Initiative for Responsible Mining Assurance

Excerpt from the DRAFT Standard for Responsible Mining and Mineral Processing 2.0

Chapter 2.5 – Community Emergency Preparedness and Response

Context & Disclaimer on IRMA DRAFT Standard 2.0

IRMA DRAFT Standard for Responsible Mining and Minerals Processing 2.0 is being released for public consultation, inviting the world to join in a conversation around expectations that drive value for greater environmental and social responsibility in mining and mineral processing.

This draft document invites a global conversation to improve and update the 2018 IRMA Standard for Responsible Mining Version 1.0. It is not a finished document, nor seeking final review, but rather is structured to invite a full range of questions, comments and recommendations to improve the IRMA Standard.

This IRMA DRAFT Standard for Responsible Mining and Minerals Processing (v.2.0) has been prepared and updated by the IRMA Secretariat based on learnings from the implementation of the Standard (v.1.0), experience from the first mines independently audited, evolving expectations for best practices in mining to reduce harm, comments and recommendations received from stakeholders and Indigenous rights holders, and the input of subject-specific expert Working Groups convened by IRMA in 2022.

IRMA's Standard has a global reputation for comprehensive in-depth coverage addressing the range of impacts, as well as opportunities for improved benefit sharing, associated with industrial scale mining. This consultation draft proposes a number of new requirements; some may wonder whether IRMA's Standard already includes too many requirements. The proposed additions are suggested for a range of reasons (explained in the text following), including improving auditability by separating multiple expectations that were previously bundled into a single requirement, addressing issues that previously weren't sufficiently covered (e.g. gender, greenhouse gas emissions), and providing more opportunities for mining companies to receive recognition for efforts to improve social and environmental protection.

Please note, expert Working Groups were created to catalyze suggestions for solutions on issues we knew most needed attention in this update process. They were not tasked to come to consensus nor make formal recommendations. Their expertise has made this consultation document wiser and more focused, but work still lies ahead to resolve challenging issues. We encourage all readers to share perspectives to improve how the IRMA system can serve as a tool to promote greater environmental and social responsibility, and create value for improved practices, where mining and minerals processing happens.

The DRAFT Standard 2.0 is thus shared in its current form to begin to catalyze global conversation and stakeholder input. It does not represent content that has been endorsed by IRMA's multistakeholder Board of Directors. IRMA's Board leaders seek the wisdom and guidance of all readers to answer the questions in this document and inform this opportunity to improve the IRMA Standard for Responsible Mining.

IRMA is dedicated to a participatory process including public consultation with a wide range of affected people globally and seeks feedback, comments, questions, and recommendations for improvement of this Standard. IRMA believes that diverse participation and input is a crucial and determining factor in the effectiveness of a Standard that is used to improve environmental and social performance in a sector. To this end, every submission received will be reviewed and considered.

The DRAFT Standard 2.0 is based on content already in practice in the IRMA Standard for Responsible Mining Version 1.0 (2018) for mines in production, combined with the content drafted in the IRMA Standard for Responsible Mineral Development and Exploration (the 'IRMA-Ready' Standard – Draft v1.0 December 2021) and in the IRMA Standard for Responsible Minerals Processing (Draft v1.0 June 2021).

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.

TERMS USED IN THIS CHAPTER

This is a list of the terms used in the chapter ■ Each term is separated with ■

Terms listed here are identified in the chapter with a dashed underline. And they are defined in the Glossary of Terms at the end of the chapter.

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 or mineral processing sites. If the entity can provide evidence that a chapter is not relevant, that chapter will not need to be included in the scope of the IRMA assessment. A requirement is 'not relevant' if the issue to which a requirement relates is not applicable at the site. For example, requirements related to the use of cyanide would not be relevant at a site at which cyanide is never used.

Chapter Requirements

X.X.X. These are criteria headings

X.X.X.X. And these are the requirements that must be met for an IRMA assessment to be issued and subsequently maintained by a site. 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.
    ii. Operations 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.

GLOSSARY OF TERMS USED IN THIS CHAPTER

Terms used in the chapter are defined here.

ANNEXES AND TABLES

Annexes or Tables are found here.

IRMA Critical Requirements

The 2018 IRMA Standard for Responsible Mining v. 1.0 includes a set of requirements identified as being critical requirements. Operations being audited in the IRMA system must at least substantially meet these critical requirements in order to be recognized as achieving the achievement level of IRMA 50 and higher, and any critical requirements not fully met would need to have a corrective action plan in place describing how the requirement will be fully met within specified time frames.

