help to prevent mis-attribution of pollution and water quantity changes to the mine. If <u>baseline</u> sampling was not done, the company should establish <u>background water quality</u> conditions.</p> <p>To reliably determine <u>baseline</u> or <u>background</u> conditions, water samples/measurements should be:</p> <ul style="list-style-type: none"> • In locations where <u>mining-related activities</u> have the potential to influence surface water or groundwater (e.g., downstream or downgradient from proposed pits, <u>waste rock</u> or <u>tailings</u>

⁵⁶¹ International Council on Mining and Metals (ICMM). 2017. Position Statement on Water Stewardship. <https://www.icmm.com/water-ps>

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<p>b. Sources of contamination and changes in <u>water quantity</u> or quality that are unrelated to the <u>mining project</u>.</p>	<p>Confirm that measurements of flows/discharges from surface water such as rivers and streams, levels of surface water such as lakes or ponds, flows of <u>natural seeps and springs</u>, and groundwater levels/elevations have been collected. Use of automatic samplers or continuous flow/level monitors is recommended.</p> <ul style="list-style-type: none"> • For groundwater, the <u>operating company</u> should also establish <u>baseline</u> conditions for recharge to aquifers and discharges from aquifers. • For surface water locations, a local hydrograph should be established to document the pre-mining natural variations in flow levels. A hydrograph is a graph or plot that shows the rate of water flow in relation to time, given a specific point or cross section. This information will be needed if surface water <u>mixing zones</u> are proposed (see 4.2.3.3.b.v). <p>For 4.2.2.1.b: Confirm that company has identified existing significant sources of water contamination or water withdrawal/extraction in the area that are affecting or could affect water uses. These sources may be naturally occurring or from other actors in the <u>basin/catchment/watershed</u>. This may have been accomplished through meetings, discussions with <u>stakeholders</u>, and review of information such as local or regional water management planning or land-use planning documents and maps of existing uses, effluent permits, existing industries in the</p>	<p>facilities, etc.); or for background samples, in locations that are upgradient and downgradient (with respect to surface water flow and groundwater flow direction, which may differ), and are similar in terms of mineralization, but are not affected by the mine.</p> <ul style="list-style-type: none"> • In sufficient number to provide statistical reliability to the spatial and temporal variability of measurements at each sampling point; • Collected over a period of at least two years. <p>Re: 4.2.2.1.a.i:</p> <p>"Physical conditions" refers to geomorphology, or characteristics such as depth and width of water bodies.</p> <p>"Chemical conditions" include, e.g., temperature, pH, oxygen reduction potential (ORP), electrical conductivity (EC), dissolved oxygen (DO), concentrations of nutrients, chemicals, metals, dissolved and suspended solids.</p> <p>"Biological conditions" refers to species of aquatic flora and fauna that are present, and determination of the status of those species (e.g., species composition, abundance, diversity and distribution, population size/density, and other relevant measures/attributes).</p> <p>If protected, <u>threatened or endangered</u> species of flora or fauna are identified, that information should feed into IRMA Chapter 4.6.</p> <p>Re: 4.2.2.1.a.ii, for IRMA purposes, water quantity refers generally to the amount of water present in water bodies that exist on the earth's surface, such as lakes, ponds, rivers, streams, etc. (i.e., referred to as surface waters) and water bodies that exist underground (i.e., groundwaters). It also includes the amount of water that originates underground but expresses itself at the surface (e.g., natural springs or natural seeps).</p> <p>Quantities of water may be expressed as volumes, however, for IRMA's purposes, the quantity of water in rivers, streams and</p>

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	<p>basin/catchment/watershed, proposals for new industrial developments, etc.</p>	<p>springs/seeps may be expressed as "flows" (sometimes referred to as discharge), in feet³ or meters³ per second, rather than as volumes. Similarly, for water bodies such as lakes, measurement of surface water height relative to a fixed reference level (e.g., sea level or a national reference plane⁵⁶²) may be used instead of the actual volume of water, as changes in the height of the surface of a lake is a good indicator that the volume is either increasing or decreasing (and volume calculations can then be made, if necessary). For groundwater, water quantity may be expressed as the height or level of water relative to a reference elevation (e.g., feet or meters above sea level).⁵⁶³ Transmissivity, for any particular geohydrological unit, may be expressed in metres per day based upon an assumed or measured unit thickness.</p> <p>Re: 4.2.2.1.b, this is asking the mine to identify the presence of alternative sources of water contamination, unrelated to the mining project.</p> <p>The rationale for 4.2.2.1.b is that the exercise of identifying and collecting baseline data on other sources of pollution helps to quantify contributions from those other sources and reduce the risk of mis-attribution of pollution to the mine site. Also, this data will help the mine understand how it might be contributing, cumulatively, to the degradation (or improvement) of water quality in a basin (i.e., cumulative impacts), and identify sources of contaminants that have the potential to impact upon the mining project. Such information can be useful background for discussions about shared water challenges and opportunities in 4.2.1.3, above.</p>

⁵⁶² Vuglinskiy, V. 2009. Water Level: Water level in lakes and reservoirs, water storage. Global Terrestrial Observing System, FAO. <http://www.fao.org/gtos/doc/ECVs/T04/T04.pdf>

⁵⁶³ HydroG Resources Group. 2014. Manual Groundwater Level Measurement Basics. <https://www.slideshare.net/HydroGResources/basic-manual-water-level-measurement>

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<p>4.2.2.2. The <u>operating company</u> shall carry out a scoping process that includes <u>collaboration with relevant stakeholders</u>, to identify potentially significant impacts that the <u>mining project</u> may have on <u>water quantity</u> and quality, and current and potential future water uses. The scoping process shall include evaluation of:</p> <p>a. The mining-related chemicals, wastes, facilities and activities that may pose a risk to water quality; and</p> <p>b. The mine's use of water, and any mining activities that may affect <u>water quantity</u>.</p>	<p>For 4.2.2.2: Confirm that the <u>operating company</u> has identified in a comprehensive manner the range of potential impacts that the mine may have on <u>water quantity</u> and quality, and uses, and has carried out further evaluations and <u>consultations with stakeholders</u> to determine the range of potential impacts and which of those impacts are likely to be significant (for more information on scoping processes, see IRMA Chapter 2.1).</p> <p>At minimum, confirm that the company has evaluated the following potential sources of impacts on current and future water uses that may be associated with its operations: chemicals used on site; geochemical composition of ore and waste rock; <u>mining impacted waters</u> (i.e., potential for <u>ARD/ML</u> from ore, wastes and mined surfaces), and need for water treatment; current or future users of water at risk from contamination; whether <u>dewatering</u> of pits or underground working will be necessary; whether <u>pit lakes</u> are likely to form; what are the water requirements of the mine, and how will water needs be met.</p>	<p>For 4.2.2.2:</p> <ul style="list-style-type: none"> • Documentation (e.g., reports, impact assessments, etc.) of evaluations of mining-related chemicals, wastes, facilities and activities that may pose a risk to water quality. Examples of documentation may include various feasibility assessments and detailed design reports e.g., for proposed tailings storage facilities, leaching operations and/or processing. • Documentation (e.g., estimates, calculations, reports, studies, etc.) of the mine's predicted water use, and any mining activities that may affect water quantity. • Records of collaboration with stakeholders (e.g., meeting notes or minutes, attendee lists, correspondence from stakeholders providing input, company responses to feedback, etc.) to identify potentially significant impacts that the mining project may have on water quantity and quality, and current and potential future water uses. 	<p>Explanatory Note for 4.2.2.2: The intent of this section is to ensure that the <u>operating company</u> has adequately identified the range of ways that the <u>mining project</u> might affect the current and future uses of water resources and the natural resources dependent on them. (For more on current and future uses of water see note for 4.2.1.2).</p> <p>Many mining activities or water quality/quantity issues may pose risks to water resources or natural resources, though not all of these will be relevant at all mine sites. These may include, but are not limited to: mine <u>dewatering</u>; water supply for mining operations; spills or releases of chemicals, mine wastes, ore concentrations, or from <u>process waters</u>; discharge of treated or untreated mining effluent, wastewater or stormwater; release of contaminants from mined materials and surfaces and mine wastes (e.g., due to <u>ARD/ML</u> and movement of <u>mining impacted waters</u> from <u>pit lakes</u>, underground workings or other sources).</p> <p>Some of this information, e.g., on chemicals, wastes, <u>facilities</u> that may pose a risk to water quality, will have been gathered as per Chapter 4.1, Mine Waste and Materials Management, criterion 4.1.2 (Source Characterization and Prediction).</p> <p>The scoping exercise may have taken place as part of the ESIA (see IRMA Chapter 2.1), or relevant information may have been collected and some of the evaluations may have been done as part of the ESIA, or in relation to scoping of impacts related to Waste and Materials Management (see IRMA Chapter 4.1), or in the scoping of potential impacts on biodiversity, ecosystems services or protected areas (see IRMA Chapter 4.6).</p>
<p>4.2.2.3. Where potential significant impacts on <u>water quantity</u> or quality, or current and future water uses have</p>	<p>For 4.2.2.3.a: If potential impacts on or risks to water resources are predicted, confirm that a <u>conceptual site model (CSM)</u> has been developed.</p>	<p>For 4.2.2.3:</p> <ul style="list-style-type: none"> • Documentation of conceptual site model (e.g., cross-section, map and narrative). 	<p>Explanatory Note for 4.2.2.3: Re: 4.2.2.3.a, a <u>Conceptual Site Model (CSM)</u> is a qualitative description, based on site measurements and observations, of what is known about the</p>

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<p>been identified, the <u>operating company</u> shall carry out the following additional analyses to further predict and quantify the potential impacts:</p> <ol style="list-style-type: none"> Development of a <u>conceptual site model</u> (CSM) to estimate the potential for mine-related contamination to affect water resources; Development of a numeric mine site <u>water balance</u> model to predict impacts that might occur at different surface water flow/groundwater level conditions (e.g., low, average and high flows/levels); If relevant, development of other numerical models (e.g., hydrogeochemical/hydrogeological) to further predict or quantify potential mining-related impacts on water resources; and Prediction of whether water treatment will be required to <u>mitigate</u> impacts on water quality during operations and <u>mine closure/post-closure</u>. 	<p>This should be a visual schematic (diagram, cross-section, 3D visualization) with accompanying narrative.</p> <p>Confirm that the <u>CSM</u> has been informed by known site characteristics (geology, preferential flow paths including faults that may affect the rate of water or contaminant movement, aquifer properties, hydrology, climate, hydrogeology, physiography, historical land use and current built environment), as well as any information gathered on sources, release, transport and fate of contaminants for particular mine facilities (at least some of this information should have been gathered as per IRMA Chapter 4.1, requirement 4.1.2.3), and knowledge of potential receptors.</p> <p>If there is the potential for contaminants to affect groundwater quality, then the <u>CSM</u> should be informed by a conceptual groundwater flow model, if one has been developed, or information gathered on preferential flow paths, including faults, and other lithological properties that may affect the movement of groundwater (e.g., fractures, folds, aquitards, etc.).</p> <p>For 4.2.2.3.b: Confirm that a numeric mine site <u>water balance</u> model has been calculated for high, average and low surface water flow/groundwater level conditions. The initial site <u>water balance</u> calculations should use baseline/background data from 4.2.2.1 and/or historical data. It is</p>	<ul style="list-style-type: none"> Mine site water balance inputs, calculations and results. Documentation of numerical model descriptions, methods, assumptions, uncertainties, sensitivity analyses. Documentation of numerical modeling results/predictions. Documentation of an evaluation to determine of need for water treatment (short- and long-term). 	<p>sources, release, transport and fate of contaminants at a site. A CSM should include a schematic or diagram and an accompanying narrative description.</p> <p>Re: 4.2.2.3.b, a mine site <u>water balance</u> is an accounting of the inflow to, outflow from, and storage changes of water in a hydrologic unit over a fixed period. Assigning values to these elements helps identify the water surplus or deficit at the site over time. Water balance models should be run for high, average and low surface water flow and groundwater level conditions using baseline/background data or historical data as the basis.</p> <p>It is strongly recommended that water balance calculations incorporate climate change scenarios based on data from regional (or local, if available) climate change models, assuming that such models are based on rigorous scientific methods and reliable data. According to Golder Associates, “the assessment of the impact of climate changes on water quality and quantity involves running the water and mass balance model with scenarios of predicted future air temperature and precipitation. An assessment of climate change impacts may also be incorporated in the water and mass balance uncertainty analysis.”⁵⁶⁴</p> <p>Re: 4.2.2.3.c, if the potential exists for contaminants to migrate from waste or operating facilities to surface waters or groundwaters, numerical modeling should be used to predict potential contamination paths and concentrations, and to design <u>mitigation</u> and water treatment schemes.</p> <p>Numerical hydrogeological models can be used to simulate the movement of surface water, groundwater recharge, surface leakage and runoff from groundwater flow in the vicinity of a</p>

⁵⁶⁴ Golder Associates. 2011. Guidance Document on Water and Mass Balance Models for the Mining Industry. (Report prepared for the Yukon Government). p. 30. http://www.env.gov.yk.ca/publications-maps/documents/mine_water_balance.pdf

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	<p>recommended that calculations factor in data from climate change scenarios.</p> <p>Confirm that, over time, site <u>water balance</u> models are calibrated, evaluated and revised or updated, ideally annually but at least every five years unless there are scientifically credible reasons for not updating that frequently.</p> <p>For 4.2.2.3.c: The types of situations where numerical models might be relevant include for mine sites that have complicated groundwater and surface water interactions and complex heterogeneous <u>basin/catchment/watershed</u> and aquifer systems. In such cases, numerical models will provide a simulation of the potential movement (e.g., flow directions and rates) of surface waters and groundwaters, groundwater recharge, surface leakage and runoff from groundwater flow than the <u>conceptual site model</u>, and will provide predictions of potential concentrations of contaminants likely to be released and transported to receptors, and can be used to guide management decisions.</p> <p>For 4.2.2.3.d: Confirm that the <u>operating company</u> has established whether or not water treatment will be required to remove contaminants from <u>mining impacted waters (MIW)</u> in order to meet <u>water quality criteria</u> or maintain <u>background/baseline</u> conditions. The need for treatment should be informed by the results from source material characterizations (IRMA Chapter</p>	<p><u>mining project</u>.⁵⁶⁵ Hydrogeochemical models can be used to predict contaminant concentrations at a number of predetermined locations (e.g., <u>points of compliance</u>) or receptors.</p> <p>Re: 4.2.2.3.d, if the analysis shows that treatment will likely be necessary, the <u>operating company</u> will also need to evaluate <u>mitigation</u> options as per 4.2.3.1 to see if the need for treatment can be avoided. If it cannot be avoided, then the company should evaluate different treatment options and develop quantitative estimates of treatment costs. If water treatment is predicted to be needed <u>post-closure</u>, the company will also need to carry out a risk assessment related to long-term water treatment, and establish <u>financial surety</u> to cover the long-term treatment costs (see IRMA Chapter 2.6, requirements 2.6.6.1 and 2.6.7.2).</p>

⁵⁶⁵ For example, see: Punkkinen et al. 2016. Guidelines for Mine Water Management. <http://www.vtt.fi/inf/pdf/technology/2016/T266.pdf>

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<p>4.2.2.4. Use of predictive tools and models shall be consistent with current industry best practices, and shall be continually revised and updated over the life of the mine as operational monitoring and other relevant data are collected.</p>	<p>4.1, requirement 4.1.2.3), the <u>conceptual site model</u> (4.2.2.3.a), mine site <u>water balance</u> (4.2.2.3.b) and additional hydrogeochemical modeling (4.2.2.3.c), and should determine:</p> <ul style="list-style-type: none"> • Whether <u>acid rock drainage (ARD)</u> or <u>metals leaching (ML)</u> may occur, when it will begin and how long it is likely to continue; • Whether or not water treatment will be required to <u>mitigate</u> impacts from MIW during operations and <u>closure/post-closure</u> (e.g., due to <u>ARD/ML</u> or elevated levels of other contaminants); and • If treatment is predicted to be required, an estimate of when treatment should start, how long it should last, and the volumes of water that will need to be treated during different phases of mining. <p>For 4.2.2.4: Confirm that the <u>operating company</u> can cite sources and provide rationale for how the models and predictive tools are scientifically robust and consistent with those widely accepted by industry and <u>competent professionals</u> (e.g., academics, government scientists) as best practices or tools to be using for the given purpose. (See Explanatory Note for 4.2.2.4, for more details on how to verify that the methods and basis for models are credible)</p> <p>Confirm that <u>conceptual site models</u> are updated as new information is collected through the life cycle of the project. If hydrogeochemical/hydrogeological numerical</p>	<p>Explanatory Note for 4.2.2.4: Predictive tools and numerical models are widely used to predict water quality for both surface and ground waters, and to predict groundwater flow paths.</p> <p>Tools and models will continue to evolve over time. Relevant mine staff should be aware of advances made in modeling and predictive tools, and should evaluate and apply newer, better tools and models over the life of the mine.</p> <p>Predictive tools and models, including the <u>conceptual site model</u> and <u>water balances</u>, should include the following so that their scientific robustness and appropriateness can be evaluated:</p> <ul style="list-style-type: none"> • Description of the model, its basis, and why it is appropriate for the particular use • Identification of all input parameters and assumptions,

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	<p>models are used, confirm that numerical models are calibrated and updated as new information is collected through the life cycle of the project, ideally annually but at least every five years.</p>	<p>the models, and updates made to predictions.</p> <ul style="list-style-type: none"> • Documentation that models or methodologies are considered to represent best or most appropriate practices or techniques in the industry (or were considered to be so at the time of their implementation) • Documentation of that new models or tools are evaluated over time. 	<p>including discussion of parameter derivation (i.e., by measurement, calculation or assumption)</p> <ul style="list-style-type: none"> • Discussion of uncertainty • Sensitivity analysis of important input parameters • Discussion of calibration and updating of the model • How the model will be used to inform operations <p>Modeling is typically done by consultants. Mine personnel should have a copy of the consultant's report, and should understand what assumptions were made for the model, and which input parameters are likely to cause the greatest change in the model results (sensitivity).</p> <p>Mine personnel should also be comparing the predicted model results with actual monitoring data, and set parameters for what constitutes acceptable versus unacceptable deviations between modeled and actual results. When predicted and actual results do not agree, models should be revised and predictions updated to ensure that water management practices are based on the best possible data.</p>
<p>4.2.3. Prevention and Mitigation of Impacts to Water</p> <p>4.2.3.1. The <u>operating company</u>, in <u>collaboration</u> with relevant <u>stakeholders</u>, shall evaluate options to <u>mitigate</u> predicted significant adverse impacts on <u>water quantity</u> and quality, and current and potential future water uses that may be affected by the mine's water management practices. Options shall be evaluated in a manner that aligns with the <u>mitigation hierarchy</u>.</p>	<p>For 4.2.3.1: Confirm through review of documentation (e.g., meeting minutes, reports) and interviews with the <u>operating company</u> and <u>stakeholders</u> that the company has <u>collaborated</u> with relevant <u>stakeholders</u> in its development of measures to <u>mitigate</u> identified risks to water resources. In this case, <u>collaboration</u> means that there has been information sharing and dialogue between the company and relevant authorities and other relevant stakeholders, and that the company has taken into consideration <u>their</u></p>	<p>For 4.2.3.1:</p> <ul style="list-style-type: none"> • Adaptive Management Plan or Water Management Plan or equivalent. • Records and/or documentation with instructions from regulators stipulating requirements and/or confirmation from regulators of acceptance of company proposals. • Documentation (e.g., reports, studies, impact assessments, memos, record of decision) demonstrating the mitigation options that were under consideration, 	<p>Explanatory Note for 4.2.3.1: In this case, <u>collaboration</u> means that there has been dialogue between the company and relevant authorities and other relevant <u>stakeholders</u>, and that the company has taken into consideration <u>their</u> opinions and sought agreement with them on the measures to be taken.</p> <p>"Relevant <u>stakeholders</u>" here should include water users who may be affected by mining activities and/or their technical experts, individual or industrial water users or providers, as well as regulators or others who have a role or interest in protecting water resource and aquatic ecosystem health.</p>

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	<p><u>opinions</u> and sought agreement with them on the measures to be taken.</p> <p>Confirm that <u>mitigation</u> measures have been developed for all significant impacts to water resources predicted in 4.2.2.3.</p> <p>Through interviews with the company and <u>stakeholders</u>, confirm that consideration has been given to the <u>mitigation hierarchy</u> during the development of <u>mitigation</u> measures. (For more on <u>mitigation hierarchy</u> see more detailed Explanatory Notes for 4.2.3.1)</p>	<p>and rationale for selecting particular mitigation options.</p> <ul style="list-style-type: none"> • Documentation (e.g., reports, studies, memos, record of meetings) describing and detailing proposed and/or agreed strategies for avoiding or minimizing impacts, carrying out restoration, and addressing residual impacts that cannot be restored (e.g., offsets, compensation). • Records of meetings or communications (e.g., meeting notes or minutes, attendee lists, correspondence with individuals or organizations, written stakeholder input, company response to input) where mitigation options were discussed and evaluated. <p><u>Mitigation strategies</u> for water quality should include strategies to prevent and minimize impacts of planned and unplanned mining-related discharges and spills, mine water use and <u>dewatering</u> on surface and groundwater quality.</p> <p>“<u>Mitigation hierarchy</u>” is a widely used framework for managing risks and impacts. It prioritizes avoidance/prevention of impacts, typically during the design phase for the project (e.g., by changing the location, scope, nature or timing of infrastructure, activities, processes or operations). If avoidance or prevention is not possible, impacts should be minimized. Then, impacted areas, functions or resources should be restored to the extent possible (e.g., a water treatment plant can restore contaminated water to an acceptable water quality level prior to discharge).</p> <p>If there are residual impacts that cannot be restored, only then should strategies be developed to offset or compensate for residual impacts.</p> <p>Compensation/offsetting might include payments or in-kind contributions to support a more sustainable and equitable use of water in the catchment where the mine is located.⁵⁶⁶ Offsetting or compensation strategies should be agreed by affected and/or relevant <u>stakeholders</u>. For example, if offsets are considered to address residual impacts on aquatic ecosystems, they should be developed in collaboration with environmental NGOs, government regulators and community <u>stakeholders</u> who may be affected by offset proposals.</p> <p>If <u>mixing zones</u> (see 4.2.3.2) are proposed as a <u>mitigation</u> strategy, they must be included in the evaluations undertaken with relevant <u>stakeholders</u> as per 4.2.3.1.</p>

⁵⁶⁶ Hoekstra, A. 2008. Water Neutral: Reducing and Offsetting the Impacts of Water Footprints. (UNESCO). <http://waterfootprint.org/media/downloads/Report28-WaterNeutral.pdf>

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<p>4.2.3.2. If a surface water or groundwater <u>mixing zone</u> is proposed as a <u>mitigation strategy</u>:</p> <p>a. A risk assessment shall be carried out to identify, evaluate and document risks to human health, local economies and aquatic life from use of the proposed <u>mixing zone</u>, including, for surface water mixing zones, an evaluation of whether there are specific contaminants in point source discharges, such as certain metals, that could accumulate in sediment and affect aquatic life; and</p> <p>b. If any significant risks are identified, the <u>operating company</u> shall develop <u>mitigation</u> measures to protect human health, aquatic life and local economies including, at minimum:</p> <ol style="list-style-type: none"> i. Surface water or groundwater <u>mixing zones</u> are as small as <u>practicable</u>; ii. Water in a surface water <u>mixing zone</u> is not lethal to aquatic life; iii. A surface water <u>mixing zone</u> does not interfere with the passage of migratory fish; iv. Surface water or groundwater <u>mixing zones</u> do not interfere with a pre-mine use of water 	<p>For 4.2.3.2.a: Confirm, through review of documentation, that a risk assessment of the <u>mixing zone</u> was carried out prior to implementation.</p> <p>Also, confirm through review of documentation, that the risk assessment included analysis of whether or not point source discharges might lead to the accumulation of contaminants, in particular metals, that could in turn affect the health of aquatic organisms over the long-term.</p> <p>For 4.2.3.2.b.i: Review the calculations for the spatial extent of the <u>mixing zone</u> to determine if an effort was made to make the <u>mixing zone</u> as small as <u>practicable</u>.</p> <p>For 4.2.3.2.b.ii: Confirm that water quality in the surface water <u>mixing zone</u> will not be lethal to local aquatic life (i.e., chemical and physical constituents, including turbidity). This may be evaluated based on the results of the <u>whole effluent toxicity</u> testing or by comparing the concentration of constituents measured inside the mixing zone to acute toxicity values, or by other credible scientific means.</p> <p>If, during use of the <u>mixing zone</u>, point source discharges are found to be lethal to a particular species, confirm that the company has identified <u>adaptive management</u> actions to reduce concentrations of constituents responsible for the toxicity. Actions could include improving treatment methods, mixing with cleaner water, or decreasing or ceasing effluent discharge.</p>	<p>For 4.2.3.2:</p> <ul style="list-style-type: none"> • Mixing zone risk assessment (including inter-disciplinary considerations, e.g., socio-economic, biodiversity). • Documentation of an evaluation of mitigation measures to reduce contamination in the mixing zone and to reduce the size of the mixing zone (e.g., studies, memos, reports). • Documentation of all water users that could be affected by the mixing zone, and documentation of agreements for any substitution of water supplies, if necessary. • Baseline and seasonal water quality monitoring data from inside the mixing zone. • Biologic monitoring of aquatic life in surface water mixing zones. • Records (e.g., studies or observations) of migratory fish behavior (if any are present). • Records of effluent discharges into mixing zone (including volumes, dates, times), and comparison with records of typical local hydrograph. 	<p>Explanatory Note for 4.2.3.2: Re: 4.2.3.2.a, risk assessment is the determination of quantitative or qualitative estimate of risk related to a well-defined situation and a recognized threat. Quantitative risk assessment requires calculations of two components of risk: the magnitude of the potential loss, and the probability that the loss will occur. An acceptable risk is a risk that is understood and tolerated, usually because the cost or difficulty of implementing an effective countermeasure for the associated vulnerability exceeds the expectation of loss.</p> <p>For this requirement, the primary focus of the risks assessed should be risks to communities and natural resources, not risks to the company.</p> <p>Re: 4.2.3.2.b.i, <u>mixing zone</u> modeling is complex. For the purposes of this requirement, the company should have detailed documentation on the assumptions made for the model.</p> <p>Re: 4.2.3.2.b.ii, lethal toxicity may be predicted based on the results of <u>whole effluent toxicity</u> testing, or by comparing the concentration of constituents measured inside the mixing zone to acute toxicity values, or by other credible scientific means.</p> <p>If, during use of the <u>mixing zone</u>, point source discharges are found to be lethal to a particular species, measures should be immediately undertaken to reduce concentrations of point source discharges found to be lethal. Actions could include improving treatment methods, mixing with cleaner water, or decreasing or ceasing effluent discharge.</p> <p>Re: 4.2.3.2.b.iii, companies can demonstrate that the surface water <u>mixing zone</u> does not interfere with the passage of migratory fish by, e.g. confirming that substances known to cause avoidance, like copper for salmonids, are not present in the discharge; or providing documentation that migratory fish are found upstream and downstream of the <u>mixing zone</u> in numbers</p>

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<p>for irrigation, livestock or drinking water, unless that use can be adequately provided for by the <u>operating company</u> through another source of similar or better quality and volume, and that this substitution is agreed to by all potentially affected water users; and</p> <p>v. Point source discharges into a surface water <u>mixing zone</u> match the local hydrograph for surface water flows to the extent <u>practicable</u>.⁵⁶⁷</p>	<p>For 4.2.3.2.b.iii: Confirm that the surface water <u>mixing zone</u> does not interfere with the passage of migratory fish. This could be done by interviewing <u>operating company</u> and <u>stakeholders</u> to find out if migratory fish have been observed avoiding the portion of the surface water that contains the <u>mixing zone</u>. Or, to prove that the <u>mixing zone</u> is not interfering, the <u>operating company</u> could provide documentation that migratory fish are found upstream and downstream of the <u>mixing zone</u> in numbers similar to what existed pre-mining (if baseline values were established for the migratory fish populations).</p> <p>For 4.2.3.2.b.iv: Depending on whether surface water or groundwater <u>mixing zones</u> are proposed, review documentation related to use of surface water or groundwater for livestock, irrigation or drinking water. If these uses were in place prior to the mine/<u>mixing zone</u>, confirm, through review of monitoring data and comparison with irrigation/livestock and drinking water end use <u>water quality criteria</u> (See IRMA <u>Water Quality Criteria</u> by End-Use Tables), that the quality of water in the <u>mixing zone</u> is not harmful to irrigated agricultural products, livestock or drinking water; or, if water quality does not meet the end-use criteria in the IRMA tables, confirm that the company has provided the water users with an acceptable alternative source of water.</p>	<p>similar to what existed pre-mining (if baseline values were established for the migratory fish populations).</p> <p>4.2.3.2.b.iv, if there are pre-mine uses of surface and/or groundwater, the company must either demonstrate that it has prevented any further contamination of the water, or it has reached an agreement with <u>stakeholders</u> to replace, <u>mitigate</u>, or compensate those <u>stakeholders</u>.</p> <p>4.2.3.2.b.v, a hydrograph is a graph or plot that shows the rate of water flow in relation to time, given a specific point or cross section.</p> <p>To the extent possible, discharges should correspond to the pre-mining temporal (diurnal, weekly, monthly) and seasonal variations. Unless safety reasons necessitate, large discharges of water should not take place at a time of year when the river typically has a low flow. High volume releases should be restricted because during an otherwise dry period this could have a detrimental effect on native fish or other aquatic biota that have life cycles adapted to dry periods.</p>

⁵⁶⁷ A hydrograph is a graph or plot that shows the rate of water flow in relation to time, given a specific point or cross section.

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Also, if surface or groundwater supply wells were in place prior to the mine/mixing zone, ensure that the mixing zone is outside of the water intake or cone of depression for those wells; or if wells are affected, confirm with users that they reached an agreement with the company, e.g., to provide mitigation or compensation for impacts on their water supply.

For 4.2.3.2.b.v: Review records of effluent discharge flows in comparison to the local hydrograph (i.e., a graph or plot that shows stream flows over time, especially seasonally, at a given location), which should have been established during the collection of baseline water quantity data (see 4.2.4.2.a.ii). Confirm that, to the extent possible, effluent discharges correspond to the pre-mining temporal (diurnal, weekly, monthly, seasonal) variability in stream flow. For example, unless it can be demonstrated otherwise, large discharges of effluent should not take place at a time of year when the river typically has a low flow, as a high-volume release during an otherwise dry period could have a detrimental effect on native fish or other aquatic biota that have lifecycles adapted to dry periods.

f 4.2.3.3. Waters affected by the mining project shall be maintained at a quality that enables safe use for current purposes and for the potential future uses identified in collaboration with relevant stakeholders (see 4.2.1.2). In particular, the

For 4.2.3.3: Review water quality monitoring data to confirm that concentrations are being maintained at baseline or background levels established as per 4.2.2.1, or that concentrations meet the appropriate values in the IRMA Water Quality Criteria by End Use Tables. For example, if the only current or potential future end use for a

For 4.2.3.3:

- Documentation confirming the location of compliance points and other monitoring points e.g., a base-map.
- Documentation confirming water quality requirements (e.g., water quality directive

f [flag] 4.2.3 Issue in brief: During IRMA’s Launch Phase a mine site may request an exception to 4.2.3.3 if they believe there are site-specific factors that prevent them from meeting the requirement. Sites will still be expected to demonstrate that water quality is protective of identified current and future uses of water. IRMA’s Technical Water Committee will review requests for

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<p><u>operating company</u> shall demonstrate that contaminants measured at <u>points of compliance</u> are:</p> <ol style="list-style-type: none"> Being maintained at <u>baseline</u> or <u>background</u> levels; or Being maintained at levels that are protective of the identified uses of those waters (See IRMA <u>Water Quality Criteria by End Use Tables 4.2.a to 4.2.h</u>, which correspond to particular end uses). 	<p>particular affected water body is to water livestock, then those values are the only ones that need to be met. If drinking water and fishing are both identified as current uses of a different affected water body, then for a particular parameter the more stringent value in those two tables would need to be met. See IRMA Water Quality Criteria by End Use Tables 4.2.a to 4.2.h, which correspond to particular end uses.</p> <p>As per IRMA Chapter 1.1, water quality also has to meet <u>host country laws</u>, including any water quality standards.</p>	<p>from regulators, or similar).</p> <ul style="list-style-type: none"> Documentation of existing and potential future surface and groundwater uses (see examples of evidence from 4.2.1.2). Documentation of surface and groundwater <u>baseline</u> or <u>background water quality</u> (e.g., raw data, a summary report). Time-dependent documentation of how monitoring results compared to baseline/background levels and/or IRMA end-use water quality criteria (e.g., table of values, graphical comparison, comparison). Documentation confirming methodology followed for sampling and chemical analysis undertaken. Records of any observations and/ or recommendations made by any party supervising or undertaking the sampling.
<p>4.2.3.4. Unless agreed by potentially affected <u>stakeholders</u>, water resources affected by mining activities shall be maintained at quantities that enable continued use of those resources for current purposes and for the potential</p>	<p>For 4.2.3.4: Confirm that:</p> <ul style="list-style-type: none"> If surface water flows are decreased by mining-related water withdrawals or mine <u>dewatering</u>, any temporary depletion has been agreed to by affected users (with <u>mitigation</u> put in place to provide alternative sources for their water needs); and confirm that surface waters for 	<p>For 4.2.3.4:</p> <ul style="list-style-type: none"> Documentation of surface water and groundwater baseline or background water quantity data (e.g., raw data, a summary report). Report on environmental flow requirements.

exceptions. Additionally, IRMA is seeking input, in particular, on the proposed criteria for cyanide (IRMA Water Quality Criteria Table 4.2.a. – Aquatic Organisms - Fresh Water Quality Criteria. (For further information, see Table 4.2.a).

Explanatory Note for 4.2.3.3: The intent of this requirement is that mining-related releases (as controlled discharges of treated or untreated effluent, seepage, runoff, or unintended releases) to surface waters or groundwater do not significantly change the quality of affected waters from their baseline/background water quality levels, or do not cause any contaminant to exceed levels deemed to be necessary to protect the current or identified future uses of the affected waters.

For example, if the only current or potential future end use for a particular affected water body is to water livestock, then those values are the only ones that need to be met. If drinking water and fishing are both identified as current uses of a different affected water body, then for a particular parameter the more stringent value in those two tables would need to be met. See IRMA Water Quality Criteria by End Use Tables 4.2.a to 4.2.h, which correspond to particular end uses.

As per IRMA Chapter 1.1, water quality also has to meet host country laws, including any water quality standards. If host country water quality criteria for any parameter are more stringent than IRMA criteria then host country criteria must be met.

Explanatory Note for 4.2.3.4: Mining can change flow direction and quantity of both surface and ground waters.

Existing water uses should be preserved by avoidance of impacts, and if that is not possible, mitigation. If surface water flows are increased or decreased due to mine discharges or withdrawals, respectively, efforts should be made to maintain appropriate environmental flows (e.g., volumes and variations necessary to

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<p>future uses identified in <u>collaboration</u> with relevant <u>stakeholders</u> (see 4.2.1.2).</p>	<p>identified future uses will be available after the life of the mine at water quality that will protect future uses.</p> <ul style="list-style-type: none"> If surface water flows are increased or decreased due to mine discharges or withdrawals, respectively, confirm that efforts have been made to maintain appropriate <u>environmental flows</u> (e.g., volumes and variations necessary to sustain the ecological and physical integrity of affected water courses or water bodies and affected natural resources). <p>If groundwater levels are decreased by mine <u>dewatering</u> or the presence of mine facilities, confirm that any temporary depletion of groundwater has been agreed to by affected users (with <u>mitigation</u> put in place to provide alternative sources for their water needs); and confirm that groundwater for identified future uses will be available after the life of the mine at a quality that will protect future uses.</p>	<ul style="list-style-type: none"> Water quantity monitoring data. Documentation from regulators (e.g., instruction to undertake a specific action and/or variation to previously agreed requirements) and record of company actions in response. Records of meetings or correspondence with potentially affected stakeholders related to proposed changes in water quantity/supplies. Records of stakeholder grievances related to changes in water quantity, and the company's responses. 	<p>sustain the ecological and physical integrity of water courses and the natural resources and the communities that depend on those waters).</p> <p>Temporary or permanent changes to water quality and quantity should be agreed through a <u>collaborative process</u> with <u>stakeholders</u>. If <u>stakeholders</u> choose not to participate, the reasons for non-participation should be documented. (See also See Note for 4.2.1.2).</p>
<p>4.2.4. Monitoring and Adaptive Management</p> <p>4.2.4.1. (Critical Requirement – a through e)</p> <p>The <u>operating company</u> shall develop and document a program to monitor changes in <u>water quantity</u> and</p>	<p>For 4.2.4.1: Confirm, through review of documentation that the monitoring program is documented, and includes maps that show water supply, storage and discharge locations, and a monitoring plan that describes how and when monitoring will be carried out to detect changes in surface water and groundwater quality and quantity.</p> <p>For 4.2.4.1.a: Confirm, through review of documentation and interviews with the company and relevant <u>stakeholders</u>, that the company has</p>	<p>For 4.2.4.1:</p> <ul style="list-style-type: none"> Documentation of the water monitoring program (e.g., map, water monitoring plan or equivalent). Sampling plan or other documentation of sampling QA/QC, procedures, equipment used, and party undertaking sampling (e.g., company personnel, third-party consultants, government). Documentation of chemical analyses. Data should clearly indicate the laboratory used 	<p>Explanatory Note for 4.2.4.1: Re: “changes in water quality or quantity”:</p> <ul style="list-style-type: none"> For surface waters this means increases or decreases in flows in streams, rivers, or other water courses, or water levels in lakes or other bodies of water. For groundwater this means, at minimum, increases or decreases in groundwater elevations and/or flow directions For <u>natural seeps and springs</u> this means increases or decreases in flows. <u>Natural seeps and springs</u> refer to those originating from natural sources that existed before mining began, not those originating from mining wastes.

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<p>quality.⁵⁶⁸ As part of the program the operating company shall:</p> <ol style="list-style-type: none"> Establish a sufficient number of monitoring locations at appropriate sites to provide reliable data on changes to water quantity and the physical, chemical and biological conditions of surface waters, <u>natural springs/seeps</u> and groundwater (hereafter referred to as water characteristics); Sample on a frequent enough basis to account for seasonal fluctuations, storm events and extreme events that may cause changes in water characteristics; Establish <u>trigger levels</u> and/or other indicators to provide early warning of negative changes in water characteristics; Sample the quality and record the quantity of mine-affected waters destined for re-use by non-mining entities; Use credible methods and appropriate equipment to reliably detect changes in water characteristics; and Use accredited laboratories capable of detecting contaminants at levels 	<p>an adequate number and placement of surface water, spring/seep, and groundwater monitoring locations.</p> <p>Monitoring locations need to include <u>compliance sites</u> (see IRMA definition for “<u>point of compliance</u>”) and baseline/background sites. To ensure reliability of data, sites should be located as close as <u>practicable</u> to mine related contaminant sources (point source and non-point). Additional points of monitoring could be located inside the mine site boundary as a best practice measure.</p> <p>For 4.2.4.1.b: Confirm that the <u>operating company’s</u> monitoring program has been designed to detect seasonal changes in water quantity (e.g., surface water flows, and groundwater levels). This should include provisions for sampling <u>stormwater</u> during or shortly after storms, and during and after extreme events such as periods of heavy precipitation or dry spells.</p> <p>Confirm that the full range of <u>water quantity</u> and quality conditions has been or can be captured. Use of automatic samplers or continuous flow/elevation monitors is recommended.</p> <p>For 4.2.4.1.c: Confirm that <u>trigger levels</u> have been established for each constituent with a water quality criterion (i.e., some constituents may be monitored for informational purposes, such as hardness and some cations. Those do not need</p>	<p>and the techniques employed such that any differences in the chemical analysis conducted over time are identifiable.</p> <ul style="list-style-type: none"> Documentation for each laboratory used including laboratory accreditation certificates with test-specific accreditation. Records confirming decision to use an unaccredited laboratory or a laboratory for an unaccredited test (e.g., memo, record of decision). Documentation providing a record of both piezometric groundwater levels and surface water levels assessed with respect to groundwater discharge volumes. 	<p>The monitoring program should be documented in a water monitoring plan. The plan should contain not only monitoring activities, but a clearly stated rationale that drives those activities. Information on sample collection quality assurance requirements should also be included in the plan.</p> <p>Even if the mine <u>facility</u> has no planned discharges, a monitoring plan that contains monitoring locations and sampling requirements for unintentional discharges (from mine, processing, and waste facilities) would be required, e.g., even at a no-discharge facility there will be groundwater monitoring requirements to ensure that no-discharge facilities are not leaking.</p> <p>See also IRMA Chapter 4.1, criterion 4.1.4, as water monitoring is likely to have relevance to waste management (e.g., one indicator of the effectiveness of waste management practices may be whether or not water quality is being maintained at required levels).</p> <p>Re: 4.2.4.1.a, establishing what constitutes an “adequate” number of monitoring locations is somewhat arbitrary. At a minimum, point discharges of contaminants will be required by regulation. Internal monitoring of sources like <u>tailings</u> and <u>waste rock</u> groundwater interception systems is strongly encouraged. If these do not exist, there should be very clear rationale for their absence.</p> <p>To ensure reliability of data, sites should be located as close as <u>practicable</u> to mine related contaminant sources (point source and non-point). Additional points of monitoring could be located inside the mine site boundary as a best practice measure.</p> <p>Regardless of regulatory requirements, points-of-compliance for surface and ground water discharges should be established and</p>

⁵⁶⁸ See also IRMA Chapter 4.1, Criteria 4.1.4, as water monitoring that occurs here is likely to have relevance to waste management (e.g., one indicator of the effectiveness of waste management practices may be whether or not water quality is being maintained at required levels).

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<p>below the values in the IRMA <u>Water Quality Criteria</u> by End-Use Tables.</p>	<p><u>trigger levels</u>). Also, confirm that <u>trigger levels</u> or other indicators have been established to provide early indication of potentially adverse changes in surface water or groundwater flows and levels, aquatic or riparian ecosystem components, and other resources identified as being at potential risk from changes in water quality or quantity.</p> <p>For 4.2.4.1.d: Confirm that any mine-affected waters sent offsite (e.g., for use as irrigation water or for other purposes) have been sampled for water quality, and the quantities have been documented. These shall meet the water quality values in IRMA <u>Water Quality Criteria</u> tables for the intended end uses.</p> <p>For 4.2.4.1.e: Confirm that credible methods have been used for water quality/quantity analysis and prediction. Credible methods are established methods that are scientifically robust and would withstand scrutiny by other <u>competent professionals</u>. Appropriate equipment will be dependent on what is being measured. For example, if there may be impacts on surface water flow from water management activities, one or more river flow gauging station should be established to verify that sufficient flows are being maintained to support aquatic organisms throughout the year.⁵⁶⁹ As mentioned above (4.2.4.1.b), use of automatic samplers or continuous flow/elevation monitors is encouraged.</p>	<p>monitored for each source of treated or untreated contaminants. For IRMA purposes a “point of compliance” is the physical location where water quality must meet IRMA used-based standards. The location will vary with the type of discharge (surface, groundwater, mixing zone, etc.). See the Glossary for the complete definition of a “<u>point of compliance</u>”.</p> <p>Re: 4.2.4.1.b, seasonal changes, for example high flows and flushing of contaminants in the spring and low flows in winter and fall, bring fluctuations in water quality as well as quantity. However, seasonal flow patterns often vary with mine location, so the monitoring frequency needs to be set to meet local conditions. The monitoring plan should analyze the potential for these changes and define monitoring accordingly.</p> <p>Use of automatic samplers or continuous flow/elevation monitors is recommended.</p> <p>Re: 4.2.4.1.c, “<u>trigger levels</u>” for water quality purposes, are fractions of a numeric standard set at percentage of the standard or criterion value, e.g., 25%, 50%, 75%. Trigger values should be set at concentrations that are higher than <u>baseline/background water quality</u> values but lower than levels established to protect water uses or aquatic <u>ecosystems</u> (if statistically possible).</p> <p><u>Trigger levels</u> provide an early indication of whether water quality is degrading or there is a worrisome trend in water quantity at specified monitoring point. This information allows for <u>adaptive management</u> (see 4.2.4.4) before significant impacts actually occur.</p> <p>Re: 4.2.4.1.d, water sent offsite (e.g. sold or donated) might need treatment to the level required for discharge to surface or ground waters. Nonetheless, the quality and quantity of this water needs to be documented.</p>

⁵⁶⁹ Gauging station: A site at which surface flows can be measured. This is necessary for monitoring the effects of surface water or groundwater withdrawals on surface water.

