IRMA

Initiative for Responsible Mining Assurance

EXCERPT FROM THE

IRMA Standard

for

Responsible Exploration, Extraction, and Processing of Minerals

2nd DRAFT

for public consultation

CHAPTER 2.6 – **Emergency Preparedness, Response, and Recovery**

IRMA Standard v2.0 DRAFT 2

July 2025

English Version

Disclaimer and Context on this Draft

The 2nd DRAFT Version of the IRMA Standard for Responsible Exploration, Extraction, and Processing of Minerals V2.0 (hereafter referred to as the "2nd DRAFT") is being released for public consultation, inviting the world to join once again in a conversation around expectations that drive value for greater environmental and social responsibility in mining and mineral processing.

The 2nd DRAFT does not represent content that has yet been formally endorsed by IRMA's equally-governed multi-stakeholder Board of Directors. IRMA's Board leaders seek the wisdom and guidance of all readers to inform this through an inclusive revision process one more time, to improve the Standard.

This draft document builds on the 1st DRAFT Version published in October 2023, and invites a global conversation to improve and update the 2018 IRMA Standard for Responsible Mining V1.0. This 2nd DRAFT is intended to provide as final of a look-and-feel as possible, although input from this consultation will result in final edits, and consolidation to reduce overall number of requirements (more on this on page 6), for a version that will be presented to IRMA's equally-governed multi-stakeholder Board of Directors for adoption and implementation.

This 2nd DRAFT has been prepared and updated by the IRMA Secretariat based on:

- learnings from the implementation of the current IRMA Standard (V1.0)
- experience from the first mines independently audited (as of July 2025, 24 sites have completed audits or are in the process of being audited)
- evolving expectations for best practices in mining to reduce harm
- comments and recommendations received from stakeholders and Indigenous rights-holders
- the input of subject-specific Expert Working Groups convened by IRMA between 2022 and 2024
- all comments and contributions received during the public-comment period of the 1st DRAFT version (October 2023-March 2024)

Please note that 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 exploration, extraction, and processing of minerals happens.

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.

This current 2nd DRAFT is based on content already in practice in the IRMA Standard for Responsible Mining V1.0 (2018) for mines in production, and its accompanying normative Guidance document and Supplementary Guidance, combined with the content drafted in the IRMA Standard for Responsible Mineral Development and Exploration ('IRMA-Ready' Standard – Draft v1.0 December 2021) and in the IRMA Standard for Responsible Minerals Processing (Draft v1.0 June 2021), and offers an updated version of the 1st DRAFT Version of the IRMA Standard V2.0 that received over 2,500 unique points of comments between 2023 and 2024.

Please note: The IRMA Standard V2.0 is new in its approach in that it now covers more phases of the mining and mineral supply chain, from exploration and development, through mining, closure, and mineral processing. IRMA also, separately, oversees a Chain of Custody Standard for tracking materials through the supply chain from mine-to-market end use products.

Disclaimer on Language and Corrections

For this public consultation, only an English version is available. A Glossary of Terms used in this Standard is provided at the end of the full version of the document (see below). 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.