The 2023 updates to the 2018 Standard may edit some critical requirements in the process of revising and therefore there will be a further review specific to the language and implications of critical requirements that follows the overall Standard review.

Associated Documents

This document is an extract of the full DRAFT IRMA FOR RESPONSIBLE MINING AND MINERAL PROCESSING (Version 2.0) – DRAFT VERSION 1.0, released in October 2023 for a public-comment period. The English-language full version should be taken as the definitive version. IRMA reserves the right to publish corrigenda on its web page, and readers of this document should consult the corresponding web page for corrections or clarifications.

Readers should note that in addition to the DRAFT Standard, there are additional policies and guidance materials maintained in other IRMA documents, such as IRMA's Principles of Engagement and Membership Principles, IRMA Guidance Documents for the Standard or specific chapters in the Standard, IRMA Claims and Communications Policy and other resources. These can be found on the IRMA website in the Resources section. Learn more at responsiblemining.net

Comment on the IRMA Standard

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

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

Chapter 2.5
Community Emergency Preparedness and Response

NOTES ON THIS CHAPTER: We are proposing to rename this chapter Community Emergency Preparedness and Response. It was 'Emergency Preparedness and Response' in the 2018 Mining Standard.

Proposed additions and changes:

The requirements in this draft chapter take a different approach compared to the IRMA 2018 Mining Standard, which did not outline many specific requirements related to emergency response planning, but rather, expected that sites follow the UN Awareness and Preparedness for Emergencies and the Local Level (APELL) guidance for mining. The reference to that external document made it very difficult to audit, because there were not clear metrics against which all entities would be consistently measured.

This proposed new chapter provides such metrics (unless otherwise noted, the requirements are NEW). The new requirements have been drawn from the UN APELL guidance for mining, and also UN APELL general guidance, International Labour Organization (ILO) Convention 174, and the Global Industry Standard on Tailings Management (GISTM).[1] [These are referenced in the requirements below]

This approach was tested in the draft IRMA Mineral Processing Standard, and feedback on that draft has helped to inform this proposed chapter.

Note, as well, that we have moved emergency preparedness and response measures that pertain to on-site accidents and unwanted events into Chapter 3.2 – 'Occupational Health and Safety,' as emergency preparedness and response plans for workers would often not require the engagement of outside entities (unless the accident was large enough to affect external stakeholders or, accidents within the site boundary necessitated outside resources).

Glossary:

- We are proposing new/revised definitions for several glossary terms. The 'Terms Used In This Chapter' box shows which terms are new, and the proposed definitions can be found in the glossary at the end of the chapter requirements. The full glossary is at the end of the document. Feedback on definitions is welcome.

BACKGROUND

Modern mines and mineral processing operations have the potential for accidental releases that create risks for nearby communities and the environment. In some cases, the results can be catastrophic, such as the release of fluids and tailings from the failure of a tailings impoundment. There are, however, other risks associated with mines and mineral processing sites in general because these sites require the transport and use of hazardous materials such as petroleum and chemicals, and create the potential for catastrophic explosions, fires, releases of gas, transport-related spills of hazardous materials or chemicals.

[1] United Nations Environment Programme. 2001. Awareness and Preparedness for Emergencies and the Local Level (APELL) for Mining. Technical Report 41. https://preparecenter.org/wp-content/uploads/2021/04/Apell-mining-UNEP.pdf

United Nations Environment Programme. 2015. Awareness and Preparedness for Emergencies and the Local Level (APELL), 2nd Edition.

International Labour Organization. C174-Prevention of Major Industrial Accidents Convention, 1993. https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312319

Occupational Health and Safety Assessment Series (OHSAS) 18001/2. Not freely available.

Global Tailings Review. 2020. Global Industry Standard on Tailings Management. https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf

Operating entities have direct responsibility for minimizing risks (through prevention, mitigation, and preparedness) and developing effective plans for responding to emergencies or major accidents. Entities should work with contractors and suppliers of hazardous materials to put adequate emergency response plans in place to deal with both on-site and off-site accidents. They also have direct responsibility for minimizing risks from tailings storage facilities and other similar high-risk facilities (also referred to as critical facilities). It is also important for entities 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.

