



Initiative for Responsible  
Mining Assurance

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

### Chapter 4.4 – Noise and Vibration

#### 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.

## 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.

### 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.*

## 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](https://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](mailto:comments@responsiblemining.net)

Additional information about IRMA is available on our website: [responsiblemining.net](https://responsiblemining.net)

# Chapter 4.4

## Noise and Vibration

**NOTES ON THIS CHAPTER:** As with other chapters, there are proposed structural changes, and a number of related requirements have been combined.

### Proposed additions and changes:

- In the 2018 Mining Standard, this chapter focused on the impacts of noise and vibrations on human noise receptors. We are proposing to carry over changes to this chapter proposed in the draft the IRMA-Ready Standard that incorporated scoping, and if necessary, mitigation of noise impacts on wildlife. Exploration often occurs in more remote areas where wildlife may not have had much previous exposure to human industrial activity and/or may be more sensitive to noise and vibration.<sup>1</sup> Because this standard now applies to all phases of mineral development from exploration through mineral processing and the decommissioning and closure of operations, potential impacts of noise on wildlife are proposed for inclusion.
- All projects/operations are required to scope potential impacts related to noise and vibration (see 4.4.1.1)
- A requirement for a management plan to document and guide mitigation actions (see 4.4.2.1)

### Glossary:

- We are proposing other 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 (and before the Annexes). Feedback on definitions is welcome.

**CONSULTATION QUESTION 4.4-1:** Currently, we do not have a requirement for noise monitoring. Do entities typically carry out regular or even periodic monitoring of noise levels, e.g., at site boundaries, or is monitoring more typically only done in response to complaints or other indications that there may be noise-related issues?

### BACKGROUND

Mineral exploration and development, mining, and mineral processing can all create significant noise and/or vibration. Noise and vibration may result from airborne and ground-based geophysics, drilling, blasting during construction or at open pit and underground mines, ore stockpiling, screening, and crushing, handling and movement of materials on-site, emission treatment processes, fans and filtration systems, electrical substations and cooling towers, truck or rail traffic bringing consumables to the site and shipping final products from the site.

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 for humans,<sup>2</sup> but

### TERMS USED IN THIS CHAPTER

Affected Community ■ Baseline Ambient Noise Levels ■ Consultation ■ Entity **NEW** ■ Exploration **NEW** ■ Grievance ■ Ground Vibration ■ Lin Peak/Linear Peak ■ Mineral Processing **NEW** ■ Mining **NEW** ■ Mining-Related Activities ■ Mitigation ■ Noise Receptor ■ Offset ■ Operation **NEW** ■ Peak Particle Velocity ■ Project **NEW** ■ Remedy ■ Scoping **NEW** ■ Site **NEW** ■ Stakeholder ■ Worker ■

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

<sup>1</sup> SLR Consulting. 2017. Expert Environmental Guidance on Exploration Methodologies: Part Four: Drilling. p. 121. <https://assets.gov.ie/76753/9a4ac3d4-6f71-412d-a013-1ac32a2128e3.pdf>

<sup>2</sup> For example, see various documents on US EPA Noise Pollution Clearinghouse website: [www.nonoise.org/epa.htm](http://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](http://www.euro.who.int/en/health-topics/environment-and-health/noise/publications)

there are also noise-related impacts on wildlife.<sup>3</sup> 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.<sup>4</sup>

Many noises and vibrations can be moderated or partially managed by employing mitigation measures to reduce a noise or vibration at its source, or by eliminating or minimizing the pathways for transmission of noise and screening sensitive receptors. Measures include installing new low noise/vibration equipment or retrofitting existing equipment, using acoustic enclosures and sound-absorbing materials to limit transmission and constructing berms and planting trees to screen sensitive receptors from noise. 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.<sup>5</sup> Planning and timing of activities and communications with affected stakeholders are also important management measures; however, effective control may be challenging when a project or operation is located near communities.

## 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 off-site structures from vibration impacts.

## SCOPE OF APPLICATION

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

Two requirements are not relevant if blasting is not taking place (4.4.2.2.c, 4.4.2.4).