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<p>4.2.4.2. Samples shall be analyzed for all parameters that have a reasonable potential to adversely affect identified current and future water uses. Where <u>baseline or background monitoring</u>,</p>	<p>For 4.2.4.1.f: Confirm that samples are sent to a nationally or internationally accredited laboratory (either in the host country, or if necessary, elsewhere). Laboratory detection limits will ideally be at least 10 times lower than the values in the IRMA <u>Water Quality Criteria</u> by End-Use Tables.</p> <p>For 4.2.4.2: If all constituents in IRMA <u>Water Quality Criteria</u> tables are not being monitored, determine if the company has identified the appropriate list of constituents in its water quality monitoring program. Confirm that constituents with a reasonable potential to affect water quality</p>	<p>Re: 4.2.4.1.e, “credible methods” are established methods that are scientifically robust and would withstand scrutiny by other <u>competent professionals</u>. The methods are typically specified in a sampling plan (or equivalent), which will also include QA/QC procedures.</p> <p>The sampling plan (or equivalent) should also describe the equipment to be used in sampling, calibration procedures for the equipment (if applicable), sanitation and cleaning procedures, and chain of custody requirements.</p> <p>Re: 4.2.4.1.f, the laboratory processing samples should have an accreditation to process the type of samples (e.g. metals in water, metals in soil, etc.) being processed. The accreditation should also be current, and for the specific test undertaken rather than simply for the laboratory. Where accreditation for a specific test has not been obtained by any laboratory used for the chemical analysis then justification for using the laboratory should be presented; the justification should include discussion on the accuracy of the unaccredited tests undertaken by the laboratory.</p> <p>Ideally the detection limits should be 10 times less than the contaminant limit level specified in the IRMA <u>Water Quality Criteria</u> by End-Use Tables. However, in a number of instances achieving this level may not be possible. Laboratory data reports will list both the detection method used, and the sensitivity. Mine personnel should be aware of the limits of detection used by their laboratory.</p> <p>Explanatory Note for 4.2.4.2: The intent behind the phrase “all parameters that have a reasonable potential to negatively affect water” is that the IRMA <u>Water Quality Criteria</u> by End-Use Tables, which provide a list of the contaminants and water quality parameters that may be present at mine sites, should be the</p>

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<p>source characterization,⁵⁷⁰ modeling, and other site-specific information indicate no reasonable potential for a parameter to exceed the <u>baseline/background values or numeric criteria in the IRMA Water Quality Criteria by End-Use Tables</u> (depending on the approach used in 4.2.3.3), those parameters need not be measured on a regular basis.</p>	<p>or inform water quality management are being monitored.</p>	<p>requirements from regulators.</p> <ul style="list-style-type: none"> • Documentation of surface water and groundwater baseline or background water quantity data (e.g., raw data, a summary report). • Water quantity monitoring data. • Documentation of rationale for excluding particular water quality parameters (this may be included in the monitoring plan or equivalent). 	<p>starting point for mines as they develop their list of monitoring parameters.</p> <p>When collecting <u>baseline water quality or background water quality data</u>, sampling should include the complete list of criteria in IRMA tables, even contaminants that may not be expected to be present, to establish that certain constituents are not present in the <u>baseline/background</u>.</p> <p>But it may not always be necessary to monitor all of the contaminants in the IRMA Water Tables. Some constituents could be removed from the list, e.g., they are not present in ores or wastes based on source characterization (see IRMA Chapter 4.1, 4.1.3.2); they are not found in chemicals used on site (see Chapter 4.1, 4.1.2.1); or they are not predicted by modeling to be more than 1/10th of the <u>IRMA Water Quality Criteria</u>; (see 4.2.2.3).</p> <p>Even if the mining, beneficiation, and processing activities and chemical reagent use have remained the same, at least once every five years an analysis of the complete list of parameters in the <u>IRMA Water Quality Criteria Tables</u> should be measured at <u>baseline/background sampling locations and points of compliance</u> to verify that a contaminant has not unexpectedly appeared in the water.</p> <p>Note that some constituents in the IRMA Tables are not based on their inherent potential to pose risks to human or aquatic ecosystem health or other uses, but rather, because they can provide important information on water quality trends that may indicate other problems on site. For example, increases in sulfate levels can provide an early indication of the formation of <u>acid rock drainage (ARD)</u>, or turbidity can be an indication that <u>stormwater runoff mitigation</u> is not performing well. If caught early, significant</p>

⁵⁷⁰ See IRMA Chapter 4.1, requirement 4.1.2 Source Characterization and Prediction.

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<p>4.2.4.3. The <u>operating company</u> shall actively solicit <u>stakeholders</u> from <u>affected communities</u> to participate in water monitoring and to review and provide feedback on the water monitoring program:</p> <ol style="list-style-type: none"> a. Participation may involve the use of independent experts selected by the community; and b. If requested by community <u>stakeholders</u>, costs related to participation in monitoring and review of the monitoring program shall be covered in full or in part by the company, and a mutually acceptable agreement for covering costs shall be developed. 	<p>For 4.2.4.3: Confirm through review of documentation (such as presentations, letters to <u>stakeholders</u>) and/or interviews with <u>stakeholders</u> that the <u>operating company</u> has actively tried to engage community <u>stakeholders</u> to participate in water monitoring and providing feedback on the monitoring program.</p> <p>To ensure participation, costs related to community participation may need to be covered by the <u>operating company</u>. Such costs might include field labor, an independent expert, and sample analysis using an independent laboratory, if desired by the community. Determine, through interviews with <u>stakeholders</u> and the company, whether or not funding was deemed necessary. If so, confirm that a mutually acceptable agreement for covering costs was developed.</p> <p>For 4.2.4.3:</p> <ul style="list-style-type: none"> • Records of meetings or correspondence (e.g., meeting minutes, outreach materials, letters) inviting potentially affected stakeholders to participate in mine site water monitoring and review and provide feedback on the monitoring program. • Records of stakeholder participation in mine site water monitoring. • Records of task specific training provided to stakeholders proposed to be involved in mine site water monitoring cross-checked against actual records of persons involved in monitoring. • Records of meetings or correspondence related to review and feedback on the monitoring program (e.g., meeting minutes, written submissions from stakeholders on the monitoring program and company responses, etc.). • Records of stakeholder grievances related to water monitoring, and the company's responses. 	<p>impacts can be prevented. If <u>ARD</u> is even remotely a potential, water samples should always be analyzed for sulfate.</p> <p>Additionally, even if a community does not want or need funding to participate in monitoring, the community and/or its experts will need to be granted access to the mine site to carry out or participate in monitoring.</p> <p>Explanatory Note for 4.2.4.3: Participation of stakeholders should be actively solicited by the <u>operating company</u>. In addition to reviewing the monitoring data with stakeholders, the company should provide regular opportunities for stakeholders (and their experts) to accompany monitoring personnel when they conduct water quality sampling.</p> <p>Many <u>affected communities</u> will not have the resources to participate in water monitoring or the review of the <u>operating company's</u> monitoring program.</p> <p>To ensure participation, costs related to community participation may need to be covered by the <u>operating company</u>. Such costs might include field labor, an independent expert, and sample analysis using an independent laboratory, if desired by the community. If this is the case, then a mutually acceptable agreement for covering costs should be developed.</p>

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<p>4.2.4.4. (Critical Requirement) The <u>operating company</u> shall develop and implement an <u>adaptive management plan</u> for water that:</p> <p>a. Outlines planned actions to <u>mitigate</u> predicted impacts on current and future uses of water and natural resources from changes in surface water and groundwater quality and quantity related to the <u>mining project</u>; and</p> <p>b. Specifies <u>adaptive management actions</u> that will occur if certain outcomes (e.g., specific impacts), indicators, thresholds or <u>trigger levels</u> are reached, and timelines for their completion.</p>	<p>For 4.2.4.4: Confirm that an <u>adaptive management plan (AMP)</u> or its equivalent (i.e., it may have a different name), has been developed, and actions and strategies have been implemented as outlined in the plan.</p> <p>For 4.2.4.4.a: Confirm that the AMP includes a comprehensive list of actions to <u>mitigate</u> the predicted impacts on and risks to water quality/quantity. It should include actions for all <u>mitigation</u> measures developed to address the significant risks to water resources predicted in 4.2.2.2 and discussed with <u>stakeholders</u> in 4.2.4.1. (These <u>mitigation</u> measures may not be in the Adaptive Management Plan, but they should be documented somewhere, e.g., in a Water Management Plan or site-wide Environmental Management Plan, etc.).</p> <p>4.2.4.4.b: Review the AMP to confirm that it specifies actions to be taken if proposed <u>mitigation</u> measures are not effective, or if predefined thresholds or <u>trigger levels</u> are exceeded. The <u>trigger levels</u> or thresholds that spur <u>adaptive management</u> actions should be clearly delineated.</p> <p>Interview company and review relevant data to determine if any <u>trigger levels</u> or thresholds have been exceeded, or particular outcomes met that warranted actions to be taken. Confirm that actions outlined in AMP were implemented.</p>	<p>For 4.2.4.4:</p> <ul style="list-style-type: none"> • Adaptive management plan or equivalent. • Records of on-site incident management and actions associated with adaptive management. • Documentation (e.g., correspondence) between monitoring teams and mine site management confirming recommendations for adaptive management and implementation of recommended actions. 	<p>Explanatory Note for 4.2.4.4: <u>Mitigation</u> refers to actions taken to reduce the likelihood of a certain adverse impact occurring. Mitigative actions should reduce the extent of any damage to current and future uses of water and natural resources, with any residual impact then requiring remediation.</p> <p><u>Adaptive management</u> may also be referred to as change management.</p> <p><u>Adaptive management</u> plans (for water) typically include actions that should be taken if monitoring data indicate that <u>mitigation</u> measures are not being effective at preventing or minimizing impacts on water resources. These plans also outline responsibilities, and timelines for their completion.</p> <p>The plan does not need to be called an "Adaptive Management Plan" as long as it contains the relevant information. <u>Adaptive management</u> measures may be contained in a stand-alone document/plan, or be contained in another document (e.g., a water monitoring plan, a water management plan, a general Environmental and Social Management Plan as per Chapter 2.1, etc.).</p> <p><u>Trigger levels</u> (also mentioned in 4.2.5.1.d) are often established to provide an early indication of whether water quality at a specified monitoring point is degrading. Similar thresholds or indicators can be established to provide early warning of whether water levels are dropping below or rising above levels considered safety or protective of resources. When those responsible for reviewing monitoring data notice that a trigger/indicator level has been reached, it provides a site with time to institute measures that can prevent water quality from degrading (or quantity from changing) to levels that will significantly impact water uses/users or aquatic ecosystem health. The <u>adaptive management</u> plan should include at least the first round of pre-planned responses that will be taken</p>

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<p>4.2.4.5. Annually or more frequently if necessary (e.g., due to changes in operational or environmental factors), the <u>operating company</u> shall review and evaluate the effectiveness of <u>adaptive management</u> actions, and, as necessary, revise the plan to improve water management outcomes.</p>	<p>For 4.2.4.5: Confirm that <u>operating company</u> reviews and evaluates the effectiveness of its <u>adaptive management</u> strategies.</p> <p>If monitoring and/or other information (e.g., updated site <u>mine water balance</u>, updated numerical models) reveals that actions are not effective (e.g., water quality is degrading or likely to degrade, or impacts to water uses or aquatic ecosystems have occurred), confirm that the company has revised the <u>adaptive management</u> plan to include improved actions to prevent further impacts.</p>	<p>if certain outcomes occur or a threshold or trigger level is repeatedly reached or exceeded.</p> <p>Actions may include additional monitoring, <u>source controls</u>, installation of diversion structures, pumping, etc. The plan should include measures to shut down operations if remedial actions are not effectively slowing or stopping the degradation or negative changes in water quantity and quality.</p> <p>Explanatory Note for 4.2.4.5: A company's evaluation of the effectiveness of its <u>adaptive management</u> plan actions is likely to involve a review of monitoring data, a review of whether any <u>trigger levels/thresholds/outcomes</u> have been reached, a review of changes to site <u>water balance</u> or other operational changes that may influence the effectiveness of mitigation strategies, and review of other relevant information, including feedback from <u>stakeholders</u> or monitoring data from regulatory agencies.</p> <p>If monitoring and/or other information (e.g., updated site mine water balance, updated numerical models) reveals that actions are not being effective (e.g., water quality is degrading or likely to degrade, or impacts to water uses or aquatic <u>ecosystems</u> have occurred), revisions to the AMP should occur and be implemented.</p>
<p>4.2.4.6. Community <u>stakeholders</u> shall be provided with the opportunity to review <u>adaptive management</u> plans and participate in revising the plans.</p>	<p>For 4.2.4.6: Confirm that community <u>stakeholders</u> have been invited to participate in the review of the effectiveness of <u>adaptive management</u> plans and the effectiveness of <u>adaptive management</u> actions taken.</p> <p>If monitoring and/or other information reveals that the <u>adaptive management</u> actions are not being effective, confirm that <u>stakeholders</u> have been provided the opportunity to participate in</p>	<p>For 4.2.4.6:</p> <ul style="list-style-type: none"> • Adaptive management plan or equivalent. • Records of updates to the plan (e.g., old and new versions of the plan). • Documentation (e.g., memos, correspondence between relevant personnel) regarding when the plan was last reviewed, and what changes were made. <p>For 4.2.4.6:</p> <ul style="list-style-type: none"> • Records of meetings or correspondence with stakeholders related to review and revision of the adaptive management plan (e.g., meeting minutes, attendee lists, written submissions from stakeholders on the plan and company responses to their input, etc.). • Documentation (e.g., internal correspondence between mine site

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<p>4.2.5. Data Sharing, Communications and Reporting on Water Management Performance</p> <p>4.2.5.1. The operating company shall publish baseline or background data on water quantity and quality, and the following water data shall be published annually, or at a frequency agreed by stakeholders from affected communities.⁵⁷¹</p> <p>a. Monitoring data for surface water and groundwater points of compliance; and</p> <p>b. Monitoring data for water quantity (i.e., flows and levels of surface waters, springs/seeps and groundwater), and the volume of water discharged and extracted/pumped for mining operations.</p>	<p>the revision of adaptive management actions to prevent further impacts.</p> <p>For 4.2.5.1: Review the operating company website or other links provided by the company to confirm that operating company has published baseline and/or background water monitoring data, and also that at least on an annual basis the company publishes monitoring data for surface water, natural springs/seeps and groundwater points of compliance, and monitoring data for surface water, springs/seeps and groundwater levels and water extraction/pumping.</p> <p>Interview company stakeholders from affected communities to determine if the stakeholders agreed to publication of data on a different frequency. If so, confirm that data are being published according to that schedule. Also, as per IRMA Chapter 1.2, requirement 1.2.4.3, confirm, through review of records (e.g., meeting minutes) and interviews with company and community stakeholders that stakeholders have been consulted on the appropriate formats and delivery methods for data sharing.</p> <p>Even if the preferred community format for data sharing is by viewing information at a community or mine site facility, the operating company must also publish data on a website.</p>	<p>stakeholder team and mine site management) confirming assessment of stakeholder proposals.</p> <p>For 4.2.5.1:</p> <ul style="list-style-type: none"> • Links to websites or list of physical locations (e.g. nearby community facility, mine office) where data can be accessed. • Photographs of physical locations showing data as advertised at physical locations. Photographs provided as evidence of advertising data should be accompanied evidence confirming the date and time of the photograph being taken. • Records of correspondence with stakeholders requesting water data (e.g., emails, letters) and company responses. 	<p>Explanatory Note for 4.2.5.1: In addition to making baseline water quality or background water quality data available, this requirement applies to operational water quality and quantity monitoring data. Operational monitoring data must be published annually (or less frequently if agreed by stakeholders from affected communities).</p> <p>For the purposes of this requirement "published" means making information available on the operating company's website or an external site (e.g., data may already be available on a government website).</p> <p>As per Chapter 1.2—Community and Stakeholder Engagement, requirement 1.2.4.1, individual stakeholders (or groups of stakeholders) can request from the company copies of monitoring data on a more frequent basis.</p> <p>Also, Chapter 1.2, requirement 1.2.4.3, requires companies to provide data in formats that are understandable and useful (and convey information in a timely manner) to affected communities and stakeholders. For example, some communities may prefer to have all data published in electronic format, while others may prefer to have a simple summary of monitoring results in hard copy.</p>

⁵⁷¹ Additionally, as per Chapter 1.2—Community and Stakeholder Engagement, requirement 1.2.4.3. "Communications shall be carried out and information shall be provided to stakeholders in a timely manner, and shall be in formats and languages that are culturally appropriate and accessible to affected communities and stakeholders."

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION		EXPLANATORY NOTE
<p>4.2.5.2. The <u>operating company</u> shall develop and implement effective procedures for rapidly communicating with relevant <u>stakeholders</u> in the event that there are changes in <u>water quantity</u> or quality that pose an imminent threat to human health or safety, or commercial or natural resources.</p>	<p>Auditing Note for 4.2.5.2: These procedures should be included in the company’s Emergency Preparedness and Response Plan (EPRP) as per IRMA Chapter 2.5. EPRPs should be sufficient to cover water-related incidents such as water contamination or flooding that could result from catastrophic or large, unplanned water releases.</p> <p>For 4.2.5.2: Determine if there have been spills, large-magnitude exceedances of <u>water quality criteria</u> or other incidents that posed an imminent threat to human health, safety or commercial or natural resources. If there have been, confirm that the <u>operating company’s</u> emergency response procedures were followed, and that they were effective (i.e., they reached the people who needed to be reached in a timely manner).</p>	<p>For 4.2.5.2:</p> <ul style="list-style-type: none"> • Emergency preparedness procedures or equivalent (e.g., emergency action plan, procedures for internal and external communications in the event of an emergency, etc.). • Documentation of any incidents where changes in water quality or quantity posed a threat to human health, safety or resources (e.g., incident reports, memo’s, and/or letters to regulators) • Documentation of emergency response actions taken following any incidents. • Contact lists for government authorities, community representatives and media who need to be informed in the event of an emergency related to changes in water quantity or quality that pose an imminent threat to human health or safety, or commercial or natural resources. 	<p>Explanatory Note for 4.2.5.2: “Commercial resources” could include aquaculture or agricultural operations; natural resources would include aquatic organisms, vegetation, wildlife, etc.).</p> <p>Spills or unintended releases of chemicals, significant exceedances of certain <u>water quality criteria</u>, or unintended releases of large volumes of waste or water may pose a risk to community health or safety, or to commercial or natural resources. If such incidents occur, the communications by the company to potentially affected <u>stakeholders</u> should be as rapid as possible (See also IRMA Chapter 2.5, which similarly requires companies to develop procedures to ensure that the company has communication protocols in place to manage emergency situations related to the mine. Potential water-related emergencies should be addressed in the emergency response plan developed as per Chapter 2.5).</p>
<p>4.2.5.3. The <u>operating company</u> shall discuss water quality management strategies, performance and <u>adaptive management</u> issues with relevant <u>stakeholders</u> on an annual basis or more frequently if requested by <u>stakeholders</u>.</p>	<p>For 4.2.5.3: Confirm, through review of records (e.g., meeting minutes) and interviews with <u>stakeholders</u> that <u>operating company</u> has met with interested <u>stakeholders</u> and discussed water quality and quantity monitoring result, the effectiveness of <u>mitigation</u> strategies, and <u>adaptive management</u> issues on an annual basis or more frequently if requested by <u>stakeholders</u>.</p>	<p>For 4.2.5.3:</p> <ul style="list-style-type: none"> • Records of presentations and meetings with stakeholders related to water management strategies and performance and adaptive management (e.g., meeting minutes or notes, attendee lists). • Records of requests from stakeholders and actions undertaken by the company (e.g., letters, memo’s, meeting minutes, advertisements). 	<p>Explanatory Note for 4.2.5.3: Discussions could include, for example:</p> <p>The results of water quality and quantity monitoring (e.g., have there been any exceedances, and if so, what was done to prevent their recurrence; have any trends in contaminant concentrations or water levels been noticed, and if so, what are the potential implications)</p> <p>The success or challenges with <u>mitigation</u> strategies, and adaptive management issues (e.g., have <u>trigger levels</u> been reached, and if so, what steps were taken as a result)</p>

NOTES

Cross References to Other Chapters	
CHAPTER	ISSUES
1.1—Legal Compliance	As per Chapter 1.1, if there are <u>host country laws</u> that pertain specifically to the topics addressed in any IRMA chapter the <u>operating company</u> is required to abide by those laws. If IRMA requirements are more stringent than <u>host country law</u> , the company is required to also meet the IRMA requirement, as long as complying with it would not require the <u>operating company</u> to break the <u>host country law</u> . E.g., if host country water quality criteria are more protective of human health or the environment than IRMA requirements, the host country requirements supersede IRMA requirements.
1.2—Community and Stakeholder Engagement	The requirements to <u>consult or collaborate with stakeholders</u> regarding mine water management (in 4.2.1.2, 4.2.1.3, 4.2.4.1) shall conform with IRMA <u>stakeholder engagement</u> requirements in Chapter 2.8. This includes determining if the <u>stakeholders</u> have the capacity to effectively participate in discussions, and provision for access to independent experts if necessary to ensure meaningful engagement in water monitoring (requirement 4.2.5.3). Similarly, communications with <u>stakeholders</u> (e.g., in 4.2.1.2, 4.2.1.3, 4.2.4.1 and 4.2.6) shall conform with requirements in Chapter 1.2.4, which require that communications and information are in culturally appropriate formats and languages that are <u>accessible</u> and understandable to affected <u>stakeholders</u> , and are provided in a timely manner, and 1.2.2.2 requires dialogue and meaningful engagement that includes providing <u>stakeholders</u> with feedback on how their input has been taken into account.
1.3—Human Rights Due Diligence	In 2010, the United Nations recognized the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights. (UN General Assembly, 28 July 2010, A/RES/64/202) The potential for the <u>mining project</u> to infringe on this right should be evaluated as part of human rights due diligence in Chapter 1.3.
1.4—Complaints and Grievance Mechanism and Access to Remedy	If not resolved by other means, issues related to mining-related water impacts may be discussed and resolved through the mine’s operational-level grievance mechanism (see IRMA Chapter 1.4).
2.1—Environmental and Social Impact Assessment and Management	Scoping of impacts related to water may have been done as part of the Environmental, and Social Impact Assessment process (See 2.1.3). If potential impacts were identified during scoping, they should have been further assessed as per 4.2.2.
2.5—Emergency Preparedness and Response	Chapter 2.5 mandates coordination between the mine and emergency responders in adjacent communities. Requirement 4.2.5.2 requires that the <u>operating company</u> develop and implement procedures for rapidly communicating with <u>stakeholders</u> in the event that there are changes in water quantity or quality that pose an imminent threat to human health or safety, or commercial or natural resources. (See). These procedures should be incorporated into the emergency response plan in Chapter 2.5.
2.6—Planning and Financing Reclamation and Closure	The need for <u>long-term water treatment</u> (i.e., post-closure) should have been evaluated in Chapter 4.2, requirement 4.2.2.3.d. If it is predicted to be necessary, Chapter 2.6 include additional requirements for a risk assessment prior to <u>long-term water treatment</u> (see 2.6.6.1), and provision of financial assurance to cover the cost of <u>long-term water treatment</u> (see 2.6.7.2). Also, the <u>conceptual site model</u> , site water balance and numerical hydrogeochemical or hydrogeological models mentioned in 4.2.2.3, if used, can and should inform reclamation and closure planning (e.g., areas requiring soil remediation, whether wet or dry closure will be possible, the potential future impacts of climate change on the site, the water quality and quantity at closure, and potential to avoid <u>long-term water treatment</u>).
4.1—Waste and Materials Management	Mine waste management has potential implications for water management. As a result, Chapter 4.2, similar to 4.1, addresses characterization of wastes, <u>water balance</u> , chemical modeling and <u>Conceptual Site Models</u> (see 4.2.2), prevention of water contamination through management of mine wastes (see 4.2.3), and <u>mitigation</u> and monitoring of waters that may be contaminated by mine wastes (see 4.2.3 and 4.2.4, respectively).

Cross References to Other Chapters	
4.3—Air Quality	The <u>conceptual site model</u> may provide information that will be useful to air quality assessment, as air is one pathway for contaminants to travel.
4.6—Biodiversity, Ecosystem Services and Protected Areas	Mining-related impacts on water and mine water management practices may affect <u>biodiversity</u> (e.g., affect habitat or water supply for <u>threatened and endangered species</u>), <u>ecosystem services</u> (e.g., reduce flood regulation, availability of drinking water), or mining may affect waters located in <u>protected areas</u> . Potential impacts related to <u>biodiversity</u> , <u>ecosystem services</u> or <u>protected areas</u> should have been scoped either during the Biodiversity, Ecosystem Services and Protected Areas screening process (see criteria 4.6.2) or as per Site Characterization and Prediction of Potential Impacts in Chapter 4.2 (see 4.2.2). If potential impacts are identified in either case, the significance of the potential impacts should be further assessed (as per 4.6.3), and <u>mitigation</u> developed accordingly to 4.6.4.
4.7—Cyanide Management	If cyanide is transported to, stored or used on site, monitoring of cyanide in surface water and groundwaters is required in Chapter 4.7 (see 4.7.4). Monitoring of cyanide in water may be incorporated into the water management program in Chapter 4.2 (see criteria 4.2.4).
4.8—Mercury Management	Monitoring of mercury released to water may be required as part of the mercury monitoring plan (See 4.8.3). Mercury monitoring in water may be incorporated into the water management program in Chapter 4.2 (see criteria 4.2.4).

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the Glossary of Terms at the end of the IRMA Standard document.

Acid Rock Drainage (ARD)

The drainage produced when rocks with sulfide or other acid-producing minerals are under oxidizing conditions (exposed to water and oxygen) and generate an acidic water stream. Acid rock drainage generally contains elevated concentrations of metals, sulfate, and other constituents and has a pH < 6. The terms acid mine drainage and acid and metalliferous drainage (both AMD) are sometimes used as synonyms for ARD.

Adaptive Management

A structured, iterative process of robust decision-making in the face of uncertainty, with an aim to reducing uncertainty over time via system monitoring. It includes the development of management practices based on clearly identified outcomes, and monitoring to determine if management actions are meeting desired outcomes. If outcomes are not being met, the process requires development and implementation of management changes to ensure that outcomes are met or re-evaluated.

Affected Community

A community that is subject to risks or impacts from a project.

Background Water Quality

Established after mining has commenced, it is the water quality in a similarly mineralized area outside of the mine’s influence (e.g., surface water quality upstream of the mine site or upgradient for groundwater).

Baseline Water Quality

The water quality at the site or in the area surrounding a proposed mining project, before mining-related activity has occurred.

Basin/Catchment/Watershed

An area of land that drains all the streams and rainfall to a common outlet such as the outflow of a reservoir, mouth of a bay, or the mouth of a stream or river. The word basin, or “drainage basin” is sometimes used interchangeably with catchment or watershed.

Competent Professionals

In-house staff or external consultants with relevant education, knowledge, proven experience, necessary skills and training to carry out the required work. Competent professionals would be expected to follow scientifically robust methodologies that would withstand scrutiny by other professionals. Other equivalent terms used may include: competent person, qualified person, qualified professional. For independent reviews (in IRMA Chapter 4.1) competent professionals must not be in-house staff.

Collaboration

The process of shared decision-making in which all stakeholders constructively explore their differences and develop a joint strategy for action. It is based on the premise that, through dialogue, the provision of appropriate information, collectively defined goals, and the willingness and commitment to find a solution acceptable to all parties, it is possible to overcome the initially limited perspectives of what is achievable and to reach a decision which best meets the interests of the various stakeholders. At this level, responsibility for decision-making is shared between stakeholders.

Conceptual Flow Model (CFM)

A description of sources and flow paths for groundwater flow through an aquifer from points of recharge to points of discharge. It may be a qualitative description with as much quantification as possible based on the descriptions.

Conceptual Site Model (CSM)

A qualitative description, based on site measurements and observations, of what is known about the release, transport and fate of contaminants at a site. A CSM includes a schematic or diagram and an accompanying narrative description.

Control

An act, object (engineered) or system (combination of act and object) intended to prevent or mitigate an unwanted event.

Dewatering (of mines)

The extraction of water to lower the water table to a level lower than the deepest point of the mine, thereby keeping the mine dry.

Ecosystem Services

The benefits people obtain from ecosystems. These include provisioning services such as food, water, timber, and fibre; regulating services that affect climate, floods, disease, wastes, and water quality; cultural services that provide recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation, photosynthesis, and nutrient cycling.

Host Country Law

May also be referred to as national law, if such a phrase is used in reference to the laws of the country in which the mining project is located. Host country law includes all applicable requirements, including but not limited to laws, rules, regulations, and permit requirements, from any governmental or regulatory entity, including but not limited to applicable requirements at the federal/national, state, provincial, county or town/municipal levels, or their equivalents in the country where the mine is located. The primacy of host country laws, such as federal versus provincial, is determined by the laws of the host country.

Metals Leaching

The release of metals by contact with solvents. Leaching may be natural or induced (e.g., related to mining operations). Mining commonly accelerates metal leaching. Metals leaching can also be referred to as “contaminant” leaching.

Mine Closure

A period of time when ore-extracting and processing activities of a mine have ceased, and final decommissioning and mine reclamation are occurring. It typically includes pre-closure (detailed closure design and planning), closure (actual activities of closure of mine workings and construction/decommissioning) and post-closure (mainly long-term reclamation, monitoring, and treatment) periods, each with its own specific activities.

Mining Impacted Waters (MIW)

Any water whose chemical composition has been affected by mining or mineral processing. Also referred to as mining influenced waters or mine impacted waters. Includes acid rock drainage (ARD), acid mine drainage or acid and metalliferous drainage (AMD), neutral mine drainage, saline drainage, and metallurgical process waters of potential concern. A key characteristic of most mining impacted waters (also known as mining influenced waters) is that they contain elevated metals that have leached from surrounding solids (e.g., waste rock, tailings, mine surfaces, or mineral surfaces in their pathways). This fact is commonly acknowledged by the phrase “metals leaching” (ML), frequently resulting in acronyms such as ARD/ML.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mining-Related Activities

Physical activities (e.g., land disturbance and clearing, road building, sampling, airborne surveys, facility construction, ore removal, ore processing, waste management, reclamation, etc.) carried out during any phase of the mine life cycle (planning, impact assessment, exploration, mine construction, mining, mine closure, post-closure).

Mitigation

Actions taken to reduce the likelihood of a certain adverse impact occurring

Mitigation Hierarchy

The mitigation hierarchy is a set of prioritized steps to alleviate environmental (or social) harm as far as possible through avoidance, minimization (or reduction) and restoration of adverse impacts. Compensation/offsetting are only considered to address residual impacts after appropriate avoidance, minimization and restoration measures have been applied. (See Glossary for full definition)

Mixing Zone

A volume of surface water or groundwater containing the point or area of discharge and within which an opportunity for the mixture of wastes with receiving surface waters or groundwaters has been afforded, and where water quality is allowed to exceed otherwise specified standards.

Natural Seep/Spring

A natural seep is a moist or wet place where water reaches the earth's surface from an underground aquifer. Seeps are usually not of sufficient volume to be flowing much beyond their above-ground location. A natural spring is a discharge of water formed when the side of a hill, a valley bottom or other excavation intersects a flowing body of groundwater at or below the local water table, below which the subsurface material is saturated with water. A natural spring is differentiated from a seep in that water flows at a greater rate from an aquifer to the earth's surface.

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Pit Lake

Lake formed in a mine pit when mine dewatering pumpage ceases.

Point of Compliance

For IRMA purposes is the physical location where water quality must meet IRMA use-based standards (See IRMA Water Quality By End-Use Tables 4.2.a – 4.2.h). The location will vary based on the following scenarios:

Surface water compliance points: are located where point source discharges enter surface waters. Points of compliance for non-point-source discharges are located downstream of but as close as practicable to known mine-related nonpoint sources.

Groundwater compliance points: are located outside the groundwater capture zone (which extends from the land surface to the depth at which groundwater is not affected by mining activities) or area of hydrologic control for mine facilities or sources but as close as practicable to those sources.

Stormwater compliance locations: are in industrial stormwater collection impoundments when water is present.

If a mixing zone is used: The point of compliance is at the downstream or downgradient edge of the mixing zone. The edge of the mixing zone is where the diluted plume meets background water quality. In no case shall mine-related contaminants extend beyond the mine boundary, unless a mixing zone authorized by a regulatory agency extends beyond the boundary.

If a mine is providing water to another entity for a designated use: the water must meet IRMA use-based standards, or legal documentation must be received from the entity verifying that they will be responsible for treating water to meet use-based standards.

Post-Closure

The period after the reclamation surety holder declares the activities required by the reclamation and closure plan are complete; any significant objections raised during the public comment period on the final release of the financial surety have been resolved; and the reclamation surety has been returned to the operator, or it has been converted to a post-closure trust fund or equivalent (i.e. if there is a need to fund long-term management and monitoring of the site). This phase continues until final sign-off and relinquishment can be obtained from the regulator and stakeholders.

Practicable

Practicable means giving equal weight to environmental, social, and economic benefits and costs. This is not a technical definition. It is the discussion between the affected parties on the balance between these interrelated costs and benefits that is important.

Rights Holder

Rights holders are individuals or social groups that have particular entitlements in relation to specific duty bearers (e.g., State or non-state actors that have a particular obligation or responsibility to respect, promote and realize human rights and abstain from human rights violations). In general terms, all human beings are rights-holders under the Universal Declaration of Human Rights. In particular contexts, there are often specific social groups whose human rights are not fully realized, respected or protected.

Stakeholder

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Stormwater

Industrial stormwater (also known as contact water) is runoff of rainfall, snow or snowmelt that has contacted mined materials (e.g., waste rock, tailings, mine openings, mine processing facilities and associated mining roads). Non-industrial stormwater (also known as non-contact water) is runoff of rainfall, snow or snowmelt from land and impervious surface areas such as non-mining related roads that do not contain mined materials.

Tailings

The waste stream resulting from milling and mineral concentration processes that are applied to ground ore (i.e., washing, concentration, and/or treatment). Tailings are typically sand to clay-sized materials that are considered too low in mineral values to be treated further. They are usually discharged in slurry form to a final storage area commonly referred to as a tailings storage facility (TSF) or tailings management facility (TMF).

Trigger Level

A concentration between baseline or background values and IRMA water quality criteria or other applicable compliance limits that can warn of mine-related effects to water quality and trigger adaptive management or corrective actions to improve water quality

Waste Rock

Barren or mineralized rock that has been mined but is of insufficient value to warrant treatment and, therefore, is removed ahead of the metallurgical processes and disposed of on site. The term is usually used for wastes that are larger than sand-sized material and can be up to large boulders in size; also referred to as waste rock dump or rock pile.

Water Balance

An accounting of the inflow to, outflow from, transfers and storage changes of water over a fixed period.

Water Quality Criteria

Numerical concentrations or a narrative statement recommended to support and maintain a designated water use. Criteria are based on scientific information about the effects of water pollutants on a specific water use

Water Quantity

For IRMA purposes, water quantity refers generally to the amount of water present or passing a certain location in water bodies that exist on the earth's surface, such as lakes, ponds, rivers, streams, etc., (i.e., referred to as surface waters) and water bodies that exist underground (i.e., groundwaters). It also includes the amount of water that originates underground but expresses itself at the surface (e.g., natural springs or seeps). Water quantity measurements may be expressed as volumes, however, for IRMA's purposes measurements for rivers, streams and natural springs/seeps maybe expressed as a flow (in ft³/sec or m³/sec), while measurements for lakes and groundwater may be expressed as a level or elevation (e.g., feet or meters above a reference point such as sea level).

Whole Effluent Toxicity

Refers to the aggregate toxic effect to aquatic organisms from all pollutants contained in a mine's effluent.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



[flag] Issue in brief: IRMA is seeking input on the proposed criteria for cyanide in IRMA Water Quality Criteria Table 4.2.a. – Aquatic Organisms - Fresh Water Quality Criteria.

The International Cyanide Management Code ("the Cyanide Code") was developed through a multi-stakeholder process as an effort to improve the management of cyanide at gold, and in 2017 also silver mines. The Cyanide Code's Implementation Guidance states that: "Discharges to surface waters should not exceed 0.5 mg/l WAD cyanide nor result in a concentration of free cyanide in excess of 0.022 mg/l within the receiving surface water body, and downstream of any mixing zone approved by the applicable jurisdiction. The 0.022 mg/l guideline is from the United States Environmental Protection Agency's National Water Quality Criteria for Cyanide, and represents a concentration to which a freshwater aquatic community can be briefly exposed without resulting in an unacceptable effect." (Guidance for Standard of Practice 4.5. <https://www.cyanidecode.org/become-signatory/implementation-guidance>)

There is concern among some stakeholder groups, however, that a lower value may be necessary, as some aquatic species are more sensitive to cyanide's effects, and several regulatory jurisdictions have a set a cyanide limit between 0.004 and 0.007 mg/L for the protection of aquatic life. As per IRMA Chapter 1.1, if there are lower limits set by a host country, mines in those jurisdictions are expected to meet those limits.

Although it is not as stringent a standard as found in some countries, it is hoped that the 0.022 mg/l limit in the Launch Phase version of the IRMA Standard will begin to spur improvements in cyanide management at mining operations located in countries that do not have strong regulatory programs.

During IRMA's Launch Phase, we will be gathering data to better understand what levels of cyanide are achievable in surface waters at existing mines, and whether aquatic impacts related to cyanide are being experienced at sites that are meeting the 0.022 mg/l guidelines set by the Cyanide Code. Depending on the outcomes, IRMA may revise its cyanide criteria to provide greater protections for aquatic organisms.

IRMA Water Quality Criteria by End-Use Tables

[4.2.a](#)—Aquatic Organisms - Fresh Water Quality Criteria

[4.2.b](#)—Aquatic Organisms - Salt Water Quality Criteria

[4.2.c](#)—Drinking Water and Human Health Quality Criteria

[4.2.d](#)—Agriculture - Irrigation Water Quality Criteria

[4.2.e](#)—Agriculture - Irrigation Water Quality Criteria

[4.2.f](#)—Aquaculture Water Quality Criteria

[4.2.g](#)—Recreational Water Quality Criteria


[4.2.h](#)—Industrial Water Quality Criteria

Abbreviations

Bq/L = Becquerel per Liter
 CaCO₃ = calcium carbonate
 degC = degrees centigrade
 mg/L = milligrams per Liter

s.u. = standard units
Tot. = Total
 µg/L = micrograms per Liter
 WAD = weak acid dissociable

Note: Data and rationale for IRMA and end-use criteria values are available upon request.

Metals / Metalloids ¹	Units	Criteria	Source	Non-Metals / Anions ¹	Units	Criteria	Source
Aluminum	µg/L	55	AUS-NZ	Alkalinity (as CaCO ₃)	mg/L	measure	
Antimony	µg/L	-		Ammonia (Tot)	mg/L	X**	USA
Arsenic	µg/L	24	AUS-NZ	Chlorine	µg/L	3	AUS-NZ
Barium	µg/L	-	PER, CHI	Chloride	mg/L	230	USA
Boron	µg/L	750	PHI				
Beryllium	µg/L	-		 Cyanide (Free/WAD)	µg/L	22	Cyanide Code
Cadmium	µg/L	X*	USA				
Calcium	mg/L	measure		Dissolved Organic Carbon	mg/L	measure	
Chromium (Tot)	µg/L	-		Dissolved Oxygen	mg/L	measure	
Chromium (III)	µg/L	X*	USA	Fluoride	mg/L	1	PHI
Chromium (VI)	µg/L	11	USA, PE	Hardness	mg/L	measure	
Cobalt	µg/L	-		Hydrogen Sulfide	mg/L	****	
Copper	µg/L	X*	USA, CAN	Nitrate & Nitrite	mg/L	-	
Iron	µg/L	1000	USA	Nitrate (as NO ₃ ⁻)	mg/L	13	CAN, PER
Lead	µg/L	X*	USA, CAN	Nitrite (as NO ₂ ⁻)	mg/L	-	
Magnesium	mg/L	measure		Nitrogen, tot. as N	mg/L	measure	
Manganese	µg/L	370	SAF	pH	s.u.	6.5 - 9.0	US, CAN
Mercury	µg/L	0.1	PER, EU, SAF	Sulfate	mg/L	-	
Molybdenum	µg/L	73	CAN	Temperature	degC	<3 diff	IFC
Nickel	µg/L	X*	USA	Total Dissolved Solids	mg/L	-	
Potassium	mg/L	measure		Total Suspended Solids	mg/L	40	Between CAN and IFC ***
Radium 226/228	Bq/L	-					
Selenium	µg/L	5	USA, SAF, AUS-NZ				

Silver	µg/L	0.25	CAN						
Sodium	mg/L	measure							
Thallium	µg/L	0.8	CAN, PER						
Uranium	µg/L	-							
Vanadium		-							
Zinc	µg/L	X*	USA						

Notes: * Use USEPA Hardness-based or Biotic Ligand Model (BLM) calculations for metals; ** and Temperature and pH-based calculations for Ammonia. *** Baseline /background likely to be higher at many sites. See 4.2.3.3.a. **** A limit for Hydrogen Sulfide is not included because the methods available for analyses are presently well below the Method Reporting Limit (The lowest amount of an analyte in a sample that can be quantitatively determined with stated, acceptable precision and accuracy under stated analytical conditions, i.e. the lower limit of quantitation). However, if there is some reason to believe that sulfide is present, then it should be measured.

Abbreviations for Sources/Standards: AUS-NZ = Australia and New Zealand; CAN = Canada; CHI = China; EU = European Union; IFC = International Finance Corporation; PER =Peru, PHI =Philippines; SAF = South Africa; USA = United States. (References listed at end of tables).