TERMS USED IN THIS CHAPTER

Accessible ■ Accident NEW ■ Affected Community ■ Breach Analysis NEW ■ Collaborate ■ Consultation ■ Contractor ■ Critical Facility NEW ■ Displacement ■ Emergency Scenario NEW ■ Emergency Situation NEW ■ Entity NEW ■ Exploration NEW ■ Facility ■ Hazard NEW ■ Hazardous Material NEW ■ Livelihoods ■ Mineral Processing NEW ■ Mining NEW ■ Operation NEW ■ Site NEW ■ Stakeholder ■ Supplier ■ Unwanted Event NEW ■ Vulnerable Groups

These terms appear in the text with a dashed underline. For definitions see the Glossary of Terms at the end of this chapter.

OBJECTIVES/INTENT OF THIS CHAPTER

To work with communities and other stakeholders to plan for and be prepared to respond effectively to industrial emergency situations that may affect off-site resources or communities, and to minimize the likelihood of accidents, loss of life, injuries, and damage to property, environment, health and social well-being.

SCOPE OF APPLICATION

RELEVANCE: This chapter is applicable to all exploration, mining and mineral processing projects and operations.

As per IRMA Chapter 1.1, the entity is also responsible for ensuring that contractors with which it works (e.g., those involved with transport of bulk hazardous materials and wastes that could cause an off-site emergency situation) comply with relevant requirements in the IRMA Standard.

NOTE ON SCOPE OF APPLICATION: This proposed version of the IRMA Standard is meant to apply to exploration, mining, and mineral processing projects and operations (see definitions of project and operation), but not all requirements will be relevant in all cases. We have provided some high-level information below, but the IRMA Secretariat will produce a detailed Scope of Application for each chapter that will indicate relevancy on a requirement-by-requirement basis (and will provide some normative language where the expectations may slightly differ for proposed projects versus operations, or for mining versus mineral processing, etc.).

CRITICAL REQUIREMENTS IN THIS CHAPTER

All operations with significant off-site risks have an emergency response plan developed with affected communities (2.5.3.1) and there must be testing and drills of the plan that includes community stakeholders (2.5.4.3).

NOTE ON CRITICAL REQUIREMENTS: The 2018 IRMA Standard includes a set of requirements identified as being critical. Projects/operations being audited in the IRMA system must at least substantially meet all critical requirements in order to be recognized at the achievement level of IRMA 50 and higher, and any critical requirements not fully met need a corrective action plan for meeting them within specified time frames.

INPUT WELCOME: The proposed revisions to the 2018 Standard have led to new content, as well as edits of some critical requirements in the process. Therefore, there will be a further review of the language and implications of critical requirements prior to the release of a final v.2.0 of the IRMA Standard. During this consultation period we welcome input on any existing critical requirement, as well as suggestions for others you think should be deemed critical. A rationale for any suggested changes or additions would be appreciated.

Community Emergency Preparedness and Response Requirements

2.5.1. Identify Key Emergency Response Stakeholders and Capacity Needs

2.5.1.1. The entity identifies contractors, suppliers, public sector agencies, first responders, local authorities and institutions, and key individuals and organizations in potentially affected communities (hereafter referred to as "key stakeholders") that should be involved in emergency preparedness and response planning for industrial accidents and unwanted events related to the project/operation.

2.5.1.2. The entity consults with key stakeholders to determine their roles and responsibilities with respect to emergency preparedness and response, and the current resources available for key stakeholders to respond to emergencies related to the project/operation.

2.5.1.3. If deficiencies in resources or weaknesses in community response capabilities are identified, the entity collaborates with key stakeholders to develop and implement a plan to build capacity and resources necessary to facilitate effective emergency preparedness and response.

2.5.2. Identify and Assess Risks and Emergency Scenarios

2.5.2.1. The entity consults with key stakeholders to compile a comprehensive list of foreseeable industrial accidents and foreseeable unwanted events related to the project/operation that could pose risks to individuals or communities (i.e., health, safety, livelihoods, local economy), cultural heritage, property, or the environment.[2]

2.5.2.2. If there are any critical facilities that store or dispose of liquids or wastes (e.g., water dams, tailings facilities, etc.), the entity shares information on facility breach analyses and worst-case failure scenarios.[3]

NOTE ON 2.5.2.2: This aligns with GISTM [15.1.C]. The term critical facility was introduced in the new IRMA Chapter 4.X (see glossary at the end of this chapter for a definition).