This chapter does not cover worker-related noise or vibration issues. Those are covered under IRMA Chapter 3.2—Occupational Health and Safety.<sup>6</sup>

**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

None at this time.

**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

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<sup>3</sup> U.S. National Parks Service. 2014. Annotated Bibliography – Impacts of Noise on Wildlife. <https://www.nhsec.nh.gov/projects/2014-04/documents/150420pastoriza.pdf>

<sup>4</sup> See, for example: 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>; and U.S. Office of Surface Mining Reclamation and Enforcement: <https://www.osmre.gov/programs/regulating-active-coal-mines/blasting>; and the Pennsylvania Department of Environmental Protection Blasting Research page: <https://www.dep.pa.gov/Business/Land/Mining/BureauofDistrictMining/SurfaceBlasting/Training/Pages/Blasting-Research-Papers.aspx>

<sup>5</sup> See e.g., Controlling the Adverse Effects of Blasting. OSMRE Presentation, available at: <https://www.osmre.gov/resources/blasting/docs/WYBlasterCertModules/8AdverseEffectsBlasting.pdf>

<sup>6</sup> 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](https://www.ccohs.ca/oshanswers/phys_agents/vibration/vibration_effects.html)

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.

## Noise and Vibration Requirements

### 4.4.1. Noise and Vibration Scoping

**NOTE ON 4.4.1: REVISED.** We are proposing to use the word scoping instead of screening throughout the IRMA Standard. These terms mean slightly different things in different jurisdictions.

For IRMA’s purposes, we are proposing the following definition of **scoping**:

The process of determining potential issues and impacts and producing information necessary to inform decision-making regarding whether additional evaluation and actions are necessary.

If this term is confusing, we are open to reverting to screening, or adopting another term altogether:

- 4.4.1.1. The entity implements a scoping process (or equivalent) to determine if there may be significant noise and/or vibration impacts on human or wildlife receptors from mining-related activities. The scoping process:
- Includes consultations with representatives from potentially affected communities, as well as other relevant stakeholders;<sup>7</sup> and
  - Scoping is updated if there are proposed changes in the project/operation that may result in a new source of noise or vibration or an increase in existing noise or vibration levels.

**NOTE FOR 4.4.1.1: REVISED.** This was 4.4.1.1 in the Mining Standard. We are proposing to incorporate material from the draft IRMA-Ready Standard,<sup>8</sup> in particular, the addition of scoping of impacts on wildlife. It is important for companies to understand the potential impacts of noise/vibration on wildlife because those impacts can, in turn, affect the livelihood and sustenance activities of local communities.<sup>9</sup>

Also, 4.4.1.1.a is from the IRMA-Ready Standard. Consultations with stakeholder during scoping was added there because local community members and/or government officials or wildlife-focused NGOs can be important sources of information on wildlife (and humans) that may be sensitive to noise or vibrations. They may be able to provide input on appropriate mitigation measures (such as times of year, or times of day, etc., that are better for carrying out activities in a manner that will not create a significant impact on wildlife, or communities, etc.).

#### CONSULTATION QUESTION 4.4-2

**Background:** In the 2018 Mining Standard, existing operations were not expected to carry out noise scoping unless there was a change to the operation that could increase noise levels. If there was a noise-related complaint at the existing site, however, the operation would be required to take action as per the requirements in the rest of the chapter. We are proposing here that all sites (proposed projects and existing

<sup>7</sup> Relevant stakeholders may include government biologists, wildlife conservation organizations, academic experts and community members whose quality of life may be affected by noise/vibration, or whose livelihoods or sustenance may be affected if noise/vibration has an adverse impact on wildlife.