Metals / Metalloids ¹	Units	Criteria	Source	Non-Metals / Anions	Units	Criteria	Source
Aluminum	µg/L	-		Alkalinity (as CaCO ₃)	mg/L	-	
Antimony	µg/L	-		Ammonia (Total)	mg/L	X *	AUS-NZ
Arsenic	µg/L	12.5	CAN	Chlorine	µg/L	0.5	CAN
Barium	µg/L	-		Chloride	mg/L	-	
Beryllium	µg/L	-		Cyanide (Chronic - Free / WAD)	µg/L	4	AUS-NZ, PER
Cadmium	µg/L	4	SAF	Fluoride	mg/L	-	
Calcium	mg/L	-		Hardness	mg/L	-	
Chromium (Total)	µg/L	-		Hydrogen Sulfide	mg/L	***	US, PER
Chromium (III)	µg/L	27.4	AUS-NZ	Nitrate & Nitrite	mg/L	-	
Chromium (VI)	µg/L	4.4	AUS-NZ	Nitrate (NO ₃ ⁻)	mg/L	13 **	AUS
Cobalt	µg/L	-		Nitrite (NO ₂ ⁻)	mg/L	-	
Copper	µg/L	3.1	US	Nitrogen, total (as N)	mg/L	-	
Iron	µg/L	-		pH (standard units)	s.u.	6.5- 8.7	US, CAN
Lead	µg/L	8.1	US, PER	Sulfate	mg/L	-	
Magnesium	mg/L	-		Temperature	degC	-	
Manganese	µg/L	-		Total Dissolved Solids	mg/L	-	
Mercury	µg/L	0.4	AUS-NZ	Total Suspended Solids	mg/L	-	
Molybdenum	µg/L	-					
Nickel	µg/L	70	PHI				
Potassium	mg/L	-					

Radium 226/228	Bq/L	-					
Selenium	µg/L	71	US, PER				
Silver	µg/L	1.4	US, AUS-NZ				
Sodium	mg/L	-					
Thallium	µg/L	-					
Uranium	µg/L	-					
Vanadium	µg/L	100	AUS-NZ				
Zinc	µg/L	15	AUS-NZ				

Notes: * Calculated value based on temperature and pH. ** From Vol. 2, Chapter 8 of AUS-NZ (2000). Guidelines for Fresh and Marine Water Quality, p. 8-3-169. (See references at end of tables). *** A limit for Hydrogen Sulfide is not included because the methods available for analyses are presently well below the Method Reporting Limit (The lowest amount of an analyte in a sample that can be quantitatively determined with stated, acceptable precision and accuracy under stated analytical conditions, i.e. the lower limit of quantitation). However, if there is some reason to believe that sulfide is present, then it should be measured.

Abbreviations for Sources/ Standards: AUS-NZ = Australia and New Zealand; CAN = Canada; PER =Peru, PHI =Philippines; SAF = South Africa; USA = United States. (References listed at end of tables).

TABLE 4.2.c. –Drinking Water and Human Health Quality Criteria

Metals / Metalloids	Units	Criteria	Source
Aluminum	µg/L	100	CAN, WHO
Antimony	µg/L	6	USA, CAN
Arsenic	µg/L	10	USA, CAN, AUS, EU, SAF, WHO
Barium	µg/L	1000	CAN, PER
Beryllium	µg/L	60	AUS
Cadmium	µg/L	5	USA, CAN, EU, SAF, CHI, PER
Chromium (Total)	µg/L	50	CAN, AUS, EU, WHO, SAF, CHI, PER
Copper	µg/L	1000	USA, CAN, AUS
Iron	µg/L	300	USA, CAN, AUS, SAF, CHI
Lead	µg/L	10	CAN, AUS, EU, SA, WHO, CHI, PER
Manganese	µg/L	50	USA, CAN, EU, SAF
Mercury	µg/L	1	CAN, AUS, EU, SAF, PER, PHI
Molybdenum	µg/L	50	AUS
Nickel	µg/L	20	AUS, EU, CHI, PHI
Radium 226/228	Bq/L	13.5	CAN, AUS
Selenium	µg/L	40	WHO, PER
Silver	µg/L	100	USA, AUS
Thallium	µg/L	2	USA
Uranium	µg/L	30	USA, WHO
Zinc	µg/L	3000	AUS, SAF, PER

Non-Metals / Ions	Units	Criteria	Source
Alkalinity (as CaCO ₃)	mg/L	-	
Ammonia	mg/L	0.5	AUS, EU, PER
Chlorine	mg/L	5	AUS, WHO
Chloride	mg/L	250	AUS, USA, CAN
Cyanide (Free or WAD)	µg/L	80	AUS
Fluoride	mg/L	1.5	CAN, AUS, EU, WHO, PER
Hydrogen Sulfide (as S ²⁻)	mg/L	*	
Nitrate (as NO ₃ ⁻)	mg/L	45	CAN, USA, CHI
Nitrite (as NO ₂ ⁻)	mg/L	3.3	CAN, USA, CHI
pH (standard units)	s.u.	6.5 - 8.5	USA, CAN, AUS, CHI, PHI
Sulfate	mg/L	400	Value between CAN, PER and USA, WHO, CHI
Total Dissolved Solids	mg/L	500	USA, CAN

Notes: * A limit for Hydrogen Sulfide is not included because the methods available for analyses are presently well below the Method Reporting Limit (The lowest amount of an analyte in a sample that can be quantitatively determined with stated, acceptable precision and accuracy under stated analytical conditions, i.e. the lower limit of quantitation). However, if there is some reason to believe that sulfide is present, then it should be measured.

Abbreviations for Sources/ Standards: AUS = Australia; CAN = Canada; CHI = China; EU = European Union; IFC = International Finance Corporation; PER =Peru, PHI =Philippines; SAF = South Africa; USA = United States; WHO = World Health Organization of the United Nations;. (References listed at end of tables).

TABLE 4.2.d. – Agriculture - Irrigation Water Quality Criteria			
Metals / Metalloids	Units	Criteria	Source
Aluminum	µg/L	5000	CAN, USA, AUS-NZ, SAF, FAO, PER
Antimony	µg/L	-	
Arsenic	µg/L	100	USA, AUS-NZ, SAF, FAO, PER
Barium	µg/L	-	
Beryllium	µg/L	100	USA, CAN, AUS-NZ, SAF, FAO, PER
Boron	µg/L	750	PHI
Cadmium	µg/L	10	USA, AUS-NZ, SAF, FAO, PER
Chromium (Total)	µg/L	100	USA, AUS-NZ, FAO, SAF, PER
Cobalt	µg/L	50	USA, AUS-NZ, CCME, FAO, SAF, PER
Copper	µg/L	200	USA, AUS-NZ, CCME, FAO, SAF
Iron	µg/L	5000	USA, CAN, FAO, SAF, PER
Lead	µg/L	200	CAN, SAF
Manganese	µg/L	200	CAN, AUS-NZ, FAO, PER, PHI
Mercury	µg/L	2	AUS-NZ , PHI
Molybdenum	µg/L	10	USA, CAN, AUS-NZ, SAF, FAO

Nickel	µg/L	200	USA, CAN, AUS-NZ, SAF, FAO, PER, PHI
Radium 228	Bq/L	-	
Selenium	µg/L	20	USA, CAN, AUS-NZ, SAF, PER, PHI
Silver	µg/L	-	
Thallium	µg/L	-	
Uranium	µg/L	100	AUS-NZ
Vanadium	µg/L	100	USA, CAN, AUS-NZ, FAO
Zinc	µg/L	2000	USA, FAO, PER, PHI
Non-Metals / Anions	Units	Criteria	Source
Alkalinity (as CaCO ₃)	mg/L	-	
Chlorine	mg/L	175	CAN
Chloride	mg/L	100	CAN, SAF
Cyanide (Free or WAD)	µg/L	-	
Fluoride	mg/L	1	USA, CAN, FAO, PER
Nitrate & Nitrite	mg/L	-	
Nitrate	mg/L	-	
Nitrite	mg/L	-	
pH (standard units)	s.u.	6.5 - 8.4	USA, SAF, FAO
Sulfate	mg/L	1000	AUS-NZ, PER
Total Dissolved Solids	mg/L	500 – 3500*	CAN
Total Suspended Solids	mg/L	-	
Notes: * 500 mg/L for berries, stone fruit, and some vegetables; 3500 mg/L for asparagus, some grains and other vegetables (see Canadian Council of Ministers of the Environment for more information. http://st-ts.ccme.ca/en/index.html?lang=en&factsheet=215)			
Abbreviations for Sources/ Standards: AUS-NZ = Australia and New Zealand; CAN = Canada; FAO = Food and Agriculture Organization of the United Nations; PER =Peru, PHI =Philippines; SAF = South Africa; USA = United States. (References listed at end of tables).			

TABLE 4.2.e. – Agriculture - Livestock Water Quality Criteria			
Metals / Metalloids	Units	Criteria	Source
Aluminum	µg/L	5000	USA, CAN, AUS-NZ, SAF, FAO, PER
Antimony	µg/L	-	
Arsenic	µg/L	200	USA, PER
Barium	µg/L	-	
Beryllium	µg/L	100	CAN, PER
Boron	µg/L	5000	CAN, AUS-NZ, PER
Cadmium	µg/L	50	USA, PER
Chromium (Total)	µg/L	1000	USA, AUS-NZ, SAF, PER
Cobalt	µg/L	1000	USA, CAN, AUS-NZ, SAF, PER
Copper	µg/L	500	USA, CAN, AUS-NZ, SAF, PER

Iron	µg/L	10000	SAF
Lead	µg/L	100	USA, CAN, AUS-NZ, SAF
Manganese	µg/L	200	AUS-NZ, PER, PHI
Mercury	µg/L	3	CAN
Molybdenum	µg/L	300	USA
Nickel	µg/L	1000	CAN, AUS-NZ, SAF, PER, PHI
Radium 228	Bq/L	-	
Selenium	µg/L	50	USA, CAN, SAF, PER
Silver	µg/L	-	
Thallium	µg/L	-	
Uranium	µg/L	200	CAN, AUS-NZ
Vanadium	µg/L	100	USA, CAN
Zinc	µg/L	24000	USA, PER
Non-Metals / Anions	Units	Criteria	Source
Alkalinity (as CaCO ₃)	mg/L	-	
Chlorine	mg/L	-	
Chloride	mg/L	-	CAN, SAF
Cyanide (Free or WAD)	µg/L	-	
Fluoride	mg/L	2	USA, CAN, AUS-NZ, PER
Nitrate & Nitrite (NO₃-N + NO₂-N)	mg/L	100	CAN, AUS-NZ
Nitrate (as NO ₃ -N)	mg/L	-	
Nitrite (as NO ₂ -N)	mg/L	10	USA, CAN, PER
pH (standard units)	s.u.	6.5 - 8.4	PER
Sulfate	mg/L	1000	AUS-NZ, PER
Total Dissolved Solids	mg/L	3000	CAN
Total Suspended Solids	mg/L	-	
Abbreviations for Sources/ Standards: AUS-NZ = Australia and New Zealand; CAN = Canada; FAO = Food and Agriculture Organization of the United Nations; PER =Peru, PHI =Philippines; SAF = South Africa; USA = United States. (References listed at end of tables).			

TABLE 4.2.f. – Aquaculture Water Quality Criteria				
Metals / Metalloids	Units	Fresh Criteria	Marine Criteria	Source
Aluminum	µg/L	30	10	AUS, SAF
Antimony	µg/L	-	-	
Arsenic	µg/L	50	30	AUS, PER, SAF
Barium	µg/L	-	-	

Beryllium	µg/L	-	-	
Cadmium	µg/L	X *	X *	AUS, SAF
Chromium (VI)	µg/L	100	50	PER, PHI
Cobalt	µg/L	-	-	
Copper	µg/L	X *	X *	AUS
Iron	µg/L	10	10	AUS, SAF
Lead	µg/L	X *	X *	AUS
Manganese	µg/L	10	10	AUS
Mercury	µg/L	1	1	AUS, SAF
Molybdenum	µg/L	-	-	
Nickel	µg/L	100	100	AUS
Radium 226/228	Bq/L	-	-	
Selenium	µg/L	10	10	AUS, PHI
Thallium	µg/L	-	-	
Uranium	µg/L	-	-	
Zinc	µg/L	5	5	AUS
Non-Metals / Anions	Units	Fresh Criteria	Marine Criteria	Source
Alkalinity (as CaCO ₃)	mg/L	-	-	
Ammonia (Total)	µg/L	20	100	AUS
Chlorine	µg/L	-	-	
Chloride	mg/L	-	-	
Cyanide (Free or WAD)	µg/L	5	5	AUS, PER
Fluoride	mg/L	20	5	AUS, SAF
Hydrogen Sulfide	mg/L	**	**	
Nitrate & Nitrite	mg/L	-	-	
Nitrate (as NO ₃ ⁻)	mg/L	50	100	AUS
Nitrite (as NO ₂ ⁻)	mg/L	0.1	0.1	AUS
pH (standard units)	s.u.	6.5 - 9.0	6.0 - 9.0	AUS, WHO
Sulfate	mg/L	-	-	
Temperature	degC	<2 diff	<2 diff	AUS
Total Dissolved Solids	mg/L	-	-	
Total Suspended Solids	mg/L	40	40	AUS, PER
Notes: * Hardness dependent. ** A limit for Hydrogen Sulfide is not included because the methods available for analyses are presently well below the Method Reporting Limit (The lowest amount of an analyte in a sample that can be quantitatively determined with stated, acceptable precision and accuracy under stated analytical conditions, i.e. the lower limit of quantitation). However, if there is some reason to believe that sulfide is present, then it should be measured.				
Abbreviations for Sources/ Standards: AUS = Australia; PER = Peru; PHI =Philippines; SAF = South Africa; WHO = World Health Organization. (References listed at end of tables).				

TABLE 4.2.g. – Recreational Water Quality Criteria			
Metals / Metalloids	Units	Criteria	Source
Aluminum	µg/L	200	AUS-NZ, PER
Antimony	µg/L	-	
Arsenic	µg/L	10	PER, PHI
Barium	µg/L	700	PER, PHI
Beryllium	µg/L	-	
Boron	µg/L	500	PER, PHI
Cadmium	µg/L	5	AUS-NZ
Chromium (Total)	µg/L	50	AUS-NZ, PER
Cobalt	µg/L	-	
Copper	µg/L	1000	AUS-NZ
Iron	µg/L	300	AUS-NZ, PER
Lead	µg/L	10	AUS-NZ
Manganese	µg/L	100	AUS-NZ, PER
Mercury	µg/L	1	AUS-NZ, PER
Molybdenum	µg/L	-	
Nickel	µg/L	40	PHI
Radium 226/228	Bq/L	-	
Selenium	µg/L	10	AUS-NZ, PER
Silver	µg/L	50	AUS-NZ
Thallium	µg/L	-	
Uranium	µg/L	-	
Vanadium	µg/L	-	
Zinc	µg/L	3000	PER
Non-Metals / Anions	Units	Criteria	Source
Alkalinity (as CaCO ₃)	mg/L	-	
Ammonia (Total)	mg/L	-	
Chlorine	mg/L	-	
Chloride	mg/L	400	AUS-NZ
Cyanide (Free or WAD)	µg/L	100	AUS-NZ
Fluoride	mg/L	-	

Hardness	mg/L	-	
Hydrogen Sulfide	mg/L	*	
Nitrate & Nitrite	mg/L	-	
Nitrate (as NO ₃ -N)	mg/L	10	AUS-NZ, PER
Nitrite (as NO ₂ -N)	mg/L	1	AUS-NZ, PER
pH (standard units)	s.u.	6.5 - 8.5	AUS-NZ, SAF, PHI
Sulfate	mg/L	400	AUS-NZ
Total Dissolved Solids	mg/L	-	
Total Suspended Solids	mg/L	30	USA, PHI

Notes: * Hydrogen Sulfide is not included because the methods available for analyses are presently well below the Method Reporting Limit (The lowest amount of an analyte in a sample that can be quantitatively determined with stated, acceptable precision and accuracy under stated analytical conditions, i.e. the lower limit of quantitation). However, if there is some reason to believe that sulfide is present, then it should be measured.

Abbreviations for Sources/ Standards: AUS-NZ = Australia and New Zealand; PER = Peru; PHI =Philippines; SAF = South Africa; USA = United States. (References listed at end of tables).

TABLE 4.2.h. – Industrial Water Quality Criteria			
Metals / Metalloids	Units	Criteria	Source
Aluminum	µg/L	-	
Antimony	µg/L	-	
Arsenic	µg/L	-	
Barium	µg/L	-	
Beryllium	µg/L	-	
Cadmium	µg/L	-	
Chromium (Total)	µg/L	-	
Cobalt	µg/L	-	
Copper	µg/L	-	
Iron	µg/L	-	
Lead	µg/L	-	
Manganese	µg/L	-	
Mercury	µg/L	-	
Molybdenum	µg/L	-	
Nickel	µg/L	-	
Radium 226/228	Bq/L	-	
Selenium	µg/L	-	
Silver	µg/L	-	
Thallium	µg/L	-	

Uranium	µg/L	-	
Vanadium	µg/L	-	
Zinc	µg/L	-	
Non-Metals / Anions	Units	Criteria	Source
Alkalinity (as CaCO3)	mg/L	-	
Chlorine	mg/L	1	USA
Chloride	mg/L	-	
Cyanide (Free or WAD)	µg/L	-	
Fluoride	mg/L	-	
Nitrate & Nitrite	mg/L	-	
Nitrates	mg/L	-	
Nitrites	mg/L	-	
pH (standard units)	s.u.	6.0 -9.0	USA
Sulfate	mg/L	-	
Total Suspended Solids	mg/L	30	USA
Total Dissolved Solids	mg/L	-	

Abbreviations for Sources/ Standards: USA = United States. (References listed at end of tables).

REFERENCES FOR SOURCE MATERIALS USED IN TABLE

References for Table 4.2.a.

AUS-NZ: Australian and New Zealand Environment and Conservation Council. 2000. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Volume 1. <http://www.agriculture.gov.au/SiteCollectionDocuments/water/nwqms-guidelines-4-vol1.pdf>

CAN: Canadian Council of Ministers of the Environment. Canadian Water Quality Guidelines for the Protection of Aquatic Life. Available at: <http://cegg-rcqe.ccme.ca/en/index.html>

CHI: People's Republic of China. 2002. Environmental quality standard for surface water (GB 3838-

2002). English version not found. Available in: Zhao et al. 2016. "Amendment of water quality standards in China: viewpoint on strategic considerations," Environmental Quality Benchmarks for Aquatic Ecosystem Protection: Derivation and Application. <https://www.usask.ca/toxicology/jgiesy/pdf/publications/JA-931-temp.pdf>

EU: European Union. 2013. Directive 2013/39/EU of the European Parliament and of the Council of 12 August 2013 amending Directives 2000/60/EC and 2008/105/EC as regards priority substances in the field of water policy. <https://publications.europa.eu/en/publication-detail/-/publication/296e91b8-4610-11e3-ae03-01aa75ed71a1/language-en>

IFC: International Finance Corporation. 2007. Environmental, Health and Safety Guidelines for Mining. <https://www.ifc.org/wps/wcm/connect/1f4dc28048855af4879cd76a6515bb18/Final+-Mining.pdf?MOD=AJPERES>

PER: Peru Ministry of Environment (MINAM). 2015. National Environmental Quality Standards for Water (2015). <http://www.ana.gob.pe/sites/default/files/normatividad/files/ds-ndeg-015-2015-minam.pdf>

PHI: Republic of the Philippines. 2016. Water Quality Guidelines and General Effluent Standards of 2016. http://wepa-db.net/3rd/en/topic/waterstandard/Philippines_Water%20Quality%20Guideline_2016.pdf

SAF: South Africa. 1996. South African Water Quality Guidelines. Volume 7: Aquatic Ecosystems, 2nd Ed. http://www.dwa.gov.za/iwqs/wq_guide/Pol_saWQguideFRESHAquaticecosystemsvol7.pdf

USA: US Environmental Protection Agency. National Recommended Water Quality Criteria - Aquatic Life Criteria Table. <https://www.epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table>

References for Table 4.2.b. (listed only if different sources than 4.2.a)

SAF: South Africa. 1995. Water Quality Guidelines for Coastal Marine Waters, Volume 1. Available at: http://www.iwa-network.org/filemanager-uploads/WQ_Compndium/Database/Future_analysis/085.pdf

References for Table 4.2.c.

AUS: Australia National Health and Medical Research Council. 2017. Australian Drinking Water Quality Guidelines 6 (2011). https://www.nhmrc.gov.au/files/nhmrc/file/publications/nhmrc_adwg_6_version_3.4_final.pdf

CAN: Health Canada. 2017. Guidelines for Canadian Drinking Water Quality: Summary Table. Available at: <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/guidelines-canadian-drinking-water-quality-summary-table.html>

CHI: People's Republic of China. 2006. Standards for Drinking Water Quality. GB 5749-2006. (English version available at: http://www.iwa-network.org/filemanager-uploads/WQ_Compndium/Database/Selected_guidelines/016.pdf)

EU: European Union. 1998. EU Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption. <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:01998L0083-20151027>

PER: Peru Ministry of Environment (MINAM). 2015. National Environmental Quality Standards for Water (2015). <http://www.ana.gob.pe/sites/default/files/normatividad/files/ds-ndeg-015-2015-minam.pdf>

PHI: Republic of the Philippines. 2016. Water Quality Guidelines and General Effluent Standards of 2016. http://wepa-db.net/3rd/en/topic/waterstandard/Philippines_Water%20Quality%20Guideline_2016.pdf

SAF: South Africa. 1996. South African Water Quality Guidelines. Volume 1: Domestic Use. 2nd Ed. http://www.dwa.gov.za/iwqs/wq_guide/Pol_saWQguideFRESH_vol1_Domesticuse.PDF

USA: US Environmental Protection Agency. 2018. Drinking Water Standards and Health Advisory Tables. <https://www.epa.gov/sites/production/files/2018-03/documents/dwtable2018.pdf>

WHO: World Health Organization. 2011. Guidelines for Drinking Water Quality. http://www.who.int/water_sanitation_health/water-quality/guidelines/en/

References for Table 4.2.d.

AUS-NZ: Australian and New Zealand Environment and Conservation Council. 2000. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Volume 1. <http://www.agriculture.gov.au/SiteCollectionDocuments/water/nwqms-guidelines-4-vol1.pdf>

CAN: Canadian Council of Ministers of the Environment. Various years. Canadian Water Quality Guidelines for the Protection of Agriculture. Searched by individual factsheet. <http://cegg-rcqe.ccme.ca/en/index.html>

FAO: Ayers, R and Westcot, D. 1985. Water Quality for Agriculture. FAO Irrigation and Drainage Paper 29 (last updated 1994). <http://www.fao.org/docrep/003/t0234e/t0234e00.HTM>

PER: Peru Ministry of Environment (MINAM). 2015. National Environmental Quality Standards for Water (2015). <http://www.ana.gob.pe/sites/default/files/normatividad/files/ds-ndeg-015-2015-minam.pdf>

PHI: Republic of the Philippines. 2016. Water Quality Guidelines and General Effluent Standards of 2016. http://wepa-db.net/3rd/en/topic/waterstandard/Philippines_Water%20Quality%20Guideline_2016.pdf

SAF: South Africa. 1996. South African Water Quality Guidelines. Volume 4: Agricultural Use: Irrigation. 2nd Ed. http://www.dwaf.gov.za/iwqs/wq_guide/Pol_saWQguideFRESH_vol4_Irrigation.pdf

USA: US Environmental Protection Agency. 2012. Guidelines for Water Reuse. EPA/600/R-12/618. <https://www3.epa.gov/region1/npdes/merrimackstation/pdfs/ar/AR-1530.pdf>

References for Table 4.2.e. (If different from Table 4.2.d)

SAF: South Africa. 1996. South African Water Quality Guidelines. Volume 5: Agricultural Use: Livestock Watering. 2nd Ed. http://www.dwaf.gov.za/iwqs/wq_guide/Pol_saWQguideFRESH_vol5_Livestockwatering.pdf

References for Table 4.2.f. (If different from Table 4.2.d)

SAF: South Africa. 1996. South African Water Quality Guidelines. Vol. 6: Agricultural Use: Aquaculture. 2nd Ed. http://www.iwa-network.org/filemanager-uploads/WQ_Compndium/Database/Future_analysis/077.pdf

SAF: South Africa. 1995. Water Quality Guidelines for Coastal Marine Waters, Vol. 4: Mariculture. Available at: http://www.iwa-network.org/filemanager-uploads/WQ_Compndium/Database/Future_analysis/084.pdf

References for Table 4.2.g. (If different from Table 4.2.d)

SAF: South Africa. 1996. Water Quality Guidelines. Vol. 2: Recreational Use. Available at: http://www.iwa-network.org/filemanager-uploads/WQ_Compndium/Database/Future_analysis/084.pdf

References for Table 4.2.h. (If different from Table 4.2.d)

None.

Chapter 4.3—Air Quality

BACKGROUND

Mining sites can release significant quantities of air contaminants. By volume, the great majority of air contaminants are particulate matter, such as dust from blasting, large truck and equipment traffic, conveyors, and ore crushing. Other air contaminants may represent only a small proportion of a mine’s air emissions, but are important because like particulate matter they can significantly affect human health and the environment.

Mines may emit contaminants diffused activities, such as fugitive dust emitted by blasting or truck traffic, or wind-blown from exposed surfaces such as roads, pits, and waste piles, or from dried surfaces of tailings impoundments.

These releases can generally be controlled with reasonably inexpensive measures. However, a mine’s typically large geographic footprint makes control especially important and sometimes difficult. The most common method of dust control is spraying water - such as by truck on roads and near blasting activities. Chemical additives, such as magnesium chloride may be added to increase the effectiveness and durability of sprayed water.

Sources of localized air emissions from mining projects include processing facilities for mineral processing, smelting and refining operations, and usually the control mechanisms for emissions releases are expensive and complex. The common methods for controlling these emissions include technologies such as bag houses, electrostatic precipitators, wet and dry scrubbers.

OBJECTIVES/INTENT OF THIS CHAPTER

To protect human health and the environment from airborne contaminants.

SCOPE OF APPLICATION

Chapter Relevance: This chapter is relevant to all mining operations that release to air any of the contaminants in Table 4.3.a, below, or others that may present a risk to human or ecosystem health. Air emissions may be from stationary or mobile equipment, mine waste facilities, and other mining-related activities undertaken on the mine site or along transportation routes.

This chapter does not address air contaminants in the workplace. Those issues are addressed in IRMA Chapter 3.2, Occupational Health and Safety. Also, the management of emissions of greenhouse gases and mercury are addressed in Chapters 4.5 and 4.8, respectively.

CRITICAL REQUIREMENTS IN THIS CHAPTER

When significant potential impacts on air quality are identified, the mine develops measures to avoid and minimize adverse impacts on air quality, and documents them in an air quality management plan (4.3.2.1).

TERMS USED IN THIS CHAPTER

Affected Community ■ Air Quality Modeling ■ Ambient Air Quality ■ Associated Facility ■ Baseline Air Quality ■ Best Available Practices ■ Biodiversity ■ Conservation Values ■ Critical Habitat ■ Ecosystem Services ■ Existing Mine ■ Mine Waste Facilities ■ Mining Project ■ Mining-Related Activities ■ New Mine ■ Operating Company ■ Priority Ecosystem Services ■ Protected Areas ■ Stakeholders ■ Threatened Species ■

These terms appear in the text with a dashed underline, and

Air Quality Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>4.3.1. Air Quality Screening and Impact Assessment</p> <p>4.3.1.1. The operating company shall carry out air quality screening to determine if there may be significant air quality impacts associated with its operations.</p>	<p>For 4.3.1.1: Confirm, through review of documentation, that the operating company has carried out a screening exercise to determine if there are potentially significant air quality issues, such as emissions from ore processing or dust from roadways and mining-related activities (such as transfer points and waste rock dumping) that may impact communities and ecosystems.</p> <p>Review rationale for why emissions of inorganic and organic pollutants are deemed significant or not significant.</p>	<p>For 4.3.1.1:</p> <ul style="list-style-type: none"> • Air quality screening document(s). • ESIA Report: Air quality sections. • Air pollutant emissions inventory. • Dispersion model (i.e., potential % contribution of dust and emissions in relation to mining activity). • Comparison of potential or actual emissions to air quality standards, including EU and WHO air quality guidelines (such as those developed particulate matter, ozone, nitrogen dioxide and sulfur dioxide) • Comparison of potential or actual annual emissions of PM₁₀, NO_x and SO₂ and heat input of any combustion sources to IFC guidance (see Explanatory Notes). • Names and credentials of service-providers that carried out or verified emission tests or modeling, including reports produced by the service-providers. 	<p>Explanatory Note for 4.3.1.1: A screening exercise should be undertaken to determine if there are potentially significant air quality issues, such as emissions from ore processing or dust from roadways and mining-related activities that may have significant impacts on communities and ecosystems.</p> <p>Screening may have been done as part of the Environmental and Social Impact Assessment (ESIA) as per IRMA Chapter 2.1, or it may be carried out as a standalone screening exercise.</p> <p>Information feeding into the assessment may include a site-specific emissions inventory that estimates sources and quantities of releases. For estimation of air pollutant emissions various techniques can be used: mass balance, equipment manufacturer specifications, and emission factors. Emission factors used should be from widely accepted methods such as US Environmental Protection Agency’s AP-42 Emission Factors or the European Environment Agency’s EMEP/EEA Air Pollutant Emission Inventory Guidebook and Emission Factor Database.⁵⁷²</p> <p>One method that may be used to screen whether or not there may be significant air quality impacts associated with mining is to use guidance from IFC’s Environmental, Health and Safety Guidelines:</p>

⁵⁷² US Environmental Protection Agency. AP-42 Emission Factors. <https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emissions-factors>; European Environment Agency. 2016. EMEP/EEA Air Pollutant Emission Inventory Guidebook <https://www.eea.europa.eu/themes/air/emep-eea-air-pollutant-emission-inventory-guidebook>; and Emission Factor Database: <https://www.eea.europa.eu/publications/emep-eea-guidebook-2016/emission-factors-database>

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<p>4.3.1.2. During screening, or as part of a separate data gathering effort, the operating company shall establish the</p>	<p>For 4.3.1.2: Review sampling/monitoring/modeling data to confirm that <u>baseline air quality</u> has been</p>	<p>For 4.3.1.2:</p> <ul style="list-style-type: none"> • Baseline air quality monitoring data. • Previous local or regional baseline air quality studies 	<p>“Significant sources of point and fugitive emissions are considered to be general sources which, for example, can contribute a net emissions increase of one or more of the following pollutants within a given airshed: PM₁₀: 50 tons per year (tpy); NO_x: 500 tpy; SO₂: 500 tpy; or as established through national legislation; and combustion sources with an equivalent heat input of 50 MWth or greater. The significance of emissions of inorganic and organic pollutants should be established on a project-specific basis taking into account toxic and other properties of the pollutant.”⁵⁷³</p> <p>To screen for possible impacts to communities, estimated or actual emissions can be compared to air quality standards, such as the EU Air Standard, or air quality guidelines such as those developed by the World Health Organization.</p> <p>Some countries have established national legislation that defines “de-minimis” emission levels, or thresholds below which presumably impacts are not likely to be significant. The United States has established de minimis thresholds that apply to criteria air pollutants in areas that do not meet the national <u>ambient air quality</u> standards. USEPA’s de minimis levels can be used as a guideline for screening of the air pollutants for mines located in those areas of the United States.⁵⁷⁴</p> <p>Explanatory Note for 4.3.1.2: <u>Baseline air quality</u> monitoring should have been done prior to mine construction, and may have been done as part of the ESIA, see IRMA Chapter 2.1.</p>

⁵⁷³ IFC. 2007. Environmental, Health and Safety Guidelines. Section 1.1. Air Emissions and Ambient Air Quality. p. 4. <https://www.ifc.org/wps/wcm/connect/532ff4804886583ab4d6f66a6515bb18/1-1%2BAir%2BEmissions%2Band%2BAmbient%2BAir%2BQuality.pdf?MOD=AJPERES>

⁵⁷⁴ US Environmental Protection Agency (USEPA) website: “De Minimis Emission Levels.” <https://www.epa.gov/general-conformity/de-minimis-emission-levels>; and USEPA. 2016. Final Fine Particle Pollution De Minimis Emission Levels for General Conformity Applicability https://www.epa.gov/sites/production/files/2016-03/documents/factsheet_20060703.pdf

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p><u>baseline air quality in the mining project area.</u></p> <p>4.3.1.3. If screening or other credible information indicates that air emissions from <u>mining-related activities</u> may adversely impact human health, quality of life or the environment, the <u>operating company</u> shall undertake an assessment to predict and evaluate the significance of the potential impacts.</p>	<p>established. Previous studies carried out by regulators may also have been used to establish baseline.</p> <p><u>Baseline air quality</u> monitoring should have been done prior to mine construction (it may have been done as part of the ESIA, see IRMA Chapter 2.1); and monitoring should be continued as part of the site’s operational control of its daily air quality impacts via the Environmental Management System (EMS) (See criteria 2.1.7 and 2.1.8).</p> <p>For 4.3.1.3: Review screening and other materials (e.g., ESIA, complaints from <u>stakeholders</u>) and interview company and <u>stakeholders</u> to determine if there is a reasonable likelihood that air emissions from <u>mining-related activities</u> may have adverse impacts, and if so, confirm that an assessment was undertaken.</p>	<p>undertaken by third parties.</p> <ul style="list-style-type: none"> • Air quality modeling results to estimate baseline. • Background data from nearby airsheds or areas upwind of the mine. <p>For 4.3.1.3:</p> <ul style="list-style-type: none"> • Air quality assessment document(s). • Documented stakeholder grievances related to air quality, and company response. 	<p>Previous studies carried out by regulators may also have been used to establish <u>baseline</u>.</p> <p>If <u>existing mines</u> did not establish <u>baseline</u> air quality themselves, it may be possible to use previous studies of air quality in the region (e.g., carried out by regulators or others prior to mine development) may be used estimate <u>baseline air quality</u>. If no regional <u>baseline</u> data exist, the company could use air quality modeling to estimate what the air quality would have been prior to mine development.</p> <p>Alternatively, the company could measure concentrations of air pollutants in a nearby region or airshed that has similar topography, vegetation and climate but is not impacted by mining, or measure air pollutants upwind of the mining operation to create a rough estimate of <u>background air quality</u>.</p> <p>As necessary, monitoring for air emissions should be continued as part of the site’s operational control of its daily air quality impacts via the Environmental Management System (EMS) or a standalone air monitoring program (See criteria 2.1.7 and 2.1.8).</p> <p>Explanatory Note for 4.3.1.3: Other credible information refers to information that may be brought forward outside of (e.g., after) the screening process.</p> <p>If potentially significant impacts have been predicted during or after the screening process, assessment should occur to further identify potential air contaminants and sources, estimate quantities of emissions, and potential receptors that may be affected by emissions. This information should then be used to evaluate the likelihood and extent of air quality</p>


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<p>4.3.1.4. The assessment shall include the use of <u>air quality modeling</u> and monitoring consistent with widely accepted and documented methodologies to estimate the concentrations, transport and dispersion of mining-related air contaminants.</p>	<p>For 4.3.1.4: If relevant, review the air quality assessment and confirm that <u>air quality modeling</u> and monitoring were used to estimate the potential concentrations of air contaminants, and an evaluation undertaken to determine which air impacts were significant enough to warrant mitigation.</p> <p>Interview <u>operating company</u> and review documentation to confirm that <u>air quality modeling</u> and monitoring methodologies followed were consistent with widely accepted methodologies.</p> <p>If a company has not carried out modeling, review documentation to confirm that a scientific analysis supports the claim that the risk to humans, wildlife or important plant species from air emissions is insignificant. At minimum, the analysis should consider the</p>	<p>For 4.3.1.4:</p> <ul style="list-style-type: none"> • Air quality assessment document(s). • Air quality modeling report (including documentation on modeling methodology and modeling results). • Air quality monitoring reports (including documentation on monitoring methodology and monitoring results). • Meteorology data/reports. 	<p>impacts on communities and the environment from the <u>mining project</u>.</p> <p>Re: impacts on the environment, note that if screening indicates that air emissions may significantly affect <u>important biodiversity, priority ecosystem services, critical habitat (including threatened and endangered species) or the conservation values of protected areas</u>, Chapter 4.6 also applies.</p> <p>Explanatory Note for 4.3.1.4: For modeling, methods that follow United States EPA or EU modeling guidelines⁵⁷⁵ would be considered credible, as would methods that align with USEPA or EU methods.</p> <p>Methods or variations on acceptable methods must be designed to estimate air contamination, employ proven and/or widely accepted and widely demonstrated/documented methods, and be appropriate for the local airshed and impacts.</p> <p>For example, air quality modes should be 'fit-for-purpose' as per the EU guidelines, which recommend that the model:</p> <ul style="list-style-type: none"> • Has the appropriate spatial and temporal resolution for the intended application; • Is adequately validated for the particular application, and is well documented; • Contains the relevant physical and chemical processes suitable for the type of application, the scale and the pollutant(s) for which it is applied; • The relevant emission sources for the application are

⁵⁷⁵ See US EPA's Air Quality Guidelines. Appendix W To Part 51—Guideline On Air Quality Models. Pt. 51, App. W, 40 CFR Ch. I (7–1–03 Edition). Available at: www3.epa.gov/scram001/guidance/guide/appw_03.pdf and European Environment Agency. 2011 The Application of Models under the EU Air Quality Directive. www.eionet.europa.eu/events/EIONET/Technical_report_3

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	pollutants in Table 4.3.a, as well as any other relevant air emissions (e.g., dust at all mines, mercury air emissions at gold mines) and all specific host country regulated emissions applicable to the mine site.		adequately represented; <ul style="list-style-type: none"> Includes suitable meteorological data Companies can look to USEPA for guidance on what is suitable meteorological data to collect as part of on-site meteorological monitoring. ⁵⁷⁶
<p>4.3.2. Air Quality Management Plan</p> <p>4.3.2.1. (Critical Requirement) If significant potential impacts on air quality are identified, the <u>operating company</u> shall develop, maintain and implement an air quality management plan that documents measures to avoid, and where that is not possible, minimize adverse impacts on air quality.</p>	<p>For 4.3.2.1 and 4.3.2.2: Review air quality management plan and any updates to the plan. Review the <u>mitigation</u> strategies, and where avoidance was not deemed possible confirm that there was a reasonable justification for not avoiding those air quality impacts, and confirm that steps were taken to minimize the impacts. Confirm that strategies outlined in the management plan are being implemented.</p>	<p>For 4.3.2.1:</p> <ul style="list-style-type: none"> Air quality management plan or equivalent. 	<p>Explanatory Note for 4.3.2.1: The air quality management plan does not need to be a stand-alone plan, i.e., it could be incorporated into the Environmental and Social Management Plan mentioned in IRMA Chapter 2.1 (requirement 2.1.7.2).</p>
<p>4.3.2.2. Air quality management strategies and plans shall be implemented and updated, as necessary, over the mine life.</p>	<p>For 4.3.2.1 and 4.3.2.2: Review air quality management plan and any updates to the plan. Review the <u>mitigation</u> strategies, and where avoidance was not deemed possible confirm that there was a reasonable justification for not avoiding those air quality impacts, and confirm that steps were taken to minimize the impacts. Confirm that strategies outlined</p>	<p>For 4.3.2.2:</p> <ul style="list-style-type: none"> Air quality management plan and any updates to the plan. 	<p>Explanatory Note for 4.3.2.2: It will be necessary to update the plan if there are any major changes to mining operations that may lead to new or reduced sources of air emissions.</p>

⁵⁷⁶ USEPA. Air Quality Guidelines. Appendix W to Part 51—Guideline On Air Quality Models. Pt. 51, App. W, 40 CFR Ch. I: <https://www.epa.gov/scram/air-modeling-meteorological-guidance>

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<p>4.3.3. Air Quality Monitoring</p> <p>4.3.3.1. The operating company shall monitor and document ambient air quality and dust associated with the mining project by using personnel trained in air quality monitoring.</p>	<p>in the management plan are being implemented.</p> <p>Auditing Note for 4.3.3.2: Each mine site is unique and it is therefore up to the IRMA auditor to assess the adequacy/efficacy of air quality monitoring activities and locations.</p> <p>For 4.3.3.1: Review documents and data to confirm that air quality monitoring is occurring, e.g., and as part of the site’s operational control of its daily air quality impacts via the Environmental Management System (EMS) or a standalone air monitoring program. Also, review documents related to qualifications and/or training records of all staff who are responsible for and undertake air quality monitoring to demonstrate that those staff have been trained to the appropriate standards and skills.</p>	<p>For 4.3.3.1:</p> <ul style="list-style-type: none"> • Air quality monitoring program description (methodologies, monitoring locations, map of locations, monitoring schedule, etc.). • Air quality monitoring data. • Air quality reports (to agencies). • Records of employee training related to air quality monitoring. • Names and credentials of contractors/service-providers that carried out air quality monitoring, including reports produced by the service-providers. • Equipment calibration and QA/QC documentation, where applicable. 	<p>Explanatory Note for 4.3.3.1: Air quality monitoring may be included as part of the site’s Environmental Management System (EMS), or as a standalone air monitoring program. As part of the program, the operating company may develop a standalone air quality monitoring plan, or air quality monitoring may be incorporated into a larger environmental monitoring plan.</p> <p>If there are mercury emissions related to the mining project, see IRMA Chapter 4.8, criteria 4.8.3, for mercury air emissions monitoring requirements.</p> <p>Personnel trained in air quality monitoring will have been sufficiently instructed/educated to ensure their ability to understand and perform monitoring tasks at a level commensurate with air quality monitoring best practices. They will also make sure that equipment being used in monitoring is regularly and adequately calibrated and there is a QA/QC plan in place ensuring accurate and precise collection of data.</p> <p>Indicators of sufficient training include, but are not limited to: qualification to perform their tasks (e.g., an appropriate academic degree, certification, or evidence of training on particular methods and equipment); and ability to explain outcomes, troubleshoot problems, defend results, and otherwise perform in the air quality monitoring area with independent comprehension and skill.</p> <p>If continuous emissions monitoring systems are used, they should be maintained to yield a minimum of 80% valid hourly average values during the reporting period.</p>

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<p>4.3.3.2. <u>Ambient air quality</u> and dust monitoring locations shall be situated around the mine site, related operations and transportation routes and the surrounding environment such that they provide a representative sampling of air quality sufficient to demonstrate compliance or non-compliance with the air quality and dust criteria in 4.3.4.3, and detect air quality and dust impacts on <u>affected communities</u> and the environment. Where modeling is required (see 4.3.1.4) air monitoring locations shall be informed by the <u>air quality modeling</u> results.</p>	<p>For 4.3.3.2: Review documentation and interview <u>operating company</u> to determine how sites were selected. Confirm that monitoring was in compliance with any host-country-specific monitoring requirements. if modeling was required, confirm monitoring locations were informed by modeling results (e.g., were situated in areas where concentrations of pollutants were predicted to exceed air quality standards).</p>	<p>For 4.3.3.2:</p> <ul style="list-style-type: none"> • Air quality monitoring plan. • Maps showing locations of air quality monitoring sites. • Air quality monitoring data. • Air quality modeling plan and results showing likely dispersion of pollutants. • Documented stakeholder grievances related to air quality, and company response. 	<p>Explanatory Note for 4.3.3.2: The monitoring locations inside the mine boundary do not include areas that are considered workplace contaminants. Those fall under Chapter 3.2, Occupational Health and Safety.</p> <p><u>Air quality modeling</u> can provide important information related to air quality monitoring. For example, models that predict the movement and dispersion of air pollutants can inform the best locations for measuring the maximum air quality impacts from mine-related air emissions.</p> <p>For localized dust contamination affecting specific receptors, monitoring should be carried out to determine the concentration of dust that the mine is emitting onto neighboring properties or other potentially affected receptors. The appropriate monitoring location may be the mine boundary.</p> <p>Real-time dust monitoring equipment can provide an early-warning system by sending an alarm to the company when a predefined dust concentration is reached at the mine boundary or receptor.⁵⁷⁷ It is recommended that multi-directional units be used to measure dust fall, especially where there could be potentially sensitive receptors close to the mining operation.</p>
<p>4.3.4. Protection of Air Quality</p> <p>4.3.4.1. <u>New mines</u> and <u>existing mines</u> shall comply with the European Union’s Air Quality Standards (EU Standards) as amended to its latest form (<u>See Table 4.3, below</u>) at the</p>	<p>For 4.3.4.1: Review documentation and records such as air quality monitoring data or air quality reports submitted to competent authorities to confirm that air quality contaminant concentrations meet EU Air Quality Standards.</p>	<p>For 4.3.4.1:</p> <ul style="list-style-type: none"> • Baseline air quality data (with identification of natural events resulting in elevated air quality levels). • Operational air quality monitoring data (with identification of natural events resulting in elevated 	<div style="border: 1px solid #f00; background-color: #ffff00; padding: 5px;">  [flag] 4.3.4 Issues in brief: There is not consensus among IRMA sectors on adopting as best practice either a prescriptive approach that includes defined air emissions </div>

⁵⁷⁷ Australian Centre for Sustainable Mining Practices. 2011. A Guide to Leading Practice Sustainable Development in Mining. p. 66. <https://industry.gov.au/resource/Documents/LPSPD/guideLPSPD.pdf>

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<p>boundaries of the mine site, <u>associated facilities</u> and transportation routes, and/or <u>mitigate exceedances</u> as follows:</p> <p>a. If a mine is located in an airshed where <u>baseline air quality</u> conditions meet EU Standards, but emissions from <u>mining-related activities</u> and <u>associated facilities</u> cause an exceedance of one or more parameters, the <u>operating company</u> shall demonstrate that it is making incremental reductions in those emissions, and within five years demonstrate compliance with the EU Standards; or</p> <p>b. If a mine is located in an airshed where <u>baseline air quality</u> is already degraded below EU Standards, the <u>operating company</u> shall demonstrate that emissions from <u>mining-related activities</u> and <u>associated facilities</u> do not exceed EU Standards, and make incremental improvements to the air quality in the airshed that are at least equivalent to the <u>mining project's</u> emissions.</p>	<p>Review <u>baseline air quality</u> monitoring data, and current monitoring data. If <u>baseline air quality</u> conditions met EU Standard, but air sampling shows that mine emissions have since led to an exceedance, confirm that the <u>operating company</u> has in place a plan to bring its emissions into compliance with the EU Standards within five years from when monitoring first showed the mine's non-compliance with the EU air quality values for one or more of the constituents in the EU table (See Table 4.3, below). Confirm that over time incremental progress is being made.</p>	<p>air quality levels).</p> <ul style="list-style-type: none"> • Comparison of operational air quality monitoring data with EU Air Quality Standards. • Air quality monitoring data prior to and post any mitigation strategies that have been employed to reduce mining project air emissions. • Documented stakeholder grievances related to air quality, and company response. 	<p>criteria or a risk-based approach to managing air emissions.</p> <p>During Launch Phase, this requirement will not be scored. Instead, IRMA will be asking mine sites to share information on what air emissions standards, if any, they are being required to meet, and/or whether or not they are using utilizing a risk-based approach (e.g., 4.3.4.2) to managing their air emissions (either in addition to having to meet air quality criteria, or lieu of having to meet them). The information gathered about what those approaches entail, and the effectiveness at those approaches will help IRMA to design a requirement or requirements that align with best practices for managing air emissions to protect human health and the environment.</p> <p>Also, while there is agreement among IRMA sectors that measuring dust emissions from mine sites is important, there is not consensus on what is the appropriate dust emission standard for protecting human health and the environment. The current metric IRMA is using is found in 4.3.4.3. During Launch Phase, this requirement will not be scored. Instead, IRMA will be asking mine sites to share information on what dust emissions standards, if any, mine sites are following.</p>

Explanatory Note for 4.3.4.1: Air quality standards and requirements were reviewed for various countries, focusing on the most expansive, developed standards. The greatest focus was on the standards of the European Union, Canada, Australia, and United States. With the goal in mind of adopting a standard that would evolve over time the decision was made to adopt the European Union's (EU) numeric air quality

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			<p>standards. There are many developed standards but the EU's stands out for its breadth of contaminants, including some known to be released during mining, and its inclusion of specific metalloid contaminants.⁵⁷⁸ Further, like many developed national standards, the EU's air quality standards were developed to be comprehensive, transparent (development, review and modification, application, and interpretation in the courts), and enduring. Finally, the EU's air quality standards are evolving and therefore predicating IRMA's air quality standard on them will ensure that IRMA's air quality standards also evolve.</p> <p>Compliance with EU Standards is generally required for new and existing mines. However, if a mine can demonstrate that there was a natural event that led to elevated air pollutant levels (e.g., wild fire, volcanic eruption, seismic activities, geothermal activities, high-wind events) the values measured at the mine site during those time periods are not expected to meet the EU Standard.</p> <p>The intent of 4.3.4.1 is that a new mine may operate in a degraded airshed that is not meeting EU standards (Table 4.3) but requires offsets or other actions such that the mine is not making already unhealthy (i.e., non-compliant) air quality worse.</p> <p>Examples of how a mine may make incremental improvements in the airshed may include, but are not limited to, offset purchases and buy-downs of emissions within the airshed, comprehensive emissions control methods, changing fuels or technologies, implementing reduction projects in other facilities/polluters in the airshed, etc.</p>

⁵⁷⁸ The US EPA's Air Quality Standards are similar in many ways, however the EU includes contaminants not found in the US standards that may be released by mining and mining-related activities, such as arsenic, cadmium, and nickel.