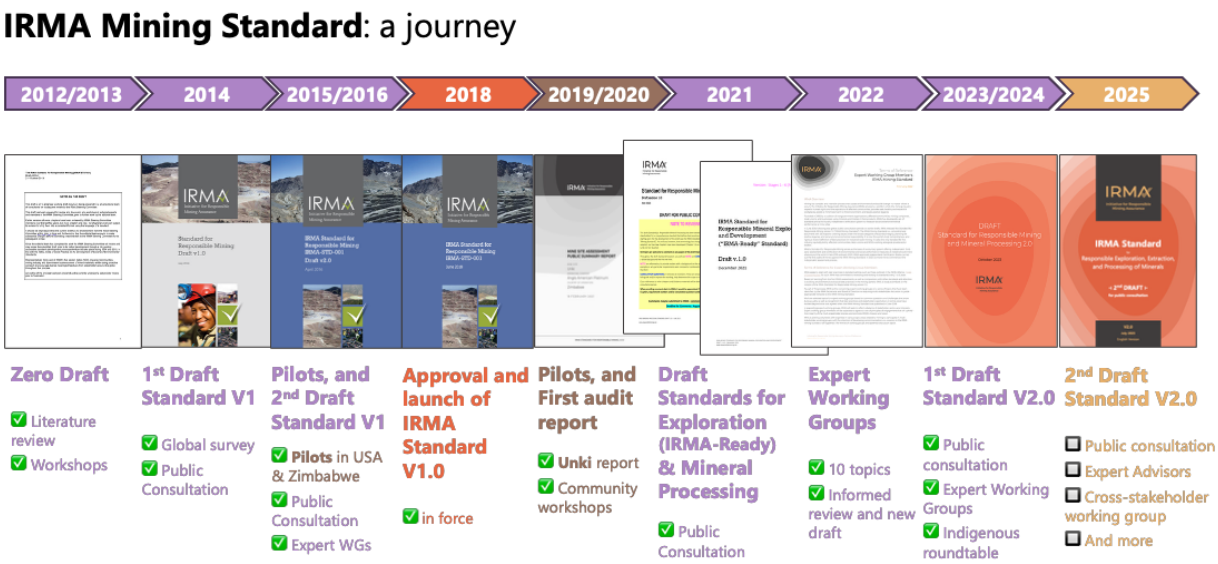
This document provides only one chapter excerpt from the IRMA Standard v2.0 DRAFT 2.

The full version contains 27 Chapters, click here to view it.

Objectives of this 2nd public consultation

Following the release of a 1st DRAFT of the IRMA Standard V2.0 in October 2023 for a 90-day public consultation, the IRMA Secretariat received more than 2,500 points of comments from 82 organizations, then organized additional engagement with stakeholders and Indigenous rights-holders, and solicited complementary guidance from multiple topic-specific Expert Working Groups.

We anticipated release of this 2nd DRAFT for a second round of public consultation as early as Q3 2024, then subsequently announced that more time was needed to support engagement of diverse stakeholders; the revised release date was July 2025. We provided more detailed explanation for the extended process here and here.



The release of this 2nd DRAFT marks a significant milestone on the road to the revision of the IRMA Standard: this public consultation will be the last of this revision cycle on V2.0.

Informed by the outcomes of this public consultation, along with guidance from Expert Advisors and IRMA Working Groups (see more below), and additional engagement with Indigenous rights-holders and stakeholders as requested, the IRMA Secretariat will prepare a final version. This final version will be discussed by the IRMA Board and refined to reach consensus for adoption by all six governing houses of IRMA: Affected Communities including Indigenous Rightsholders; Environmental and Social NGOs; Organized Labor; Finance and Investment Professionals; Mining Companies; Purchasers of Mined Materials.

In IRMA's strategic decision-making, Board members work to achieve consensus. IRMA believes a majority vote is not a model of equal governance. Instead, any motion that results in both of the two representatives from the same governing house voting "no" must go back to the full group for further discussion. In other words, a proposed course of action cannot proceed if both representatives from one of our six governing houses are opposed. Board members will keep talking until a resolution that works for all groups is found. It is a model that has worked for IRMA for nearly two decades and is fundamental to IRMA's credibility, accountability and service to all six houses of governance.

What is IRMA seeking guidance on?

Comments, feedback, and suggestions are welcome on any aspect of this 2nd DRAFT version (including intent and text of the requirements, endnotes, annexes, format and structure, design, readability, etc.).

IRMA is particularly interested in hearing the views of rights-holders and stakeholders on **the provisions in the Standard that are substantially new compared to the IRMA Standard for Responsible Mining V1.0.** These provisions (requirements or at a sub-requirement level) are highlighted in yellow throughout this Draft, to ensure they are easily identifiable.

We ask readers to assist us in weighing these potential new provisions, and also hold awareness that, prior to adoption of the final version, many of these will be consolidated and reduced in overall number.