2.5.2.3. The entity collaborates with key stakeholders to:

a. Assess the level of risk with each potential emergency scenario based on the potential severity of consequence and probability of occurrence of each possible accident or unwanted event, including, but not limited to the potential credible failure of critical facilities;
b. Identify and agree on key emergency scenarios to prioritize in the emergency preparedness and response plan, taking into consideration those that pose the greatest risk but also the greatest concern to communities; and
c. Identify measures to prevent and, if that is not possible, minimize the negative consequences that could occur from all potential key emergency scenarios.

NOTE ON 2.5.2.3: As mentioned above, the term critical facility was introduced in the new IRMA Chapter 4.X (see glossary at the end of this chapter for a definition). 2.5.2.3.a will use information generated in Chapter 4.X regarding the failure consequence classification of the critical facilities to inform the prioritization process.

2.5.2.4. The evaluation of emergency scenarios and assessment of risks are updated if there is a material change in the proposed project/operation or changes in the social, environmental or local economic context that could create new risks, or affect the probability or consequences of a potential accident or unwanted event, and emergency preparedness response plans are updated accordingly.

---

[2] "Foreseeable industrial accidents" related to the project/operation include but are not limited to potential credible failures of project/operation facilities (see proposed Chapter 4.X). "Foreseeable unwanted events" related to the project/operation, including but not limited to those involving transport of hazardous materials (see Chapter 4.1).

[3] For example, for tailings facilities, entities share tailings or water dam breach analyses and runout or inundation analyses for both the worst-case "sunny day" and worst-case storm-event scenarios of the loss of all tailings and water from the facility, and for the worst-case failure mode scenarios in terms of rate and volume of discharge from the facility. (These evaluations are required in proposed Chapter 4.X, criterion 4.X.1).

2.5.3. Emergency Preparedness and Response Planning

2.5.3.1. (Critical Requirement)
If significant risks to communities and/or the environment are identified, an emergency preparedness and response plan is developed in collaboration with key stakeholders. The plan:

a. Includes warning stages and measures, if appropriate,[4] and response measures to be taken in the event that industrial accidents or unwanted events occur, including immediate actions to save lives, protect vulnerable groups (e.g., children, the elderly, or people with disabilities), provide medical assistance, supply humanitarian aid, and minimize environmental harm;
b. Includes contact information for all key stakeholders and the actions to be taken to communicate with key stakeholders during warning stages and if an industrial accident or unwanted event were to occur;
c. Assigns actions to be taken by responsible staff (i.e., of the entity) and key stakeholders;
d. Includes estimates of human resources and budget required and a financing plan to ensure that funding is available for the effective implementation of the plan; and
e. Is publicly accessible in languages and formats that are understandable to community members.

NOTE ON 2.5.3.1: Requirement 2.5.1.1 in the 2018 Mining Standard required an emergency response plan, and that requirement was critical, so we have designated this one critical, too (for more on critical requirements see the note that accompanies 'Critical Requirements In This Chapter,' above). There was also a critical requirement in the 2018 Mining Standard to collaborate with potentially affected communities in the development of the emergency preparedness and response plans (2.5.2.1). This aspect is also integrated into the proposed 2.5.3.1.

The original requirement in the 2018 Standard has been expanded to include more details on what the plan includes. Several elements (sub-requirements a, d and e) were added to increase consistency with other management-type plans in the IRMA Standard.

Sub-requirements 2.5.3.1.a and b align with ISO 174 (Article 9), and sub-requirement 2.5.3.1.b generally aligns with requirement 13.4 in the GISTM, although we added more specificity (e.g., that special measures be taken to protect vulnerable groups).

2.5.4. Education, Training, and Testing

2.5.4.1. Periodically, the entity undertakes public awareness raising efforts to share information about the hazards and risks related to the operation and proposed emergency response measures. Information is communicated to potentially affected stakeholders in languages and formats that are understandable to them.

2.5.4.2. If relevant, emergency-response-related communications and media training takes place for relevant spokespeople within the entity and the community.

2.5.4.3. (Critical Requirement)
The following exercises are performed to test emergency response plans and document lessons learned:

a. Table top emergency response simulations occur annually or more frequently;
b. Drills and exercises with key community stakeholders occur every two years or more frequently; and
c. If relevant, on an annual basis or more frequently, early warning systems in communities are tested.