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<p>4.3.4.2. As an alternative to 4.3.4.1, the <u>operating company</u> may undertake a risk-based approach to protecting air quality as follows:</p> <p>a. New and <u>existing mines</u> shall comply with host country air quality standards at a minimum, and where no host country</p>	<p>For 4.3.4.2: Review <u>baseline air quality</u> monitoring data, and current monitoring data. If the data show that the airshed already exceeded values for certain EU air quality constituents at the time the mine became operational, confirm that the <u>operating company</u> has calculated its own emissions and demonstrated that</p>	<p>For 4.3.4.2:</p> <ul style="list-style-type: none"> • Air quality risk assessment or equivalent. • Baseline air quality data. • Operational air quality monitoring data. • Comparison of operational air quality monitoring data with host country air quality standards or international best practice standard (e.g., EU Air 	<p>In areas where the <u>baseline air quality</u> is already degraded and mines can demonstrate that the degradation is solely and consistently the result of natural sources (e.g., in remote areas where wind-blown dust or high concentrations of sea salt aerosols are the only other contributors to particulate matter exceedances⁵⁷⁹), mines will not be expected to find ways to make incremental improvements to the air quality in the airshed as per 4.3.4.1.b. Mines will only be required to demonstrate that their own air emissions do not exceed EU Standards.</p> <p>Note that mercury is not included in the list of air pollutants in Table 4.3. Mercury air emissions are addressed in IRMA Chapter 4.8.</p> <p>Similarly, there are no emissions limits for the following greenhouse gases: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆), or nitrogen trifluoride (NF₃). Greenhouse gas air emissions are addressed in IRMA Chapter 4.5.</p> <p>Explanatory Note for 4.3.4.2: Re: 4.3.4.2.a, examples of credible international best practice standards are the European Union’s Air Quality Standards (Table 4.3 in this chapter), the United States National Ambient Air Quality Standards, the International Finance Corporation’s Air Emissions and Ambient Air Quality Guidelines, or others that</p>

⁵⁷⁹ See, e.g., Institute for Environment and Sustainability. 2007. Contribution of natural sources to air pollution levels in the EU - a technical basis for the development of guidance for the Member States. <https://www.lu.lv/materiali/biblioteka/es/pilnieteksti/vide/Contribution%20of%20natural%20sources%20to%20air%20pollution%20levels%20in%20the%20EU.pdf>

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<p>standard exists mines shall demonstrate compliance with a credible international best practice standard;⁵⁸⁰</p> <p>b. Where compliance is met for host country standards but the mine experiences a residual risk related to its air emissions,⁵⁸¹ then more stringent international best practice standards shall apply;</p> <p>c. Where compliance is met for international best practice standards and a mine still experiences a residual risk from its air emissions, then the mine shall set more stringent self-designed limits, and implement additional <u>mitigation</u> measures to meet those limits; and</p> <p>d. For all air-emissions-related risks, the mine shall demonstrate that it is making incremental reductions in emissions, through a multi-year phased plan with defined timelines.</p>	<p>their own emissions of the constituents of concern do not exceed EU Standards (for example, a source-pathway-receptor ambient study that quantifies (and thereby excludes) baseline air contaminant contributions of the EU Standard’s constituents of concern to the airshed; or through <u>air quality modeling</u>); and confirm that the <u>operating company</u> has developed and is implementing a plan to make improvements in air quality.</p>	<p>Quality Standards).</p> <ul style="list-style-type: none"> • Air quality management plan. • Air quality monitoring data pre- and post any mitigation strategies employed to reduce mining project emissions. • Documented stakeholder grievances related to air quality, and company response. 	<p>are widely used by industries and other countries that have not developed their own air quality standards.⁵⁸²</p> <p>Re: 4.3.4.2.b, “residual risk” may include, for example, a saturated airshed with elevated background levels of a particular air pollutant(s), <u>stakeholder grievances</u> regarding air quality/degradation, <u>impending regulatory changes</u>, media attention and reputational damage, or potential health impacts or harm to sensitive receptors associated with emissions impacts.</p> <p>Re: 4.3.4.2.c, "self-designated limits" may themselves be incremental but should have clearly defined short- and long-term goals. Similarly, <u>mitigation</u> measures may be incremental but should have clearly defined goals that are reasonably able to achieve the self-designated limits.</p>

⁵⁸⁰ For example, the European Union’s Air Quality Standards (See [Table 4.3](#), below) or International Finance Corporation. 2007. Environmental, Health and Safety Guidelines, Chapter 1.1 Environmental, 1.1 Air Emissions and Ambient Air Quality. <https://www.ifc.org/wps/wcm/connect/532ff4804886583ab4d6f66a6515bb18/1-1%2BAir%2BEmissions%2Band%2BAmbient%2BAir%2BQuality.pdf?MOD=AJPERES>

⁵⁸¹ Residual risk may include, for example, a saturated airshed with elevated background levels of pollution, stakeholder grievances, community unrest, impending regulatory changes, media attention and reputational damage, or potential health impacts or harm to sensitive receptors associated with emissions impacts.

⁵⁸² For example, the European Union’s Air Quality Standards (See [Table 4.3](#), below) or International Finance Corporation. 2007. Environmental, Health and Safety Guidelines, Chapter 1.1 Environmental, 1.1 Air Emissions and Ambient Air Quality. <https://www.ifc.org/wps/wcm/connect/532ff4804886583ab4d6f66a6515bb18/1-1%2BAir%2BEmissions%2Band%2BAmbient%2BAir%2BQuality.pdf?MOD=AJPERES>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>4.3.4.3. Dust deposition from <u>mining-related activities</u> shall not exceed 350 mg/m²/day, measured as an annual average.⁵⁸³ An exception to 4.3.4.3 may be made if demonstrating compliance is not reasonably possible through ordinary monitoring methods. In such cases the <u>operating company</u> shall utilize <u>best available practices</u> to minimize dust contamination.</p>	<p>For 4.3.4.3: Review records from dust sampling to confirm that deposition does not exceed 350 mg/m²/day, measured as an annual average. If dust deposition exceeds 350 mg/m²/day, confirm that <u>best available practices</u> are being implemented to minimize dust deposition.</p>	<p>For 4.3.4.3:</p> <ul style="list-style-type: none"> • Host country regulatory requirements (e.g., rules, permits) related to dust. • Any voluntary commitments made by the company related to dust emissions. • Documentation of practices employed to reduce dust emissions from the mine, or as offsets. • Documented stakeholder grievances related to dust and company response. 	<p>Explanatory Note for 4.3.4.3: IRMA has added a specific dust criterion because, while dust is not listed on the EU list of contaminants based on it being considered a "nuisance" rather than strictly harmful to health, it can still be problematic to communities and <u>ecosystems</u> located near mine sites.</p> <p>This requirement is based on the German TA Luft Regulation,⁵⁸⁴ which is a commonly cited standard in jurisdictions that do not have dust standards. The German dust guidelines have been incorporated here as the minimum requirement, but may require further consideration, notably regarding the potential inclusion of both an annual and a monthly mean. A monthly mean may be especially important in regions where there are distinct wet and dry seasons, because if an annual mean is used high dustfall observed during dry seasons may be offset by lack of dust during wet seasons, yet the impacts experienced by communities could be very high during the dry season.</p> <p>4.3.4.3 allows for exceptions to the 350 mg/m²/day (annual average) requirement. An example of where exceptions might be appropriate are where roads are shared or are so close to each other so as to make it impossible to distinguish their contributions. In these situations, the <u>operating company</u> must document that demonstrating compliance is not reasonably possible and that the company is utilizing <u>best available practices</u> to reduce dust. In circumstances where the mine cannot achieve compliance to its dust emission limits, they are encouraged to develop an offset program. For</p>

⁵⁸³ IRMA has added a specific dust criteria because dust is not listed on EU list of contaminants as it is not strictly harmful to health rather it is a "nuisance", and can be problematic communities and ecosystems located near mine sites. This requirement is based on the German TA Luft (Technical Instructions on Air Quality Control) Regulation, available at: https://www.bmu.de/fileadmin/Daten_BMU/Download_PDF/Luft/taluft_engl.pdf. The German dust guidelines have been incorporated here as the minimum requirement, but may require further citation and consideration, notably the potential inclusion of both an annual and a monthly mean. More information will be provided in IRMA Guidance.

⁵⁸⁴ Germany Ministry for Environment (MOE). 2002. Technical Instructions on Air Quality Control Regulation (TA Luft). https://www.bmu.de/fileadmin/Daten_BMU/Download_PDF/Luft/taluft_engl.pdf

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>4.3.5. Reporting</p> <p>4.3.5.1. The <u>operating company</u> shall ensure that its air quality management plan and compliance information is up-to-date and publicly available, or made available to <u>stakeholders</u> upon request.⁵⁸⁶</p>	<p>For 4.3.5.1: Review documentation, which may include air quality information published by the <u>operating company</u> (e.g., in annual reports, sustainability reports and/or on a website accessible to the public). Other evidence of making information publicly available to <u>stakeholders</u> may include documented requests from <u>stakeholders</u> and the company's responses.</p>	<p>For 4.3.5.1:</p> <ul style="list-style-type: none"> • The most recent version of the air quality management plan. • The most recent air quality monitoring data. • The most recent air quality reports to regulatory agencies. • The most recent air quality inspection reports from regulatory agencies. • Links to website(s) and/or list of physical locations (e.g. nearby community facility) where the air quality management plan and compliance information (e.g., data showing that emissions limits have been met) can be accessed. • Photographs of physical locations showing that information is available as advertised at physical locations. • Correspondence with or records of requests for air quality information from stakeholders (and company responses). • Records of presentations and meetings with stakeholders related to air quality management 	<p>example, they could consider working with stakeholders in the area to plant more trees or pave a mine road that is close to informal settlements.</p> <p>Best available practices for dust control will vary depending on whether dust generation is underground or at the surface, and depending on the proximity of different receptors.⁵⁸⁵</p> <p>Explanatory Note for 4.3.5.1: Compliance information may include air quality monitoring data, air quality reports (to agencies), records related to non-compliance as per IRMA Chapter 1.1, and letters/correspondence or other documentation demonstrating that the <u>operating company</u> has responded to requests from <u>stakeholders</u>.</p>

⁵⁸⁵ Kissell, F. 2003. Handbook for Dust Control in Mining. Information Circular 9465, U.S. Department of Health and Human Services. <https://www.cdc.gov/niosh/mining/UserFiles/works/pdfs/2003-147.pdf>

⁵⁸⁶ Compliance information may include air quality monitoring data, air quality reports (to agencies), records related to non-compliance (as per Chapter 1.1) etc.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
		<p>strategies and performance (e.g., meeting minutes or notes, attendee lists).</p> <ul style="list-style-type: none"> • Documented stakeholder grievances related to air quality management and company response. 	

NOTES

Air quality standards and requirements were reviewed for various countries, focusing on the most expansive, developed standards. The greatest focus was on the standards of the European Union, Canada, Australia, and United States. With the goal in mind of adopting a standard that would evolve over time the decision was made to adopt the European Union’s (EU) numeric air quality standards. There are many developed standards but the EU’s stands out for its breadth of contaminants, including some known to be released during mining, and its inclusion of specific metalloids contaminants.⁵⁸⁷ Further, like many developed national standards, the EU’s air quality standards were developed to be comprehensive, transparent (development, review and modification, application, and interpretation in the courts), and enduring. Finally, the EU’s air quality standards are evolving and therefore predicating IRMA’s air quality standard on them will ensure that IRMA’s air quality standards also evolve.

Cross References to Other Chapters	
CHAPTER	ISSUES
1.1—Legal Compliance	As per Chapter 1.1, if there are <u>host country laws</u> governing air quality related to mine sites, the company is required to abide by those laws. If IRMA requirements are more stringent than <u>host country law</u> , the company is required to also meet the IRMA requirements, as long as complying with them would not require the operating company to violate the <u>host country law</u> .
2.1—ESIA and Management	Potential air quality impacts may be identified in the Environmental and Social Impact Assessment (ESIA). The ESIA may also contain information and data that can inform the location of air monitoring sites. Air quality issues may be addressed as part of the Environmental Management System, such as a site monitoring plan.
1.4—Complaints and Grievance Mechanism and Access to Remedy	Air quality impacts not anticipated in the ESIA or not adequately <u>mitigated</u> may result in complaints by <u>stakeholders</u> . As per Chapter 1.4, the <u>operating company</u> is required to have an operational-level <u>grievance mechanism</u> available to <u>stakeholders</u> , including procedures for filing complaints, and having complaints recorded, investigated and resolved in a timely manner.
3.2—Occupational Health and Safety	Chapter 3.2 addresses air contaminants in the workplace.
4.5—GHG Emissions	Greenhouse gas air emissions are addressed in Chapter 4.5. As per 4.5.2, companies are required to quantify greenhouse gas emissions, and 4.5.4 requires public reporting on those emissions.

⁵⁸⁷ The US EPA’s Air Quality Standards are similar in many ways, however the EU includes contaminants not found in the US standards that may be released by mining and mining-related activities, such as arsenic, cadmium, and nickel.

Cross References to Other Chapters	
4.6—Biodiversity, Ecosystem Services and Protected Areas	If screening in 4.3.1 indicates that air emissions may result in significant impacts to <u>important biodiversity, priority ecosystem services, critical habitat (including threatened and endangered species)</u> or the <u>conservation values of protected areas</u> , then the significance of impacts should be further assessed and <u>mitigation</u> measures developed as per Chapter 4.6.
4.8—Mercury Management	Mercury air emissions are addressed in Chapter 4.8. As per 4.8.1, companies are required to estimate the amount of mercury released to air from mercury emissions control systems. Although there are no mercury air criteria in either Chapter 4.3 or 4.8, Chapter 4.8 does provide emissions limits for mercury that, if met, means that no further mitigative actions need to be taken (see 4.8.2.1). Criteria 4.8.3 includes requirements related to mercury air emission monitoring, including the development of a mercury air monitoring plan. Mercury air emissions could be incorporated into an air quality monitoring plan that covers all a broader suite of air emissions as per 4.3.3.1. Criteria 4.8.4 requires public reporting on mercury emissions.

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the [Glossary of Terms](#) at the end of the IRMA Standard document.

Affected Community

A community that is subject to risks or impacts from a project.

Air Quality Models

Mathematical and numerical techniques used to simulate the physical and chemical processes that affect air pollutants as they disperse and react in the atmosphere. These include, for example: Air dispersion models, which are used to predict concentrations of pollutants at selected downwind receptor locations; and Receptor models, which use observational techniques and chemical and physical characteristics of gases and particles measured at source and receptor and to identify the presence of and to quantify source contributions to receptor concentrations.

Ambient Air Quality

The concentrations of pollutants (e.g., chemicals, particulate matter) in air (for IRMA’s purposes, outdoor air).

Associated Facility

Any facility controlled by the operating company that is near to the mine lease/property, and essential to the mining operation (including ore processing facilities, stationary physical property such as power plants, port sites, roads, railroads, borrow areas, fuel production or preparation facilities, parking areas, shops, offices, housing facilities, storage facilities and others).

Baseline Air Quality

Ambient air pollutant concentrations prior to mining project commencement due to emissions from both natural and human-caused sources.

Best Available/Applicable Practice (BAP)

Encompasses management systems, operational procedures, techniques and methodologies that, through experience and demonstrated application, have proven to reliably manage risk and achieve performance objectives in a technically sound and economically efficient manner. BAP is an operating philosophy that embraces continual improvement and operational excellence, and which is applied consistently throughout the life of a facility, including the post-closure period.

Biodiversity

The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems.

Conservation Values

The ecological, biological, geomorphological, geological, cultural, spiritual, scenic or amenity values, features, processes or attributes that are being conserved.

Critical Habitat

Areas with high biodiversity value, including but not necessarily limited to: (i) habitat of significant importance to critically endangered, endangered species; (ii) habitat of significant importance to endemic and/or restricted-range species; (iii) habitat supporting globally significant concentrations of migratory and/or congregatory species; (iv) highly threatened and/or unique ecosystems; and/or (v) areas associated with key evolutionary processes. Other recognized high biodiversity values might also support a critical habitat designation, based on case-by-case evaluation.

Ecosystem Services

The benefits people obtain from ecosystems. These include provisioning services such as food, water, timber, and fibre; regulating services that affect climate, floods, disease, wastes, and water quality; cultural services that provide recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation, photosynthesis, and nutrient cycling.

Existing Mine

A mine that was operational prior to the date that the IRMA standard was published in final (June 2018).

Mine Waste Facility

Facilities that contain, store, are constructed of, or come in contact with wastes that are generated or created during mining (e.g., waste rock, pit walls, pit floors or underground workings, runoff or discharge from exposed mined areas) and mineral processing (e.g., tailings, spent ore, effluent). These facilities include, but are not limited to open pits, underground mine workings and subsidence areas, waste rock facilities, tailings storage facilities, heap leach facilities, process water facilities, stormwater facilities, borrow areas for construction and/or reclamation, water treatment facilities, and water supply dams/impoundments.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mining-Related Activities

Physical activities (e.g., land disturbance and clearing, road building, sampling, airborne surveys, facility construction, ore removal, ore processing, waste management, reclamation, etc.) carried out during any phase of the mine life cycle (planning, impact assessment, exploration, mine construction, mining, mine closure, post-closure).

Mitigation

Actions taken to reduce the likelihood of a certain adverse impact occurring.

New Mine

A mine that becomes operational and applies for IRMA verification after the date that the IRMA standard was published in final (June 2018).

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Priority Ecosystem Services

Ecosystem services are considered priority under the following circumstances: (i) Project operations are likely to result in a significant impact on the ecosystem service; the impact will result in a direct adverse impact on affected communities' livelihood, health, safety and/or cultural heritage; and the project has direct management control or significant influence over the service; or (ii) The project directly depends on the service for its primary operations; and the project has direct management control or significant influence over the service.

Protected Area

A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.

Stakeholder

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Threatened and Endangered Species

Species that meet the IUCN (2001) criteria for Vulnerable (VU), Endangered (EN) or Critically Endangered (CR), and are facing a high, very high or extremely high risk of extinction in the wild. These categories may be re-interpreted for IRMA purposes according to official national classifications (which have legal significance) and to local conditions and population densities (which should affect decisions about appropriate conservation measures).

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.

Pollutant	Concentration	Averaging period	Permitted exceedances / year
Sulphur dioxide (SO ₂)	350 µg/m ³	1 hour	24
	125 µg/m ³	24 hours	3
Nitrogen dioxide (NO ₂)	200 µg/m ³	1 hour	18
	40 µg/m ³	1 year	not applicable
Fine particles (PM-2.5)	25 µg/m ³	1 year	not applicable
PM-10	50 µg/m ³	24 hours	35
	40 µg/m ³	1 year	not applicable
Lead (Pb)	0.5 µg/m ³	1 year	not applicable
Carbon monoxide (CO)	10 mg/m ³	Maximum daily 8-hour mean	not applicable

Benzene	5 µg/m ³	1 year	not applicable
Ozone	120 µg/m ³	Maximum daily 8-hour mean	25 days averaged over 3 years
Arsenic (As)	6 ng/m ³	1 year	not applicable
Cadmium (Cd)	5 ng/m ³	1 year	not applicable
Nickel (Ni)	20 ng/m ³	1 year	not applicable
Polycyclic Aromatic Hydrocarbons	1 ng/m ³ (as concentration of Benzo(a)pyrene)	1 year	not applicable
Notes: EU. Air Quality Standards (as of July 3, 2013). http://ec.europa.eu/environment/air/quality/standards.htm			



Chapter 4.4—Noise and Vibration

BACKGROUND

Mining can create significant noise and/or vibration through blasting in both open pit and underground mines; large ore and waste rock truck traffic on the mine site; ore stockpiling, screening, and crushing; truck or rail traffic bring consumables to the mine site, and shipping product from the mine for final processing.

Studies have shown that there are direct links between noise and health. Problems related to noise include stress-related illnesses, high blood pressure, speech interference, hearing loss, sleep disruption, and lost productivity.⁵⁸⁸ (This chapter does not seek to cover worker/employee vibration issues, which are covered under Chapter 3.2—Occupational Health and Safety.⁵⁸⁹)

Many noises can be moderated or partially managed by employing mitigation measures, including berms, mufflers, sequenced blasting, planning, timing, and communications. However, effective control may be challenging due to a mine’s typically large geographic footprint, especially when a mine is located near communities.

TERMS USED IN THIS CHAPTER

Affected Community ■ Baseline Ambient Noise Levels ■ Competent Professionals ■ Grievance ■ Grievance Mechanism ■ Ground Vibration ■ Host Country Law ■ Lin Peak/Linear Peak ■ Mining Project ■ Mining-Related Activities ■ Mitigation ■ New Mine ■ Noise Receptor ■ Operating Company ■ Peak Particle Velocity ■ Stakeholder ■ Threatened Species ■ Worker ■

These terms appear in the text with a dashed underline, and they are defined at the end of this chapter.

⁵⁸⁸ For example, see various documents on US EPA Noise Pollution Clearinghouse website: www.nonoise.org/epa.htm; Also, see various publications on World Health Organization website: www.euro.who.int/en/health-topics/environment-and-health/noise/publications

⁵⁸⁹ The structural vibration issues in this chapter (4.4) relate to buildings and structures. Chapter 3.2 includes job related vibration such as caused by sitting on a vibrating seat (such as operating heavy machinery) or hand vibration while working on a vibrating machine with one’s hands. See e.g. <http://www.ohsrep.org.au/hazards/vibration/effects-of-vibration>; and https://www.ccohs.ca/oshanswers/phys_agents/vibration/vibration_effects.html

Studies have also demonstrated that vibrations, such as those created by blasting, can sometimes be felt in nearby communities, and even cause damage to buildings or the contents of buildings, such as items on walls or shelves.⁵⁹⁰ However, vibration impacts from blasting can be mitigated, for example, by controlling charge weight diameter and charge coupling within boreholes, or controlling the direction of blast initiation.⁵⁹¹

OBJECTIVES/INTENT OF THIS CHAPTER

To preserve the health and well-being of nearby noise receptors and the amenity of properties and community values, and to protect offsite structures from vibration impacts.

SCOPE OF APPLICATION

Chapter Relevance: This chapter is relevant for all mines assessed under IRMA. Worker-related noise impacts are addressed in Chapter 3.2, Occupational Health and Safety.

Noise and Vibration Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION		EXPLANATORY NOTES
<p>4.4.1. Noise and Vibration Screening</p> <p>4.4.1.1. The <u>operating company</u> shall carry out screening to determine if there may be significant impacts on offsite human <u>noise receptors</u> from the <u>mining project's</u> noise and/or vibration. Screening is required at all <u>new mines</u>, and also at <u>existing mines</u> if there is a proposed change to the mine plan that is likely to result in a new source of noise or vibration or an</p>	<p>Auditing Note for 4.4.1.1: Note that noise-related impacts on wildlife should be screened in the Environmental and Social Impact Assessment process in IRMA Chapter 2.1, and if there are any potential impacts on threatened or endangered species they should be further evaluated in the Biodiversity, Ecosystem Services and Protected Areas Screening – see IRMA Chapter 4.6).</p> <p>For 4.4.1.1: Review documentation related to screening (may be a standalone screening or done as part of ESIA- see Chapter 2.1)</p>	<p>For 4.4.1.1:</p> <ul style="list-style-type: none"> • Screening for potential human noise receptors. • Screening documents and data for noise and vibration. 	<p>Explanatory Note for 4.4.1.1: This may have been done as part of the Environmental and Social Impact Assessment process in IRMA Chapter 2.1. Screening should include identification of potential human noise/vibration receptors; identification of potential sources of noise/vibration from the <u>mining project</u>; and determination of whether the noise sources have the potential to create noise or vibrations that may significantly impact human <u>noise receptors</u>.</p>

⁵⁹⁰ Victoria (Australia) State Government. Ground Vibration and Airblast Limits for Blasting in Mines and Quarries. <http://earthresources.vic.gov.au/earth-resources-regulation/licensing-and-approvals/minerals/guidelines-and-codes-of-practice/ground-vibration-and-airblast-limits-for-blasting-in-mines-and-quarries>. See, for example, Office of Surface Mining Reclamation and Enforcement: “Blasting Vibration.” <https://www.osmre.gov/resources/blasting/docs/Citizens/KentuckyBlasting.pdf> and “Blasting Vibrations and Their Effects on Structures.” <https://www.osmre.gov/resources/blasting/docs/USBM/Bul656BlastVibrationsStructures.pdf>. The Office of Surface Mining information comes from coal-mining sources, which are not included in IRMA, but it provides an exemplary discussion of blasting vibration and its impacts.

⁵⁹¹ See e.g. Controlling the Adverse Effects of Blasting. OSMRE Presentation, available at: <https://www.osmre.gov/resources/blasting/docs/WYBlasterCertModules/8AdverseEffectsBlasting.pdf>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
<p>increase in existing noise or vibration levels.</p> <p>4.4.1.2. If screening identifies potential human receptors of noise from mining-related activities, then the operating company shall document baseline ambient noise levels at both the nearest and relevant offsite noise receptors.</p>	<p>For 4.4.1.2: Confirm that if screening identified potential human receptors for mining noise that baseline ambient noise levels were measured at appropriate locations.</p> <p>For 4.4.1.2:</p> <ul style="list-style-type: none"> • Records of baseline ambient noise measurements. • Noise modelling reports. 	<p>Explanatory Note for 4.4.1.2: Relevant offsite human noise receptors should include the closest receptors to the mine, but also any others that have the potential to be affected by noise or vibrations.</p> <p>Topography and meteorology (e.g., prevailing wind directions, temperature inversions⁵⁹²) should be considered, when evaluating which receptors might be relevant.</p> <p>Baseline measurements should have sufficient coverage for different times of day, and different times of the week to establish baseline level for varying ambient conditions.</p> <p>If baseline data were not gathered prior to mine development, widely accepted noise models based on ISO standards (such as CadnaA, SoundPLAN, etc.) may be used to demonstrate ambient noise levels due to mine operation.⁵⁹³</p>
<p>4.4.2. Management and Mitigation of Impacts on Human Receptors</p> <p>4.4.2.1. If screening or other credible information indicates that there are residential, institutional or educational noise receptors that</p>	<p>For 4.4.2.1: Review documentation showing all environmental analyses, such as screening or ESIA or other (including regulatory agency, contractor, mining project, public, etc.) that identified noise impacts to human populations.</p> <p>For 4.4.2.1:</p> <ul style="list-style-type: none"> • Noise screening report Identification of human noise receptors. • Records of noise measurements taken at relevant receptor locations. • Documentation of decibel limit compliance with 	<p>Explanatory Note for 4.4.2.1: The dBA noise limits in 4.2.2.1 and 4.4.2.2, are from IFC Environmental, Health and Safety General Guidelines (2007). As per IFC guidelines, the dBA decibel levels for receptors should be measured out of doors.⁵⁹⁴</p>

⁵⁹² Australian Department of Industry, Innovation and Science. Leading Practice Sustainable Development Program: 3.0 Noise. <https://industry.gov.au/resource/Programs/LPSD/Airborne-contaminants-noise-and-vibration/Noise/Pages/Meteorological-effects-on-the-propagation-of-noise.aspx>

⁵⁹³ CadnaA website. "CadnaA – state-of-art noise prediction software." <https://www.datakustik.com/products/cadnaa/cadnaa/> and SoundPLAN website. "SoundPLAN & ISO/TR 17534-3:2015." <https://www.soundplan.eu/deutsch/aktuelles/newsmeldungen-einzelsicht/article/soundplan-isotr-17534-32015/>

⁵⁹⁴ IFC. 2007.. General Environmental, Health and Safety Guidelines. Noise Management. p. 53 (footnote 54) <https://www.ifc.org/wps/wcm/connect/06e3b50048865838b4c6f66a6515bb18/1-7%2BNoise.pdf?MOD=AJPERES>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION		EXPLANATORY NOTES
<p>could be affected by noise from <u>mining-related activities</u>, then the <u>operating company</u> shall demonstrate that mining-related noise does not exceed a maximum one-hour LAeq (dBA) of 55 dBA during the hours of 07:00 to 22:00 (i.e., day) and 45 dBA at other times (i.e., night) at the nearest offsite <u>noise receptor</u>. These hours may be adjusted if the <u>operating company</u> can justify that alternative hours are necessary and/or appropriate because of local, cultural or social norms.</p>	<p>For 4.4.2.1, 4.4.2.2 and 4.4.2.3: Review company monitoring data to confirm that IRMA requirements (and <u>host country laws</u> pertaining to noise, if they exist) are being met.</p>	<p>standards.</p>	<p>Sound is measured in decibels (dB). When measuring environmental noise, a weighting network is used which filters the frequency of the sound so that it better corresponds to the response of the human ear. Noise measurements made using this weighting network are expressed as dBA.⁵⁹⁵</p> <p>“dBA” refers to A-weighted decibel. It is an expression of the relative loudness of sounds in air as perceived by the human ear. In the A-weighted system, the decibel values of sounds at low frequencies are reduced (as compared with unweighted decibel systems, in which no correction is made for audio frequency).⁵⁹⁶</p> <p>“Other credible information” may include, but is not limited to, concerns or complaints raised by stakeholders, or other information that comes to light after the screening process.</p>
<p>4.4.2.2. The following exceptions to 3.5.2.1 apply:</p> <p>a. If baseline ambient noise levels exceed 55 dBA (day) and/or 45 dBA (night), then noise levels shall not exceed 3 dB above baseline as measured at relevant offsite <u>noise receptors</u>; and/or</p> <p>b. During periods of blasting, the dBA levels may be exceeded, as</p>	<p>For 4.4.2.1, 4.4.2.2 and 4.4.2.3: Review company monitoring data to confirm that IRMA requirements (and <u>host country laws</u> pertaining to noise, if they exist) are being met.</p>	<p>For 4.4.2.2:</p> <ul style="list-style-type: none"> • Baseline ambient noise measurements. • Noise measurements taken during blasting. • Noise modelling reports. 	<p>If baseline data were not gathered prior to mine development, widely accepted noise models based on ISO standards (such as CadnaA, SoundPLAN, etc.) may be used to demonstrate ambient noise levels due to mine operation.⁵⁹⁷</p>

⁵⁹⁵ Australian Department of Industry, Innovation and Science (ADIIS). Leading Practice Sustainable Development Program: 3.0 Noise. "Noise characteristics and Measures." <https://archive.industry.gov.au/resource/Programs/LPSD/Airborne-contaminants-noise-and-vibration/Noise/Pages/Noise-characteristics-and-measures.aspx>

⁵⁹⁶ Glossaries of noise measurement and related terms may be found at the following sources, among others: <http://www.hearforever.org/tools-to-educate/glossary-noise-measurements-administrative-engineering-controls> and <http://www.acoustic-glossary.co.uk/definitions-l.htm>.

⁵⁹⁷ CadnaA website. "CadnaA – state-of-art noise prediction software." <https://www.datakustik.com/products/cadnaa/cadnaa/> and SoundPLAN website. "SoundPLAN & ISO/TR 17534-3:2015." <https://www.soundplan.eu/deutsch/aktuelles/newsmeldungen-einzelansicht/article/soundplan-isotr-17534-32015/>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION		EXPLANATORY NOTES
<p>long as the other requirements in 4.4.2.4 are met.</p> <p>4.4.2.3. If screening or other credible information indicates that there are only industrial or commercial receptors that may be affected by noise from <u>mining-related activities</u>, then noise measured at the mine boundary or nearest industrial or commercial receptor shall not exceed 70 dBA.</p>	<p>For 4.4.2.1, 4.4.2.2 and 4.4.2.3: Review company monitoring data to confirm that IRMA requirements (and <u>host country laws</u> pertaining to noise, if they exist) are being met.</p>	<p>For 4.4.2.3:</p> <ul style="list-style-type: none"> • Noise screening report. • Documentation showing identification of receptors. • Documentation of noise decibel (dBA) measurements at the mine site boundary. 	
<p>4.4.2.4. If screening or other credible information indicates that noise or vibration from blasting activities may impact human <u>noise receptors</u>, then blasting operations at mines shall be undertaken as follows:⁵⁹⁸</p> <p>a. A maximum level for air blast overpressure of 115 dB (<u>Lin Peak</u>) shall be exceeded on no more than 5 % of blasts over a 12-month period;</p> <p>b. Blasting shall only occur during the hours of 09:00 to 17:00, on traditionally normal working days; and</p>	<p>For 4.4.2.4: Review documentation showing all environmental analyses, such as screening or ESIA, vibration modelling results or other (including regulatory agency, contractor, <u>mining project</u>, public, etc.) that identified blasting impacts to human receptors. Review company documents (e.g., blasting logs, data on pressure and vibration measurements) to confirm that IRMA numerical requirements (and <u>host country laws</u> pertaining to blasting, if they exist) are being met.</p>	<p>For 4.4.2.4:</p> <ul style="list-style-type: none"> • Noise screening report. • Documentation related to blasting (dates, times that blasting occurred). • Documentation of air blast overpressure measurements related to blasting. • Documentation of peak particle velocity measurements. 	<p>Explanatory Note for 4.4.2.4: These requirements are based on the Australia and New Zealand Environment Council’s Technical Basis for Guidelines to Minimise Annoyance Due to Blasting Overpressure and Ground Vibration.⁵⁹⁹</p> <p>“traditionally normal working days” will be Monday to Saturday for some cultures, and different days for others. Where there are <u>affected communities</u> that contain groups with diverse cultural norms, the company should demonstrate sensitivity to those who will be most directly affected by blasting noise. Once established, the working days should not be further adjusted without documented explanation.</p> <p>The necessity of alternative hours must be demonstrated based on: (1) the alternative hours do not cause hardship or imposition on local culture, groups, or norms and (2) that stakeholder comments and concerns for and/or against</p>

⁵⁹⁸ These requirements are based on the Australia and New Zealand Environment Council’s “Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration.” ANZEC, 1990. Available at: www.environment.nsw.gov.au/resources/noise/anzecblasting.pdf

⁵⁹⁹ Australia and New Zealand Environment Council (ANZEC). 1990. Technical Basis for Guidelines to Minimise Annoyance Due to Blasting Overpressure and Ground Vibration. <http://www.environment.nsw.gov.au/resources/noise/anzecblasting.pdf>

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<p>c. <u>Ground vibration (peak particle velocity)</u> shall neither exceed 5 mm/second on 9 out of 10 consecutive blasts, nor exceed 10 mm/second at any time.</p>		<p>alternative hours have been reasonably resolved and responsibly responded-to.</p> <p>The following definitions (adapted from Victoria (Australia) State Government) are used:⁶⁰⁰</p> <p><u>Lin Peak</u> is short for Linear Peak, which is the maximum level of air pressure fluctuation measured in decibels without frequency weighting.</p> <p><u>Ground vibration</u> is the level of vibration (peak particle velocity) measured in mm/second in the ground. The measurement point should be at least the longest dimension of the foundations of a building or structure away from the building or structure, if possible. If this is not possible, the measurement point should be as far from the building or structure as is practical.</p> <p><u>Peak particle velocity</u> is the instantaneous sum of the velocity vectors (measured in millimetres per second) of the ground movement caused by the passage of vibration from blasting.</p>
<p>4.4.2.5. Mines may undertake blasting outside of the time restraints in 4.4.2.4.b when the <u>operating company</u> can demonstrate one or more of the following:</p> <p>a. There are no nearby human <u>noise receptors</u> that will be impacted by blasting noise or vibration;</p> <p>b. Alternative hours are necessary and/or appropriate because of</p>	<p>For 4.4.2.5: If <u>operating company</u> has blasted outside the timeframes identified in 4.4.2.4, review company documentation supporting the exception. Verify accuracy and completeness of the company's explanation with <u>stakeholders</u> from communities potentially affected by blasting noise or vibration.</p> <p>For 4.4.2.5:</p> <ul style="list-style-type: none"> • Documentation related to blasting (dates, times that blasting occurred). • Screening or other evidence that there are no human noise receptors that will be affected by blasting noise or vibration. • Documentation of local, cultural or social norms that are the basis for alternative blasting hours. • Correspondence with potentially affected human receptors. 	<p>Explanatory Note for 4.4.2.5: Re: 4.4.2.5.b, to meet this sub-requirement the <u>operating company</u> should be able to demonstrate the necessity of the alternative hours, and show that:</p> <p>The alternative hours do not cause hardship or imposition on local culture, groups, or norms; and</p> <p><u>Stakeholder</u> comments and concerns for and/or against alternative hours have been received appropriate company response and been reasonably resolved.</p>

⁶⁰⁰ Victoria (Australia) State Government. Ground Vibration and Airblast Limits for Blasting in Mines and Quarries. <http://earthresources.vic.gov.au/earth-resources-regulation/licensing-and-approvals/minerals/guidelines-and-codes-of-practice/ground-vibration-and-airblast-limits-for-blasting-in-mines-and-quarries>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
<p>local, cultural or social norms; and/or</p> <p>c. Potentially affected human receptors have given voluntary approval for the expanded blasting hours.</p> <p>4.4.2.6. If a credible, supported complaint is made to the <u>operating company</u> that noise or vibration is adversely impacting human <u>noise receptors</u>, then the <u>operating company</u> shall <u>consult with affected stakeholders</u> to develop <u>mitigation strategies</u> or other proposed actions to resolve the complaint. Where complaints are not resolved then other options, including noise monitoring and the implementation of additional <u>mitigation</u> measures, shall be considered.</p>	<p>For 4.4.2.6: Interview <u>operating company</u> and review complaint documentation (e.g., <u>grievance mechanism</u> records, see IRMA Chapter 1.4) to determine if any noise- or vibration or blasting related concerns or complaints have been raised by <u>affected community members</u> or others.</p> <p>If there have been complaints, review company documentation (as required in 4.4.2.7) to confirm that the company <u>consulted</u> with complainants to determine an acceptable way to resolve the complaint as per 4.4.2.6 (including noise monitoring and alternative <u>mitigation</u> if first attempts at <u>mitigation</u> do not resolve the complaints).</p> <p>If there are cases where no investigation occurred in response to a noise complaint, review the outcome and justification for not investigating the complaint (e.g., why the company considered a complaint to not be credible).</p>	<p>Explanatory Note for 4.4.2.6: Re: “credible complaints,” IRMA recognizes that repeated or redundant complaints that have been resolved may suggest misuse of the company’s complaints or <u>grievance</u> process. Where such complaints are reasonably unlikely to yield new or different results from similar previous complaints that have been thoroughly investigated and mitigated as per 4.4.2.6 (including noise monitoring and alternative <u>mitigation</u> if first attempts at <u>mitigation</u> do not resolve the complaints), then the <u>operating company</u> will not be expected to fully investigate those complaints.</p> <p>However, this does not give the <u>operating company</u> the freedom to forever disregard or not respond to credible complaints, including from complainants that have previously repeatedly complained to the company.</p> <p>The <u>operating company</u> should maintain documentation of every complaint and its responses - including any determination not to further respond.</p> <p>Noise-related complaints should be handled according to the procedures developed for the <u>mining project’s operational-level grievance mechanism</u> (See IRMA Chapter 1.4).</p> <p><u>Mitigation</u> for noise could include:</p> <ul style="list-style-type: none"> • Selection of low-noise equipment; • Applying additional silencing measures to fixed and mobile

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
		<p>equipment and ventilation fans;</p> <ul style="list-style-type: none"> • Installing acoustic enclosures around noise sources, using “smart alarms” to minimize complaints related to vehicle reversing alarms; • Optimizing mine layout to shield receptors from noise-generating facilities and haul roads; • Minimizing tonal components or impulsive or intermittent noise characteristics; • Using sound walls or other acoustical screening; • Incorporating buffer zones and landscaped setbacks between noise sources and receptors; or • Applying acoustical treatment to receptors (E.g., dwellings).⁶⁰¹ <p>Measures commonly adopted to <u>mitigate</u> the impacts of blasting include:⁶⁰²</p> <ul style="list-style-type: none"> • Reducing the charge mass • Increasing/optimizing the stemming height and ensuring the type of stemming is adequate • Eliminating the exposed detonating cord and secondary blasting • Orientating faces away from potentially sensitive receivers • Using a hole spacing and burden which will ensure the explosive force is just sufficient to break the ore to the required size • Applying best practice design of the blast initiation sequence and timing delay

⁶⁰¹ Australian Department of Industry, Innovation and Science. Leading Practice Sustainable Development Program: 3.0 Noise, 3.10 Exploration, Development and Design Phase, 3.10.3 Hierarchy of Controls. <https://industry.gov.au/resource/Programs/LPSD/Airborne-contaminants-noise-and-vibration/Noise/Pages/Exploration,-development-and-detailed-design-phase.aspx>

⁶⁰² Ibid.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXPLANATORY NOTES
<p>4.4.2.7. All noise- and vibration-related complaints and their outcomes shall be documented.</p>	<p>For 4.4.2.7: Review documentation on noise/vibration-related complaints, and confirm that the outcomes of the complaints have been documented.</p>	<ul style="list-style-type: none"> • Providing optimum buffer zones and set-back distances for sensitive structures • Acoustically treating dwellings <p>Explanatory Note for 4.4.2.7: Documentation should include operating company rationale for deeming a complaint to be "not credible." See Note for 4.4.2.6 for more information.</p>
<p>4.4.3. Reporting</p> <p>4.4.3.1. When <u>stakeholders</u> make a noise-related complaint, the <u>operating company</u> shall provide relevant noise data and information to them. Otherwise, noise data and information shall be made available to <u>stakeholders</u> upon request.</p>	<p>For 4.4.3.1: Interview company and <u>stakeholders</u> who have complained about noise, if any, to confirm that information is provided to complainants.</p> <p>Evidence of making information available to other <u>stakeholders</u> could include documented requests from <u>stakeholders</u> and company responses.</p>	<p>Explanatory Note for 4.4.3.1: Relevant noise data would include any noise monitoring carried out by the <u>operating company</u> in response to a particular complaint; and also information on <u>mitigation</u> measures undertaken in the company's effort to resolve that complaint.</p> <p>Other data, such as the aggregate number of noise complaints, or general information on noise mitigation measures employed at the mine, etc. should be made available to any stakeholder upon request.</p>

NOTES

This chapter focuses on the impacts of noise and vibrations on human noise receptors. Noise-related impacts on wildlife receptors should be screened in the Environmental and Social Impact Assessment process in IRMA Chapter 2.1, and If there are significant impacts are identified, then those impacts should be mitigated as per the ESIA process (including consultations with relevant stakeholders, such as government biologists, wildlife conservation organizations, academic experts and community members whose livelihoods or sustenance may be affected by impacts on wildlife). Any related monitoring should occur as per the Environmental and Social Monitoring program.