Although these new requirements have each been drafted in response to lessons learned, the current state of best practices, emerging expectations, and/or in response to requests and suggestions made during the previous public consultation, collectively they represent substantive increased expectations for both implementing entities and audit firms. The IRMA Board of Directors seeks to ensure that the IRMA Standard, while recognized the world's most rigorous and comprehensive mining standard, continue to welcome and support uptake of newcomer companies engaging from the mineral supply chain around the world.

Thus, in this consultation, we seek guidance from all on **the new provisions that seem most urgent** to be integrated in the final version of the Standard V2.0, so that the revised Standard's expectations are paced at a realistic level to support engagement of mineral operations of a range of sizes, materials and global contexts.

It is important to note that all new requirements and sub-requirements, including those not retained in the final V2.0, will serve as the basis for the ongoing review process once the V2.0 is approved and released by our Board, and will provide fodder for future revisions, when it is decided that a V2.1 or V3.0 is needed.

Chapter 2.6
Emergency Preparedness, Response, and Recovery

SECOND DRAFT (JULY 2025): SUMMARY OF CHANGES

- Changed title to add 'and Recovery'.
- Additional clarification and guidance provided in endnotes.
- Marked the requirement related to non-mine-waste facilities "optional", since the corresponding identification and management requirements in Chapter 4.2 are proposed to be marked optional too (2.6.2.3).
- Integrated preparedness and response to spill and leaks, which was previously included under Chapter 4.1-Waste and Materials Management.
- Substantial structural changes to increase clarity and consistency with the rest of the Standard.

RESPONSE TO CONSULTATION QUESTIONS OUTLINED IN FIRST DRAFT

Question #	Question	Feedback Received and Proposed Decision
2.5-01	**(2.5.7 - Public Liability Accident Insurance)** **Question:** 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)?	**Feedback Received**: 8 responses received (4 mining, 1 NGO, 1 finance, 1 consultant, 1 audit firm). 4 respondents (3 mining, 1 audit firm) are not in favor, 3 respondents (1 mining, 1 finance, 1 consultant) are questioning the feasibility, and 1 respondent (NGO) supports the principle but suggests a more realistic alternative (to require a minimum liability coverage, e.g. USD$1 billion, unless evidence can be provided of a lesser site-specific worst-case liability limit). **Proposed Decision:** No change at this time. IRMA will consider the option of adding an optional requirement for a liability coverage for the worst-case failure scenario in a future update of the Standard, to allow for willing leading companies to be assessed against this.
2.5-02	**(2.5.7 - Public Liability Accident Insurance)** **Question:** It has been suggested to IRMA that there might be other financial instruments that could be put in place others 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?	**Feedback Received**: 4 responses received (2 mining, 1 Ngo, 1 consultant). No suggestions generated on other existing financial instruments. Alternatives suggested would take further research, and beyond-IRMA cross-stakeholder conversation and action to develop new ones and implement them (this could include an industry-led fund). **Proposed Decision:** Propose to add an "eye icon" to this requirement, to keep it under close watch, as the 2018 requirement has largely been poorly understood and audited to date.

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 also 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.

In the context of climate change, extreme weather events have and will also become more frequent and more powerful. Earthquakes, storms and hurricanes, heavy rains, floods, extreme temperature, fires and mega-fires, can exacerbate the risks of catastrophic events and accidents related to the operation, in and around the mine or mineral processing site.

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 potentially high-risk 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.