[4] Warning stages and measures could include, for example, Warning Level 1: no emergency situation is imminent, but certain indicators have been met (e.g., water level in tailings facility is above maximum operating level). Measure: Transfer some water to alternative storage pond, inspect impoundment. Alert environmental regulator and local authorities. Warning Level 2: imminent overtopping of tailings dam. Measure: stop discharging to tailings facility. Implement communications plan, set up incident command center, begin evacuation procedures and other procedures in emergency response plan.

NOTE ON 2.5.4.3: There was a similar requirement in the 2018 Mining Standard for testing emergency response plans (2.5.1.2). That requirement has been expanded to include table top emergency response simulations, testing of any early warning systems, and documentation of lessons learned.

It also includes engagement by the community in testing the plan, which was previously included in requirement 2.5.2.1 in the 2018 Mining Standard. Requirement 2.5.2.1 was a critical, so we have designated this one as critical too (for more on critical requirements see the note that accompanies 'Critical Requirements In This Chapter,' above).

2.5.5. Evaluation and Review

2.5.5.1. Emergency preparedness and response plans are evaluated annually and updated as necessary, taking into consideration:

a. Changes in personnel and key stakeholders and/or changes in contact information;
b. Challenges encountered or deficiencies identified during table top simulations or in-person drills;
c. Lessons learned from actual accidents or incidents at the operation or other similar operations; and
d. Grievances or input received from key stakeholders.

2.5.5.2. On annual basis, contact information for key stakeholders listed in the emergency response plan is reviewed and, if necessary, updated.

2.5.6. Response To and Recovery From Accidents and Unwanted Events

2.5.6.1. In the event of an actual emergency situation:

a. Emergency preparedness and response plans are implemented including immediate actions are taken to save lives, protect vulnerable groups,[5] provide medical assistance, supply humanitarian aid, and minimize environmental harm;
b. When the critical elements of the situation are stabilized, the entity:
    i. In collaboration with affected individuals and communities (hereafter "affected people") and their advisors, assesses social, environmental and local economic impacts, and the temporal nature of the impacts (e.g., short-, medium- and long-term);
    ii. In collaboration with affected people and their advisors, develops and implements an action plan to provide, as needed, restoration, reconstruction and recovery, and indicators to enable measurement of progress over time;
    iii. Enables participation of affected people in the restoration, reconstruction and recovery activities;
    iv. In collaboration with affected people and their advisors, develops and implements a monitoring program; and
    v. Provides funding to affected people to hire independent legal and/or technical advisors;
c. On a schedule agreed with affected peoples and their advisors, the entity reviews monitoring data and evaluates if measures in the action plan are being effectively implemented. If they are not, the entity, with collaborates with affected people and their advisors to develop and implement corrective actions; and
d. If emergency accidents or events may result in temporary or permanent physical or economic displacement, the entity undertakes actions in alignment with Chapter 2.4.

NOTE ON 2.5.6.1: NEW. This will only be relevant in the event that an accident or unwanted event occurs that affects communities or the environment. Some of the requirements align with concepts in GISTM

[5] What may constitute a 'vulnerable group' requiring additional focus depends on the context and the matter at hand. Entities should draw on stakeholder mapping, stakeholder interviews, project documentation, as well as site observations to determine whether all relevant stakeholders have been identified and included. For this requirement in particular, potentially vulnerable groups would include those most susceptible to (or unable to adapt to) a security-related event.

Principle 14, which requires engagement with stakeholders, assessment of impacts after immediate safety and survival needs have been met, working with stakeholders on reconstruction and recovery plans, including affected people in reconstruction/recovery activities, and collaborating on monitoring progress and adapting plans if necessary.

2.5.7. Public Liability Accident Insurance

2.5.7.1. Operations are covered by a public liability accident insurance policy for unplanned accidents or unwanted events.[6] The insurance coverage remains in force for as long as the entity has legal responsibility for the site/operation.

NOTE ON 2.5.7.1: This combines requirements 2.5.3.1, 2.5.3.2 and 2.5.3.3 from in the 2018 Mining Standard.

The intent of including an accident insurance requirement in the 2018 Standard was to require entities to obtain liability insurance in an amount sufficient to address an unplanned catastrophic accident, and the damage to people, property, livelihoods/economies and the environment that would result.

The importance of liability insurance cannot be overlooked. In January 2022, it was estimated that the compensation costs related to the Brumadinho tailings dam failure had cost the company US$3.66 billion (it is unclear what those numbers might be today).[7] Without coverage, that amount could send a company into bankruptcy, and as a result not only might those affected by the catastrophic event not be compensated, but the interim work to stabilize and maintain the site could also be affected, creating even more risk of harm.