If noise of vibration may potentially impact threatened species, those impacts should be further evaluated during the Biodiversity, Ecosystem Services and Protected Areas screening process (IRMA Chapter 4.6).

Cross References to Other Chapters	
CHAPTER	ISSUES

Cross References to Other Chapters	
1.1—Legal Compliance	As per IRMA Chapter 1.1, if there are <u>host country laws</u> governing noise from mining operations, the company is required to abide by those laws. If IRMA requirements are more stringent than <u>host country law</u> , the company is required to also meet the IRMA requirements, as long as complying with them would not require the operating company to violate <u>host country law</u> .
1.2—Community and Stakeholder Engagement	Consultations with <u>stakeholders</u> related to the development of noise <u>mitigation</u> plans shall conform to the <u>stakeholder engagement</u> requirements in Chapter 1.2. Reporting shall conform with the Communications and Access to Information requirements in 1.2.4, which require that communications and information be in culturally appropriate formats and languages that are <u>accessible</u> and understandable to <u>affected communities</u> and <u>stakeholders</u> , and provided in a timely manner.
1.4—Complaints and Grievance Mechanism and Access to Remedy	Noise impacts not anticipated in the screening process/ESIA or not adequately <u>mitigated</u> may result in complaints by <u>stakeholders</u> . As per Chapter 1.4, the <u>operating company</u> is required to have an operational-level <u>grievance mechanism</u> available to <u>stakeholders</u> , including procedures for filing mining-related complaints, and having those complaints recorded, investigated and resolved in a timely manner.
2.1—Environmental and Social Impact Assessment and Management	Potential noise impacts, such as impacts on sensitive wildlife species and populations, should be evaluated as part of the ESIA scoping process (see requirement 2.1.3.3). Where potentially significant impacts on wildlife populations are identified, the <u>operating company</u> should develop <u>mitigation</u> strategies to reduce the impacts on wildlife, and monitoring program to determine if <u>mitigation</u> measures are being effective (as per the requirements in 2.1.7 and 2.1.8).
3.2—Occupational Health and Safety	Chapter 4.4 pertains to the impacts of mine-related noise on local communities. The impacts of harmful noise on workers are covered in Chapter 3.2.
4.6—Biodiversity, Ecosystem Services and Protected Areas	If noise of vibration may potentially impact <u>threatened or endangered species</u> , those impacts should be further evaluated during the Biodiversity, Ecosystem Services and Protected Areas screening process (see criteria 4.6.2).

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the Glossary of Terms at the end of the IRMA Standard document.

Affected Community

A community that is subject to potential risks or impacts from a project.

Baseline Ambient Noise Levels

Ambient noise level is the total noise from all sources at a given location and time. For the purposes of this chapter, baseline ambient noise is the background sound pressure level at a given location without the presence of noise sources of interest (in this case, sources of interest would be noise related to the mining project).

Competent Professionals

In-house staff or external consultants with relevant education, knowledge, proven experience, necessary skills and training to carry out the required work. Competent professionals would be expected to follow scientifically robust methodologies that would withstand scrutiny by other professionals. Other equivalent terms used may include: competent person, qualified person, qualified professional. For independent reviews (in IRMA Chapter 4.1) competent professionals must not be in-house staff.

Existing Mine

A mine that was operational prior to the date that the IRMA standard was published in final (June 2018).

Grievance

A perceived injustice evoking an individual's or a group's sense of entitlement, which may be based on law, contract, explicit or implicit promises, customary practice, or general notions of fairness of aggrieved communities. For the purposes of the IRMA Standard, the words grievances and complaints will be used interchangeably.

Grievance Mechanism

Any routinized, State-based or non-State-based, judicial or non-judicial process through which mining-project-related complaints or grievances, including business-related human rights abuses stakeholder complaints, and/or labor grievances, can be raised and remedy can be sought.

Ground Vibration

The level of vibration (peak particle velocity) measured in mm/second in the ground. The measurement point should be at least the longest dimension of the foundations of a building or structure away from the building or structure, if possible. If this is not possible, the measurement point should be as far from the building or structure as is practical.

Host Country Law

May also be referred to as national law, if such a phrase is used in reference to the laws of the country in which the mining project is located. Host country law includes all applicable requirements, including but not limited to laws, rules, regulations, and permit requirements, from any governmental or regulatory entity, including but not limited to applicable requirements at the federal/national, state, provincial, county or town/municipal levels, or their equivalents in the country where the mine is located. The primacy of host country laws, such as federal versus provincial, is determined by the laws of the host country.

Lin Peak/Linear Peak

The maximum level of air pressure fluctuation measured in decibels without frequency weighting.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mining-Related Activities

Encompasses any activities that may occur during any phase of the mine life cycle (planning, impact assessment, exploration, mine construction, mining, mine closure), and includes all physical activities (e.g., land disturbance and clearing, sampling, airborne surveys, construction, ore removal, ore processing, waste management, reclamation, etc.).

Mitigation

Actions taken to reduce the likelihood of a certain adverse impact occurring.

New Mine

A mine that becomes operational and applies for IRMA verification after the date that the IRMA standard was published in final (June 2018).

Noise Receptor

A point of reception or (human) receptor may be defined as any point on the premises occupied by persons where extraneous noise and/or vibration are received. Examples of receptor locations may include: permanent or seasonal residences; hotels/motels; schools and daycares; hospitals and nursing homes; places of worship; and parks and campgrounds, and similar public spaces and commons. For wildlife, receptor locations may include wildlife habitat for sensitive animal species.

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Peak Particle Velocity

The instantaneous sum of the velocity vectors (typically measured in millimetres per second) of the ground movement caused by the passage of vibration from blasting.

Stakeholder

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Threatened Species

Species that meet the IUCN (2001) criteria for Vulnerable (VU), Endangered (EN) or Critically Endangered (CR), and are facing a high, very high or extremely high risk of extinction in the wild. These categories may be re-interpreted for IRMA purposes according to official national classifications (which have legal significance) and to local conditions and population densities (which should affect decisions about appropriate conservation measures).

Worker

All non-management personnel.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



Chapter 4.5—Greenhouse Gas Emissions

Background

Humans are increasingly influencing the climate and the earth's temperature by burning fossil fuels, cutting down rainforests and raising livestock.⁶⁰³ These activities release gases such as carbon dioxide, methane, nitrous oxide, ozone and a few others that have the ability to trap heat in the Earth's atmosphere. Many of these gases occur naturally, but human activity is increasing the concentrations of some of them in the atmosphere.⁶⁰⁴ As a result, the United Nations Framework Convention on Climate Change has spurred the establishment of targets for the reduction of greenhouse gas emissions that are applicable in over 190 countries.⁶⁰⁵

Mining is a major energy consumer and emitter of greenhouse gas emissions. The mining industry therefore has an opportunity and responsibility to manage its energy use and carbon emissions, but it also shows the potential for mines to consume less energy, emit less carbon, and improve the company's bottom line.

According to the International Council on Mining and Metals, the mining industry's greenhouse gas emissions come from two major categories. The first is direct emissions as a result from fossil fuel use in mining and processing operations; transportation of ore and electricity generation at remote sites; and fugitive emissions. The second is indirect emissions from electricity use, primarily in refining and smelting operations. Mining companies can reduce consumption in both of these groupings and thereby cut costs and improve competitiveness by adopting best practices regarding energy efficiency and emissions reduction.

OBJECTIVES/INTENT OF THIS CHAPTER

To minimize climate change impacts through increased energy efficiency, reduced energy consumption and reduced emissions of greenhouse gases.

SCOPE OF APPLICATION

Chapter Relevance: This chapter is relevant for all mines assessed under IRMA.

CRITICAL REQUIREMENTS IN THIS CHAPTER

There is a policy being implemented that includes targets for reducing greenhouse gas emissions (4.5.1.1).

TERMS USED IN THIS CHAPTER

Affected Community ■ Associated Facilities
■ Corporate Owner ■ Existing Mine ■ Host
Country Law ■ Mining Project ■ Mining-
Related Activities ■ Operating Company ■
Significant Changes to Mining-Related
Activities ■ Stakeholder ■

These terms appear in the text with a dashed underline, and they are explained at the end of this chapter

⁶⁰³ European Commission website: "Causes of Climate Change." https://ec.europa.eu/clima/change/causes_en

⁶⁰⁴ Ibid/ibid.

⁶⁰⁵ For example, see: "Nationally appropriate mitigation commitments or actions by developed country Parties," United Nations Climate Change website. <https://unfccc.int/topics/mitigation/workstreams/nationally-appropriate-mitigation-actions>

Greenhouse Gas Emissions Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>4.5.1. Greenhouse Gas Policy</p> <p>4.5.1.1. (Critical Requirement) The <u>operating company</u> or its <u>corporate owner</u> shall develop and maintain a greenhouse gas or equivalent policy that commits the company to:</p> <ol style="list-style-type: none"> Identifying and measuring greenhouse gas emissions from the <u>mining project</u> and <u>associated facilities</u>; Identifying energy efficiency and greenhouse gas reduction opportunities across the mining operation; Setting meaningful and achievable targets for reductions in absolute greenhouse gas emissions⁶⁰⁶ at the mine site level or on a corporate-wide basis; and Reviewing the policy at least every five years and revising as needed, such as if there are <u>significant</u> 	<p>For 4.5.1.1: Review greenhouse gas policy to ensure commitment to measuring/reporting; identifying reduction/efficiency opportunities; established and reduction targets; and reviewing/revising the policy.</p> <p>Confirm that there is a process in place to review the policy (or policy elements) at least every five years, and if there have been <u>significant changes in mining-related activities</u> (i.e., at <u>existing mines</u>) confirm that the policy has been reviewed and any opportunities for additional reductions identified. If additional reductions are identified, confirm that the policy and any associated plans or procedures have been updated accordingly.</p>	<p>For 4.5.1.1:</p> <ul style="list-style-type: none"> Greenhouse gas policy (or its equivalent). 	<p>Explanatory Note for 4.5.1.1: The policy does not have to be stand-alone and does not have to be special/exclusive to IRMA purposes. Nor does it have to be named “greenhouse gas policy.”</p> <div style="border: 1px solid #f08080; padding: 10px; background-color: #ffffcc;"> <p>f [flag] 4.5.1.1.c. Issue in Brief: While there is agreement among IRMA sectors that setting GHG reduction targets are something that every responsible company should be doing, there is not yet cross-sectoral agreement within IRMA regarding how ambitious those targets should be.</p> <p>There are a number of initiatives underway encouraging companies to set “science-based” targets that are consistent with the Paris Agreement’s goal of limiting global average temperature increase to well below 2 degrees above pre-industrial levels (e.g., Climate Action 100+, Science Based Targets, Transition Pathway Initiative, etc.). Numerous companies globally have made commitments to setting science-based targets, but there is not a lot of information on or evidence of mining companies setting such targets.</p> </div>

⁶⁰⁶ A target for reductions in absolute greenhouse gas emissions is defined by a reduction in absolute (or total) emissions over time (e.g., reduce total greenhouse gas emissions by 20% below 2007 levels by 2015). For the purposes of this requirement, only targets for Scope 1 and Scope 2 emissions are required to be included in the target, although Scope 3 emissions may also be included. Scope 1 emissions are the direct emissions from the mining project (or company, if setting targets on a corporate-wide basis); Scope 2 are the indirect emissions from consumption of purchased electricity, heat, and steam. Scope 3 are other indirect emissions. See GHG Protocol Standard for more details. <https://ghgprotocol.org/corporate-standard>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>changes to mining-related activities, new technologies become available, or there are newly identified opportunities for reductions.</p>			<p>IRMA will use the Launch Phase as a time to ask mines whether or not they are setting “science-based targets” for greenhouse gas emissions reductions, and if they are not, what are the barriers are to making such a commitment? The outcome of the queries will help inform the version of the Standard that will be used when IRMA starts assessing mines in 2019.</p> <p>Explanatory Note for 4.5.1.1.c: A target for reductions in absolute greenhouse gas emissions is defined by a reduction in absolute (or total) emissions over time (e.g., reduce total greenhouse gas emissions by 20% below 2007 levels by 2015).</p> <p>For the purposes of this requirement, only targets for Scope 1 and Scope 2 emissions are required to be included in the target. Scope 3 emissions may also be included. According to the GHG Protocol Initiative’s <i>Greenhouse Gas Protocol Corporate Accounting and Reporting Standard</i>:⁶⁰⁷</p> <p>Scope 1 emissions are the direct emissions from the <u>mining project</u> (or company, if setting targets on a corporate-wide basis);</p> <p>Scope 2 are the indirect emissions from the consumption of purchased or acquired electricity, heat, and steam and cooling;</p> <p>Scope 3 are other indirect emissions not covered in Scope 2. For more details see GHG Protocol Corporate Accounting and Reporting Standard.⁶⁰⁸</p>

⁶⁰⁷ GHG Protocol Initiative. 2015. Greenhouse Gas Protocol Corporate Accounting and Reporting Standard. <https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf>



⁶⁰⁸ Ibid.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>4.5.2. Emissions Quantification</p> <p>4.5.2.1. The <u>operating company</u> shall comply with emissions quantification methods described in a widely accepted reporting standard, such as the <i>Greenhouse Gas Protocol Corporate Standard</i>⁶⁰⁹ or the Global Reporting Initiative’s <i>GRI 305</i> emissions reporting standard.⁶¹⁰</p>	<p>For 4.5.2.1: Review documentation on details and explanations of calculations made, including assumptions, data sources, and discussion of errors, inconsistencies, and other information that could reasonably be necessary to ensure that the methods conform to the GHG Protocol Corporate Standard or the GRI reporting standard.</p> <p>If other methods are used, interview <u>operating company</u> to determine their justification for using an alternative set of methods, and information to confirm that the methods used are internationally recognized and comparable to the GHG Protocol Corporate Standard.</p>	<p>For 4.5.2.1:</p> <ul style="list-style-type: none"> • Greenhouse gas emissions data and reports. • Equipment calibration and QA/QC documentation, where applicable. 	<p>Re: 4.5.1.1.d, new technologies or opportunities are be those that could reasonably be implemented at the mine site. They may come to the attention of the <u>operating company</u> or corporate owner through internal channels or through public, <u>stakeholder</u>, regulator/government, or other suggestion.</p> <p>Explanatory Note for 4.5.2.1: Emissions quantification must include the following greenhouse gases:</p> <p>carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), a sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).</p> <p>Quantification is required for Scope 1 and Scope 2 emissions. (See Note for 4.5.1.1)</p>
<p>4.5.3. Emissions Reduction Strategies</p> <p>4.5.3.1. The greenhouse gas policy shall be underpinned by a plan that details</p>	<p>For 4.5.3.1: Review the plan to ensure that there are actions laid out to achieve the reduction targets outlined in the policy.</p>	<p>For 4.5.3.1:</p> <ul style="list-style-type: none"> • Greenhouse gas action plan (or its equivalent). 	<p>Explanatory Note for 4.5.3.1: The plan should:</p> <p>Be specific to the mine; Include sufficient detail to understand and measure the mine's goals and success over a defined period of time; and</p>

⁶⁰⁹ Ibid.

⁶¹⁰ Global Reporting Initiative (GRI). 2016. *GRI 305* emissions reporting standard. <https://www.globalreporting.org/standards/gri-standards-download-center/gri-305-emissions/>

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the actions that will be taken to achieve the targets set out in the policy.			Be updated throughout the course of the mine's life.
4.5.3.2. The <u>operating company</u> shall demonstrate progress toward its greenhouse gas reduction targets.	For 4.5.3.2: Review documentation of actions taken by the company to confirm that actions are being implemented and progress made toward its targets.	For 4.5.3.2: <ul style="list-style-type: none"> • Annual greenhouse gas emissions reports. • Greenhouse gas policy or other document(s) that contain greenhouse gas reduction target information. 	Explanatory Note for 4.5.3.2: By estimating <u>mining project</u> greenhouse gas emissions using a widely accepted methodology, and doing so on an annual basis, the <u>operating company</u> should be able to show that over time progress is being made toward meeting its greenhouse gas reduction targets. Also, progress can be shown by demonstrating that strategies to reduce emissions are in the process of being implemented.
4.5.3.3. The <u>operating company</u> shall demonstrate that it has investigated greenhouse gas reduction strategies, and shall document the results of its investigations.	For 4.5.3.3: Review documentation to confirm that the company has investigated various greenhouse gas reduction strategies.	For 4.5.3.3: <ul style="list-style-type: none"> • Reports, studies or other documentation related to technical and/or economic feasibility of strategies to reduce greenhouse gas emissions. 	Explanatory Note for 4.5.3.3: Investigations might include literature reviews, cost benefit analyses, feasibility studies, etc., of different strategies or technologies to reduce greenhouse gas emissions (e.g., use of electricity generated from solar or wind to replace electricity generated by fossil-fuels, use of electrical vehicles to replace those that run on diesel, etc.).
4.5.4. Reporting	For 4.5.4.1: Confirm that the policy is available (e.g., on company website, or in hard copies in publicly accessible locations and formats appropriate for <u>stakeholders</u> and <u>affected communities</u>).	For 4.5.4.1: <ul style="list-style-type: none"> • Greenhouse gas policy (or its equivalent). • Evidence that policy is publicly available (e.g., link to website, list of publicly accessible locations where document can be found, etc.). 	Explanatory Note for 4.5.4.1: “Publicly available” means that the policy should be on the company’s website, or in hard copies in publicly accessible locations. As per Chapter 1.2, public communications should be in formats and languages that are appropriate for <u>stakeholders</u> and <u>affected communities</u> . Ideally, as part of the company's outreach, advertising, and other "media" the policy should be disclosed to the public and described so that people are aware of its existence, content, and availability. This is similar, for

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<p>4.5.4.2. On an annual basis, the operating company or its corporate owner shall:</p> <p>a. Disclose to IRMA auditors an accounting of its greenhouse gas emissions from the <u>mining project and associated facilities</u>; achievement of and/or progress towards mine-site-level greenhouse gas reduction targets; and efforts taken to reduce emissions from the <u>mining project and mining-related activities</u>; and</p> <p>b.  Publicly report on mine-site-level or corporate-level greenhouse gas emissions, progress towards greenhouse gas reduction targets and efforts taken to reduce emissions.</p>	<p>For 4.5.4.2.a: Review company data on greenhouse gas emissions from the <u>mining project and associated facilities</u>; progress toward mine site greenhouse gas reduction targets; and efforts undertaken to reduce emissions at the mine site level.</p> <p>For 4.5.4.2.b: Review publicly available data to confirm that the company is publicly reporting emissions, progress toward targets and efforts taken to reduce emissions on either mine-site or corporate level.</p>	<p>For 4.5.4.2:</p> <ul style="list-style-type: none"> • Greenhouse gas (GHG) emissions data. • A GHG policy or other document that contains information on greenhouse gas reduction targets. • Reports that include information on efforts/strategies implemented to reduce greenhouse gas emissions. • Documentation of meetings or communications with stakeholders (e.g., meeting minutes, correspondence, etc.) where information on the mining project's greenhouse gas emissions and reduction strategies have been shared. 	<p>example, to how companies make evident and/or promote their corporate accountability, social, and sustainability policies.</p> <div style="border: 1px solid #ff00ff; padding: 10px;"> <p> [flag] 4.5.4.2.b. Issue in Brief: While there is agreement among IRMA sectors that mines should be measuring their emissions and should have greenhouse gas reduction policies, targets and strategies in place, there is not full agreement on whether reporting of greenhouse gas emissions should occur at the mine site level, the corporate/company-wide level, or both.</p> <p>Many mining companies do report emissions and greenhouse gas reduction targets, but this often occurs on a corporate-wide basis. Since IRMA applies to mine sites, not companies, the preference expressed by some stakeholders is that every mine should annually report its greenhouse gas emissions and targets.</p> <p>IRMA will use its Launch Phase to gather information on whether mines engaged with IRMA and other leading companies are reporting emissions and targets for individual mine sites, or whether most companies are still only doing this on a company-wide basis. This information will inform how we proceed with this requirement in further revisions to the Standard.</p> </div>

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			<p>Explanatory Note for 4.5.4.2: To clarify, this requirement means that mines must disclose to auditors their mine site emissions data, which should be broken out by year. It does not mean that mines need to send to auditors their emissions data on an annual basis (we will provide wording that is more clear in the next version of the Standard).</p> <p>Public reporting means that the information should be conveyed to <u>general stakeholders</u> either through verbal presentations, through documents published on the company’s website, or in hard copies in publicly accessible locations.</p> <p>As per Chapter 1.2, public communications should be in formats and languages that are appropriate for <u>stakeholders</u> and <u>affected communities</u>.</p>

NOTES

In the future, the IRMA Steering Committee may consider the development of numeric criteria to further guide mining GHG emissions as appropriate.

Cross References to Other Chapters	
CHAPTER	ISSUES
1.1—Legal Compliance	As per Chapter 1.1, if there are <u>host country laws</u> governing the reporting or reduction of greenhouse gas emissions, the company is required to abide by those laws. If IRMA requirements are more stringent than <u>host country law</u> , the company is required to also meet the IRMA requirements, as long as complying with them would not require the operating company to violate the <u>host country law</u> .
1.2—Community and Stakeholder Engagement	Reporting to <u>stakeholders</u> shall conform with the Communications and Access to Information requirements in 1.2.4, which require that communications and information be in culturally appropriate formats and languages that are accessible and understandable to <u>affected communities</u> and <u>stakeholders</u> , and provided in a timely manner.
1.4—Complaints and Grievance Mechanism and Access to Remedy	As per Chapter 1.4, the <u>operating company</u> is required to have an operational-level <u>grievance mechanism</u> available to <u>stakeholders</u> , including procedures for filing mining-related complaints, and having those complaints recorded, investigated and resolved in a timely manner. Any complaints from <u>stakeholders</u> related to greenhouse gas emissions and reporting should be addressed through the company’s <u>grievance mechanism</u> (if not resolved through informal dialogue or other means).

Cross References to Other Chapters	
2.1—Environmental and Social Impact Assessment and Management	Potential impacts from greenhouse gas emissions (e.g., environmental and social impacts related to climate change) may be identified in the ESIA. The assessment may result in the development of <u>mitigation</u> and/or greenhouse gas reduction strategies.

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the Glossary of Terms at the end of the IRMA Standard document.

Affected Community

A community that is subject to risks or impacts from a project.

Associated Facility

Any facility managed by the operating company that would not have been constructed, expanded or acquired but for the exploration or development of the mine (including ore processing facilities, stationary physical property such as power plants, port sites, roads, railroads, borrow areas, fuel production or preparation facilities, parking areas, shops, offices, housing facilities, storage facilities, etc.).

Corporate Owner(s)

The corporation(s) or other business institution(s) including any private or state-run enterprises that have complete or partial financial interest in or ownership of a mining project.

Existing Mine

A mine that was operational prior to the date that the IRMA standard was published in final (June 2018).

Host Country Law

May also be referred to as national law, if such a phrase is used in reference to the laws of the country in which the mining project is located. Host country law includes all applicable requirements, including but not limited to laws, rules, regulations, and permit requirements, from any governmental or regulatory entity, including but not limited to applicable requirements at the federal/national, state, provincial, county or town/municipal levels, or their equivalents in the country where the mine is located. The primacy of host country laws, such as federal versus provincial, is determined by the laws of the host country.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mining-Related Activities

Encompasses any activities that may occur during any phase of the mine life cycle (planning, impact assessment, exploration, mine construction, mining, mine closure), and includes all physical activities (e.g., land disturbance and clearing, sampling, airborne surveys, construction, ore removal, ore processing, waste management, reclamation, etc.).

New Mine

A mine that becomes operational and applies for IRMA verification after the date that the IRMA standard was published in final (June 2018).

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Significant Changes to Mining-Related Activities

Changes in scale or scope (e.g., production increases, new or expanded activities or facilities, alterations in waste management activities, closure, etc.) that may create significant environmental, social and/or human rights impacts, or significantly change the nature or degree of an existing impact.

Stakeholder

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



Chapter 4.6—Biodiversity, Ecosystem Services and Protected Areas

BACKGROUND

Biological diversity, or biodiversity, describes the variety of life on Earth. It refers to the wide variety of ecosystems and living organisms: animals, plants, their habitats and their genes. Biodiversity underpins ecosystem functioning and the provision of ecosystem services essential for human well-being. It is a central component of many belief systems, world views and identities. It provides for food security, human health, clean air and water, and contributes to local livelihoods and economic development. Despite its fundamental importance, however, biodiversity continues to be lost.⁶¹¹

Mining may take place in landscapes that are already heavily modified or degraded, and therefore, pose little or no threat to global biodiversity loss. When located in areas of high biodiversity value, however, there is the potential that mining may lead to a temporary or permanent loss in biodiversity and ecosystem services.

Globally, a network of protected areas have been put in place, offering various levels of protection for biodiversity, land and seascapes. Developments such as exploration and mining are expected to respect those protections and operate in a manner that safeguards biodiversity and other values that led to a protected area designation (e.g., cultural values – see IRMA Chapter 3.7). In many areas of the world, however, an adequate system of protected areas has yet to be established, and even where protections exist there are opportunities to further conserve biodiversity and other important values.

Through adherence to the mitigation hierarchy during the most appropriate stages in project development, in appropriate locations mining can proceed in a manner that supports global biodiversity, maintains the ecosystem services that communities need to survive and thrive, and leaves behind structurally safe and functioning ecosystems upon closure. This chapter puts forward a framework for mines to proactively assess and manage impacts on biodiversity and ecosystem services according to the mitigation hierarchy of avoiding and minimizing impacts early in the project lifecycle, and if impacts cannot be avoided, restoring and, if necessary, offsetting or compensating for residual impacts throughout the remainder of the mine's life.

OBJECTIVES/INTENT OF THIS CHAPTER

To protect biodiversity, maintain the benefits of ecosystem services and respect the values being safeguarded in protected areas.

SCOPE OF APPLICATION

Chapter Relevance: This chapter will not be applicable if no risks to biodiversity, ecosystem services or protected areas, including risks related to potential knowledge gaps, are identified through the screening process.

TERMS USED IN THIS CHAPTER

Additional Conservation Actions ■ Area of Influence ■ Avoidance ■ Baseline ■ Biodiversity ■ Biosphere Reserves ■ Competent Professionals ■ Conservation Outcomes ■ Conservation Values ■ Collaborate ■ Consultation ■ Critical Habitat ■ Critically Endangered Species ■ Cumulative Impacts ■ Direct/Indirect Impacts ■ Ecological Processes ■ Ecosystem ■ Ecosystem Services ■ Enhancement ■ Existing Mine ■ Habitat ■ Host Country Law ■ Important Biodiversity Values ■ Key Biodiversity Areas ■ Mine Closure ■ Mining Project ■ Mining-Related Activities ■ Minimize ■ Mitigation ■ Mitigation Hierarchy ■ Modified Habitat ■ Natural Habitat ■ New Mine ■ No Net Loss and Net Gain ■ Offset ■ Operating Company ■ Priority Ecosystem Services ■ Protected Area ■ Protected Area Management Categories ■ Residual Impacts ■ Restoration ■ Stakeholder ■ Tentative List for World Heritage Site Inscription ■ Threatened or Endangered Species ■ World Heritage Site ■

⁶¹¹ Adopted from the Convention on Biological Diversity (CBD) Strategic Plan for Biodiversity 2011-2020. Available at: www.cbd.int/sp/

New vs. Existing Mines: This chapter applies to new mines and existing mines. The requirements are drafted with the intent that the overall impact of the mine on biodiversity, ecosystem services and protected areas will be considered across the entire period of the mine’s life. Mitigation measures for new mines are expected to be designed to achieve no net loss and preferably a net gain in important biodiversity values and priority ecosystem services.

While ideally existing mines would seek to achieve no net loss in biodiversity and ecosystem services, IRMA recognizes that it may be difficult or impossible to accurately identify the biodiversity values that were present in an area prior to the mine development, which makes it difficult to establish a baseline for calculating a no net loss or net gain in biodiversity. Instead of requiring no net loss/net gain at existing mines, IRMA expects existing mines to document, to the best of their abilities, the impacts that their past activities have had on biodiversity and ecosystem services. Where significant impacts have occurred, existing mines will be expected to undertake conservation actions to enhance biodiversity and ecosystem services. Existing mines are also expected to avoid any additional losses of important biodiversity values or priority ecosystem services (see 4.6.4.2). This approach enables an existing mine to apply for IRMA independent assessment later in its project life, but ensures that doing so does not allow them to avoid responsibilities that would have been applicable had they applied for IRMA independent assessment at an earlier stage.

CRITICAL REQUIREMENTS IN THIS CHAPTER

The mine has carried out screening to evaluate its potential impacts on biodiversity, ecosystem services and protected areas (4.6.2.1), and these impacts are being mitigated and minimized (4.6.4.1).

New mines are not located in or adversely affect World Heritage Sites (WHS), areas on a State Party’s official Tentative List for WHS Inscription, IUCN protected area management categories I-III, or core areas of UNESCO biosphere reserves (4.6.5.3), and existing mines located in those areas ensure that activities during the remaining mine life cycle will not permanently and materially damage the integrity of the special values for which the area was designated or recognized (4.6.5.4).

Biodiversity, Ecosystem Services and Protected Areas Requirements

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<p>4.6.1. General Stipulations</p> <p>4.6.1.1. <u>Biodiversity, ecosystem services and protected areas</u> screening, assessment, management planning, implementation of <u>mitigation</u> measures, and monitoring shall be carried out and documented by <u>competent professionals</u> using appropriate methodologies.</p>	<p>For 4.6.1.1: Confirm, through review of credentials that professionals carrying out the screening, assessment, management planning, implementation of <u>mitigation</u> measures, and monitoring have relevant education, knowledge, proven experience, necessary skills and training to carry out the required work. Confirm through review of documentation and interviews with the company and <u>stakeholders</u> (e.g., those who have knowledge of methodologies) that</p>	<p>For 4.6.1.1:</p> <ul style="list-style-type: none"> • Documentation of credentials and curriculum vitae/resumes/biographies of professionals hired to carry out the work. • Documentation of biodiversity, ecosystem services and protected areas screening, assessment, management planning, mitigation measures, and monitoring programs. • Documentation of methods used in biodiversity, ecosystem services and protected areas screening, assessment, mitigation and monitoring. 	<p>Explanatory Note for 4.6.1.1: IRMA's definition of <u>competent professionals</u> is: "In-house staff or external consultants with relevant education, knowledge, proven experience, necessary skills and training to carry out the required work. Competent professionals would be expected to follow scientifically robust methodologies that would withstand scrutiny by other professionals. Other equivalent terms used may include: competent person, qualified person, qualified professional."</p> <p>The use of <u>competent professionals</u> in collecting <u>baseline data</u>, identifying <u>biodiversity values</u>, assessing <u>biodiversity risk</u> and impacts, calculating <u>biodiversity losses</u> and gains,</p>

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<p>4.6.1.2. <u>Biodiversity, ecosystem services and protected areas</u> screening, assessment, management planning, and the development of <u>mitigation</u> and monitoring plans shall include <u>consultations</u> with</p>	<p>methodologies used are scientifically robust.</p> <p>For 4.6.1.2: Confirm, through review of documents (e.g., <u>consultation</u> outreach materials/ads, meeting minutes, sign-in sheets, written comments) and/or interviews with <u>stakeholders</u> that <u>stakeholders</u> have been <u>consulted during</u></p>	<p>For 4.6.1.2:</p> <ul style="list-style-type: none"> Records of outreach or correspondence with stakeholders (e.g., advertisements, meeting minutes, letters, flyers, posters, public announcements, etc.) inviting potentially affected stakeholders to participate in biodiversity, ecosystem services and 	<p>and designing <u>mitigation options</u> and <u>offsets</u> has been stressed by the International Finance Corporation (IFC). For example, according to IFC:</p> <p>“The range of specialists is large, and the necessary skillsets will vary. . . ecologists with regionally-specific experience, biologists with expertise in a specific taxon, and evolutionary or <u>landscape biologists</u> might be suitable for the identification of certain biodiversity values. <u>Biodiversity management specialists</u> who are familiar with the relevant industry (e.g., extractive industries versus forestry) will bring a different skillset in terms of identifying mitigation options in line with current good international practices in the sector. . . <u>Ecosystem services</u> assessment may require several specialists, depending on the service in question (e.g., soil and erosion control specialists, geologists and hydrologists, agronomists, rangeland ecologists, specialists in the economic valuation of natural resources, resettlement and social specialists with expertise in natural resource-based <u>livelihood</u>, etc.).”⁶¹²</p> <p>“Appropriate methodologies” should be based on clearly defined and defensible assumptions and be scientifically robust such that they would withstand scrutiny by other professionals.</p> <p>Explanatory Note for 4.6.1.2: According to International Finance Corporation (IFC):</p> <p>“<u>Stakeholder engagement</u> and <u>consultation</u> is one of the key means to understanding impacts on <u>biodiversity</u> and identifying appropriate responses to such impacts. The ESIA or any follow-up <u>biodiversity/ecosystem services</u>-related</p>

⁶¹² International Finance Corporation (IFC). 2012. Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources. Guidance Notes. GN21. https://www.ifc.org/wps/wcm/connect/a359a380498007e9a1b7f3336b93d75f/Updated_GN6-2012.pdf?MOD=AJPERES

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<p>stakeholders, including, where relevant, affected communities and external experts.</p>	<p>biodiversity, ecosystem services and protected areas screening, assessment and development of mitigation measures and monitoring plans. In particular, confirm that affected communities were consulted regarding potential impacts on and management of ecosystem services; regulatory authorities were consulted with respect to protected areas, if relevant; and external experts consulted on development or mitigation measures, and development and monitoring of offsets (if offsets are being used).</p> <p>In this case, consultation means that there has been information sharing and dialogue between the company and relevant stakeholders, and that the company has taken into consideration stakeholder opinions. Ideally, stakeholder agreement will also be sought.</p>	<p>protected areas screening, assessment, management planning, and the development of mitigation or monitoring plans.</p> <ul style="list-style-type: none"> Records of stakeholder participation in consultations (e.g., meeting minutes or notes, attendee lists, written or verbal input from stakeholders, company responses to input, etc.) related to screening. 	<p>assessment will be expected to take into account the differing values attached to biodiversity and ecosystem services by Affected Communities. This is especially relevant when projects may affect ecosystem services of relevance to Indigenous Peoples. . .Regarding biodiversity, the client should consider the differing values attached to particular biodiversity attributes by relevant local, national and international stakeholders. . . Stakeholders with whom to consult include Affected Communities, governmental officials, academic and research institutions, recognized external experts for the biodiversity attributes of concern, and national and international conservation NGOs, as appropriate.”⁶¹³</p> <p>Consultations with affected communities would be relevant if impacts on biodiversity or ecosystem services could affect the health, safety, well-being, cultural resources or livelihoods of communities.</p> <p>Consultations with external experts would be relevant if the mining project may affect critical habitat, including areas with high biodiversity value such as key biodiversity areas, legally protected areas or other areas of high priority to stakeholders, if the project will lead to a significant conversion or degradation of natural habitat, or if offsets are being proposed.⁶¹⁴</p>
<p>4.6.1.3. Biodiversity, ecosystem services and protected areas impact assessments, management plans and</p>	<p>For 4.6.1.3: Determine whether or not materials are publicly available (e.g., on the company’s website), and if not, interview</p>	<p>For 4.6.1.3:</p> <ul style="list-style-type: none"> Evidence that information is publicly available (e.g., links to website, locations of public facilities where 	<p>Explanatory Note for 4.6.1.3: For the purposes of this requirement "published" means making information available on the company's website or an external site (e.g.,</p>

⁶¹³ International Finance Corporation (IFC). 2012. Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources. Guidance Notes. GN12. https://www.ifc.org/wps/wcm/connect/a359a380498007e9a1b7f3336b93d75f/Updated_GN6-2012.pdf?MOD=AJPERES

⁶¹⁴ International Finance Corporation (IFC). 2012. Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources. Guidance Notes. GN12, Para 10 and GN45. https://www.ifc.org/wps/wcm/connect/a359a380498007e9a1b7f3336b93d75f/Updated_GN6-2012.pdf?MOD=AJPERES

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<p>monitoring data shall be publicly available, or made available to <u>stakeholders</u> upon request.</p>	<p>company and <u>stakeholders</u> to determine whether <u>stakeholders</u> have access to the materials through other means (e.g., in a central location such as a library, or upon request).</p>	<p>copies are available, etc.).</p> <ul style="list-style-type: none"> • Correspondence with or records of requests from <u>stakeholders</u> for assessments, management plans or monitoring data (and company responses). 	<p>data may already be available on a government website) or in paper or electronic versions in a public locations (e.g., library, government office, community center, etc.).</p>
<p>4.6.2. Biodiversity, Ecosystem Services and Protected Areas Screening</p> <p>4.6.2.1. (Critical Requirement) New and <u>existing mines</u> shall carry out screening or an equivalent process to establish a preliminary understanding of the impacts on or risks to <u>biodiversity, ecosystem services and protected areas</u> from past and proposed mining-related activities.</p>	<p>For 4.6.2.1: Confirm, through review of documentation and interviews with the company, that a screening process or an equivalent process has occurred. Confirm that screening was undertaken by <u>competent professionals</u>, and that <u>stakeholders were consulted</u> in the identification of potential impacts on <u>biodiversity, ecosystem services and protected areas</u>. In particular, confirm that <u>consultation with stakeholders</u> from an <u>affected community</u> occurred as part of the identification of <u>ecosystem services</u> that may be affected by mining activities.</p>	<p>For 4.6.2.1 and 4.6.2.2:</p> <ul style="list-style-type: none"> • Documents such as screening report or equivalent and other relevant documentation (e.g., other studies, reports, analyses that contain pertinent information to inform screening process). • Records of stakeholder participation in consultations (e.g., meeting minutes or notes, attendee lists, written or verbal input from stakeholders, company responses to input, etc.) related to screening. 	<p>Explanatory Note for 4.6.2.1: For IRMA’s purposes, the screening of <u>mining-related activities on biodiversity</u> shall be done in relation to the mine site/<u>mining project</u> being considered for independent assessment, not at all of a company’s sites.</p> <p>Screening may have occurred as part of the ESIA in IRMA Chapter 2.1).</p> <p>Ideally, screening is carried out prior to mine development, as it enables operators to be proactive in their avoidance and minimization of <u>important biodiversity values and priority ecosystem services</u> early in the project life cycle, and may inform a decision to not proceed with a project, for example, if there are important <u>protected areas</u> or <u>key biodiversity areas</u> that cannot be <u>avoided</u> or <u>mitigated</u> to deliver <u>no net loss</u> in important biodiversity. However, if screening did not occur prior to mine development, or was not done in a thorough manner, companies will be expected to demonstrate that they have undertaken screening or filled necessary knowledge gaps as a requirement to obtaining IRMA recognized achievement.</p> <p>Screening should include the potential impacts that various <u>mining-related activities</u> may have on <u>biodiversity</u> components such as wildlife (from micro-organisms to mega-fauna), vegetation, ecosystems, soil and water resources, as impacts on these elements may lead to losses/reductions in <u>biodiversity, ecosystem services, or</u></p>

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			<p>affect <u>conservation values in protected areas</u>. Such considerations should include:</p> <ul style="list-style-type: none"> • Land clearing (removal of soil, vegetation and/or wetlands) to access ore bodies and for facility siting purposes may cause <u>habitat loss and/or fragmentation</u>; and erosion and runoff affecting water resources; and temporary noise, dust, and wildlife hazards related to heavy machinery. • Road construction may cause <u>habitat loss and fragmentation</u>; cause erosion and runoff and affect water resources that are necessary for maintenance of <u>biodiversity</u>; temporary noise, dust, wildlife hazards related to heavy machinery. • Diversion of waterways may destroy wetlands or aquatic <u>habitat</u>. • During mining operations discharges to water courses may affect the quality and quantity of water, which may, in turn affect aquatic <u>habitat</u> and the water resources needed to maintain riparian vegetation and riparian and non-riparian wildlife. • During mining operations traffic may create wildlife hazards and introduce invasive plant and animal species, mining may result in noise, dust, airborne contaminants, and waste impoundments, etc. that affect <u>habitat</u> and health of existing populations, or result in movement of wildlife to other locations. • Reclamation of mined lands during operations and <u>post-closure</u> may sometimes result in the restoration of biodiversity, but could also reduce it by favoring certain species, etc. • <u>Post-closure</u> features such as <u>pit lakes</u>, which may contain toxic concentrations of metals or acid; and <u>long-term</u>

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<p>4.6.2.2. Screening shall include identification and documentation of:</p> <ol style="list-style-type: none"> Boundaries of legally protected areas in the mine’s actual or proposed area of influence, and the conservation values being protected in those areas; Boundaries of Key Biodiversity Areas (KBA)⁶¹⁵ in the mine’s actual or proposed area of influence, the important biodiversity values within those areas and the ecological processes and habitats supporting those values; Areas of modified habitat, natural habitat and critical habitat⁶¹⁶ within the mine’s proposed or actual area of influence, and the important biodiversity values present in the critical habitat areas; and Natural ecosystems or processes within the mine’s proposed or 	<p>For 4.6.2.2: Confirm that the operating company has documented:</p> <ul style="list-style-type: none"> The legally protected areas and conservation values; Key Biodiversity Areas, the biodiversity elements/value for which the KBA was designated (i.e., important biodiversity values) and associated values and ecological processes; Areas within the mine’s actual or proposed area of influence that are considered modified habitat versus natural habitat; and within modified and natural habitat, areas considered critical habitat. Confirm, as well, that if critical habitat has been identified, that the important biodiversity values that support the critical habitat designation (e.g., presence of protected, threatened or endangered species, uniqueness of the ecosystem, etc.) are also documented; and The ecosystem services located within 	<p>For 4.6.2.1 and 4.6.2.2:</p> <ul style="list-style-type: none"> Documents such as screening report or equivalent and other relevant documentation (e.g., other studies, reports, analyses that contain pertinent information to inform screening process such as map of KBAs, Protected Areas etc.). Records of stakeholder participation in consultations (e.g., meeting minutes or notes, attendee lists, written or verbal input from stakeholders, company responses to input, etc.) related to screening. 	<p><u>water treatment facilities</u>, which may be needed to maintain acceptable surface water or groundwater water quality, could pose long-term risks to <u>biodiversity</u> and <u>ecosystem services</u>.</p> <p>Explanatory Note for 4.6.2.2: In areas where natural habitat is present, but no efforts have been made to identify the presence of Key Biodiversity Areas, the company may want to participate in efforts to do so (unless the landscape is very well documented and understood with a high level of confidence that no critical habitat, Red List or protected species, etc., are present). Companies could support an independent study, conducted by appropriate specialists, that follows the Global Standard for the Identification of Key Biodiversity Areas and associated guidelines.⁶¹⁷</p> <p>See the “For More Information” section below for links to useful resources.</p> <p>Re: 4.6.2.2.a, if a protected area is identified that includes the protection of cultural heritage, companies should also refer to IRMA Chapter 3.7, Cultural Heritage.</p> <p>Re: 4.6.2.2.b, <u>Key Biodiversity Areas</u> often include Alliance for Zero Extinction sites (AZE), Important Bird and Biodiversity Areas (IBA), Important Plant Areas (IPA).</p> <p><u>Ecological processes</u> refer to biophysical processes (e.g., hydrologic regimes, local climatic regimes, soil chemistry/nutrient cycling, fires, floods and other natural disturbance regimes, herbivory, predation, ecological</p>

⁶¹⁵ Including Alliance for Zero Extinction sites (AZE), Important Bird and Biodiversity Areas (IBA), Important Plant Areas (IPA).