<sup>8</sup> The draft IRMA-Ready Standard for Responsible Minera Exploration and Development (2021) is available at: <https://responsiblemining.net/wp-content/uploads/2021/12/IRMA-Ready-Draft-1.0-December2021-All-Stages.pdf>

<sup>9</sup> For example, see section called “Why caribou are important” in: Government of the Yukon Territory.2008. Flying in Caribou Country – how to minimize disturbance from aircraft. [https://www.miningnorth.com/rsc/site-content/library/Flying\\_in\\_Caribou\\_Country.pdf](https://www.miningnorth.com/rsc/site-content/library/Flying_in_Caribou_Country.pdf)

operations) demonstrate that they have carried out a scoping of potential noise and vibration impacts. The rationale is that without such evidence, it is difficult for entities to know if there may be impacts that are being overlooked.

Also, the 2018 Mining Standard (and this proposed updated version of the Standard) expects that noise-related impacts on human and wildlife receptors would be considered as part of the Environmental and Social Impact Assessment (ESIA) process in Chapter 2.1 and if significant impacts are identified then mitigation options are developed as per the ESIA process. Therefore, in many cases, scoping of potential noise/vibration-related impacts will already have been done. However, for projects or operations that either have not/did not go through ESIA or did not do a comprehensive assessment of the range of potential impacts during the ESIA, then it seems reasonable that these issues be scoped as a standalone exercise so that all entities are held to the same expectations.

**Question:** Do you agree with this new approach requiring that all sites demonstrate that they have scoped noise issues? Or should a scoping only be triggered at existing operations if there is a complaint or a change in potential noise sources?

4.4.1.2. If scoping identifies that human or wildlife receptors may be significantly affected by noise from mining-related activities, the entity documents baseline ambient noise levels in potentially affected areas, including at the location(s) of off-site receptors that are closest to the noise/vibration sources, and at locations of other relevant off-site receptors.<sup>10</sup>

**NOTE FOR 4.4.1.2: REVISED** As per 4.4.1.1, we have added wildlife receptors to this requirement.

#### 4.4.2. Management and Mitigation of Impacts

**NOTE FOR 4.4.2:** The title of this criterion is different than the 2018 Mining Standard, which referred specifically to impacts on human receptors. As mentioned in the Note for 4.4.1, we have added screening/scoping of potential impacts of noise and vibration on wildlife, and therefore, it follows to add mitigation if potential impacts are identified.

4.4.2.1. If scoping or other credible information there are human or wildlife noise receptors that may be significantly affected by noise or vibration from mining-related activities, a noise and vibration management plan (or equivalent) is in place and implemented that:<sup>11</sup>

- a. Is developed by competent professionals;
- b. Outlines measures to avoid and, where that is not possible, minimize adverse impacts related to noise and vibration. The measures in the plan are specific, measurable, linked to clearly defined outcomes, relevant, and time-bound;
- c. Provides key indicators, linked to adequate baseline data, to enable measurement of the effectiveness of avoidance, minimization and/or offsetting activities over time; and
- d. Assigns implementation of actions, or oversight of implementation, to responsible staff;<sup>12</sup>
- e. Includes an implementation schedule; and
- f. 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.

<sup>10</sup> Relevant receptors should include the closest receptors to where exploration, mining or processing activities will take place, but also any others that have the potential to be affected by noise or vibrations. Topography and meteorology (e.g., prevailing wind directions, temperature inversions) should be considered, when evaluating which receptors might be relevant. (Australian Department of Industry, Innovation and Science. Leading Practice Sustainable Development Program: 3.0 Noise. <https://www.industry.gov.au/sites/default/files/2019-04/lpsdp-airborne-contaminants-noise-and-vibration-handbook-english.pdf>)

<sup>11</sup> Other credible information could come from affected communities, local governments, wildlife biologists, academics, etc. and could include complaints, research studies, etc.

<sup>12</sup> If work is carried out by third party contractors, then there needs to be a staff employee responsible for overseeing the quality of work, timelines, etc.

**NOTE FOR 4.4.2.1: NEW.** This is being proposed to be more consistent with other IRMA chapters. As in other chapters, when impacts are identified, mitigation measures are developed and incorporated into a management plan.

Note that if scoping indicates that noise or vibration may potentially impact threatened or endangered species of wildlife, or affect those that have important biodiversity value, those impacts should be further evaluated during the biodiversity assessment process (see Chapter 4.6), and mitigation for those species could be incorporated into the Biodiversity Management Plan.