As written, however, 2.5.7.1 does not require entities to (1) estimate the cost of the worst-case catastrophic event that could happen at the operation, or (2) have insurance in an amount that covers the full costs of a worst-case scenario.

IRMA has now added requirements for entities to carry out "failure consequence classifications", which involve estimating the human, economic, and environmental resources at risk if a facility were to fail (see proposed Chapter 4.X, requirement 4.X.1.7), which is informed by consultations with stakeholders (requirement 4.X.1.6). Based on those estimates, the compensation costs associated with the worst-case catastrophic event at an operation could be calculated.

CONSULTATION QUESTION 2.5-1: Should IRMA add requirements that the liability insurance needs to be in an amount sufficient to cover the costs related to the worst-case scenario for the failure of an operation's critical facilities (i.e., sufficient compensate affected peoples and communities, and restore livelihoods/economies and the environment)?

CONSULTATION QUESTION 2.5-2: It has been suggested to IRMA that there might be other financial instruments that could be put in place that would enable a company to cover the costs related to a major catastrophic incident. Do you know of any other financial instruments that have been used to cover the cost of major accidents/incidents? (Can you provide actual examples of alternative instruments being used?)

Conversely, would you have any objections to expanding this requirement to include other financial instruments? If so, why?

[6] Unplanned accidental events may include, but are not limited to: flood damage, landslides, subsidence, waste facility failures, major spills of process solutions, leaking tanks, etc.

[7] 24 January 2022. "Brumadinho mining disaster compensation cost reaches US$3.66bn for Brazil's Vale," BNAmericas. https://www.bnamericas.com/en/news/brumadinho-mining-disaster-compensation-cost-reaches-us366bn-for-brazils-vale

NOTES

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 and the Global Industry Standard on Tailings Management.[8]

Note that emergency response plans are included in Chapter 3.2—Occupational Health and Safety. If so desired, entities can combine the plan developed as part of this chapter into a single plan that covers all emergency preparedness and response plans.

CROSS REFERENCES TO OTHER CHAPTERS

This table will be added when the new content for all chapters is finalized and approved.

GLOSSARY OF TERMS USED IN THIS CHAPTER

PROPOSED NEW DEFINITIONS

Accident

An event that results in injury, ill health, fatality or damage to property or the environment.

Breach Analysis

A study that assumes a failure of a critical facility and estimates its impact. Breach analyses must be based on credible failure modes. The results should determine the physical area impacted by a potential failure, flow arrival times, depth and velocities, duration of flooding, and depth of material deposition. The breach analysis is based on scenarios which are not connected to probability of occurrence. It is primarily used to inform emergency preparedness and response planning and the consequence of failure classification. The classification is then used to inform the external loading component of the design criteria.

Source: Adapted from Global Industry Standard on Tailings Management. https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf

Critical Facility

A facility that has a high, very high or extreme failure consequence classification, or a significant consequence classification that includes potential loss of life.

Emergency Scenario

A description of a possible unwanted event or emergency situation that could pose an immediate risk to health, safety, life, property, or environment.

[8] United Nations Environment Programme. 2001. Awareness and Preparedness for Emergencies and the Local Level (APELL) for Mining. Technical Report 41. https://preparecenter.org/wp-content/uploads/2021/04/Apell-mining-UNEP.pdf

United Nations Environment Programme. 2015. Awareness and Preparedness for Emergencies and the Local Level (APELL), 2nd Edition.

International Labour Organization. C174-Prevention of Major Industrial Accidents Convention, 1993. https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312319

Occupational Health and Safety Assessment Series (OHSAS) 18001/2. Not freely available.

Global Tailings Review. 2020. Global Industry Standard on Tailings Management. https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf

Emergency Situation

Any situation arising from a sudden and unexpected event that poses an immediate risk to health, safety, life, property, or environment and requires immediate corrective action to restore normal operation.

Entity

A company, corporation, partnership, individual, or other type of organization that is effectively in control of managing an exploration, mining or mineral processing project or operation.

Exploration

A process or range of activities undertaken to find commercially viable concentrations of minerals to mine and to define the available mineral reserve and resource. May occur concurrent with and on the same site as existing mining operations.