KEY REFERENCES

This chapter strongly builds on, or aligns with, the following international or multilateral frameworks, conventions, and guidance:

- UNEP, Awareness and Preparedness for Emergencies at Local Level (APELL)
- UNEP, Awareness and Preparedness for Emergencies and the Local Level (APELL) for Mining. Technical Report 41, 2001
- UNEP, Good Practice in Emergency Preparedness and Response, 2005
- ILO, Recommendation 183 on Safety and Health in Mines, 1995
- IFC Performance Standard 4: Community Health, Safety, and Security, 2012

OBJECTIVES OF THIS CHAPTER

To work with workers, 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

This chapter is applicable to all exploration, mining and mineral processing projects and operations. For each requirement, the following colors are displayed in the margin to indicate the phases for which it is required:

E1	Exploration – Stage 1
E2	Exploration – Stage 2
E3	Exploration – Stage 3
D	Project Development and Permitting
M	Operating Mine
P	Operating Mineral Processor

CRITICAL REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, critical requirements are identified using a red frame.
There are two (2) **critical requirements** in this Chapter.

OPTIONAL IRMA+ REQUIREMENTS IN THIS CHAPTER

Throughout the Standard, optional IRMA+ requirements are identified using a dotted blue frame. There is one (1) **optional IRMA+ requirement** in this Chapter.

In this second draft, IRMA introduces a new category of requirements: IRMA+. These requirements are aspirational and forward-looking. They reflect emerging expectations and recommendations from stakeholders, but currently go above and beyond existing and established best practice. IRMA+ requirements are entirely optional, and they will not affect the scores and achievement levels obtained by the entities choosing to be assessed against them.

ISSUES UNDER CLOSE WATCH (EYE ICON)

Public Liability Accident Insurance:

The requirement for having financial assurance, which could be in the form of an accident insurance policy/public liability accident insurance, able to cover the costs related to a major catastrophe (which include, but are not limited to: flood damage, landslides, subsidence, waste facility failures, major spills of process solutions, leaking tanks, etc.) included in the 2018 IRMA Standard V1.0 has been poorly understood and audited to date. It had been suggested to IRMA that there might be other financial instruments that could be put in place others that would enable a company to cover the costs related to a major catastrophe. Unfortunately, the standard revision process held between 2022 and 2024, including a 90-day period of public-comment and proactive engagement with subject matter experts, did not generate practical suggestions on other existing financial instruments. Alternatives suggested would take further research, and beyond-IRMA cross-stakeholder conversation and action to develop new ones and implement them (this could include an industry-led fund). It has also been suggested that the IRMA Standard should allow for any other financial instrument (existing or future) that is independently verified/verifiable, and as long as the instrument is dedicated to, or prioritizes, compensation/remediation over other aspects of loss (such as business loss).

Efforts have been made to clarify and strengthen the requirement as much as possible, this requirement (2.6.8.1) is signaled with an 'eye icon' to ensure that IRMA closely monitor its relevance, and its implementation as the Standard V2.0 is applied. This is also intended to ensure IRMA will review associated challenges and needed decision more quickly if necessary. Note that this requirement is not 'optional' (unlike IRMA+).

IRMA Requirements

2.6.1 Identification of Key Emergency Response Stakeholders

E2 E3 D M P

2.6.1.1 A process is undertaken by competent professionals to identify and document key stakeholders that will be involved in emergency preparedness and response planning[1] (hereafter referred to as "key stakeholders") for any potential industrial accident and unwanted event[2] related to the site and associated facilities, including among:

a. Employees, contractors, suppliers, and workers' health and safety representatives;

b. Public sector agencies, first responders, and local authorities and institutions; and

c. Rights-holders, stakeholders, individuals, businesses, and organizations that may be potentially affected by those potential industrial accidents and unwanted events[3].

E2 E3 D M P

2.6.1.2 Building on 2.6.1.1, the ENTITY consults and collaborates with key stakeholders to:

a. Determine and agree on their roles and responsibilities with respect to emergency preparedness and response;

b. Determine the current resources available for key stakeholders to respond to emergencies related to the site and its associated facilities, and identify any deficiency in resource or capacity in community response capabilities; and

c. If deficiencies in resources or weaknesses in community response capabilities are identified, develop and document a plan to build capacity and resources necessary to facilitate effective emergency preparedness and response.