⁶¹⁶ Modified, natural and critical habitat refers to the biodiversity value of the area as determined by species, ecosystems and ecological processes. (IFC PS6, GN26) Critical habitats are a subset of modified or natural habitats. (IFC PS6, Para.9)

⁶¹⁷ IUCN. 2016. A Global Standard for the Identification of Key Biodiversity Areas (Version 1.0). https://portals.iucn.org/union/sites/union/files/doc/a_global_standard_for_the_identification_of_key_biodiversity_areas_final_web.pdf and IUCN. 2019. Guidelines for using A global standard for the identification of Key Biodiversity Areas (Version 1.0). <https://portals.iucn.org/library/node/47982>

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actual <u>area of influence</u> that may or do provide provisioning, regulating, cultural and supporting <u>ecosystem services</u> .	the mine's proposed or actual <u>area of influence</u> are identified.		<p>corridors, migration routes) necessary for the <u>biodiversity</u> to persist in the landscape or seascape over the long term.</p> <p>Re: 4.5.2.2.c, <u>modified habitat</u>, <u>natural habitat</u> and <u>critical habitat</u> refers to the <u>biodiversity</u> value of the area as determined by species, ecosystems and <u>ecological processes</u>. <u>Critical habitats</u> are a subset of modified or natural habitats.⁶¹⁸</p> <p>Re: 4.5.2.2.d, the World Resources Institute provides detailed guidance on how to identify relevant <u>ecosystem services</u>, and Birdlife International has created at Toolkit for Ecosystem Service Site-based Assessment (TESSA), a low-cost, site-based evaluation of ecosystem services.⁶¹⁹</p> <p>FOR MORE INFORMATION:</p> <p>The IUCN and UNEP maintain a World Database on Protected Areas. https://protectedplanet.net/ The World Database of Key Biodiversity Areas can be used to identify KBAs. It includes an interactive online map of KBAs with links to documentation for each site. http://www.keybiodiversityareas.org/home IBAT is a comprehensive tool that includes information on areas recognized as critical habitat, protected areas, and key biodiversity areas. https://www.ibatforbusiness.org/ The IUCN Red List of Threatened Species is the most widely used list of plants and animals facing a high risk of global extinction. http://www.iucnredlist.org/ The IUCN Red List of Threatened Ecosystems is the most widely used list of ecosystems facing a high risk of global</p>

⁶¹⁸ International Finance Corporation (IFC). 2012. Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources. Guidance Notes. GN26 and Para 9. https://www.ifc.org/wps/wcm/connect/a359a380498007e9a1b7f3336b93d75f/Updated_GN6-2012.pdf?MOD=AJPERES

⁶¹⁹ Landsberg et al. 2014. Weaving Ecosystem Services Into Impact Assessment. Technical Appendix. Version 1.0. World Resources Institute. http://www.wri.org/sites/default/files/weaving_ecosystem_services_into_impact_assessment_technical_appendix.pdf and Birdlife International website. "How TESSA is different from other tools" http://www.birdlife.org/worldwide/science/Toolkit_for_Ecosystem_Service_Site-Based_Assessment/How_TESSA_is_different_from_other_tools

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<p>4.6.3. Impact Assessment</p> <p>4.6.3.1. When screening identifies <u>protected areas</u> or areas of potentially important global, national or local <u>biodiversity</u> or <u>ecosystems services</u> that have been or may be affected by <u>mining-related activities</u> (e.g., <u>KBAs</u>, <u>critical habitat</u>, <u>threatened or endangered species</u>), the <u>operating company</u> shall carry out an impact assessment that includes:</p> <ol style="list-style-type: none"> Establishment of <u>baseline conditions</u> of <u>biodiversity</u>, <u>ecosystem services</u> and, if relevant, <u>conservation values</u> (i.e., in <u>protected areas</u>) within the mine's proposed or actual area of influence; Identification of potentially significant <u>direct, indirect and cumulative impacts</u> of past and proposed <u>mining-related activities</u> on <u>biodiversity</u>, <u>ecosystem services</u> and, if relevant, on the <u>conservation values</u> of <u>protected areas</u> throughout the mine's lifecycle; 	<p>For 4.6.3.1: Review the screening documentation and other relevant information to determine if the <u>area of influence</u> of the proposed or actual <u>mining project</u> is coincident with any legally <u>protected areas</u>, <u>Key Biodiversity Areas</u>, confirmed or potential <u>critical habitat</u>, <u>protected, threatened or endangered species</u>, or areas providing <u>ecosystem services</u> to communities. If none of the above were identified by the company or <u>stakeholders</u>, then 4.6.3 does not apply. Note that the company will still be expected, however, to ensure that impacts on <u>natural habitats</u> that do not contain <u>important biodiversity values/ecosystem services</u> are mitigated as part of the mine's reclamation and <u>mine closure</u> processes (see Chapter 2.6).</p> <p>For 4.6.3.1.a: Confirm that the company carried out research (e.g., reviewed peer-reviewed studies, government data, etc.) and/or undertook its own studies necessary to establish <u>baseline values</u> for <u>biodiversity</u>, <u>ecosystem services</u> and, if any <u>protected areas</u> are present, for the <u>conservation values</u> being protected. Where <u>important</u></p>	<p>For 4.6.3.1:</p> <ul style="list-style-type: none"> Biodiversity, ecosystem services and protected areas impact assessment and other relevant documentation (e.g., other impact assessments, studies, reports, analyses that contain pertinent information on biodiversity, ecosystem services and protected areas from all key sources (e.g. IUCN Red Lists for species and ecosystems, World Database of Key Biodiversity Areas, IUCN World Database on Protected Areas, country or continental protection designations etc.). Data on baseline status of biodiversity, ecosystem services and conservation values in protected areas. Documentation of methods for identifying potentially significant impacts on and risks to biodiversity, ecosystem services and values in protected areas, as relevant. Documentation of the mitigation strategies reviewed during the assessment (including avoidance), and rationale for selecting particular options. Documentation of opportunities for partnerships and additional conservation actions reviewed during the assessment, and rationale for selecting particular options. Records of stakeholder participation in consultations (e.g., meeting minutes or notes, attendee lists, 	<p>extinction. https://www.iucn.org/theme/ecosystem-management/our-work/red-list-ecosystems</p> <p>National governments and NGOs (e.g., those with land ownership for conservation as part of their mandate) may also have relevant databases of protected areas.</p> <p>Explanatory Note for 4.6.3.1: If screening identified the presence of <u>protected areas</u>, <u>KBAs</u>, confirmed or potential <u>critical habitat</u>, <u>protected, threatened or endangered species</u>, <u>critically endangered species</u>, or <u>ecosystem services</u> in the <u>mining project's</u> proposed or actual <u>area of influence</u>, then the <u>operating company</u> is required to carry out further impact assessment as per 4.6.3.1.</p> <p>Documentation of the assessment may be contained in a standalone Biodiversity, Ecosystem Services and Protected Areas impact assessment report, be integrated into the Environmental and Social Impact Assessment report as per IRMA Chapter 2.1, or be integrated in other reports as long as all of the required information is covered.</p> <p>Re: 4.6.3.1.a, <u>baseline conditions</u> are typically established prior to a project's development to create a reference point against which losses or gains in <u>biodiversity/ecosystem services</u> due to the project can be identified, evaluated, quantified and addressed.</p> <p>At <u>existing mines</u>, establishment of <u>baseline conditions</u> will likely require using information derived from similar, preferably nearby locations. For example, according to the Business and Biodiversity Offset Programme (2012), it may be possible to use historical <u>biodiversity</u> data for the larger region and show its similarity with the precise area affected by the project. It may also be possible to supplement</p>

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<p>c. Evaluation of options to <u>avoid</u> potentially significant adverse impacts on <u>biodiversity</u>, <u>ecosystem services</u> and <u>conservation values of protected areas</u>, prioritizing <u>avoidance of impacts on important biodiversity values</u> and <u>priority ecosystem services</u>; evaluation of options to <u>minimize</u> potential impacts; evaluation of options to provide <u>restoration</u> for potential and actual impacts; and evaluation of options to <u>offset</u> significant <u>residual impacts</u> (see <u>mitigation hierarchy</u>, 4.6.4.1, and offsets 4.6.4.2, below); and</p> <p>d. Identification and evaluation of opportunities for partnerships and <u>additional conservation actions</u> that could <u>enhance</u> the long-term sustainable management of <u>protected areas</u> and/or <u>biodiversity</u> and <u>ecosystem services</u>.</p>	<p><u>biodiversity values</u> have been identified (e.g., related to <u>KBAs</u> or <u>critical habitat</u>, etc.), <u>baseline conditions</u> for the ecological processes and <u>habitats</u> supporting those values should also have been documented.</p> <p>For 4.6.3.1.b: Confirm that the company has carried out a scoping or equivalent exercise to predict potential <u>direct</u>, <u>indirect</u> and <u>cumulative impacts</u> of mining activities on <u>biodiversity</u>, <u>ecosystem services</u> and <u>conservation values of protected areas</u>.</p> <p>Confirm that the potential impacts were further assessed to determine the significance of the impacts. Review methods used, and confirm that relevant <u>stakeholders</u> generally concur with the company’s findings.</p> <p>For 4.6.3.1.c: Confirm, through review of impact assessment documents or interviews with the company and relevant <u>stakeholders</u>, that the company has undertaken an evaluation of options to <u>mitigate</u> the significant impacts according to the <u>mitigation hierarchy</u>. In particular, where significant impacts to <u>important biodiversity values</u> or <u>priority ecosystem services</u> are predicted, confirm that the company carried out an analysis of options to <u>avoid</u> those impacts, and if such options</p>	<p>written or verbal input from stakeholders, company responses to input, etc.) related to assessment.</p>	<p>historical information with additional data collected now from ecologically equivalent proxy sites nearby.⁶²⁰</p> <p>Re: 4.6.3.1.b, see glossary definitions of <u>direct/indirect impacts</u> and <u>cumulative impacts on biodiversity</u>.</p> <p><u>Indirect impacts to biodiversity</u> may be the result of changing economic or social patterns catalyzed by the <u>mining project’s</u> presence, such as human settlement near the project site resulting in the destruction of <u>natural habitat</u> or increased pressure on biological resources (e.g., increased access to sensitive areas as a result of new roads, rights-of-way, etc.).⁶²¹</p> <p>There is no definitive method for determining significance, however, when assessing the significance of impacts on <u>biodiversity</u>, <u>ecosystem services</u> and <u>conservation values</u> two factors that are important are the feature’s irreplaceability (i.e., if irreplaceable or unique, the potential impact would be significant) and vulnerability (i.e., if there is high probability that a species may be lost in a defined time period it is vulnerable, and impacts on these species would be significant). There may be other measures of whether or not impacts are likely to be significant, including the opinions of relevant <u>stakeholders</u>.</p> <p>Explanatory Note for 4.6.3.1.c: “<u>priority ecosystem services</u>” are those services on which project operations are most likely to have an impact and, therefore, which result in adverse impacts to <u>affected communities</u>, or those services on which the project is directly dependent for its operations.</p>

⁶²⁰ Business and Biodiversity Offset Programme (BBOP). 2012. Guidance Notes to the Standard on Biodiversity Offsets. pp. 29-32.

⁶²¹ Gullison et al., pp. 15, 16.

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<p>4.6.4. Biodiversity and Ecosystem Services Impact Mitigation and Management</p> <p>4.6.4.1. (Critical Requirement) Mitigation measures for new mines shall:</p> <p>a. Follow the mitigation hierarchy of:</p> <p>vi. Prioritizing the avoidance of impacts on important biodiversity values and priority ecosystem services and the</p>	<p>were not adopted, that reasonable justification was provided for why avoidance was not possible. Avoidance decisions may have been made early in the project planning and design process, so review of other documentation may also be relevant.</p> <p>For 4.6.3.1.d: Confirm that the operating company has investigated opportunities for partnerships, and opportunities for additional conservation actions that may be able to enhance the management or biodiversity values in an area (e.g., removal of invasive species, funding education projects related to local or regional biodiversity conservation, collaboration with others on integrated land use planning, etc.).</p> <p>For 4.6.4.1.a: Confirm through review of impact assessment, management plans and interviews with the company that its approach to biodiversity impact mitigation follows the mitigation hierarchy. Reasonable technical and economic justification should be provided for why avoidance of important biodiversity values/priority ecosystems services was not feasible (e.g., specific areas had to be cleared to access the ore; there was only one safe route for the haul road; alternative locations for facilities would</p>	<p>For 4.6.4.1:</p> <ul style="list-style-type: none"> • Documentation of the mitigation strategies reviewed during the assessment, and rationale for selecting particular options. • Biodiversity management plan or equivalent that describes mitigation actions to be taken, and objectives of the mitigation. • Records of stakeholder participation in consultations (e.g., meeting minutes or notes, attendee lists, written or verbal input from stakeholders, company responses to input, etc.) related to development of 	<p>“important biodiversity values” are the particular biodiversity elements or features, such as individual species that may be threatened, assemblages of species, particular ecological processes, etc., that trigger an area’s designation as having significant biodiversity value (e.g., critically endangered species, designation as critical habitat, a Key Biodiversity Area or a protected area), as well as the ecological context needed to support the maintenance of the trigger elements.</p> <p>Explanatory Note for 4.6.4.1: This section is meant to align with many other standards and guidelines that address impacts on biodiversity, such as IFC’s Performance Standard 6 (see Paragraphs 10 and 14), the Business and Biodiversity Offset Programme’s (BBOP) Standard on Biodiversity Offsets, and the KBA Partners Guidelines on Business and KBAs: Managing Risk to Biodiversity.⁶²²</p> <p>Re: 4.6.4.1.c, as with the rest of 4.6.4.1, this applies to new mines only. While ideally existing mines would seek to achieve no net loss in biodiversity and ecosystem services, IRMA recognizes that it may be difficult or impossible to accurately identify the biodiversity values that were present</p>

⁶²² IFC. 2012. Performance Standard 6. Biodiversity Conservation and Sustainable Management of Living Natural Resources. https://www.ifc.org/wps/wcm/connect/bff0a28049a790d6b835faa8c6a8312a/PS6_English_2012.pdf?MOD=AJPERES; the Business and Biodiversity Offset Programme (BBOP). 2012. Standard on Biodiversity Offsets (<http://bbop.forest-trends.org/pages/guidelines>); and KBA Partners. 2018. Guidelines on Business and KBAs: Managing Risk to Biodiversity. <https://portals.iucn.org/library/sites/library/files/documents/2018-005-En.pdf>

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<p>ecological processes and <u>habitats</u> necessary to support them;</p> <p>vii. Where impacts are not <u>avoidable</u>, <u>minimizing impacts</u> to the extent possible;</p> <p>viii. <u>Restoring biodiversity</u>, <u>ecosystem services</u> and the ecological processes and <u>habitats</u> that support them; and</p> <p>ix. As a last resort, <u>offsetting the residual impacts</u>.</p> <p>b. Prioritize <u>avoidance</u> of impacts on <u>important biodiversity values</u> and <u>priority ecosystem services</u> early in the project development process;</p> <p>c. Be designed and implemented to deliver at least <u>no net loss</u>, and preferably a net gain in <u>important biodiversity values</u>, and the ecological processes that support those values, on an appropriate geographic scale and in a manner that will be self-sustaining after <u>mine closure</u>.</p>	<p>have affected areas of cultural important to indigenous peoples; there were overwhelming financial reasons why avoidance was not a viable option, etc.).</p> <p>When <u>avoidance</u> was not deemed feasible, confirm that steps were taken to <u>minimize</u> the impact (e.g., size of mine or facility footprint were reduced; timing of activities were changed to reduce impact; noise barriers erected; crossing structures created for roads; etc.). Confirm, as well that <u>restoration</u> activities have been planned and/or are under way to assist the recovery of impacted ecosystems, with the aim of returning impacted ecosystems to as close to their original state as possible. If <u>offsets</u> are being used, see 4.6.4.4.</p> <p>For 4.6.4.1.b: Confirm that consideration of options to <u>avoid impacts on important biodiversity values</u> and <u>priority ecosystem services</u> took place early in the <u>mining project development process</u> (i.e., ideally during project planning and design, but definitely prior to construction). This may involve reviewing planning documents, studies, memos, etc., indicating that plans were changed (or alternatives proposed) to <u>avoid impacts</u>.</p>	<p>mitigation options.</p>	<p>in an area prior to the mine development, which makes it difficult to establish a <u>baseline for calculating a no net loss or net gain in biodiversity</u>. As a result, instead of requiring <u>no net loss/net gain at existing mines</u>, IRMA expects <u>existing mines</u> to:</p> <p>Document, to the best of their abilities, the impacts that their past activities have had on <u>biodiversity</u> and <u>ecosystem services</u> (see 4.6.4.2).</p> <p>Where significant impacts have occurred, <u>existing mines</u> will be expected to undertake <u>additional conservation actions</u> to <u>enhance biodiversity</u> and <u>ecosystem services</u>.</p> <p><u>Existing mines</u> are also expected to avoid any additional losses of <u>important biodiversity values</u> or <u>priority ecosystem services</u> (see 4.6.4.2).</p> <p>This approach enables an <u>existing mine</u> to apply for IRMA independent assessment later in its project life, but ensures that doing so does not allow them to avoid responsibilities that would have been applicable had they applied for IRMA independent assessment at an earlier stage.</p> <p>The “appropriate geographic scale” may be site-level, local, landscape-level, national or regional, as long as the company and relevant <u>stakeholders</u> agree that the <u>mitigation</u> is occurring on a scale that is ecologically relevant with respect to the <u>biodiversity values</u> in question.</p> <p>“Relevant stakeholders” may include government representatives, conservation NGOs, representatives from <u>affected communities</u> that have an interest in or dependence on <u>biodiversity</u> or <u>ecosystem services</u>, external experts, or others.</p>
<p>4.6.4.2. At <u>existing mines</u>:</p>	<p>For 4.6.4.1.c: Confirm, through review of policy documents, <u>biodiversity management</u></p>	<p>For 4.6.4.2:</p> <ul style="list-style-type: none"> • Documentation of the restoration strategies 	<p>Explanatory Note for 4.6.4.2: Re: 4.6.4.2.a, at <u>existing mines</u> there may be adverse impacts on <u>important biodiversity</u></p>

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<p>a. Where past adverse impacts on <u>important biodiversity values</u> and <u>priority ecosystem services</u> have been identified, the operating company shall design and implement onsite <u>restoration strategies</u>, and also, through <u>consultation with stakeholders</u>, design and implement <u>additional conservation actions</u> to support the <u>enhancement of important biodiversity values</u> and/or <u>priority ecosystem services</u> on an appropriate geographic scale; and</p> <p>b. If there is the potential for new impacts on <u>important biodiversity values</u> or <u>priority ecosystem services</u> (e.g., as a result of mine expansions, etc.), the operating company shall follow the <u>mitigation hierarchy</u>, prioritizing the <u>avoidance of impacts on important biodiversity values</u> or <u>priority ecosystem services</u>, but where <u>residual impacts</u> remain, shall apply <u>offsets</u> commensurate to the scale of the additional (new) impacts.</p>	<p>plan, or other documents that the mine site is committed to delivering at least <u>no net loss</u>, or ideally, a net gain in <u>important biodiversity values</u>; and confirm, also, that management plans include actions and metrics to enable the measurement of progress toward <u>no net loss/net gain</u> outcomes; and that <u>mitigation actions</u> are being implemented as per the plan.</p> <p>For 4.6.4.2.a: Determine if past impacts on <u>important biodiversity values</u> or <u>priority ecosystem services</u> have been identified. Confirm that management plans include <u>restoration</u> activities related to past impacts, and also <u>additional conservation actions</u> aimed at <u>enhancing</u> the values. Confirm (through document review, interviews) that <u>stakeholders</u> have been <u>consulted</u> in the development of <u>additional conservation actions</u>.</p> <p>For 4.6.4.2.b: At <u>existing mines</u>, the potential exists for new impacts on <u>important biodiversity values</u> or <u>priority ecosystem services</u> if there are mine expansions or other changes in mine plans that may damage, destroy or degrade additional areas. If such a situation exists, use the Means of Verification for 4.6.4.1.a.</p>	<p>reviewed, and rationale for selecting particular options.</p> <ul style="list-style-type: none"> • Documentation of additional conservation actions reviewed, and rationale for selecting particular options. • Documentation of the mitigation strategies reviewed during the assessment, and rationale for selecting particular options. • Biodiversity management plan or equivalent that describes restoration, conservation actions and/or mitigation actions to be taken for past and potential impacts, and objectives of the mitigation. • Records of stakeholder participation in consultations (e.g., meeting minutes or notes, attendee lists, written or verbal input from stakeholders, company responses to input, etc.) related to development of restoration, conservation actions and mitigation options. 	<p><u>values</u> and/or <u>priority ecosystem services</u> that occurred prior to the existence of the IRMA Standard (or similar Standards requiring use of the <u>mitigation hierarchy</u>). If such impacts have been identified during or subsequent to the impact assessment, the companies will be expected to have strategies in place to <u>restore</u> affected <u>biodiversity</u> and <u>ecosystem services</u>.</p> <p>At existing sites, in recognition that true <u>offsetting</u> of impacts will likely be impossible (due to lack of a pre-project <u>baseline for biodiversity</u>), and also that it may not be possible to fully <u>restore</u> what was lost, 4.6.4.2.a also requires companies to undertake <u>additional conservation actions</u> aimed at <u>enhancing the important biodiversity values</u> (or <u>priority ecosystem services</u>) that have been impacted. The <u>enhancements</u> should take place on an appropriate geographic scale (e.g., site-level, local, landscape-level, national, regional). This does not mean that impacts on the project site require <u>enhancements</u> on the project site, but rather, <u>enhancements</u> should take place on a scale that is ecologically relevant with respect to the <u>biodiversity values</u> in question.</p> <p>If opportunities do not exist at the most appropriate geographic scale, other <u>additional conservation actions</u> should be investigated with <u>stakeholders</u>.</p>
<p>4.6.4.3. <u>Offsetting</u>, if required, shall be done in a manner that aligns with international best practice.</p>	<p>For 4.6.4.3: Review <u>biodiversity management plan</u> and/or interview company to determine if <u>offsets</u> are being used to achieve <u>no net loss/net gain</u> in</p>	<p>For 4.6.4.3:</p> <ul style="list-style-type: none"> • Biodiversity management plan or equivalent that includes plan for how offsets projects will be carried 	<p>Explanatory Note for 4.6.4.3: According to the <u>mitigation hierarchy</u>, <u>offsets</u> should only be applied if <u>residual impacts</u> remain after applying the earlier steps of the <u>mitigation</u>.</p>

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	<p>biodiversity. If offsets are being used, review the biodiversity management plan or biodiversity offsets management plan (if separate from the biodiversity management plan) to confirm that projects have been designed according to international best practices.</p>	<p>out and managed.</p> <ul style="list-style-type: none"> Records of stakeholder participation in consultations (e.g., meeting minutes or notes, attendee lists, written or verbal input from stakeholders, company responses to input, etc.) related to development of offset projects. 	<p>hierarchy (i.e., avoidance, minimization of impacts, and restoration of impacts).</p> <p>International best practices for biodiversity offsets should align with the practices outlined by the Business and Biodiversity Offset Programme’s (BBOP) Standard on Biodiversity Offsets⁶²³ and/or best practices and principles accepted by or other scientifically credible organizations.</p> <p>Best practices related to offsets include factors such as ensuring any biodiversity offset used as part of the mitigation hierarchy secures additional conservation outcomes that would not have happened otherwise and must achieve no net loss and where possible net gain; specific guaranteed financing for offset projects; rigorous monitoring and evaluation with independent verification of effectiveness.</p> <p>Additionally:</p> <p>“The design of a biodiversity offset must adhere to the “like-for-like or better” principle and must be carried out in alignment with best available information and current practices. When a client is considering the development of an offset as part of the mitigation strategy, external experts with knowledge in offset design and implementation must be involved.”⁶²⁴</p>

⁶²³ Business and Biodiversity Offset Programme’s (BBOP) Standard on Biodiversity Offsets. <http://bbop.forest-trends.org/pages/guidelines>

⁶²⁴ International Finance Corporation (IFC). 2012. Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources. Guidance Notes. Annex A.

https://www.ifc.org/wps/wcm/connect/a359a380498007e9a1b7f3336b93d75f/Updated_GN6-2012.pdf?MOD=AJPERES.

See also International Council on Mining and Metals (ICMM). 2006. Good Practice Guidance for Mining Biodiversity. <https://www.icmm.com/website/publications/pdfs/biodiversity/good-practice-mining-and-biodiversity>

See also International Petroleum Industry Environmental Conservation Association (IPIECA) and the International Association of Oil and Gas Producers (OGP). 2005. A guide to developing biodiversity action plans for the oil and gas sector.

https://earthmind.org/sites/default/files/2005-10-IPIECA-GuideToDevelopingBiodiversityActionPlans_0.pdf

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<p>4.6.4.4. The operating company shall develop and implement a biodiversity management plan or equivalent that:</p> <ol style="list-style-type: none"> Outlines specific objectives (e.g., no net loss/net gain, no additional loss) with measurable conservation outcomes, timelines, locations and activities that will be implemented to avoid, minimize, restore, enhance and, if necessary, offset adverse impacts on biodiversity and ecosystem services; Identifies key indicators, and ensures that there is an adequate baseline for the indicators to enable measurement of the effectiveness of mitigation activities over time; Provides a budget and financing plan to ensure that funding is available for effective mitigation. 	<p>For 4.6.4.4: Review the biodiversity management plan (or its equivalent). Note that the plan may be integrated into a larger environmental management plan for the mine, or it may be a standalone plan. It does not need to be called a “biodiversity management plan” as long as it includes the information laid out in 4.6.4.4.</p> <p>For 4.6.4.4.a: Confirm that the plan includes mitigation measures/actions for all significant adverse impacts on biodiversity or ecosystems services, and, if relevant, on conservation values of protected areas (the list of significant impacts should be included in the impact assessment). The mitigation measures should include details such as objectives, measurable conservation outcomes and timelines for achieving the outcomes. Ideally, the plan will also include Includes targets and milestones to allow demonstration of progress toward objectives and outcomes over time.</p> <p>For 4.6.4.4.b: Confirm that key indicators have been identified, as well as the baseline for those indicators.</p> <p>For 4.6.4.4.c: Confirm that the management plan (or a separate document) includes a budget and financing plan that outlines how the cost of the identified mitigation measures will be covered over time. Review</p>	<p>For 4.6.4.4:</p> <ul style="list-style-type: none"> Biodiversity management plan or equivalent that includes objectives, indicators, budget and financing and addresses all phases of the project life-cycle, including decommissioning and closure. Baseline data. Records of stakeholder participation in consultations (e.g., meeting minutes or notes, attendee lists, written or verbal input from stakeholders, company responses to input, etc.) related to development of biodiversity management plan or its equivalent. 	<p>Explanatory Note for 4.6.4.4: The management plan may be called a biodiversity action plan, biodiversity and ecosystem services management plan, etc., and may be a stand-alone plan or incorporated into the operating company’s broader environmental management plan. For more on biodiversity plans see, for example, resources produced by IFC, ICMM and IPIECA.⁶²⁵</p>

⁶²⁵ Ibid. IFC, 2012, Annex A contains guidance on developing a Biodiversity Action Plan/Biodiversity Management Plan. See also ICMM, 2006.

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<p>4.6.4.5. Biodiversity management shall include a process for updating or adapting the management plan if new information relating to biodiversity or ecosystem services becomes available during the mine lifecycle, including through implementation and monitoring of mitigation measures.</p>	<p>the reclamation and closure plan and <u>financial surety</u> to verify that relevant long-term <u>mitigation</u> activities are included.</p> <p>For 4.6.4.5: Confirm with <u>operating company</u> that there is a process in place to analyze monitoring or other relevant data and adapt <u>biodiversity</u> management plan (or its equivalent), accordingly.</p>	<p>For 4.6.4.5:</p> <ul style="list-style-type: none"> • Biodiversity management plan or equivalent. • Documentation of any updates to the plan. 	<p>Explanatory Note for 4.6.4.5: For example, new information may be obtained through the implementation and monitoring of <u>mitigation</u> measures, and new information should be obtained (e.g., a new screening and/or assessment should occur) when any aspect of the <u>mining project</u> is amended resulting in potential new significant impacts or risks on <u>biodiversity</u>, <u>ecosystem services</u> or the designated values in protected areas.</p>
<p>4.6.5. Protected Areas Mitigation and Management</p> <p>4.6.5.1. An <u>operating company</u> shall not carry out new exploration or develop <u>new mines</u> in any legally <u>protected area</u> unless the applicable criteria in the remainder of this chapter are met, and additionally the company:</p> <ol style="list-style-type: none"> a. Demonstrates that the proposed development in such areas is legally permitted; b. <u>Consults with protected area sponsors, managers and relevant stakeholders</u> on the proposed project; c. Conducts <u>mining-related activities</u> in a manner consistent with 	<p>For 4.6.5.1.a: Review <u>mining project</u> maps against country lists and maps of <u>protected areas</u>, or review company research carried out to establish the locations of legally <u>protected areas</u> in the <u>mining project's</u> proposed or actual <u>area of influence</u> as per 4.6.2.1.a. (i.e., as part of the screening process in that chapter companies are required to document the boundaries of legally <u>protected areas</u> in the mine's actual or proposed <u>area of influence</u>, and document the <u>conservation values</u> being protected in those areas). Review company research and/or mine permits to confirm that any operations in <u>protected areas</u> are legally permitted.</p> <p>For 4.6.5.1.b: Review documentation related to <u>stakeholder consultations</u>, and/or</p>	<p>For 4.6.5.1:</p> <ul style="list-style-type: none"> • Documentation of legal permit to mine. • Records of meetings and correspondence with stakeholders (e.g., meeting minutes or notes, attendee lists, correspondence with stakeholders, input submitted by stakeholders and company responses). • Protected area management plan. • Records of additional conservation actions implemented by the company in the area. 	<p>Explanatory Note for 4.6.5.1: “Applicable criteria in the remainder of the chapter” include 4.6.1, 4.6.2, 4.6.3, 4.6.4 and 4.6.6. In other words, the <u>operating company</u> is expected to carry out appropriate screening, assessment, <u>mitigation</u> and monitoring, and also interview <u>stakeholders</u> and use <u>competent professionals</u> if a <u>new mine</u> is being proposed/developed in a legally <u>protected area</u>.</p> <p>These requirements 4.6.5.1.a through d are drawn largely from IFC Performance Standard 6, paragraph 20 (see also IFC, 2012, GN116, 117 and 118).⁶²⁶</p> <p>New exploration activity would include any <u>landscape disturbance</u>, such as drilling, trenching and road construction, to ascertain whether or not a deposit is economically viable.</p> <p>Re: 4.6.5.1.a, as per IRMA Chapter 1.1 mines are required to meet <u>host country laws</u>. So mines should be aware that some host countries may have designated particular areas as</p>

⁶²⁶ International Finance Corporation (IFC). 2012. Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources. Guidance Notes. https://www.ifc.org/wps/wcm/connect/a359a380498007e9a1b7f3336b93d75f/Updated_GN6-2012.pdf?MOD=AJPERES

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<p>protected area management plans for such areas; and</p> <p>d. Implements additional conservation actions or programs to promote and enhance the conservation aims and/or effective management of the area.</p> <p>4.6.5.2. An operating company shall not carry out new mining-related</p>	<p>interview stakeholders to confirm that they have been adequately consulted. Confirm that protected area sponsors and managers have been consulted, and potentially also conservation NGOs and community groups that have expressed interest or concern about the potential impacts of the mine on the protected area.</p> <p>For 4.6.5.1.c: Interview protected area managers to confirm that mining activities are being carried out in a manner that does not conflict with recognized management plans, but rather, supports the aims of the protected area.</p> <p>Management plans may include national land use, resource use, and management criteria. Examples of relevant management plans include Protected Area Management Plans or similar documents.</p> <p>For 4.6.5.1.d: Review company management plans to confirm that they include additional conservation actions, programs or projects, which may be in collaboration with others, to enhance the conservation aims of the area. These may include support for park management, including development of plans, alternative livelihood options for affected communities, support for research related to conservation in the area, etc.</p> <p>For 4.6.5.2: Confirm that if mining takes place in the listed areas that an assessment</p>	<p>For 4.6.5.2:</p>	<p>being legally off limits to certain types of activities or developments, such as mining. If such laws are in place, IRMA expects companies to comply with those laws.</p> <p>Re: 4.6.5.1.b, “relevant stakeholders” may include, for example, government representatives, conservation NGOs, representatives from affected communities that have an interest in or dependence on biodiversity or ecosystem services, external experts, or others.</p> <p>Re: 4.6.5.1.c, “a manner consistent with protected area management plans” means that mining operations do not result in negative impacts on the particular species, ecosystems or other elements that are being protected as per the protected area management plans. For example, it could mean closing off certain roads during periods when breeding or calving of sensitive species is occurring, or carrying out actions that control invasive species in line with the protected area management plan.</p> <p>Re: 4.6.5.1.d., businesses sometimes invest in conservation interventions for features above and beyond those impacted by their own activities. Before beginning additional conservation actions companies should consult with protected area managers and other relevant stakeholders either to co-develop programs or to ensure that planned additional actions are appropriate and likely to lead to positive outcomes.</p> <p>Explanatory Note for 4.6.5.2: Requirement 4.6.5.1, above, enumerates safeguards if companies are legally operating in</p>

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<p>activities in the following protected areas unless they meet 4.6.5.1.a through d, and an assessment, carried out or peer-reviewed by a reputable conservation organization and/or academic institution,⁶²⁷ demonstrates that mining-related activities will not damage the integrity of the special values for which the area was designated or recognized.</p> <ul style="list-style-type: none"> International Union for Conservation of Nature (IUCN) protected area management category IV protected areas; Ramsar sites that are not IUCN protected area management categories I-III; and Buffer zones of UNESCO biosphere reserves. <p>4.6.5.3. (Critical Requirement) IRMA will not certify new mines that</p>	<p>has been carried out by a reputable organization/institution, and that the assessment demonstrates that mining does not threaten the special conservation values in the protected area. Confirm, also, that the requirements in 4.6.5.1 have been met.</p> <p>For 4.6.5.3: Review locations of the mining project (e.g., using maps or GPS coordinates) against locations of relevant</p>	<ul style="list-style-type: none"> Documentation of legal permit to mine. Records of meetings and correspondence with stakeholders (e.g., meeting minutes or notes, attendee lists, correspondence with stakeholders, input submitted by stakeholders and company responses). Protected area management plan. Records of additional conservation actions implemented by the company in the area. Assessment of potential impacts of mining on the special values in the protected area. Credentials of those conducting or reviewing the assessment (names, organization, curriculum vitae or similar). <p>For 4.6.5.3:</p> <ul style="list-style-type: none"> Documentation of mine boundaries compared with nearby protected area boundaries. 	<p>any protected area. Requirement 4.6.5.2 reflects that IRMA stakeholders have expressed that there should be added safeguards in place for a particular set of protected areas, in recognition of their contribution to global biodiversity. For example, Ramsar sites are wetlands of international importance because they are rare or unique, or of international importance for the conservation of global biodiversity.</p> <p>Data and information on Ramsar sites is available by country, wetland type and other criteria in the Ramsar Sites Information Service database⁶²⁸</p> <p>For links related to IUCN protected area management categories and UNESCO Biosphere Reserves, see the Note for requirement 4.6.5.3.</p> <p>Peer review should be undertaken by an academic institution or environmental/conservation non-governmental organization (NGO) with experience in biodiversity assessments. Also, the personnel responsible for carrying out the peer-review or assessment are expected to be competent professionals (i.e., in-house staff or external consultants with relevant education, knowledge, proven experience and necessary skill-sets and training to carry out the required work. Competent professionals are expected to follow scientifically robust methodologies to carry out their work).</p> <p>Explanatory Note for 4.6.5.3: IRMA stakeholders have defined a set of areas deemed off-limits or “no-go zones” for mining. These are internationally and/or nationally</p>

⁶²⁷ E.g., An academic institution or environmental NGO with experience in biodiversity assessments. Also, the personnel responsible for carrying out the peer-review or assessment must be a competent professional (i.e., in-house staff or external consultants with relevant education, knowledge, proven experience and necessary skill-sets and training to carry out the required work. Competent professionals are expected to follow scientifically robust methodologies to carry out their work).