4.4.2.2. If scoping or other credible information indicates that there are residential, institutional or educational receptors that may be affected by noise from mining-related activities, the entity demonstrates that noise levels measured at the nearest off-site receptors do 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), with the following exceptions:<sup>13</sup>

- a. The hours during which elevated noise levels are allowed may be adjusted if the entity can justify that alternative hours are necessary and/or appropriate because of local, cultural, or social norms;
- b. If baseline ambient noise levels exceed 55 dBA (day) and/or 45 dBA (night), then noise do not exceed 3 dB above baseline as measured at relevant off-site noise receptors; and/or
- c. During periods of blasting, the dBA levels may be exceeded, as long as the other requirements in 4.4.2.4 are met.

**NOTE FOR 4.4.2.2:** This combines requirements 4.4.2.1 and 4.4.2.2 from the 2018 Mining Standard.

4.4.2.3. If scoping or other credible information indicates that there are only industrial or commercial receptors that may be affected by noise from mining-related activities, the entity demonstrates that noise levels measured at the project/operation boundary, or nearest industrial or commercial receptor do not exceed 70 dBA.

4.4.2.4. If scoping or other credible information indicates that noise or vibration from blasting activities may have an adverse impact on human noise receptors blasting operations are undertaken as follows:<sup>14</sup>

- a. A maximum level for air blast overpressure of 115 dB (Lin Peak) is exceeded for no more than 5 % of blasts over a 12-month period;
- b. Ground vibration (peak particle velocity) neither exceeds 5 mm/second on 9 out of 10 consecutive blasts, nor exceeds 10 mm/second at any time; and
- c. Blasting only occurs during the hours of 09:00 to 17:00 on traditionally normal working days unless:
  - i. Alternative hours are necessary and/or appropriate because of local, cultural, or social norms; and/or
  - i. Potentially affected human receptors have given voluntary approval for the expanded blasting hours.

**NOTE FOR 4.4.2.4:** This requirement consolidates two blasting-related requirements from the 2018 Mining Standard (4.2.2.4 and 4.2.2.5).

**CONSULTATION QUESTION 4.4-3:** As with the 2018 Mining Standard, the blasting measures are only required if there are human receptors who may be affected by the noise or vibrations from blasting. While wildlife may be affected by blasting, it is not clear if the measures outlined in 4.4.2.4 would even prevent impacts on them.

If there are special mitigation measures that can reduce blasting-related impacts on wildlife (for example, maybe cessation of blasting during particularly sensitive calving times, etc.) then it is our presumption that those specific actions would be incorporated into the management plan (requirement 4.4.2.1).

Do you agree with this approach?

<sup>13</sup> The dBA noise limits in 4.4.2.2 and 4.4.2.3 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. (IFC. 2007. General Environmental, Health and Safety Guidelines. Noise Management. p. 53 (footnote 54) <https://www.ifc.org/en/insights-reports/2000/general-environmental-health-and-safety-guidelines>)

<sup>14</sup> 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](http://www.environment.nsw.gov.au/resources/noise/anzecblasting.pdf)



4.4.2.5. If the entity receives a credible, supported grievance that noise or vibration is adversely impacting human or wildlife noise receptors, the entity:

- a. Consults with the affected stakeholder and other relevant stakeholders and experts to develop mitigation strategies or other proposed actions to resolve the grievance;
- b. Incorporates any mitigation actions in the management plan (see 4.4.2.1); and
- c. Documents the grievance, the outcome and remedy, and all communications with complainant.

**NOTE FOR 4.4.2.5:** This combines 4.4.2.5 and 4.4.2.6 from the 2018 Mining Standard. We have added in that any agreed mitigation actions go into the management plan, as this is the logical place for those actions to be recorded. We have changed the term from complaint to grievance to be more consistent with terminology in other chapters. Grievance is a defined term, and as in the definition, it includes complaints.