2.6.2 Assessment of Risks and Emergency Scenarios

E2 E3 D M P

2.6.2.1 Building on the other relevant scoping and risk and impact assessment processes[4]:

a. An assessment of risk and emergency scenarios is carried out by competent professionals, in collaboration with key stakeholders, to compile a comprehensive list of foreseeable industrial accidents and foreseeable unwanted events related to the site and its associated facilities that could pose risks to individuals or communities[5], cultural heritage, property, or the environment[6];

b. This assessment evaluates the level of risk for each potential emergency scenario based on the potential severity of consequence and probability of occurrence of each possible accident or unwanted event identified[7];

c. It identifies, and agrees with key stakeholders, what the key emergency scenarios are to prioritize them in the emergency preparedness and response plan (or equivalent)[8];

d. It identifies measures to prevent the negative consequences that could occur from all potential key emergency scenarios, and, where prevention is not possible, measures to minimize them; and

e. If the prevention or mitigation measures identified in d. include emergency evacuations, the assessment identifies any facility and area where evacuation may be challenging[9].

E2 E3 D M P

2.6.2.2 If there is any proposed or existing mine waste facilities where one or more credible failure modes have been identified (see 4.2.5.1):

a. The identification and assessment of emergency scenarios take into account all those credible failure modes, including sunny-day and rainy-day failure scenarios, as appropriate;

b. The ENTITY proactively shares with key stakeholders information about: 1) any emergency scenario related to those facilities; 2) outcomes of the facility breach analyses; 3) facility consequence classifications; and 4) the physical areas potentially affected by a failure;

c. Proactively shares this information more widely with affected rights-holders and stakeholders; and

d. Ensures this information is used to inform the collaborative assessment process required in 2.6.2.1.

E2 E3 D M P

2.6.2.3 **IRMA+**

If there are any facilities other than tailings and waste facilities[10] where one or more credible failure modes have been identified (see 4.2.18.2), the ENTITY conforms with 2.6.2.2 for those facilities too.

2.6.3 Emergency Preparedness and Response Plan

E2 E3 D M P

2.6.3.1 Critical Requirement

Building on the assessment of risk and emergency scenarios required in 2.6.2, if potential industrial accident or unwanted event related to the site or its associated facilities that may result in adverse impacts to individuals or communities, cultural heritage, property, or the environment are identified, emergency preparedness and response plan/s (or equivalent) is developed and documented by competent professionals, as follows:

a. The plan is developed in collaboration with the key stakeholders (identified as per 2.6.1.1);

b. The plan includes warning stages, if appropriate, and response measures to be taken accordingly, in the event that industrial accidents or unwanted events occur[11];

c. It includes immediate measures to manage a disaster, save lives, protect individuals and groups that would be disproportionately affected[12], provide medical assistance, supply humanitarian aid, and minimize harm to animals and the environment;

d. It provides clear definition of roles, responsibilities and relationships of all (internal and external) stakeholders responsible for the development and/or implementation of (some or all of) the plan and associated procedures;

e. It includes contact information for all key stakeholders and the measures to be taken to communicate with them if an industrial accident or unwanted event were to occur[13];

f. It assigns implementation of preparedness measures and response measures to responsible staff with adequate skills and expertise, and to relevant key stakeholders;

g. It assigns responsibility to its top management level to oversee plan implementation, monitoring, and recordkeeping;

h. It includes an implementation schedule for preparedness measures;

i. It maintains estimates of human resources and budget required for the implementation of both preparedness measures and response measures;

j. It includes a financing plan in place to ensure that funding is available for the effective implementation of the preparedness measures; and

k. The ENTITY makes and maintains publicly accessible the plan[14], in languages and formats that are understandable to affected rights-holders and stakeholders, in accordance with Section 1.2.3.