⁶²⁸ Ramsar web site. <https://rsis.ramsar.org/>

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<p>are developed in or that adversely affect the following protected areas:</p> <ul style="list-style-type: none"> World Heritage Sites, and areas on a State Party's official Tentative List for World Heritage Site Inscription; IUCN protected area management categories I-III; Core areas of UNESCO biosphere reserves. 	<p>protected areas (World Heritage Sites, IUCN protected area management categories I-III and core areas of UNESCO biosphere reserves), and review the host country's State Party Tentative Lists for World Heritage Site Inscription to confirm that exploration/mining has not taken place in those areas, or that mines developed close to such areas are not adversely affecting the special conservation values in those areas.</p>	<ul style="list-style-type: none"> Operating company's management plan or equivalent documenting actions to be taken to prevent impacts on the integrity of special values in nearby protected areas. Records of meetings and correspondence with relevant protected area management authorities and stakeholders (e.g., meeting minutes or notes, attendee lists, correspondence, written comments from management authorities and company responses). Records of stakeholder grievances related to impacts of the mining project on the special values in nearby protected areas. 	<p>recognized areas of high biodiversity or outstanding universal values. The important areas are as follows:</p> <p><u>World Heritage Sites</u>: The United Nations Educational, Scientific and Cultural Organization (UNESCO) maintains a list of World Heritage Sites (WHS), which are sites of cultural and natural heritage around the world considered to be of outstanding value to humanity. To become a WHS, a site must be nominated by a State Party and then approved for inscription by the World Heritage Committee. Sites on a State Party's Official Tentative List for World Heritage Site Inscription are sites that a State considers to be of outstanding universal value, and therefore, are being considered for nomination as a World Heritage Site.</p> <p><u>IUCN Protected Area Management Categories</u>: IUCN categories classify protected areas according to their management objectives. IUCN categories are recognized by international bodies such as the United Nations and by many national governments as the global standard for defining and recording protected areas. Categories I, II and III include Strict Nature Reserves, Wilderness Areas, National Parks and National Monuments or Features.</p> <p><u>UNESCO Biosphere Reserves</u>: These are special places for testing interdisciplinary approaches to understanding and managing changes and interactions between social and ecological systems, including conflict prevention and management of biodiversity. There are three zones in each biosphere reserve: core, buffer and transition. The core area of a reserve is considered a strictly protected ecosystem that contributes to the conservation of landscapes, ecosystems, species and genetic variation. Note that if the World Heritage Site, the IUCN protected area management category I to III or the UNESCO biosphere reserve was designated in full or part to protect cultural values, Chapter</p>

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<p>4.6.5.4. (Critical Requirement) An <u>existing mine</u> located entirely or partially in a <u>protected area</u> listed in 4.6.5.3 shall demonstrate that:</p> <ol style="list-style-type: none"> The mine was developed prior to the area's official designation; Management plans have been developed and are being implemented to ensure that activities during the remaining mine lifecycle will not permanently and materially damage the integrity of the special values for which the area 	<p>For 4.6.5.4.a: If, through review of an <u>existing mine's</u> location, it is determined that the mine is located in a <u>World Heritage Site</u>, or an area on a state party's <u>Tentative List for WHS inscription</u>, or an area is classified as an <u>IUCN protected area management category I-III</u>, or in a core area of a <u>UNESCO biosphere reserve</u>, confirm through review of <u>mining project records</u> or documents (construction records, mine plans, etc.) that the mine was developed prior to the date when the <u>protected area</u> was designated as such.</p>	<p>For 4.6.5.4:</p> <ul style="list-style-type: none"> Documentation of legal permit to mine, including date that mining began. Documentation related to designation of the protected area. Operating company's management plan or equivalent, documenting actions to be taken to prevent impacts on the integrity of the area's special values. Records of meetings and correspondence with relevant management authorities (e.g., meeting minutes or notes, attendee lists, correspondence, written comments from management authorities and 	<p>3.7 also applies (see, in particular requirement 3.7.5.3).</p> <p>FOR MORE INFORMATION:</p> <p>The official list of World Heritage Sites: http://whc.unesco.org/en/list/ Protectedplanet provides public access to the World Database on Protected Areas (WDPA). Users can determine if protected areas have an IUCN management category classification: http://protectedplanet.net/ Information on all of IUCN's protected areas management categories: https://www.iucn.org/theme/protected-areas/about/protected-areas-categories A directory of Biosphere Reserves by region: http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere-reserves/world-network-wnbr/wnbr/ Biosphere Smart has an interactive map of the World Network of Biosphere Reserves: http://www.biospheresmart.org/</p> <p>Explanatory Note for 4.6.5.4: IRMA leaders recognize that there may be a few instances where mines pre-existed the designation of a <u>World Heritage Site</u> or the other categories of areas mentioned in 4.6.5.3. IRMA <u>stakeholders</u> agreed, mines would be eligible for IRMA achievement if they put in the safeguards enumerated in 4.6.5.4, in particular, ensuring the maintenance of the special values that led to the unique protected status of those areas.</p>

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<p>was designated or recognized; and</p> <p>c. The operating company collaborates with relevant management authorities to integrate the mine's management strategies into the protected area's management plan.</p>	<p>For 4.6.5.4.b: Review relevant mine management plans (e.g., biodiversity management plan) and mitigation strategies, and consult with stakeholders including protected area managers to confirm that the mine's plans are consistent with the protection of the special conservation values in the protected area.</p> <p>For 4.6.5.4.c: Review any relevant mine management plan(s) and the protected area's management plan and/or consult with protected area managers to confirm that the mine's strategies have been integrated into the overall protected area management plan.</p>	<p>company responses).</p> <ul style="list-style-type: none"> Protected area management plan. 	
<p>4.6.6. Monitoring</p> <p>4.6.6.1. The operating company shall develop and implement a program to monitor the implementation of its protected areas and/or biodiversity and ecosystem services management plan(s) throughout the mine lifecycle.</p>	<p>For 4.6.6.1: Review documentation related to monitoring program, confirming that the program will be in place to monitor the implementation of biodiversity management plans (including, if relevant, plans related to biodiversity offsets) throughout the mine lifecycle.</p>	<p>For 4.6.6.1:</p> <ul style="list-style-type: none"> Documentation related to monitoring program (e.g., monitoring plan or equivalent). Records of stakeholder participation in consultations (e.g., meeting minutes or notes, attendee lists, written or verbal input from stakeholders, company responses to input, etc.) related to development of monitoring program. 	
<p>4.6.6.2. Monitoring of key biodiversity or other indicators shall occur with sufficient detail and frequency to enable evaluation of the effectiveness of mitigation strategies and progress toward the objectives of at least no</p>	<p>For 4.6.6.2: Review publicly available monitoring findings, as well as any professional review of the monitoring program's design and findings. Confirm that the key indicators are being tracked and</p>	<p>For 4.6.6.2:</p> <ul style="list-style-type: none"> Documentation related to monitoring program (e.g., monitoring plan or equivalent) that includes indicators, and monitoring schedule. Monitoring records showing dates of activities and findings. 	<p>Explanatory Note for 4.6.6.2: The International Council on Mining and Metals (ICMM) has developed Guidance on Mining and Biodiversity that contains information on monitoring. Some relevant guidance includes:⁶²⁹</p> <p>"Monitoring is the process of collecting information to determine progress against agreed biodiversity objectives.</p>

⁶²⁹ International Council on Mining and Metals (ICMM). 2006. Good Practice Guidance for Mining Biodiversity. <https://www.icmm.com/website/publications/pdfs/biodiversity/good-practice-mining-and-biodiversity>

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<p><u>net loss or net gain in biodiversity and ecosystem services over time.</u></p> <p>4.6.6.3. If monitoring reveals that the <u>operating company's protected areas and/or biodiversity and ecosystem services objectives</u> are not being achieved as expected, the <u>operating company</u> shall define and implement timely and effective corrective action in <u>consultation</u> with relevant <u>stakeholders</u>.</p>	<p>analyzed to determine if progress is being made toward <u>mitigation objectives</u>.</p> <p>For 4.6.6.3: If monitoring data suggest that progress toward objectives is not being made, confirm that corrective actions are underway (these should be documented in the updated <u>biodiversity management plan</u> as per 4.6.4.5), and interview <u>stakeholders</u> to confirm that they were involved in the process to develop corrective actions.</p>	<ul style="list-style-type: none"> Records of stakeholder participation in consultations (e.g., meeting minutes or notes, attendee lists, written or verbal input from stakeholders, company responses to input, etc.) related to development of monitoring program. <p>For 4.6.6.3:</p> <ul style="list-style-type: none"> Documentation related to monitoring program (e.g., monitoring plan or equivalent) that includes indicators, and monitoring schedule. Monitoring records showing dates of activities and findings. Records of meetings or correspondence with stakeholders (e.g., meeting minutes or notes, emails or letters, etc.) documenting consultations on 	<p>Indicators are the factors that are measured during monitoring – for example, to assess the extent of impact on <u>biodiversity</u>, the success of <u>mitigation measures</u> or the outcomes of measures to enhance <u>biodiversity conservation</u>. There is no simple measure for biodiversity due to its complex and dynamic nature, which presents challenges in choosing effective indicators." (p. 63)</p> <p>Expert assistance may be required in selecting and reviewing the most appropriate indicators of biodiversity to be measured, particularly regarding the measurability of the indicators. In addition, the initial suite of site-specific biodiversity indicators selected for the site is likely to alter during the life of the project." (p. 64)</p> <p>"Frequently, no specific time limits are given by which rehabilitation objectives must be met. This is a matter for discussion between the company, regulators and other <u>stakeholders</u>. Valid reasons for the uncertainty include unpredictable weather and limited experience in relation to successional processes in the site's specific postmining environment. The recommended approach is to establish monitoring and research programs. . . and draft completion criteria and to agree to a series of reviews of the situation at designated time periods." (p. 50)</p> <p>Explanatory Note for 4.6.6.3: As the <u>biodiversity</u> at a particular site has numerous components, each interacting with the other over varying periods of time, seasons and space, the [monitoring] framework selected will need to be readily adaptable to observed changes. The timeliness of actions should be determined in <u>consultation</u> with relevant <u>stakeholders</u>.</p> <p>"Relevant <u>stakeholders</u>" may include, for example, government representatives, conservation NGOs, representatives from <u>affected communities</u> that have an</p>

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4.6.6.4. The findings of monitoring programs shall be subject to independent review.	For 4.6.6.4: Consult with company and/or relevant <u>stakeholders</u> and review any documents related to independent review of the <u>protected areas</u> and/or <u>biodiversity</u> and <u>ecosystem services</u> monitoring program. At minimum, any reviewer would need to be a <u>competent professional</u> as defined in the IRMA glossary.	corrective actions. For 4.6.6.4: <ul style="list-style-type: none"> Records documenting independent reviews (e.g., reports, correspondence between reviews and the company). 	<p>interest in or dependence on <u>biodiversity</u> or <u>ecosystem services</u>, external experts, or others.</p> <p>Explanatory Note for 4.6.6.4: The International Finance Corporation (IFC) recommends that companies “retain external experts with appropriate regional experience to assist in the development of a mitigation hierarchy . . . [and] to verify the implementation of those measures.”⁶³⁰</p> <p>According to International Council on Mining and Metals (ICMM):</p> <p>"Changes in biodiversity attributes need to be monitored to evaluate the success of management plans, rehabilitation trials, research projects and, equally important, the general changes in the biodiversity of the area around the site that may be influenced by non-mine factors. As long-term decisions are based on this information, the program needs to be designed soundly according to accepted statistical principles and credible to all stakeholders. . . Community review groups, external advisory panels and similar approaches can provide further assurances that the information collected and analyses are considered fair and reasonable by the majority of stakeholders."⁶³¹</p> <p>Independent reviewers should be <u>competent professionals</u>. Although not a requirement, if it seems necessary to increase the credibility of the review process then independent reviewers could be selected with input from interested <u>stakeholders</u>, or reviewers could include <u>stakeholders</u> with the appropriate credentials.</p>

⁶³⁰ International Finance Corporation (IFC). 2012. Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources. Guidance Notes. Para. 8. https://www.ifc.org/wps/wcm/connect/a359a380498007e9a1b7f3336b93d75f/Updated_GN6-2012.pdf?MOD=AJPERES

⁶³¹ International Council on Mining and Metals (ICMM). 2006. Good Practice Guidance for Mining Biodiversity. p. 70. <https://www.icmm.com/website/publications/pdfs/biodiversity/good-practice-mining-and-biodiversity>

NOTES

Although presented in a different format, this chapter is meant to generally align with IFC Performance Standard 6 (PS6). In particular, this chapter focuses on the conservation of the most important or critical areas of biodiversity (in some cases these have been designated as protected areas, Red List ecosystems or Key Biodiversity Areas, in other cases they will have country-specific designations or not have been officially designated but still contain important biodiversity values). Despite this emphasis, it is expected that mines will minimize impacts on biodiversity and ecosystem services generally, according to the mitigation hierarchy (see 4.6.4.1 and 4.6.4.2). Similarly, while the objectives of no net loss and preferably net gain are explicitly required to be planned for in the case of residual impacts on important biodiversity values and priority ecosystem services, it is strongly encouraged that such objectives be considered for any impacts on biodiversity or ecosystem services (e.g., IFC PS6 states that in areas of natural habitat, mitigation measures will be designed to achieve no net loss of biodiversity where feasible).

Cross References to Other Chapters	
CHAPTER	ISSUES
1.1—Legal Compliance	As per Chapter 1.1, if there are <u>host country laws</u> governing <u>protected areas</u> or the protection of <u>biodiversity</u> or <u>ecosystem services</u> , the <u>operating company</u> is required to abide by those laws. If IRMA requirements are more stringent than <u>host country law</u> , the company is required to also meet the IRMA requirements, as long as complying with them would not require the company to violate <u>host country law</u> .
1.2—Community and Stakeholder Engagement	Engagement with <u>stakeholders</u> in the assessment and management of <u>biodiversity</u> , <u>ecosystem services</u> and <u>protected areas</u> shall conform to the requirements in Chapter 1.2. In particular, criterion 1.2.3 is important to ensure that <u>stakeholders</u> have the capacity to participate in assessments and the development of management plans. Also, 1.2.4 ensures that communications and information are in culturally appropriate formats and languages that are <u>accessible</u> and understandable to affected <u>stakeholders</u> , and provided in a timely manner.
1.4—Complaints and Grievance Mechanism and Access to Remedy	<u>Stakeholders</u> who have complaints related to the <u>operating company's</u> assessment, mitigation, monitoring or other issues related to <u>biodiversity</u> , <u>ecosystem services</u> or <u>protected areas</u> will have access to raise these issues. As per Chapter 1.4, the <u>operating company</u> is required to have an operational-level <u>grievance mechanism</u> available to <u>stakeholders</u> , including procedures for filing complaints, and having complaints recorded, investigated and resolved in a timely manner.
2.1—Environmental and Social Impact Assessment and Management	The screening and assessment of the <u>mining project's</u> impacts on <u>biodiversity</u> , <u>ecosystem services</u> and <u>protected areas</u> as per 4.6.2 and 4.6.3 may be carried out as a stand-alone assessment or as part of an ESIA; or data collected for one may feed into the other. Similarly, the <u>biodiversity</u> management plan or its equivalent may be incorporated into the mine's larger environmental and social management plan.
2.4—Resettlement	<u>Resettlement</u> chapter addresses both the physical and <u>economic displacement</u> of communities. Resettlement may lead to impacts on <u>biodiversity</u> and <u>ecosystem services</u> , or <u>protected areas</u> depending on the location of resettled communities. The potential impacts of resettlement on <u>biodiversity</u> and <u>ecosystem services</u> , or <u>protected areas</u> should be identified during the Resettlement Risk and Assessment Process (See 2.4.1.2.c), and any necessary mitigation developed accordingly to 4.6.4.
2.6 —Reclamation and Closure	Chapter 2.6 requires companies to come to agreed post-mining land use with <u>affected communities</u> , and they are included in the development of reclamation and closure plans. So if the post-mining agreed uses require <u>restoration</u> of ecological systems or <u>habitat</u> that may not qualify as <u>important biodiversity values</u> or <u>priority ecosystem services</u> , then companies would still be expected to document that in their reclamation plan and carry out the necessary activities.

Cross References to Other Chapters	
3.7—Cultural Heritage	<p>If during the screening process the <u>operating company</u> identifies <u>protected areas</u> specifically designated to protect cultural heritage, the company will be expected to conform with requirements in Chapter 3.7.</p> <p>Similarly, if <u>protected areas</u> were designated to preserve cultural values, Chapter 3.7 applies.</p> <p>3.7.5.5. To safeguard irreplaceable cultural heritage and respect indigenous peoples’ right to self-determination, the operating company shall not carry out new exploration or develop new mines in areas where <u>indigenous peoples</u> are known to live in voluntary isolation.</p>
4.1—Waste and Materials Management	<p>Mine waste management approaches may pose risks to <u>protected, threatened or endangered species, biodiversity, ecosystem services or protected areas</u>. These risks may be identified and evaluated during the screening, and if necessary, assessment processes in Chapter 4.6. The risks may also be identified during the Waste Facility Assessment process (4.1.4).</p> <p><u>Mitigation</u> strategies may be developed as per 4.1.5, or developed as part of or integrated into the Biodiversity Management Plan (see 4.6.4). Any assessment and mitigation development processes should include input from experts and stakeholders that have expertise in <u>biodiversity, ecosystem services or protected areas</u> issues.</p>
4.2—Water Management	<p>Chapter 4.2 requires Site Characterization and Prediction of Potential Impacts (4.2.2) of mine water management on communities and the environment. If analyses reveal that there may be water-management-related impacts on <u>biodiversity</u> (e.g., effects on habitat or water supply for <u>threatened and endangered species</u>), <u>ecosystem services</u> (e.g., reduce flood regulation, availability of drinking water), or adverse effects on waters located in <u>protected areas</u> then the significance of the potential impacts should be further assessed (as per 4.6.3), and <u>mitigation</u> measures developed accordingly to 4.6.4.</p>
4.3—Air Quality	<p>The air quality screening process in 4.3.1 may reveal the potential for significant impacts to <u>important biodiversity, priority ecosystem services, critical habitat</u> (including <u>threatened species</u>) or the <u>conservation values</u> of <u>protected areas</u> from <u>mining project</u> air emission. If this is the case, then the significance of the potential impacts should be further assessed (as per 4.6.3), and mitigation measures developed accordingly to 4.6.4.</p>

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the Glossary of Terms at the end of the IRMA Standard document.

Additional Conservation Actions

A broad range of activities that are intended to benefit biodiversity, where the effects or outcomes can be difficult to quantify.

Area of Influence

The area within which a project may potentially directly and indirectly cause impacts. The area of direct impacts caused by mining-related activities includes the physical mine site footprint, areas adjacent to the project site that are affected by emissions and effluents, power transmission corridors, pipelines, borrow and disposal areas, etc., and the area affected by associated facilities. Areas indirectly affected by mining-related activities include the physical footprint of non-project activities in the surrounding area that are caused or stimulated by the project plus the area affected by their emissions and effluents.

Avoidance

See Mitigation Hierarchy

Baseline (related to Biodiversity):

A description of existing conditions to provide a starting point (e.g. pre-project condition of biodiversity) against which comparisons can be made (e.g. post-impact condition of biodiversity), allowing the change to be quantified. (Source: BBOP Glossary)

Biodiversity/Biological Diversity

The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems.

Biosphere Reserves

Biosphere reserves are areas comprising terrestrial, marine and coastal ecosystems. Each reserve promotes solutions reconciling the conservation of biodiversity with its sustainable use. Biosphere reserves are 'Science for Sustainability support sites' – special places for testing interdisciplinary approaches to understanding and managing changes and interactions between social and ecological systems, including conflict prevention and management of biodiversity. Biosphere reserves are nominated by national governments and remain under the sovereign jurisdiction of the states where they are located. Their status is internationally recognized.

Competent Professionals

In-house staff or external consultants with relevant education, knowledge, proven experience, necessary skills and training to carry out the required work. Competent professionals would be expected to follow scientifically robust methodologies that would withstand scrutiny by other professionals. Other equivalent terms used may include: competent person, qualified person, qualified professional. For independent reviews (in IRMA Chapter 4.1) competent professionals must not be in-house staff.

Conservation Outcome

A conservation outcome is the result of a conservation intervention aimed at addressing direct threats to biodiversity or their underlying socio-political, cultural, and/or economic causes. Conservation outcomes are typically in the form of: (a) extinctions avoided (i.e. outcomes that lead to improvements in a species' national or global threat status); (b) sites protected (i.e. outcomes that lead to designation of a site as a formal or informal protection area, or to improvement in the management effectiveness of an existing protected area); and (c) corridors created (i.e. outcomes that lead to the creation of interconnected networks of sites at the landscape scale, capable of maintaining intact biotic assemblages and natural processes, and, thereby, enhancing the long-term viability of natural ecosystems). Conservation outcomes would also include any other intervention that leads to conservation gains.

Conservation Values

The ecological, biological, geomorphological, geological, cultural, spiritual, scenic or amenity values, features, processes or attributes that are being conserved.

Collaborate

The process of shared decision-making in which all stakeholders constructively explore their differences and develop a joint strategy for action. It is based on the premise that, through dialogue, the provision of appropriate information, collectively defined goals, and the willingness and commitment to find a solution acceptable to all parties, it is possible to overcome the initially limited perspectives of what is achievable and to reach a decision which best meets the interests of the various stakeholders. At this level, responsibility for decision-making is shared between stakeholders.

Consultation

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. In principle, the company should take into account the concerns and views expressed by stakeholders in the final decision.

Critical Habitat

Areas with high biodiversity value, including but not necessarily limited to: (i) habitat of significant importance to critically endangered, endangered species; (ii) habitat of significant importance to endemic and/or restricted-range species; (iii) habitat supporting globally significant concentrations of migratory and/or congregatory species; (iv) highly threatened and/or unique ecosystems; and/or (v) areas associated with key evolutionary processes. Other recognized high biodiversity values might also support a critical habitat designation, based on case-by-case evaluation.

Critically Endangered Species

A species that is considered to be facing an extremely high risk of extinction in the wild, as defined by IUCN.

Cumulative Impacts (on Biodiversity)

Cumulative impacts refer to the incremental impacts of the mining project on biodiversity values, when also considering other current and reasonably foreseeable future stressors affecting a biodiversity value in the landscape. Cumulative impacts can be similar in type (e.g., emissions to air from multiple projects) or distinct (e.g., the cumulative effect of habitat loss, habitat fragmentation, and vehicular mortality on wildlife).

Direct/Indirect Impacts

Direct impacts are those caused by activities that are undertaken, and facilities that are owned and managed by the mining company (including associated facilities). Indirect impacts are those that are caused or stimulated by the mining project's presence (e.g., impacts related to the influx of workers or others seeking economic opportunities due to the mine development).

Ecological Processes

Biophysical processes (e.g., hydrologic regimes, local climatic regimes, soil chemistry/nutrient cycling, fires, floods and other natural disturbance regimes, herbivory, predation, ecological corridors, migration routes) necessary for the habitat to persist in a landscape or seascape for the long term.

Ecosystem Services

The benefits people obtain from ecosystems. These include provisioning services such as food, water, timber, and fibre; regulating services that affect climate, floods, disease, wastes, and water quality; cultural services that provide recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation, photosynthesis, and nutrient cycling.

Enhancement (of Biodiversity Values)

The improvement of the ability of a degraded ecosystem to support biodiversity, through conservation measures such as alteration to the soils, vegetation and / or hydrology. The term is sometimes used for a type of restoration that enhances the biodiversity present but is not couched in terms of restoring the ecosystem to some prior state.

Existing Mine

A mine that was operational prior to the date that the IRMA standard was published in final (June 2018).

Habitat

A terrestrial, freshwater, or marine geographical unit or airway that supports assemblages of living organisms and their interactions with the non-living environment. The place or type of site where an organism or population occurs.

Host Country Law

May also be referred to as national law, if such a phrase is used in reference to the laws of the country in which the mining project is located. Host country law includes all applicable requirements, including but not limited to laws, rules, regulations, and permit requirements, from any governmental or regulatory entity, including but not limited to applicable requirements at the federal/national, state, provincial, county or town/municipal levels, or their equivalents in the country where the mine is located. The primacy of host country laws, such as federal versus provincial, is determined by the laws of the host country.

Important Biodiversity Values

The particular biodiversity elements or features, such as individual species that may be threatened, assemblages of species, particular ecological processes, etc., that trigger an area's designation as having significant biodiversity value (e.g., designation as critical habitat, a Key Biodiversity Area or a Protected Area), as well as the ecological context needed to support the maintenance of the trigger elements.

Key Biodiversity Areas (KBA)

Sites that contribute to the global persistence of biodiversity, including vital habitat for threatened or geographically restricted plant and animal species in terrestrial, freshwater and marine ecosystems.

Mine Closure

A period of time when ore-extracting and processing activities of a mine have ceased, and final decommissioning and mine reclamation are occurring. It typically includes pre-closure (detailed closure design and planning), closure (actual activities of closure of mine workings and construction/decommissioning) and post-closure (mainly long-term reclamation, monitoring, and treatment) periods, each with its own specific activities.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mining-Related Activities

Encompasses any activities that may occur during any phase of the mine life cycle (planning, impact assessment, exploration, mine construction, mining, mine closure), and includes all physical activities (e.g., land disturbance and clearing, sampling, airborne surveys, construction, ore removal, ore processing, waste management, reclamation, etc.).

Minimize

See Mitigation Hierarchy

Mitigation

Actions taken to reduce the likelihood of a certain adverse impact occurring.

Mitigation Hierarchy (related to Biodiversity)

The mitigation hierarchy is a set of prioritized steps to alleviate environmental harm as far as possible through avoidance, minimization (or reduction) and restoration of detrimental impacts to biodiversity. Biodiversity offsetting is only considered to address residual impacts after appropriate avoidance, minimization and restoration measures have been applied.

i. Avoidance: measures taken to avoid creating impacts from the outset, such as careful spatial or temporal placement of elements of infrastructure, in order to completely avoid impacts on certain components of biodiversity. This results in a change to a 'business as usual' approach.

ii. Minimization: Measures taken to reduce the duration, intensity and/or extent of impacts that cannot be completely avoided, as far as is practically feasible.

iii. Restoration: measures taken to assist the recovery of ecosystems that have been degraded, damaged or destroyed. Involves altering an area in such a way as to re-establish an ecosystem's composition, structure and function, usually bringing it back to its original (pre-disturbance) state or to a healthy state close to the original.

iv. Offset: Measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse impacts on biodiversity arising from project development after appropriate prevention and mitigation actions have been taken. The goal of biodiversity offsets is no net loss or a net gain of biodiversity on the ground with respect to species composition, habitat structure, ecosystem function and people's use and cultural values associated with biodiversity.

Modified Habitat

Areas that may contain a large proportion of plant and/or animal species of non-native origin, and/or where human activity has substantially modified an area's primary ecological functions and species composition. (This excludes habitat that has been converted in anticipation of the project.) Modified habitats may include areas managed for agriculture, forest plantations, reclaimed coastal zones, and reclaimed wetlands.

Natural Habitat

Areas composed of viable assemblages of plant and/or animal species of largely native origin, and/or where human activity has not essentially modified an area's primary ecological functions and species composition.

New Mine

A mine that becomes operational and applies for IRMA verification after the date that the IRMA standard was published in final (June 2018).

No Net Loss and Net Gain (of biodiversity)

Targets for development projects in which the impacts on biodiversity caused by the project are balanced or outweighed by measures taken to first avoid and minimize the impacts, then to undertake on-site rehabilitation and/or restoration, and finally to offset the residual impacts (if appropriate). No net loss, in essence, refers to the point where biodiversity gains from targeted conservation activities match the losses of biodiversity due to the impacts of a specific development project, so that there is no net reduction overall in the type, amount and condition (or quality) of biodiversity over space and time. A net gain (sometimes referred to as Net Positive Impact) means that biodiversity gains exceed a specific set of losses.

Offset

See Mitigation Hierarchy

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Priority Ecosystem Services

Ecosystem services are considered priority under the following circumstances: (i) Project operations are likely to result in a significant impact on the ecosystem service; the impact will result in a direct adverse impact on affected communities' livelihood, health, safety and/or cultural heritage; and the project has direct management control or significant influence over the service; or (ii) The project directly depends on the service for its primary operations; and the project has direct management control or significant influence over the service. (Source: IFC)

Protected Area

A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values. (See IRMA Glossary for an expanded definition based on IUCN management categories)

Protected Area Management Categories (IUCN)

A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values. The definition is expanded by six management categories (one with a sub-division), summarized below.

- Ia Strict nature reserve: Strictly protected for biodiversity and also possibly geological/ geomorphological features, where human visitation, use and impacts are controlled and limited to ensure protection of the conservation values
- Ib Wilderness area: Usually large unmodified or slightly modified areas, retaining their natural character and influence, without permanent or significant human habitation, protected and managed to preserve their natural condition
- II National park: Large natural or near-natural areas protecting large-scale ecological processes with characteristic species and ecosystems, which also have environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities
- III Natural monument or feature: Areas set aside to protect a specific natural monument, which can be a landform, sea mount, marine cavern, geological feature such as a cave, or a living feature such as an ancient grove
- IV Habitat/species management area: Areas to protect particular species or habitats, where management reflects this priority. Many will need regular, active interventions to meet the needs of particular species or habitats, but this is not a requirement of the category
- V Protected landscape or seascape: Where the interaction of people and nature over time has produced a distinct character with significant ecological, biological, cultural and scenic value: and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values
- VI Protected areas with sustainable use of natural resources: Areas which conserve ecosystems, together with associated cultural values and traditional natural resource management systems. Generally large, mainly in a natural condition, with a proportion under sustainable natural resource management and where low-level non-industrial natural resource use compatible with nature conservation is seen as one of the main aims

Residual Impacts

Project-related impacts that remain after on-site mitigation measures (avoidance, minimization, restoration) have been applied.

Restoration

See Mitigation Hierarchy

Stakeholders

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Threatened or Endangered Species

Species that meet the IUCN (2001) criteria for Vulnerable (VU), Endangered (EN) or Critically Endangered (CR), and are facing a high, very high or extremely high risk of extinction in the wild, respectively. (See <http://www.iucnredlist.org/technical-documents/categories-and-criteria>) These categories may be re-interpreted for IRMA purposes according to official national classifications (which have legal significance) and to local conditions and population densities (which should affect decisions about appropriate conservation measures).

Tentative List for World Heritage Site Inscription

The list of sites that relevant State Parties are formally considering for nomination as a World Heritage Site in the next five to ten years.

World Heritage Site

A site/property inscribed on the World Heritage List, which has outstanding universal value and meets the conditions of authenticity and integrity. The World Heritage property includes within its borders all of the attributes that are recognized as being of outstanding universal value.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.



Chapter 4.7—Cyanide Management

BACKGROUND

Cyanide is a chemical used in the processing of gold and silver at many mine sites and as a minor processing reagent at some base metal mines. If released to the environment, or if improperly used in mineral processing, cyanide can pose a risk to workers, surrounding communities, aquatic resources and wildlife.

The International Cyanide Management Institute (ICMI) has developed a program for the gold and silver mining industry to improve the life-cycle management of cyanide used in gold and silver mining, to enhance the protection of human health, and to reduce the potential for environmental impacts. Although the *International Cyanide Management Code* only provides for the certification of gold and silver mines, the same principles can be applied to other types of mining operations that use cyanide for the extraction of commercial quantities of minerals. This chapter builds on the ICMI Principles and Standards of Practice.

OBJECTIVES/INTENT OF THIS CHAPTER

To protect human health and the environment through the responsible management of cyanide.

SCOPE OF APPLICATION

Chapter Relevance: This chapter is applicable to operating companies that own, control or operate mining projects associated with the production, storage, use or transportation of cyanide; and to any mining project that requires the storage onsite of cyanide in bags or bulk containers, or that use cyanide in a mill process. It applies during operations and decommissioning of the associated facilities. This does not apply to cyanide for laboratory use or other de minimis testing purposes.

Mining projects must also maintain and provide documentation that cyanide producers and transporters supplying the projects are International Cyanide Management Code (Code) certified.

New vs. Existing Mines: New mines shall meet all of the requirements of this chapter. Existing mines are not required to meet the design/construction requirements in 4.7.2, unless new cyanide storage facilities, mixing, and process tanks are constructed after the IRMA Standard takes effect.

CRITICAL REQUIREMENTS IN THIS CHAPTER

Gold or silver mines using cyanide are certified as complying with the Cyanide Code (4.7.1.1).

TERMS USED IN THIS CHAPTER

Adaptive Management ■ Baseline Water Quality ■ Existing Mine ■ Mining Project ■ Mixing Zone ■ New Mine ■ Operating Company ■ Secondary Containment ■ Stakeholders ■ Water Quality Criteria ■ Whole Effluent Toxicity Testing ■

These terms appear in the text with a dashed underline, and they are explained at the end of this

Cyanide Management Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>4.7.1. Compliance with the International Cyanide Management Code (The Cyanide Code)</p> <p>4.7.1.1. (Critical Requirement) If the <u>operating company</u> is eligible to be a signatory to the Cyanide Code, it shall obtain a certification of compliance in accordance with the requirements of the International Cyanide Management Institute (ICMI).</p> <p>4.7.1.2. If the <u>operating company</u> is not eligible to become a signatory of the Cyanide Code, but the <u>mining project</u> requires the storage onsite of cyanide in bags or bulk containers, or uses cyanide in a mill process, the mine’s cyanide management practices shall be:</p> <p>a. Audited against the Cyanide Code’s “Gold Mining Operation Verification Protocol” by auditors meeting ICMI requirements; and</p>	<p>For 4.7.1.1: If the mine is a gold or silver mine, confirm that a mine has ICMI certification. This can be done by first determining if a company is a Signatory, and then by reviewing summary audit reports for a particular mine site. This audit information is found by clicking on the company name: https://www.cyanidecode.org/signatory-companies/directory-of-signatory-companies</p> <p>For 4.7.1.2: If the mine is not a gold or silver mine (the only types of mines currently eligible for ICMI certification), determine whether the mine requires the storage onsite of cyanide in bags or bulk containers (e.g., through review of mine supply records or other means), or uses cyanide in a mill or beneficiation process. If it does, confirm that an ICMI-accredited auditor has found that the <u>operating company</u> would be in compliance with the Cyanide Code’s Gold Mining Operation Verification protocol. Auditors meeting ICMI accreditation requirements are listed on the ICMI website</p>	<p>For 4.7.1.1:</p> <ul style="list-style-type: none"> Links to certification information from the ICMC website (e.g., Summary Audit Reports, and, if relevant, Corrective Action Plan Reports and Corrective Action Plan Completion Reports). <p>For 4.7.1.2:</p> <ul style="list-style-type: none"> Documentation from an ICMI certified auditor that the mine is verified as being generally consistent with Cyanide Code requirements. <p>For 4.7.1.3:</p> <ul style="list-style-type: none"> ICMI certification documentation for producers and transporters. ICMI application materials for cyanide producers and transporters. 	<p>Explanatory Note for 4.7.1.1: The International Cyanide Management Institute (ICMI) has developed a program for the gold mining industry to improve the life-cycle management of cyanide used in gold and silver mining, to enhance the protection of human health, and to reduce the potential for environmental impacts.⁶³²</p> <p>Although the <i>International Cyanide Management Code</i> only provides for the certification of gold and silver mines, the same principles can be applied to other types of mining operations that use cyanide for the extraction of commercial quantities of minerals.</p> <p>Gold and silver mining companies that are signatories to the Cyanide Code can get certified by meeting Cyanide Code requirements, which are available at: https://www.cyanidecode.org/about-cyanide-code/cyanide-code</p> <p>Audit reports and corrective action reports for ICMI certified gold mines are published on the ICMC website under the company name. https://www.cyanidecode.org/signatory-companies/directory-of-signatory-companies</p>

⁶³² International Cyanide Management Code. “Become a Signatory.” <http://www.cyanidecode.org/become-signatory>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>b. Verified as being generally consistent with Cyanide Code requirements.</p> <p>4.7.1.3. The operating company shall demonstrate that it has taken steps to ensure that cyanide producers and transporters supplying the mining project are certified as meeting the “Cyanide Production and Transport Practices” of the Cyanide Code.</p>	<p>(http://www.cyanidecode.org/auditors-auditing).</p> <p>NOTE: for IRMA’s Launch Phase we will not require that an ICMI-accredited auditor has assessed compliance of non-gold/silver mines with the Cyanide Code. IRMA auditors will assess general conformance with some key Cyanide Code indicators (to be added in Explanatory Notes).</p> <p>For 4.7.1.3: Review documentation related to cyanide producers and transporters supplying the mine. Confirm whether or not the producers and transporters are ICMI certified. A list of ICMI certified cyanide producers and transporters can be found at: http://www.cyanidecode.org/signatory-companies/directory-of-signatory-companies.</p> <p>If the mine’s cyanide suppliers or transporters are not ICMI certified, then confirm that the company has taken appropriate steps to bring them into compliance. (E.g., has contacted them, and there is a plan in place for the company to seek ICMI certification).</p>		<p>Mine sites that have current full or conditional ICMI certification at the time of an IRMA audit shall be considered in compliance with IRMA requirement 4.7.1.1.⁶³³</p> <p>Explanatory Note for 4.7.1.2: Although the International Cyanide Management Code (“Cyanide Code”) only provides for the certification of gold and silver mines, the same principles in the Cyanide Code Principles and Standards of Practice can be applied to other types of mining operations that use cyanide for the extraction of commercial quantities of minerals.</p> <p>This section does not apply to cyanide for laboratory use, or for other de minimis purposes.</p> <p>The phrase “uses cyanide in a mill process” should be interpreted as any milling or beneficiation process, including flotation, where cyanide might be used.</p> <p>NOTE: for IRMA’s Launch Phase we will not require that an ICMI-accredited auditor has assessed compliance of non-gold/silver mines with the Cyanide Code. IRMA auditors will assess general conformance with some key Cyanide Code indicators (to be added soon in Explanatory Notes), guided by the Cyanide Code Implementation Guidance: https://www.cyanidecode.org/become-signatory/implementation-guidance</p> <p>Explanatory Note for 4.7.1.3: Cyanide Production and Transportation verification protocols, which outline expected practices for cyanide producers and transporters, can be found on the International Cyanide</p>

⁶³³ International Cyanide Management Code. <https://www.cyanidecode.org/about-cyanide-code/cyanide-code>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>4.7.2. Construction</p> <p>4.7.2.1. In addition to the requirements of the Cyanide Code, the following design criteria shall be met:⁶³⁶</p> <p>a. Impermeable secondary containment for cyanide unloading, storage, mixing and process tanks shall be sized to hold a volume at least 110% of the largest tank within the containment and any piping draining back to the tank, and with additional capacity for the design storm event; and</p>	<p>For 4.7.2.1: Review <u>operating company</u> documentation to confirm that all relevant storage facilities, mixing, and process tanks meet the requirements.</p>	<p>For 4.7.2.1:</p> <ul style="list-style-type: none"> • Facility design documents that include information on secondary containment for cyanide unloading, storage, mixing and process tanks. • Facility design documents that include information on pipelines containing process water (or process solution). 	<p>Management Code (ICMC) website page "Auditing the Cyanide Code."⁶³⁴</p> <p>Many producers and transporters have been certified by ICMI, and their information can be found on the ICMC web page "Directory of Signatory Companies."⁶³⁵</p> <p>If the mine's cyanide suppliers or transporters are not ICMI certified, the mine should be able to demonstrate that is taking steps to bring them into compliance (e.g., company has contacted suppliers and transporters, and there is a plan in place for them to seek ICMI certification).</p> <p>Explanatory Note for 4.7.2.1: Requirement 4.7.2.1 applies to all storage facilities and mixing or processing tanks constructed at new mines, and new facilities and tanks constructed at existing mines.</p> <p>Re: 4.7.2.1.a: IRMA's requirement provides conditions in addition to those found in the Cyanide Code (Standard of Practice 4.7). However, the IRMA requirement is generally consistent with information found in ICMI's Auditor Guidance:</p> <p>"Are secondary containments for cyanide unloading, storage, mixing and process tanks sized to hold a volume greater than that of the largest tank within the containment and any piping draining back to the tank, and with additional capacity for the design storm event?"</p>

⁶³⁴ International Cyanide Management Code (ICMC) website: "Auditing the Cyanide Code." <http://www.cyanidecode.org/auditors-auditing/auditing-cyanide-code>

⁶³⁵ International Cyanide Management Code (ICMC) website: "Directory of Signatory Companies." <http://www.cyanidecode.org/signatory-companies/directory-of-signatory-companies>.

⁶³⁶ This requirement applies to all storage facilities and mixing or processing tanks constructed at new mines, and new facilities and tanks constructed at existing mines.

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>b. Pipelines containing process solution⁶³⁷ shall utilize secondary containment in combination with audible alarms, interlock systems, and/or sumps, as spill control measures.</p>			<p>Secondary containments must have adequate capacity to hold the volume of the largest tank within the containment as well as any piping that would drain back to the tank and additional capacity for the design storm event. As with the Standard of Practice regarding the water balance, the Code does not specify a design storm event, and the auditor must determine if the one used by the operation is reasonable for the site’s environment.</p> <p>A factor of 110% of the volume of the largest tank can usually be used as a rule of thumb for the adequacy of secondary containment.</p> <p>However, this approximation may not be adequate where the volume of the largest tank is relatively small and the size of the containment (or in the case discussed in question 4, below, the drainage area collected by the containment) is large.</p> <p>In some cases, the adequacy of containment’s capacity will be obvious from a visual inspection, while in others, the auditor will need to review data on tank size and calculations of the containment’s volume. The auditor should also verify through visual observation that there are no materials stored within the containment that compromise this capacity.”⁶³⁸</p> <p>It is left to the professional judgment of the IRMA auditor as to whether the intent of both the ICMI guidance and the IRMA requirement have been met.</p>

⁶³⁷ This applies if process solutions have a concentration of 0.5 mg/l WAD cyanide or greater.

⁶³⁸ ICMI. February 2018. Auditor Guidance for Use of the Mining Operations Verification Protocol. p. 43. https://www.cyanidecode.org/sites/default/files/pdf/16_AuditorGuidanceforMines_2-2018.pdf

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>4.7.3. Discharges</p> <p>4.7.3.1. Discharges to a surface water <u>mixing zone</u> shall not contain cyanide, either alone or in combination with other toxins, that will be lethal to resident aquatic life or interfere with the passage of migratory fish.</p>	<p>Auditing Note for 4.7.3: This is also required in Chapter 4.2.</p> <p>For 4.7.3.1: Interview <u>operating company</u> and review relevant information (e.g., water quality management plans, monitoring data). If a <u>mixing zone</u> is used for surface water discharges that contain cyanide, confirm, as per IRMA Chapter 4.2, requirement 4.2.3.2.b.i and ii, that <u>mixing zone</u> is not lethal to aquatic life, and that the <u>mixing zone</u> does not interfere with the passage of migratory fish.</p> <p>Confirm that water quality in the surface water <u>mixing zone</u> will not be lethal to local aquatic life. This may be evaluated based on the results of the <u>whole effluent toxicity</u> testing or by comparing the concentration of constituents measured inside the <u>mixing zone</u> to acute toxicity values, or by other credible</p>	<p>For 4.7.3.1:</p> <ul style="list-style-type: none"> Records of discharges to surface waters mixing zones (e.g., water quality of discharges, and in particular, cyanide concentrations). Water quality monitoring data from inside the mixing zone. Documented studies from literature or conducted by the company on lethal toxicity of cyanide to resident fish species. Records (e.g., studies or observations) of the health and behavior of resident and migratory fish (if any are present). Biologic monitoring of fish in surface water mixing zones. 	<p>Re: 4.7.2.1.b, this requirement is relevant only if process water/solution has a concentration of 0.5 mg/l WAD cyanide or greater.</p> <p>In addition to requirement 4.7.2.1, see Cyanide Code Implementation Guidance for details on other design criteria – in particular, see Principles 3 (Standard of Practice 3.1) and 4 (Standards of Practice 4.5, 4.7 and 4.8).⁶³⁹</p> <p>Explanatory Note for 4.7.3.1: For general <u>mixing zone</u> requirements see IRMA Chapter 4.2, requirement 4.2.3.2.</p> <p>To avoid lethal toxicity to fish, cyanide in discharges should be limited to 20 ug/L, measured as Weak Acid Dissociable cyanide.⁶⁴⁰</p> <p>However, the operating company can also carry out analyses to predict site-specific lethal toxicity, e.g., based on the results of whole effluent toxicity testing, or by comparing the concentration of constituents measured inside the <u>mixing zone</u> to acute toxicity values, or by other credible scientific means.</p> <p>If, during use of the <u>mixing zone</u>, point source discharges are found to be lethal to a particular species, measures should be immediately undertaken to reduce concentrations of point source discharges found to be lethal. Actions could include improving treatment methods, mixing with cleaner water, or decreasing or ceasing effluent discharge.</p>

⁶³⁹ International Cyanide Management Code (ICMC) website: "Implementation Guidance - Standards of Practice 3.1 - 3.2" <https://www.cyanidecode.org/become-signatory/implementation-guidance#handling> and "Implementation Guidance - Standards of Practice 4.1 - 4.8." <https://www.cyanidecode.org/become-signatory/implementation-guidance#operations>

⁶⁴⁰ Eisler, R. 1991. Cyanide Hazards to Fish, Wildlife, and Invertebrates: A Synoptic Review. (U.S. Fish and Wildlife Service). Biological Report 85(1.23). <https://pubs.er.usgs.gov/publication/5200123>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
	<p>scientific means. This should be done prior to the use of the <u>mixing zone</u>.</p> <p>If, at some point during use of the <u>mixing zone</u>, point source discharges are found to be lethal to a particular species, confirm that the company has identified <u>adaptive management actions</u> to reduce concentrations of constituents responsible for the toxicity. Actions could include, for example, improving treatment methods, mixing with cleaner water, or decreasing or ceasing effluent discharge.</p> <p>Also, confirm that the surface water <u>mixing zone</u> does not interfere with the passage of migratory fish. This could be done by interviewing <u>operating company</u> and <u>stakeholders</u> that use or are familiar with the affected waters, to find out if migratory fish have been observed avoiding the portion of the surface water that contains the <u>mixing zone</u>. Or, to prove that the <u>mixing zone</u> is not interfering, the <u>operating company</u> could provide documentation that migratory fish are found upstream and downstream of the <u>mixing zone</u> in numbers similar to what existed prior to the development of the <u>mining project</u> (pre-mining values may have been established for migratory fish populations during the ESIA, see Chapter 2.1, or possibly during</p>		<p>For example, as per the Cyanide Code:</p> <p>“Treatment may be passive (allowing sufficient residence time in an impoundment for natural processes to reduce cyanide concentrations or use of wetlands) or active (utilizing any of the various available technologies to oxidize cyanide or to regenerate hydrogen cyanide for reuse in production). It should be noted that some treatment methods could increase the concentration of cyanide degradation products (such as cyanate, ammonia and nitrate) in the discharge. These substances can themselves be harmful to fish and wildlife.”⁶⁴¹</p> <p>Companies can demonstrate that the surface water <u>mixing zone</u> does not interfere with the passage of migratory fish by, e.g.:</p> <ul style="list-style-type: none"> • Confirming that substances known to cause avoidance, like copper for salmonids, are not present in the discharge; • Providing documentation that migratory fish are found upstream and downstream of the <u>mixing zone</u> in numbers similar to what existed pre-mining (if <u>baseline</u> values were established for the migratory fish populations).