### 4.4.3. Disclosure of Information

**NOTE FOR 4.4.3: REVISED.** This name of this criterion heading has changed from ‘Reporting’ to ‘Disclosure of Information,’ as the latter better represents what is being required below.

4.4.3.1. When stakeholders make a noise-related complaint, the entity provides relevant noise data and information to them.

**NOTE FOR 4.4.3.1:** This was included in requirement 4.4.3.1 in the 2018 Mining Standard.

4.4.3.2. A publicly available access to information policy (or equivalent) is in place that commits the entity to providing stakeholders with noise data and information upon request.<sup>15</sup>

**NOTE FOR 4.4.3.2: REVISED.** This was included in requirement 4.4.3.1 in the 2018 Mining Standard. Previously, the language was “noise data and information shall be made available to stakeholders upon request.”

We have separated out this component, and we have changed the wording in 4.4.3.2 to require that the entity have a policy in place to make the information available to stakeholders upon request.

There were numerous places in the IRMA Standard that mentioned provision of information to stakeholders “upon request.” Those requirements have proven very difficult to audit as written, because if the auditee tells auditors that there were no requests for information then the auditor has two choices – mark it as fully meets (which isn’t accurate, since there is no evidence, other than perhaps a verbal guarantee, that if asked the entity would provide the information) or mark it as not relevant (which is more accurate, since there were not requests, but is problematic because if stakeholders are not aware that they can request information, then there may never be any requests).

In Chapter 1.2, we are proposing that instead of the approach in the 2018 Mining Standard, which was essentially a blanket statement saying “information shall be made available upon request,” that entities have in place a publicly available “access to information” or similar policy that commits the entity to providing information to stakeholders if requests are made, and that this policy be communicated to stakeholders (see [Note for requirement 1.2.4.3](#)).

## NOTES

To be developed, pending changes to the chapter.

<sup>15</sup> As per Chapter 1.2, requirement 1.2.4.3, an access to information policy is proposed in the updated IRMA Standard. It is expected that this policy could include the relevant provisions related to stakeholder access to entity-generated information and data on noise and vibration.

## 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

#### 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.

#### 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.

#### Scoping

The process of determining potential issues and impacts and producing information necessary to inform decision-making regarding whether additional evaluation and actions are necessary.

#### Site

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

### EXISTING DEFINITIONS

#### Affected Community

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

**REVISED.** Changed wording from project to project/operation.

### **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 a mining and/or mineral processing operation).

**NEW.** Added to Chapter 4.4.

### **Consultation**

An exchange of information between an entity 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 entity should take into account the concerns and views expressed by stakeholders in the final 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.

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

### **Ground Vibration**

The level of vibration (peak particle velocity) measured in millimetre/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.

Source: Adapted from Victoria (Australia) State Government. *Ground Vibration and Airblast Limits for Blasting in Mines and Quarries*.

### **Lin Peak/Linear Peak**

The maximum level of air pressure fluctuation measured in decibels without frequency weighting.

### **Mining-Related Activities**

Any activities carried out during any phase of the mineral development life cycle for the purpose of locating, extracting and/or producing mineral or metal products. Includes physical activities (e.g., land disturbance and clearing, road building, sampling, drilling, airborne surveys, field studies, construction, ore removal, brine extraction, beneficiation, mineral or brine processing, transport of materials and wastes, waste management, monitoring, reclamation, etc.) and non-physical activities (e.g., project or operational planning, permitting, stakeholder engagement, etc.).

**REVISED.** Added reference to mineral development life cycle, project/operation, brine.

### **Mitigation**

Actions taken to reduce the likelihood of the occurrence of a certain adverse impact.

### **Noise Receptor**

A point of reception or (human) receptor may be defined as any point on the premises occupied by people 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.

**Offset**

An activity undertaken to counterbalance a significant residual impact.

**Peak Particle Velocity**

The instantaneous sum of the velocity vectors (measured in millimetres per second) of the ground movement caused by the passage of vibration from blasting.

**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.

**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.

**Worker**

All non-management personnel directly employed by the entity.

**REVISED.** Added that personnel are directly employed by the entity.