E2 E3 D M P

2.6.3.2 To manage off-site and on-site spills, leaks, or releases of hazardous materials and hazardous wastes (identified as per Chapter 4.1):

a. The emergency preparedness and response plan/s includes specific spill preparedness and response measures[15];

b. These measures are developed in collaboration with the key stakeholders (identified as per 2.6.1.1);

c. They include instructions for evacuations, if relevant[16];

d. These measures include regular training of relevant workers, contractors, and emergency response providers, on procedures, methods and materials used for containment, clean-up, decontamination, and remediation[17];

e. They also includes regular training on appropriate personal protective equipment and clothing for workers or contractors engaged in spill response;[18]

f. They also include regular training on any relevant fire-fighting measures, including: 1) Appropriate extinguishing equipment, and information about equipment that is not appropriate for a particular situation; and 2) Special protective equipment or precautions related to hazardous combustion products; and

g. They also include regular training on relevant first-aid instructions for exposures that may occur during spill response, including: 1) Instructions on where to locate safety data sheets and other relevant information related to the chemicals of concerns; 2) Instructions for all relevant routes of exposure for relevant chemicals (inhalation, skin and eye contact, and ingestion); 3) Description of likely symptoms or effects related to exposure to relevant chemicals, including symptoms that are acute or delayed; and 4) Instructions on any immediate medical care and treatment(s).

2.6.4 Specific Training and Testing Measures

E2 E3 D M P

2.6.4.1 **Critical Requirement**

The following types of training and testing are performed and documented to test the emergency response plans required in 2.6.3:

a. At least annually, and without delay if the ENTITY has developed or undertaken significant modifications to the plan, **tabletop discussions** that include ENTITY personnel responsible for emergency response, local emergency response personnel, and other key community stakeholders, and, if relevant, testing of early warning systems in communities[19];

b. At least every three years, and without delay if the ENTITY has developed or undertaken significant modifications to the plan, a full, on-the-ground, **emergency response simulation** with the ENTITY's personnel responsible for emergency response, local emergency response personnel, key community stakeholders, and where possible the wider affected population; and

c. Lessons learned and identified corrective measures are documented.

E2 E3 D M P

2.6.4.2 At least annually, or more frequently if requested by affected rights-holders and stakeholders, the ENTITY:

a. Undertakes public awareness-raising efforts to proactively share information with potentially affected people, in languages and formats that are culturally appropriate and easily accessible to them[20], about the hazards and risks related to the site and its associated facilities, and proposed emergency response measures;

b. Proactively shares information with local authorities and emergency services about the hazardous properties, and health and environmental effects, of the hazardous materials and hazardous wastes that may pose a risk to communities, workers or the environment if there were to be an incident or spill; and

c. Ensures that relevant spokespeople within the ENTITY and the community receive training on emergency-response-related communications and media engagement.

2.6.5 Monitoring and Evaluation

E2 E3 D M P

2.6.5.1 To monitor and evaluate the effectiveness and appropriateness of its emergency preparedness measures and response measures to prevent the negative consequences that could occur from all potential key emergency scenarios, the ENTITY, at least annually:

a. Tracks and documents its performance on ensuring preparedness measures, including regular training and testing, against its implementation schedule;

b. Tracks and documents changes in personnel and key stakeholders and/or changes in contact information; and

c. Includes continuous feedback from internal and external sources in the monitoring and evaluation, including from key stakeholders and affected communities, in accordance with Chapter 1.2.

2.6.6 Continuous Improvement

E2 E3 D M P

2.6.6.1 At least annually, but without undue delay after a significant change, the ENTITY:

a. Reviews the monitoring and evaluation results, informed by internal and external feedback, as per Section 2.6.5;

b. Reviews any emergency-related or disaster-related grievances (see Section 1.6.4);

c. Reviews challenges encountered, deficiencies, and lessons learned, from: 1) tabletop discussions and emergency response simulations required in 2.6.4.1; and 2) Actual disasters, accidents or incidents that occurred at the site or other similar sites[21];

d. Updates, if necessary[22], contact information for key stakeholders listed in the emergency response plan;

e. Develops and implements time-bound corrective measures to update, if necessary[23], its assessment of risks and emergency scenarios in accordance with Section 2.6.2, and

f. Develops and implements time-bound corrective measures to update, if necessary[24], its emergency preparedness and response plan in accordance with Section 2.6.3, including the specific training and testing measures required in 2.6.4.