⁶⁴¹ Cyanide Code Implementation Guidance for Standard of Practice 4.6. <https://www.cyanidecode.org/become-signatory/implementation-guidance>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>4.7.4. Monitoring</p> <p>4.7.4.1. The operating company shall carry out <u>baseline water quality</u> sampling and monitor discharges to surface waters or groundwaters for weak acid dissociable (WAD) cyanide.</p>	<p>Biodiversity, Ecosystem Services and Protected Areas screening, see Chapter 4.6).</p> <p>For 4.7.4.1: If there is a discharge of treated water to surface water or ground waters, confirm the discharge is being monitored for WAD cyanide. (See also IRMA Chapter 4.2, criteria 4.2.4.)</p>	<p>For 4.7.4.1:</p> <ul style="list-style-type: none"> • Baseline/background water quality data for surface and/or groundwater (e.g., laboratory reports, company summaries and analyses). • Water quality monitoring data (e.g., laboratory reports, company summaries and analyses). 	<p>Explanatory Note for 4.7.4.1: <u>Baseline water quality</u> sampling is used to establish the level of naturally-occurring substances and existing non-mine pollution present in water bodies and the variability in water quantity before the mine is developed. Documentation of <u>baseline</u> conditions can help to prevent mis-attribution of pollution and water quantity changes to the mine. If <u>baseline</u> sampling was not done, the company should establish <u>background water quality</u> conditions. (See IRMA definitions for more information)</p> <p>As per requirements 4.7.1.1 and 4.7.1.2, <u>mining projects</u> that use or store cyanide are expected to demonstrate compliance with the Cyanide Code (e.g., have certification of compliance with the Code). So companies would be expected to meet the following monitoring-related requirements:</p> <p>The Cyanide Code requires the implementation of monitoring programs to evaluate the effects of cyanide use surface and groundwater quality. It includes monitoring of cyanide in discharges to surface water and groundwater up-gradient and downgradient of the mine. (See ICMC website, Implementation Guidance for Standard of Practice 4.9)⁶⁴²</p> <p>The Cyanide Code also includes monitoring of wildlife. For facilities that are open to the environment the Code requires that measures be put in place to protect birds,</p>

⁶⁴² International Cyanide Management Code (ICMC) website: "Implementation Guidance." <https://www.cyanidecode.org/become-signatory/implementation-guidance#operations>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
			<p>other wildlife and livestock from adverse effects of cyanide process solutions (See ICMC website, Standard of Practice 4.4⁶⁴³). The Code's Implementation Guidance states that monitoring for wildlife mortalities should be part of the daily inspection of cyanide facilities.</p> <p><u>Mining projects</u> that use or store cyanide are also expected to meet all relevant IRMA requirements. For example:</p> <p>IRMA requirements 4.7.4.1 and 4.7.4.2, like the Cyanide Code Standard of Practice 4.9, address the monitoring of surface waters and groundwaters, but they are more specific than the Cyanide Code on the forms of cyanide that must be monitored.</p> <p>IRMA Chapter 4.2 includes general water quality monitoring requirements, which include cyanide if there is a reasonable potential that it might be present surface waters or groundwaters (see requirements 4.2.4.1 and 4.2.4.2). That chapter also includes <u>water quality criteria</u> for cyanide (which vary based on end-use of the affected water).</p> <ul style="list-style-type: none"> • If cyanide is present in <u>mine waste facilities</u> (E.g., <u>tailings storage facilities</u>, <u>heap leach facilities</u>) then monitoring information should be incorporated in the Operations, Maintenance and Surveillance plan in Chapter 4.1 (see requirement 4.1.5.5.c). <p>IRMA is currently seeking input on the water quality criteria for cyanide. See the flag language in IRMA's</p>

⁶⁴³ International Cyanide Management Code (ICMC) website: "Principles and Standards of Practice." <https://www.cyanidecode.org/about-cyanide-code/cyanide-code>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>4.7.4.2. If WAD cyanide is detected in discharges to surface waters, then the <u>operating company</u> shall also monitor total cyanide, free cyanide, and thiocyanate levels.</p> <p>4.7.5. Reporting</p> <p>4.7.5.1. Cyanide water quality monitoring data shall be published on at least a quarterly basis in tabular format, and graphical format if available, on the mine or the <u>operating company</u> website, or provided to stakeholders upon request.</p> <p>4.7.5.2. If the <u>operating company</u> is a Cyanide Code signatory it shall include in its annual report or sustainability report a link to the company’s audit information and corrective actions published on the ICMI website.</p>	<p>For 4.7.4.2: If WAD is detected in a discharge, confirm that total cyanide, free cyanide and thiocyanate are also being monitored.</p> <p>For 4.7.5.1: Review company website to confirm availability of quarterly monitoring data.</p> <p>For 4.7.5.2: If the <u>operating company</u> is a signatory to the Cyanide Code, confirm that it links to its audit/compliance information is available in its annual or sustainability reports.</p>	<p>For 4.7.4.2:</p> <ul style="list-style-type: none"> Water quality monitoring data (e.g., laboratory reports, company summaries and analyses). <p>For 4.7.5.1:</p> <ul style="list-style-type: none"> Links to websites where data can be accessed. Records of correspondence with stakeholders requesting cyanide monitoring data (e.g., emails, letters) and company responses. <p>For 4.7.5.2:</p> <ul style="list-style-type: none"> Copies of company documents or website content that provide links to audit information and corrective action information. 	<div style="border: 1px solid black; background-color: #ffffcc; padding: 5px;"> <p>Water Quality Criteria by End-Use Tables, as well as the flag for question 4.2.3.3 in Chapter 4.2.</p> </div> <p>Explanatory Note for 4.7.5.2: Audit reports and corrective action reports for ICMI certified gold mines are published on the ICMC website under the company name.⁶⁴⁴ The company can provide the exact link to these reports in its own written or website materials.</p>
NOTES			

⁶⁴⁴ International Cyanide Management Code (ICMC) website: "Directory of Signatory Companies." <http://www.cyanidecode.org/signatory-companies/directory-of-signatory-companies>

The International Cyanide Management Institute (ICMI) Principles broadly state commitments that signatories make to manage cyanide in a responsible manner. Standards of Practice identify the performance goals and objectives that must be met in order to comply with the Principles. Separate Verification Protocols have been developed for cyanide production, transportation, and gold and silver mine operations. Cyanide production, transportation, and operations are certified as being in compliance with the Code following an independent third-party audit (paid for by the operating company) verifying conformance with the Code’s Standards of Practice. Audit results are made public on the ICMI website to inform stakeholders of the status of cyanide management practices at certified operations. The IRMA Cyanide Management Chapter requires the same auditing procedures, and certified auditors, as for the Cyanide Code.

Cross References to Other Chapters	
CHAPTER	ISSUES
1.1—Legal Compliance	As per Chapter 1.1, if there are <u>host country laws</u> governing cyanide transport, storage, use, etc., the company is required to abide by those laws. If IRMA requirements are more stringent than <u>host country law</u> , the company is required to also meet the IRMA requirements, as long as complying with them would not require the operating company to violate the <u>host country law</u> .
1.2—Community and Stakeholder Engagement	Reporting to <u>stakeholders</u> shall conform with the Communications and Access to Information requirements in 1.2.4, which require that communications and information be in culturally appropriate formats and languages that are <u>accessible</u> and understandable to <u>affected communities</u> and <u>stakeholders</u> , and provided in a timely manner.
1.4—Complaints and Grievance Mechanism and Access to Remedy	<u>Stakeholders</u> with complaints related to an <u>operating company’s</u> use of cyanide, can raise complaints through the company’s operational-level <u>grievance mechanism</u> . As per Chapter 1.4, the company is required to have a <u>grievance mechanism</u> available to <u>stakeholders</u> for filing complaints, and having them investigated and resolved in a timely manner.
2.1—Environmental and Social Impact Assessment and Management	The potential impacts to nearby communities and the environment from cyanide may be scoped as part of the Environmental and Social Impact Assessment process, and <u>mitigation strategies</u> developed as part of the Environmental and Social Management System.
2.5—Emergency Preparedness and Response	The transportation of cyanide is a potential <u>hazard</u> to communities and the environment along transportation routes, and releases of cyanide from the handling, storage and use of cyanide at the mine site may also have impacts on nearby communities and the environment. Chapter 2.5 mandates emergency response planning for spills or other incidents that pose risks to communities, and requires coordination between the mine and emergency responders in potentially <u>affected communities</u> . If relevant, the emergency response plan should contain procedures related to cyanide that conform with the Cyanide Code (see Standard of Practice 7.1 in the Code’s Implementation Guidance). ⁶⁴⁵
3.2—Occupational Health and Safety	Cyanide use is an occupational health and safety consideration, and its use, storage and transport should be included in the OHS risk assessment process, mitigation and monitoring processes outlined in Chapter 3.2, and be carried out in conformance with the Cyanide Code (see Implementation Guidance for Standards of Practice 6.1, 6.2 and 6.2). ⁶⁴⁶
3.3—Community Health and Safety	The use of cyanide at mining operations may present a health risk to local communities, and may be analyzed during the community health and safety risk and impact assessment process.

⁶⁴⁵ Cyanide Code. Standard of Practice 7.1. <https://www.cyanidecode.org/become-signatory/implementation-guidance#emergency>

⁶⁴⁶ Cyanide Code. Standards of Practice 6.1, 6.2 and 6.3. <https://www.cyanidecode.org/become-signatory/implementation-guidance#safety>

Cross References to Other Chapters	
4.1—Waste and Materials Management	If cyanide is present in <u>mine waste facilities</u> (E.g., <u>tailings storage facilities</u> , <u>heap leach facilities</u>) then monitoring for potential impacts on wildlife from cyanide is required as per 4.7.4. Relevant information should be incorporated in the Operations, Maintenance and Surveillance plan) as per 4.1.5.5.c.
4.2—Water Management	IRMA’s <u>water quality criteria</u> for cyanide discharge limits appear in Tables 4.2.a –h. If a <u>mixing zone</u> is used for surface water discharges that contain cyanide, the requirements 4.2.3.2.b.i and ii apply (i.e., the <u>mixing zone</u> cannot be lethal to aquatic life, and shall not interfere with the passage of migratory fish). Monitoring of cyanide in water, as required in 4.7.4, may be incorporated into the water management program in Chapter 4.2 (see criteria 4.2.4).

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the Glossary of Terms at the end of the IRMA Standard document.

Adaptive Management

A structured, iterative process of robust decision-making in the face of uncertainty, with an aim to reducing uncertainty over time via system monitoring. It includes the development of management practices based on clearly identified outcomes, and monitoring to determine if management actions are meeting desired outcomes. If outcomes are not being met, the process requires development and implementation of management changes to ensure that outcomes are met or re-evaluated.

Background Water Quality

Established after mining has commenced, it is the water quality in a similarly mineralized area outside of the mine’s influence (e.g., surface water quality upstream of the mine site or upgradient for groundwater).

Baseline Water Quality

The water quality at the site or in the area surrounding a proposed mining project, before mining-related activity has occurred.

Existing Mine

A mine that was operational prior to the date that the IRMA standard was published in final (June 2018).

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

Mixing Zone

A volume of surface water or groundwater containing the point or area of discharge and within which an opportunity for the mixture of wastes with receiving surface waters or groundwaters has been afforded, and where water quality is allowed to exceed otherwise specified standards.

New Mine

A mine that becomes operational and applies for IRMA verification after the date that the IRMA standard was published in final (June 2018).

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Secondary Containment

Requires that areas be designed with appropriate containment and/or diversionary structures to prevent a discharge in quantities that may be harmful.

Stakeholders

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Water Quality Criteria

Numerical concentrations or a narrative statement recommended to support and maintain a designated water use. Criteria are based on scientific information about the effects of water pollutants on a specific water use

Whole Effluent Toxicity

Refers to the aggregate toxic effect to aquatic organisms from all pollutants contained in a mine's effluent.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.

Chapter 4.8—Mercury Management

BACKGROUND

Mercury can occur in both inorganic and organic forms. An inorganic form, elemental mercury is a byproduct of some mining operations, due to the presence of mercury compounds in ore bodies such as gold, silver, copper and zinc deposits.

Mercury is a persistent, bio-accumulative pollutant. When released into the environment and deposited or carried by air and water, and **deposited onto wetlands, streams, or some other types of environments**, mercury can be converted to methyl-mercury. Methyl-mercury can be transmitted up the food chain and accumulates in the tissues of animals.

Because of mercury’s potentially significant health and environmental impacts, mining operations should work to restrict the release of point source mercury emissions to surface and ground waters and to the atmosphere by adopting appropriate mercury reduction goals and by applying suitable mercury reduction technologies.

OBJECTIVES/INTENT OF THIS CHAPTER

To protect human health and the environment through the responsible management of mercury.

SCOPE OF APPLICATION

Chapter Relevance: This chapter applies to any mining project, new or existing, that utilizes an autoclave, roaster, carbon kiln, refining furnace, retort or other process that could lead to significant emissions of mercury.

CRITICAL REQUIREMENTS IN THIS CHAPTER

Mercury wastes are not permanently stored on site without adequate safeguards (4.8.2.3), are not sold or given to artisanal or small-scale miners, and are otherwise sold only for end uses covered in the Minamata Convention or disposed of in regulated repositories (4.8.2.2).

TERMS USED IN THIS CHAPTER

Affected Community ■ Artisanal and Small-Scale Mining ■ Consultation ■ Existing Mine ■ Facility ■ Indigenous Peoples ■ Mercury Emission Control System ■ Mercury Waste ■ Mining Project ■ New Mine ■ Operating Company ■ Stakeholder ■ Tailings ■ Waste Rock ■

These terms appear in the text with a dashed underline, and they are explained at the end of this chapter

Mercury Management Requirements

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
4.8.1. Planning	For 4.8.1.1: Review documentation to confirm that the <u>operating company</u> has calculated the	For 4.8.1.1: <ul style="list-style-type: none"> Documentation on type of mercury 	Explanatory Note for 4.8.1.1: One of the most striking revelations that came from EPA’s

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
<p>4.8.1.1. A <u>mining project</u> with a <u>mercury emission control</u> system shall perform a mercury mass balance that assesses the amount of mercury in the <u>waste rock</u> and ore, and document (or estimate, if measurements are not available) the amount of mercury during or after processing:</p> <ol style="list-style-type: none"> Released to air and water; Produced as by-product; and Resident in <u>tailings ponds</u>, <u>waste rock dumps</u>, etc. 	<p>annual and cumulative mass balance of mercury present in <u>waste rock</u> and ore, and the mercury generated, stored, or released from mining and processing activities.</p>	<p>emissions control system(s) being used.</p> <ul style="list-style-type: none"> Mercury mass balance inputs, calculations and results. 	<p>implementation of the Toxic Reporting Initiative (TRI) was that large amounts of mercury were being emitted from gold mines, primarily in Nevada. Because the scale of these previously unreported emissions was approximately the same as that of coal-fired power plants, addressing these discharges was imperative. This was initially approached as a voluntary initiative through the State of Nevada, however Nevada soon learned their voluntary compliance measures were being seriously violated. Nevada then went to a mandatory program, based mainly on monitoring procedures that had been established for power plants. The EPA, concerned about non-Nevada mercury emissions from mining sources, subsequently established a program based on the Nevada model.</p> <p>After this went into effect, researchers from the University of Nevada, using a portable mercury air detection system, established the presence of significant non-point sources of mercury air emissions at a Nevada mine, most notably from heap leach facilities. These ambient-temperature emissions are still poorly understood and researched. The first step in limiting mercury air emissions from mines is controlling high-temperature point sources, but a longer term goal should be to define and control non-point emission sources too.</p> <p>A mercury mass balance is an accounting of the amount of mercury contained in the mined materials (ore and <u>waste rock</u>), based on the chemical analyses of these materials, versus the amount of mercury in the mine waste (<u>tailings</u> and <u>waste rock</u>) plus the</p>

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
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4.8.2. Mercury Capture and Disposal

f 4.8.2.1. Any mine facility that uses a thermal process to treat material containing mercury (e.g., ore, concentrate) shall utilize best available techniques (BAT) and best environmental practices (BEP) to control and minimize the amount of mercury released to the atmosphere unless the operating company can demonstrate that mercury emissions from the mining project are unlikely to pose a significant risk to human health or the environment.

For 4.8.2.1: Determine if there are any mine facilities that use a thermal process to treat material (e.g., ore or concentrate) that contains mercury.

For gold mines located in the United States, determine if levels are below the allowable mercury emissions under the U.S. National Emission Standards for Hazardous Air Pollutants (NESHAP): Gold Mine Ore Processing and Production Area Source Category (40 CFR Part 63, Subpart EEEEEEE, § 63.11645 (available at: <https://www.law.cornell.edu/cfr/text/40/63.11645>)).

The NESHAP mercury limits are as follows:

For 4.8.2.1:

- Documentation on type of mercury emissions control system(s) being used.
- Analysis of the potential impacts of mercury emissions on human health or the environment.
- Documentation on BAT and/or BEP being used to reduce mercury emissions from thermal sources.

amount of recovered mercury and the amount(s) released to the environment via air and water.

Theoretically the amount of mercury coming from mining (ore + waste rock) will equal the amount of mercury in the tailings + waste rock + recovered + released.

Data on mercury can be collected at the same time as ore-sampling. The mass of mercury disposition should match mercury mined.

Data on mercury emitted/retained will not have the accuracy as mercury in mined materials. Values may be estimated if measurements are not available. A quantitative estimate of the accuracy of the mercury emitted/retained should also be supplied.

f [flag] **4.8.2.1 Issue Brief:** Mercury is a potent neurotoxin that negatively impacts human health and the environment around the world. Mercury is transported globally in the atmosphere and in water, so mercury emitted in one location may affect ecosystems and populations far removed from the source.

While global efforts such as the Minamata Convention aim to reduce emissions of mercury, there are very few national or global standards on what are acceptable mercury emission limits for the mining industry. One national example is the US Environmental Protection Agency's National Emission Standards for Hazardous

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION			EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
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Affected Source	Existing Sources	New Sources	Units
Ore pretreatment processes	127	84	lb of mercury emitted/ million tons of ore
Carbon processes with mercury retorts	2.2	0.8	lb Hg/ton of concentrate
Carbon processes without mercury retorts	0.17	0.14	lb Hg/ton of concentrate
Non-carbon concentrate processes	0.2	0.1	lb Hg/ton of concentrate

If mines from the United States are not meeting the NESHAP limits, then confirm that BAT/BEP are being used to control mercury emissions. Also, determine if these mines are considered to be legally compliant with US law.

For non-US gold mines or other types of mines such as iron, lead, copper, zinc, silver, tin, nickel, silico- and ferro-manganese, etc. that are smelting, roasting or using other thermal

Air Pollutants (NESHAP), which sets out mercury emission limits for industrial-scale gold mines.

During the Launch Phase, IRMA will not score this requirement, but will strive to collect information and test with companies and stakeholders whether there are effective approaches to responsibly manage mercury in addition to the requirements currently laid out in 4.8.2.1 that should be integrated in the IRMA Standard.

Explanatory Note for 4.8.2.1: Certain types of mineral deposits have a greater potential to contain mercury than others. The following types of deposits do not always have mercury associated with them, but according to Rytuba (2003) the following types of mineral deposits have produced by-product mercury: volcanogenic massive sulfides, sedimentary exhalitive (sedex) deposits, polymetallic base metals, hot-spring gold, comstock gold–silver, high sulfidation gold–silver, sediment-hosted gold and antimony–mercury. And other types of deposits are known to have had elevated concentrations of mercury: Mississippi Valley type (MVT), volcanogenic manganese, basaltic copper, simple antimony, porphyry copper, low-sulfide-gold-quartz, and bedded barite deposits.⁶⁴⁷

“thermal processes” may include:⁶⁴⁸

⁶⁴⁷ Rytuba, J. (2003). “Mercury from mineral deposits and potential environmental impact. Environmental Geology.” 43. 326-338. 10.1007/s00254-002-0629-5. pp. 329, 332. https://www.researchgate.net/publication/225798176_Mercury_from_mineral_deposits_and_potential_environmental_impact

⁶⁴⁸ A useful diagram of sources of mercury emissions can be found in the following presentation, slide 16. Cripps, C. and Bamford, R. 2013. Mining and Mercury in Nevada. https://tax.nv.gov/uploadedFiles/taxnv.gov/Content/Boards/Mining_Oversight_and_Accountability/MOAC_Meeting_Docs/December_17_2013_Docs/Agenda%20Item%203%20NDEP%20Overview%20of%20Mercury%20Program%20FINAL.pdf

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
	<p>processes on ores or concentrates that contain mercury, see the Explanatory Note for 4.8.2.1.</p>		<ul style="list-style-type: none"> • roasting operations and autoclaves that are used to pre-treat gold mine ore; • carbon regeneration kilns; • pregnant and barren tanks; • electrowinning cells; • retorting and smelting; and • melt furnaces. <p>Definitions for these processes can be found at: https://www.law.cornell.edu/cfr/text/40/63.11651</p> <p>If gold mines in the US or elsewhere are meeting the mercury emissions limits set out in the U.S. National Emission Standards for Hazardous Air Pollutants (NESHAP) for Gold Mine Ore Processing and Production,⁶⁴⁹ then those mines would not be required to also demonstrate use of BAT/BEP. (See Means of Verification for NESHAP emission limits)</p> <p>If non-U.S. gold mines or other types of mines such as iron, lead, copper, zinc, silver, tin, nickel, silico- and ferro-manganese, etc. are smelting, roasting or using other thermal processes on ores or concentrates that contain mercury, then those mines are expected to demonstrate that they use one of the following to determine if they need to apply <u>best available techniques</u> (BAT)/<u>best environmental practices</u> (BEP) to control and minimize the amount of mercury released to the atmosphere to protect human health or the environment:</p> <p>The NESHAP levels. If below the levels, then there is no</p>

⁶⁴⁹ U.S. National Emission Standards for Hazardous Air Pollutants (NESHAP): Gold Mine Ore Processing and Production Area Source Category. 40 CFR Part 63, Subpart EEEEEEE, § 63.11645. (Available at: <https://www.law.cornell.edu/cfr/text/40/63.11645>),

CRITERIA AND REQUIREMENTS	MEANS OF VERIFICATION	EXAMPLES OF EVIDENCE	EXPLANATORY NOTES
			<p>need to demonstrate use of BAT/BEP. If there are significant risks to human health or the environment, confirm that BAT/BEP are being used.</p> <p>A risk assessment process to establish whether or not they need BAT/BEP. If there are significant risks to human health or the environment, confirm that BAT/BEP are being used.</p> <p>During IRMA’s Launch Phase we will be collecting information on the risk assessments processes followed. At minimum, we’re assuming that risk assessments would include quantitative analyses of mercury in ore/concentrate (as required in 4.8.2.1), and a modeling exercise to determine potential emissions of mercury to the atmosphere with and without BAT/BEP, and an analysis of the risks to human health or the environment posed by different options.</p> <p><u>Best available techniques (BAT)</u> for mercury removal include activated carbon adsorption and selenium adsorption in combination with dust filtration⁶⁵⁰, or, if non-ferrous metal production includes a sulfuric acid plant, there are a variety of processes that can be employed to remove mercury including wet scrubbers and other techniques (e.g., Boliden-Norzink process, Outotec process and others).⁶⁵¹</p> <p>Presently adopted BAT/BEP form a baseline for accuracy and effectiveness, but BAT and BEP may also include new</p>

⁶⁵⁰ European Commission Implementing Decision (EU) 2016/1032 of 13 June 2016 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for the non-ferrous metals industries. pp. 46 and 105. http://eippcb.jrc.ec.europa.eu/reference/BREF/BATC_NFM.pdf

⁶⁵¹ Section 2.12.5.5. Techniques to reduce mercury emissions. (Cusano, G., Gonzalo, M., Farrell, F., Remus, R., Roudier, S., Sancho, L. 2017. Best Available Techniques (BAT) Reference Document for the Main Non-Ferrous Metals Industries (European Union). EUR 28648, doi:10.2760/8224. http://eippcb.jrc.ec.europa.eu/reference/BREF/NFM/JRC107041_NFM_Bref_2017.pdf); and UN Economic and Social Council. 2013. Guidance Document on Best Available Techniques for Controlling Emissions of Heavy Metals and Their Compounds from the Source Categories Listed in Annex II to the Protocol on Heavy Metals. pp. 12 – 25. https://www.unece.org/fileadmin/DAM/env/documents/2012/EB/ECE_EB.AIR_116_E.pdf

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<p>4.8.2.2. (Critical Requirement) Mercury from <u>mercury emission control systems</u>:</p> <ol style="list-style-type: none"> Shall not be stored on-site or disposed with <u>tailings</u> after removal; Shall not be sold or given away either directly or indirectly to an entity engaged in <u>artisanal or small-scale mining</u>; and Shall be sold only for an end use listed in Annex A (Products) or Annex B (Processes) of the Minamata Convention on Mercury⁶⁵² or sent to a regulated repository for <u>mercury wastes</u>. 	<p>For 4.8.2.2: Review mercury disposal procedures and records.</p>	<p>For 4.8.2.2:</p> <ul style="list-style-type: none"> Documentation of transportation of ore-related mercury. Documentation of storage and/or disposal locations. Documentation of sale or distribution of mercury. 	<p>techniques if there is sufficient evidence to demonstrate that these techniques reduction in mercury emissions are equal to or greater than what occurs with more popular techniques or practices.</p> <p>Explanatory Note For 4.8.2.2: The intent of this requirement is to keep collected mercury in safe, long-term storage, and if mercury is relocated, to ensure that it is used or disposed in a manner that will minimize the amount of mercury released to the environment via air and water.</p> <p><u>Mercury wastes</u> may include elemental Hg, calomel, sulfidized carbon residue, etc.</p> <p>In 4.8.2.2.c, “regulated” refers to the certification and regulation of a <u>storage facility</u> by a governmental authority.</p> <p>Re: 4.8.2.2.c, Annexes A and B of the Minamata Convention on Mercury list phase-out dates after which the manufacture, import or export of the product shall not be allowed.⁶⁵³ Companies are expected to comply with those phase-out dates.</p>
<p>4.8.2.3. (Critical Requirement) As an exception to 4.8.2.2.a, wastes from <u>mercury emission control systems</u> that contain mercury may be stored or disposed of on-site only if:</p>	<p>For 4.8.2.3: If waste from <u>mercury emission control systems</u> is disposed on-site: confirm that a risk-based evaluation of the disposal has been carried out, and that the disposal occurs in a lined</p>	<p>For 4.8.2.3:</p> <ul style="list-style-type: none"> Risk-based evaluation of potential for mercury waste disposal to result in environmental contamination. Information on liners utilized (e.g., 	<p>Explanatory Note For 4.8.2.3: The on-site disposal of secondary <u>mercury waste</u> is anticipated to be only for relatively small amounts of mercury compounds for which it would otherwise be difficult to locate a regulated repository.</p>

⁶⁵² Annex A and B also list phase out dates after which the manufacture, import or export of the product shall not be allowed. Companies are expected to comply with those phase-out dates. The text and Annexes of the Minamata Convention are available at: www.mercuryconvention.org/Convention/tabid/3426/Default.aspx

⁶⁵³ Minamata Convention on Mercury. Text and Annexes. <http://www.mercuryconvention.org/Portals/11/documents/Booklets/COP1%20version/Minamata-Convention-booklet-eng-full.pdf>

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<p>a. A risk-based evaluation of the on-site storage or disposal of <u>mercury waste</u> demonstrates that the risk of long-term contamination is low; and</p> <p>b. Disposal occurs in fully lined <u>tailings storage facilities</u> using synthetic liners that have a permeability of 10^{-9} cm/sec or less.</p>	<p><u>tailings facility</u> with permeability less than 10^{-9} cm/sec.</p>	<p>technical specifications).</p>	<p>4.8.2.3 has been developed so that if on-site disposal of collected mercury occurs, that the disposal area offers essentially the same protections as a certified hazardous waste disposal facility.</p> <p>An operations plan for <u>mercury wastes</u> should be developed as per Chapter 4.1, requirement 4.1.5.5.a. This plan may be integrated in the general Operations, Maintenance and Surveillance plan in Chapter 4.1. As per Chapter 4.1, the effectiveness of <u>mine waste facility operations</u> (including those storing <u>mercury wastes</u>) should be evaluated on a regular basis.</p>
<p>4.8.3. Monitoring</p> <p>4.8.3.1. For each <u>mining project</u> with a source of mercury air emissions a mercury monitoring plan shall be developed in <u>consultation with relevant stakeholders</u>.</p> <p>4.8.3.2. The mercury monitoring plan shall address:</p> <p>a. Potential public health impacts (e.g., food source and blood level mercury);</p> <p>b. Environmental impacts monitoring (e.g., fish tissue and stream sediment mercury levels), including locations</p>	<p>For 4.8.3.1: Review mercury monitoring plan. Interview the operating company and relevant <u>stakeholders</u> (e.g., include public health agencies, concerned community groups and other interest groups like fishing associations from affected communities, government agencies, non-governmental environmental organizations, <u>indigenous peoples</u> and others who may consume fish from the local area, etc.) to confirm that <u>stakeholders</u> were consulted in the development of the mercury monitoring plan.</p> <p>For 4.8.3.2: Confirm that the monitoring plan addresses the elements listed in a through c. Interview <u>operating company</u> and review monitoring data to confirm that monitoring is occurring as outlined in the plan.</p>	<p>For 4.8.3.1 – 4.8.3.3:</p> <ul style="list-style-type: none"> Mercury monitoring plan. Documentation of stakeholder consultations undertaken during the development of the plan. <p>For 4.8.3.1 – 4.8.3.3:</p> <ul style="list-style-type: none"> Mercury monitoring plan. Documentation of stakeholder consultations undertaken during the development of the plan. 	<p>Explanatory Note for 4.8.3.1: The monitoring of for mercury air emissions may be incorporated into a broader air quality monitoring plan (See Chapter 4.3, criteria 4.3.3), and monitoring of mercury in water may be incorporated into the broader water monitoring program for the mining project (See Chapter 4.2, criteria 4.2.4.1).</p> <p>Explanatory Note for 4.8.3.2: This plan should include any air monitoring required as part of a regulatory permit requirement.</p> <p>“thermal processes” may include:</p> <ul style="list-style-type: none"> roasting operations and autoclaves that are used to pre-treat gold mine ore;

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<p>that are most likely to promote methylation, such as still waters, wetlands, and anaerobic sediment; and</p> <p>c. Mercury air emission monitoring, which shall be conducted at least annually for direct releases to the atmosphere from an autoclave, roaster, carbon kiln, refining furnace, or other thermal process that has an emission control system.⁶⁵⁴</p> <p>4.8.3.3. The mercury monitoring plan shall include the monitoring of:</p> <p>a. The quantity of mercury released to air including fugitive emissions (to the extent technologically and economically feasible with air monitoring equipment);</p> <p>b. The quantity of mercury released to water, including the forms of mercury;</p>	<p>For 4.8.3.3: Confirm that the monitoring plan includes the elements listed in a through e. Interview <u>operating company</u> and review monitoring data to confirm that monitoring is occurring as outlined in the plan.</p>	<p>For 4.8.3.1 – 4.8.3.3:</p> <ul style="list-style-type: none"> Mercury monitoring plan. Documentation of stakeholder consultations undertaken during the development of the plan. 	<ul style="list-style-type: none"> carbon regeneration kilns; pregnant and barren tanks; electrowinning cells; retorting and smelting; and melt furnaces. <p>Definitions for these processes can be found at: https://www.law.cornell.edu/cfr/text/40/63.11651</p> <p>The regular sampling locations and frequency to be sampled should be developed and, ideally also conducted, in <u>consultation</u> with relevant <u>stakeholders</u> from <u>affected communities</u> (as per Chapter 2.1, requirement 2.1.9.4).</p> <p>The ultimate goal for mercury emission monitoring is the collection of real-time data. That is not realistic for water discharges, but might be technologically achievable for air emissions in the foreseeable future.</p> <p>Explanatory Note for 4.8.3.3.e: Sampling for methyl mercury would not need to occur in all water bodies. Sampling should focus on wetlands or other areas where methylation or bioaccumulation may occur.</p>

⁶⁵⁴ This includes air monitoring required as part of a regulatory permit requirement.

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<p>c. The amount of mercury captured in pollution control systems; and</p> <p>d. The amount of by-product mercury produced (including the mercury captured in pollution control systems); and</p> <p>e. Methyl mercury and sulfate, if mines have a mercury recovery system. In such cases, sampling shall be regularly conducted in wetlands and water bodies on or near the mine site.</p> <p>4.8.4. Reporting</p> <p>4.8.4.1. The operating company shall report publicly, at least annually, a summary report of the findings from the implementation of the mercury monitoring plan, including the monitoring data.</p>	<p>For 4.8.4.1: Review company website and/or interview company and stakeholders to confirm that information is publicly available (e.g., published annually on the mine or company website, or otherwise available to the public).</p>	<p>For 4.8.4.1:</p> <ul style="list-style-type: none"> • Monitoring data and summary of monitoring findings, summary of mercury management. • Documentation showing that information is publicly available on a website, or in publicly accessible locations. • Records of meetings with stakeholders where information related to the mercury monitoring plan and results has been shared. 	<p>Explanatory Note for 4.8.4.1: Public reporting means that the information should be conveyed to general <u>stakeholders</u> either through verbal presentations, through documents published on the company’s website, or in hard copies in publicly accessible locations.</p> <p>The objective is for those interested to be able to easily calculate the efficiency of the mercury capture systems, and to track the amount and location of mercury disposed.</p> <p>As per IRMA Chapter 1.2, public communications should be in formats and languages that are appropriate for stakeholders and <u>affected communities</u>.</p>

NOTES

The US EPA “National Emission Standards for Hazardous Air Pollutants: Gold Mine Ore Processing and Production Area Source Category regulations, effective December 16, 2010, are the only existing national mercury emissions standards for mining.

The EU regulates mercury emissions from major industrial sources (EU Directive 96/61/EC on Integrated Pollution Prevention and Control). These standards do not include direct mining provisions but are intended to reduce mercury use and target the "metallic mercury gained from non-ferrous mining and smelting operations" by prohibiting metallic mercury export and by-product sales and requiring safe metallic mercury storage.

IRMA recognizes both the paucity of existing regulations and the high cost of monitoring and collecting mercury from mine emission sources, and seeks to begin to develop better air monitoring though targeted approaches that use broad, less expensive testing protocols to determine if more testing is necessary. Given the significant health risks associated with mercury, and the challenges and costs associated with reducing mercury once it enters environmental pathways, it is important that accurate information is available on all mercury emissions from mines independently assessed under IRMA.

This chapter of the IRMA Standard seeks to reduce the costs to public health associated with mercury exposure, and the technical challenges of removing mercury once it is in the environment, by encouraging source control – preventing mercury from getting into the environment in the first place.

Researchers have documented fugitive mercury air emissions from non-thermal sources at mines, most notably heap leach facilities.⁶⁵⁵ However, mercury air emission testing for fugitive mercury from non-thermal sources can be expensive. Further research is needed to assess the pervasiveness of these non-thermal sources,⁶⁵⁶ as well as to verify the reliability of the thermal-source measurements. The IRMA Steering Committee is considering ways to incentivize companies to engage in research to help elucidate the scale and scope of these emissions.

Cross References to Other Chapters	
CHAPTER	ISSUES
1.1—Legal Compliance	As per Chapter 1.1, if there are <u>host country laws</u> governing mercury transport, storage, use, etc., the <u>operating company</u> is required to abide by those laws. If IRMA requirements are more stringent than <u>host country law</u> , the company is required to also meet the IRMA requirements, as long as complying with them would not require the company to violate <u>host country law</u> .
1.2—Community and Stakeholder Engagement	Requirement 4.8.3.1 shall conform with the <u>stakeholder engagement</u> requirements in Chapter 1.2. In particular, criterion 1.2.3 is important to ensure that <u>stakeholders</u> have the capacity to participate in mercury monitoring. Also, regarding reporting of data in 4.8.4, requirement 1.2.4 requires that communications be in formats and languages that are culturally appropriate, <u>accessible</u> and understandable to <u>affected communities and stakeholders</u> .
1.4—Complaints and Grievance Mechanism and Access to Remedy	<u>Stakeholders</u> who have complaints related to an <u>operating company's</u> use of mercury, can raise complaints through the company's operational-level <u>grievance mechanism</u> . As per Chapter 1.4, the <u>operating company</u> is required to have an operational-level <u>grievance mechanism</u> available to <u>stakeholders</u> , including procedures for filing complaints, and having complaints recorded, investigated and resolved in a timely manner.
2.1—Environmental and Social Impact Assessment and Management	If mercury is identified during ESIA as a key risk to human health or the environment, <u>stakeholders</u> shall be provided with the opportunity to propose independent experts to collaborate with the company on the design and implementation of its mercury monitoring program; and the company is required to facilitate the independent monitoring of key impact indicators where this would not interfere with the safe operation of the project.

⁶⁵⁵ See: Joyce, P and Miller, G. Mercury Air Concentrations in Northern Nevada: Monitoring Active Metals Mines as Sources of Mercury Pollution. University of Nevada, Reno, Department of Natural Resource & Environmental Science, January 2007; and most recently: Miller, M and Gustin, M. Testing and Modeling the Influence of Reclamation and Control Methods for Reducing Non-Point Mercury Emissions Associated with Industrial Open Pit Gold Mines. Journal of the Air & Waste Management Association, 2013 Jun;63(6):681-93.

⁶⁵⁶ Eckley CS, Gustin M, Miller MB, Marsik F. 2011. Nonpoint source Hg emissions from active industrial gold mines-influential variables and annual emission estimates. Environmental Science and Technology 45 (2) 392-399.

Cross References to Other Chapters	
2.5—Emergency Preparedness and Response	The protection of communities and workers during emergencies related to the transport and storage of hazardous substances, such as mercury, may be addressed in Emergency Response Planning. Chapter 2.5 mandates emergency response planning for a spill, and requires coordination between the mine and emergency responders in potentially <u>affected communities</u> .
3.2—Occupational Health and Safety	Mercury may present an occupational health and safety (OHS) hazard, and if so, may be included in the OHS risk assessment process.
3.3—Community Health and Safety	Mercury emissions may present health risks to communities, and if there are thermal mercury sources at the mine then risks from mercury exposure should be analyzed during the community health and safety risk and impact assessment process.
3.6—Artisanal and Small-Scale Mining	Although requirement 4.8.2.2 mentions a prohibition on selling or giving away mercury to <u>artisanal and small-scale mining (ASM)</u> operations, the primary requirements related to interactions between the large-scale mines that apply for IRMA independent assessment and <u>ASM</u> entities are addressed in Chapter 3.6.
4.1—Waste and Materials Management	If mercury wastes are generated and recovered from thermal processes, 4.8.2.3 requires a risk-based evaluation before the <u>operating company</u> can store or dispose of those wastes on site (e.g., co-disposed in <u>tailings facilities</u>). This requirement may be met through the risk assessment process in Chapter 4.1, requirement 4.1.4.1. As per 4.1.4.1, if mercury is disposed of onsite the risk assessment should be updated if there is a potential that risks from such disposal may increase (e.g., more mercury waste is being produced than initially estimated). If mercury wastes are stored or disposed of on-site, relevant information should be included in the Operation, Maintenance and Surveillance plan as per 4.1.5.5.a.
4.2—Water Management	Mercury monitoring in water, as required in 4.8.3, may be incorporated into the water management program in Chapter 4.2 (see criteria 4.2.4). As per Chapter 4.2, if mercury is expected to be present in any effluent from the mine then monitoring for mercury would be required and concentrations in surface and groundwaters would be expected to meet <u>IRMA Water Quality Criteria</u> for relevant end uses of those waters (see Tables 4.2a through h).
4.3—Air Quality	If mercury is identified as a potential air contaminant in Chapter 4.3 then Chapter 4.8 applies. Mercury monitoring in air, as required in 4.8.3, may be incorporated into the air quality management plan and monitoring program in Chapter 4.3 (see criteria 4.3.2 and 4.3.3).
4.6—Biodiversity, Ecosystem Services and Protected Areas	If there is the potential that mercury emissions from mining-related activities (e.g., thermal processes, effluent) may pose a threat to <u>biodiversity (e.g., threatened or endangered species)</u> , <u>ecosystem services</u> or <u>protected areas</u> , then the potential impacts should be further assessed as per Chapter 4.6 (see 4.6.3).

TERMS USED IN THIS CHAPTER

Not all terms in the Cross References Table are defined below. For those terms, see the Glossary of Terms at the end of the IRMA Standard document.

Affected Community

Local communities that are subject to risks or impacts from a project.

Artisanal and Small-Scale Mining

Formal or informal operations with predominantly simplified forms of exploration, extraction, processing and transportation. ASM is normally low capital intensive and uses high labour intensive technology. ASM can include men and women working on an individual basis as well as those working in family groups, in partnership or as members of cooperatives or other types of legal associations and enterprises involving

hundreds or thousands of miners. For example, it is common for work groups of 4-10 individuals, sometimes in family units, to share tasks at one single point of mineral extraction (e.g. excavating one tunnel). At the organisational level, groups of 30-300 miners are common, extracting jointly one mineral deposit (e.g. working in different tunnels), and sometimes sharing processing facilities.

Best Available Techniques (BAT)

Techniques that can most effectively achieve a high level of environmental protection and allow implementation in relevant sectors under economically and technically viable conditions. “Techniques” includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned; “Available” techniques means those techniques that are accessible to the operator and that are developed on a scale that allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages; and “Best” means most effective in achieving a high general level of protection of the environment as a whole.

Best Environmental Practices

The application of the most appropriate combination of environmental control measures and strategies.

Consultation

An exchange of information between a company and its stakeholders that provides an opportunity for stakeholders to raise concerns and comment on the impacts and merits of a proposal or activity before a decision is made. In principle the company should take into account the concerns and views expressed by stakeholders in the final decision.

Existing Mine

A mine that was operational prior to the date that the IRMA standard was published in final (June 2018).

Facility

The term facility is widely utilized in this Standard, and for the most part is associated with a specific type of facility that is that is self-described (e.g., stormwater facilities, waste rock facilities, tailings facility, etc.). However, in a number of instances the term facility is used more generically. For example, “mine facilities” include any facilities owned by the operating company that are located on the mine-lease property, and “associated facilities” are facilities essential to and developed because of the mining project. See “Associated Facility” elsewhere in the Glossary.

Heap Leach/Heap Leaching

An industrial mining process to extract precious metals, copper and other compounds from ore. Typically, mined ore is crushed and heaped on an impermeable leach pad, and chemicals (reagents) are applied that percolate through the ore and absorb specific minerals and metals. The solution is collected and target metals are recovered from the solution.

Indigenous Peoples

An official definition of “indigenous” has not been adopted by the United Nations system due to the diversity of the world’s indigenous peoples. Instead, a modern and inclusive understanding of “indigenous” includes peoples who: identify themselves and are recognized and accepted by their community as indigenous; demonstrate historical continuity with pre-colonial and/or pre-settler societies; have strong links to territories and surrounding natural resources; have distinct social, economic or political systems; maintain distinct languages, cultures and beliefs; form non-dominant groups of society; and resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities. In some regions, there may be a preference to use other terms such as: tribes, first peoples/nations, aboriginals, ethnic groups, Adivasi and Janajati. All such terms fall within this modern understanding of “indigenous.”

Mercury Emissions Control System

Any system that will limit mercury emissions (either designed specifically for mercury, or mercury capture is a co-benefit), including sorbent technologies that can remove mercury from the gas stream during processing, or oxidation technologies that will increase the percentage of particulate-bound mercury removed by particulate scrubbers.

Mercury Waste

Substances or objects consisting of mercury or mercury compounds, containing mercury or mercury compounds, or contaminated with mercury or mercury compounds, that are disposed of, are intended to be disposed of, or are required to be disposed of by provisions of national law or applicable conventions. Mercury waste does not include ores or waste rock that contain trace quantities of naturally occurring mercury or mercury compounds.

Mining Project

Any set of activities undertaken for the purpose of extracting mineral resources, and the infrastructure and associated facilities required to support these activities. Mining projects may include exploration, mine construction, mining, mine closure, post-closure and related activities either as separately or in combination.

New Mine

A mine that becomes operational and applies for IRMA verification after the date that the IRMA standard was published in final (June 2018).

Operating Company

An operating entity, effectively in control of managing a mine site, or close agglomeration of sites within one operating entity, especially if there are shared facilities.

Stakeholder

Persons or groups who are directly or indirectly affected by a project, such as rights holders, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively.

Tailings

The waste stream resulting from milling and mineral concentration processes that are applied to ground ore (i.e., washing, concentration, and/or treatment). Tailings are typically sand to clay-sized materials that are considered too low in mineral values to be treated further. They are usually discharged in slurry form to a final storage area commonly referred to as a tailings storage facility (TSF) or tailings management facility (TMF).

Waste Rock

Barren or mineralized rock that has been mined but is of insufficient value to warrant treatment and, therefore, is removed ahead of the metallurgical processes and disposed of on site. The term is usually used for wastes that are larger than sand-sized material and can be up to large boulders in size; also referred to as waste rock dump or rock pile.

For a full list of terms used in the Standard, see the [Glossary of Terms](#) at the end of the document.