Hazard

A potentially dangerous phenomenon, substance, human activity or condition. It may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

Source: International Federation of Red Cross and Red Crescent Societies. https://www.ifrc.org/document/hazard-definitions

Hazardous Materials

Chemicals and materials with properties or characteristics that make them a physical, health, or environmental hazard.

Mineral Processing

Activities undertaken to separate valuable and non-valuable minerals and convert the former into an intermediate or final form required by downstream users. In IRMA this includes all forms of physical, chemical, biological and other processes used in the separation and purification of the minerals.

Mining

Activities undertaken to extract minerals, metals and other geologic materials from the earth. Includes extraction of minerals in solid (e.g., rock or ore) and liquid (e.g., brine or solution) forms.

Operation

The set of activities being undertaken for the purpose of extracting and/or processing mineral resources, including the running and management of facilities and infrastructure required to support the activities, and the ongoing legal, environmental, social and governance activities necessary to maintain the business endeavor.

Project

The development phases before a mining or mineral processing operation can begin (e.g., exploration, pre-feasibility, feasibility, conceptual design, planning, permitting). Includes all desk-top and field-based activities, including exploration activities, needed to inform and develop a project proposal, support the environmental and social impact assessment of a proposal, generate information necessary to fulfill regulatory and permitting requirements, engage with stakeholders and rights holders, and maintain the entity's business endeavor.

Site

An area that is owned, leased, or otherwise controlled by the entity and where mining-related activities are proposed or are taking place.

Unwanted Event

A situation or condition where there may be or is a loss of control of a hazard that leads to harm.

Source: Adapted from the Government of Western Australia, Department of Mines, Industry Regulation and Safety. https://www.dmp.wa.gov.au/Safety/What-is-a-hazard-and-what-is-4721.aspx

EXISTING DEFINITIONS

Accessible

In reference to grievance mechanism or engagement processes, accessible means these mechanisms or processes 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/operation.

REVISED. Changed wording from project to project/operation.

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 that 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.

Contractor

An individual, company, or other legal entity that carries out duties related to a project/operation 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. It also includes contracted workers hired through third party contractors (e.g., brokers, agents, or intermediaries) who are performing mining-related activities at the project/operation site or associated facilities at any point during the project/operational life cycle (including prior to or during construction phase). See also 'Mining-Related Activities.'

REVISED. Added contracted worker as a type of contractor. Changed wording from mining project to project/operation.

Displacement (Economic and / or Physical)

A process by which the development of a project or operation causes people to lose land or other assets, or access to resources. This may result in physical and / or economic displacement, defined below. See also 'Involuntary Displacement' and 'Voluntary Displacement'.

- *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 people must move to another location.
- *Physical displacement:* the relocation or loss of shelter (i.e., residential housing) as a result of project- or operation-related land acquisition and/or restrictions on land use.

Source: Adapted from IFC. 2012. Performance Standard 5.

REVISED. We are proposing to combine definitions of physical and economic displacement under the broader category of 'displacement' as we more often refer to it in this general sense in the text.

Facility

Refers to any land, building, installation, structure, equipment, conveyance, or area that alone or together serve a particular purpose. In the IRMA Standard, the term may be associated with a specific type of facility that is self-described (e.g., tailings facility), but other examples of facilities are open pits, access roads, water dams, waste disposal sites, underground mine workings, beneficiation plants, brine ponds, slag piles, etc. See also 'Associated Facility'.

REVISED. Updated to be more descriptive.

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.

REVISED. Added that IRMA Standard uses grievances and complaints interchangeably.

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.

Livelihood

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.

Stakeholders

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

REVISED. Changed wording from persons to individuals, and from project to project/operation.

Suppliers

Those who are provide goods, services or materials to the project.

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, lesbian, gay, bisexual, transgender, queer or questioning (LGBTQ+) and gender-diverse individuals, and in some societies, women).

REVISED. Proposing to add reference to LGBTQ+ and gender-diverse individuals in the list of examples.

CONSULTATION QUESTION 1.X-2 (From proposed Chapter 1.X on Gender Equality and Protection): References to women and gender-diverse individuals as potentially "vulnerable" or as "vulnerable groups" may sound disempowering and/or otherwise not aligned with the objectives of this chapter to advance gender equality. Are there other widely recognized terms or phrases we could use that recognize the potential susceptibility of women and gender-diverse individuals to adverse impacts such as health impacts or lack of economic opportunities due to social biases or cultural norms?