2.6.7 Response and Recovery

E2 E3 D M P

2.6.7.1 The ENTITY has a system in place to ensure that, in the event of an actual emergency situation caused by an industrial accident or unwanted event related to the site or its associated facilities:

a. Relevant emergency preparedness and response plan/s are implemented;

b. Immediate measures are taken to manage the disaster, save lives, provide medical assistance, and supply humanitarian aid;

c. Immediate measures are taken to protect individuals and groups that would be disproportionately affected[25];

d. Immediate measures are taken to minimize harm to animals and the environment.

E2 E3 D M P

2.6.7.2 If an actual emergency situation occurs (or has occurred), and once the critical elements of the disaster have been stabilized, the ENTITY contributes[26] to long-term restoration, reconstruction and recovery effort, as follows:

a. The ENTITY offers funding to affected people to select and hire competent professionals of their own choosing to serve as independent legal and/or technical advisors to assist them in long-term recovery activities;

b. The ENTITY explicitly states that participation in a joint recovery effort does not preclude affected people from seeking redress, including compensation for impacts, through administrative, judicial, or other non-judicial remedies for impacts related to the disaster/crisis;

c. In the case of temporary or permanent physical or economic displacement related to the disaster/crisis situation, the ENTITY undertakes measures in alignment with Chapter 2.5;

d. The ENTITY offers to fund and collaborate with affected people and their advisors, and other key stakeholders[27], to jointly develop and implement an action plan (or equivalent) to provide, as needed, restoration, reconstruction and recovery;

e. This action plan includes a process to collaboratively assess the short-, medium-, and long-term social, environmental and local economic impacts;

f. This action plan includes collaboratively-designed measures and associated objectives for restoration, reconstruction and recovery activities;

g. This action plan includes collaboratively-designed performance indicators to enable measurement of progress toward those objectives (f.) over time;

h. This action plan enables participation of affected people in the restoration, reconstruction and recovery activities if they so desire; and

i. This action plan includes a program to monitor and evaluate the effectiveness of the measures (f.), including against the indicators for the defined measures (g.).

E2 E3 D M P

2.6.7.3 If an actual emergency situation occurs (or has occurred), on a schedule agreed with affected peoples and their advisors, and other key stakeholders[28], the ENTITY:

a. Reviews the monitoring data related to the action plan[29];

b. Evaluates if measures in the action plan are being effectively implemented; and

c. If the measures are not effectively implemented, or are not effective, the ENTITY, collaborates with affected people and their advisors, and other key stakeholders to develop and implement corrective measures to achieve the objectives of restoration, reconstruction and recovery activities.

2.6.8 Public Liability Accident Insurance

E2 E3 D M P

2.6.8.1 The ENTITY:

a. Has financial assurance in place for disaster management and recovery[30] in case of potential industrial accident or unwanted event related to the site and associated facilities[31];

b. Makes and maintains publicly accessible name of the insurer/s, the facilities covered, and the duration of this assurance;

c. Makes and maintains publicly accessible the amount of this assurance, and the nature of the management and recovery measures it can cover; and

d. Has clause/s and/or mechanism/s in place to ensure the insurance coverage remains in force for as long as the ENTITY has legal responsibility for the site[32].

CROSS REFERENCES TO OTHER CHAPTERS

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

CHAPTER ENDNOTES

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.[33]

Note that emergency response plans for workers 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.

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[1] The ENTITY must be able to demonstrate that it offered to include potentially interested and impacted individuals, while also being allowed to co-develop some ground rules for engagement, such as agreement to constructively engage in the planning process.

[2] This includes, but is not limited to: tailings storage facility failures, natural disasters affecting the mine, mine collapse, off-site chemical transportation accidents, as well as other emergency situations, that would impact areas, people, structures, habitats, and the environment in and outside the mine/mineral processing site.

[3] This includes, as relevant, farmers, herders, fishermen/fisherwomen.

[4] Including the identification of key on-site potential emergency scenarios required in Chapter 3.2, if those could pose risks to individuals or communities, cultural heritage, property, or the environment.

[5] I.e., health, safety, livelihoods, local economy.

[6] "Foreseeable industrial accidents" related to the project/operation include but are not limited to potential credible failures of project/operation facilities (see Chapter 4.2). "Foreseeable unwanted events" related to the project/operation, including but not limited to those involving transport of hazardous materials (see Chapter 4.1).

[7] Including, but not limited to the potential credible failure of tailings storage or mine waste storage facilities.

[8] Taking into consideration those that pose the greatest risk but also the greatest concern to communities and potentially affected rights-holders and stakeholders.

[9] These facilities and areas may include, but are not limited to: prisons and detention centers, elder care facilities, schools and daycare facilities.

[10] Including, but not limited to: surface mines features such as pit highwalls and other associated features, underground mines shafts, tunnels and features, fluid extraction areas or facilities (e.g., for brine or groundwater pumping/dewatering), water reservoirs and other water storage facilities, access roads, non-mining and non-processing hazardous and remediated waste storage facilities.

[11] 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.

[12] Including children, older persons, or persons with disabilities. See:
https://unece.org/fileadmin/DAM/pau/age/Policy_briefs/ECE_WG1_36_PB25.pdf
https://social.desa.un.org/issues/disability/disability-issues/disability-inclusive-disaster-risk-reduction/disability

[13] If different warning stages have been established, the communication rules should be clarified for each stage.

[14] This information-sharing must include all emergency scenarios involving the stability, integrity, or safety of mine waste facilities (when such facilities exist, and if such emergency scenarios have been identified).

[15] The plans or procedures may include different responses for large and small spills where the spill volume has a significant impact on the hazard. The plans or procedures for risks that would not affect people, animals, the environment, or structures off-site may be integrated into the OHS Emergency Response Plan (See 3.2.7.1), or may be standalone plans.

[16] For facilities and areas where evacuation may be challenging, see 2.6.2.1.e.

[17] Guidance: e.g., containment could include covering the drains and capping procedures, etc., and clean-up and decontamination could include techniques for neutralization, adsorbent materials, cleaning or vacuuming, etc. Remediation of soil or groundwater may be necessary.

[18] Guidance: Use of personal precautions could include, for example, removing ignition sources or moving to an area with sufficient ventilation) and protective equipment and clothing may include respirators, safety glasses, gloves or other equipment to prevent skin, eyes.

[19] Care must be taken to ensure that these tests are carried out in a manner that does not negatively traumatize or otherwise impact community members, e.g., by ensuring that proactive information is shared widely in the community, in a culturally appropriate manner (see Chapter 1.2, Section 1.2.3), to alert them about the nature and timing of tests, including clarity that these are just tests, not actual emergency situations.

[20] In accordance with Section 1.2.3.

[21] In case of a failure of a TSF or mine waste facility, this will include detailed review, root-cause analysis and independent expertise of the failure, its consequences, and the adequacy and effectiveness of the response and recovery measures.

[22] This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

[23] This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c. And based on changes in assumptions, design, operations, or any other relevant factor.

[24] This will be informed by the monitoring and evaluation process required in the previous Section, and on the review process required in a. to c.

[25] Including children, older persons, or persons with disabilities. See:
https://unece.org/fileadmin/DAM/pau/age/Policy_briefs/ECE_WG1_36_PB25.pdf
https://social.desa.un.org/issues/disability/disability-issues/disability-inclusive-disaster-risk-reduction/disability

[26] To demonstrate conformance with this requirement, evidence of a system in place will be sufficient if no such emergency situation ever occurred.

[27] Including government representatives.

[28] Including government representatives.

[29] See 2.6.7.2.d to i.

[30] Which could be in the form of an accident insurance policy, or equivalent.

[31] 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.

[32] Including during closure and post-closure, and in case the site and/or associated facilities are put under 'care and maintenance'.

[33] 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

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