Consultation response

Part 1: Your details

Original language of response: English

Name: Luke Russell

Country of residence: United States

Are you willing to let us publish your response publicly on the Global Tailings Review website? Yes

Please select which stakeholder group you are representing: Mining Industry

If 'Other', please specify below:

Are you responding on behalf of an organization? Yes

Please give the name of the organization: Hecla Mining Company

Your level within the organisation: Executive Management

Part 2: Your views on each of the Principles and Requirements in the Standard Topic I: Knowledge Base

Principle 1

In your view, will compliance with this Principle and its Requirements contribute to the prevention of catastrophic failure of tailings facilities?

Which aspects of Principle 1 do your comments relate to?

Your comments on Principle 1

Requirement 1.1

Regularly update should be clarified. We also suggest the standard consider use of 'maintained' and updated only when there are material changes to a tailings facility. This comment would be made wherever in the document the term regulatory is used.

Requirement 1.3

This requirement implies a full inundation study be completed for all tailings facilities regardless of consequences. Such a full study on a dry stack tailings facility is not likely warranted. Hecla supports the intent of this proposed requirement however, it is overly prescriptive, and the level of detail required may not be achievable in all cases.

In addition, regular updates may not be necessary and not contribute any new information from the design stage analysis. Unless there are material changes such as a mine life extension that would increase the capacity of the tailings facility, there is no value in requiring regular updates to inundations studies.

Requirement 1.4

Such as referenced in 1.3 not all facilities have significant credible runout failure mechanisms. Also, such social and demographic data is obtained during project permitting. We recommend the standard reflect this equivalency and not duplicate such analysis specifically for tailings facilities.

Principle 2

In your view, will compliance with this Principle and its Requirements contribute to the prevention of catastrophic failure of tailings facilities?

Which aspects of Principle 2 do your comments relate to?

Your comments on Principle 2

Requirement 2.1

While we support meaningful alternative analysis be conducted the Standard should clarify this is only applicable to new facilities rather than existing facilities.

Requirement 2.2

Hecla is concerned there is simply a lack of qualified reviewers to meet this requirement. The Standard should acknowledge that firms and engineers with requisite experience can serve as independent reviewers where they are not engaged by the Operator for tailings engineering services at the same site.

Requirement 2.3

This requirement seems inconsistent with the objective of the Standard to preclude a catastrophic tailings failure especially in light that not all facilities will fail. It is suggested that conformance with this requirement to develop hypothetical mitigation plans be focused on tailing facilities with very high/extreme consequences and not all facilities.

Requirement 2.5

Financial assurance for reclamation and post closure conditions is generally required by State and Federal authorities. The Standard should acknowledge meeting these requirements would be conformance with this requirement.

Requirement 2.6

The Standard should recognize state and federal financial assurance requirements for reclamation and closure.

Topic II: Affected Communities

Principle 3

In your view, will compliance with this Principle and its Requirements contribute to the prevention of catastrophic failure of tailings facilities?

Which aspects of Principle 3 do your comments relate to?

Your comments on Principle 3

Hecla supports the comments of the Mining Association of Canada and recommendations the Expert Panel reference as equivalent the protocols of Toward Sustainable Mining (TSM) for project-affected people including indigenous and Communities, among other TSM protocols.

Topic III: Design, Construction, Operation and Monitoring of the Tailings Facility

Principle 4

In your view, will compliance with this Principle and its Requirements contribute to the prevention of catastrophic failure of tailings facilities?

Which aspects of Principle 4 do your comments relate to?

Your comments on Principle 4

This Principle seems contrary a risk based and site-specific hazard classification approach and principle of knowledge base to understand risks and consequences and appropriately manage both to preclude catastrophic tailings failures. The Principle and associated Requirements should be clarified to apply to new facilities.

Requirement 4.3

Standard should use the ALARP principle ('as low as reasonably practicable') which includes: 'risks lower than the tolerable risk reference line, are tolerable only if risk reduction is impracticable or if the next increment of risk reduction is not cost effective compared to the improvement gained' (US Army Corps of

Engineers, revised from ICOLD)

Principle 5

In your view, will compliance with this Principle and its Requirements contribute to the prevention of catastrophic failure of tailings facilities?

Which aspects of Principle 5 do your comments relate to?

Your comments on Principle 5

Principle 6

In your view, will compliance with this Principle and its Requirements contribute to the prevention of catastrophic failure of tailings facilities?

Which aspects of Principle 6 do your comments relate to?

Your comments on Principle 6:

Principle 7

In your view, will compliance with this Principle and its Requirements contribute to the prevention of catastrophic failure of tailings facilities?

Which aspects of Principle 7 do your comments relate to?

Your comments on Principle 7

Requirement 7.1

The Standard should be clarified that the ESMS could be for the mine site and not require a stand along ESMS for the tailings facility.

Requirement 7.3

Requirement should be clarified that construction reports required only in years of embankment construction. In addition, construction reports not required for closed facilities.

Requirement 7.8

Requirement is outside of the focus of Principle 7 (Build and operate the tailings to minimize risk). A sitewide ESMS would include many elements unrelated to tailings management.

We refer the Expert Panel to the Towards Sustainable Mining (TSM) protocols that could be considered equivalent to these requirements on environmental and social management.

Principle 8

In your view, will compliance with this Principle and its Requirements contribute to the prevention of catastrophic failure of tailings facilities?

Which aspects of Principle 8 do your comments relate to?

Your comments on Principle 8

Requirement should be clarified that this would be applied to all 'credible' failure modes.

Requirement 8.2

We recommend this focus on internal monitoring and reporting so as to take necessary adaptive management actions to address site specific conditions. External reporting should include interpretation and not simply raw data.

Requirement 8.4

The reporting frequency should be a risk-based decision and as otherwise required by regulatory authorities, which is typically on an annual basis. Quarterly reporting would be excessive for downstream or dry stack tailings facilities.

Topic IV: Management and Governance

Principle 9

In your view, will compliance with this Principle and its Requirements contribute to the prevention of catastrophic failure of tailings facilities?

Which aspects of Principle 9 do your comments relate to?

Your comments on Principle 9

Requirement 9.2

It may not be possible to reduce or minimize consequences for an existing facility, but it may be possible to implement additional measures to reduce the risk of failure. Suggest this requirement be modified to focus on risk reduction to extent technically and economically feasible for existing facilities with very high or extreme consequences.

Principle 10

In your view, will compliance with this Principle and its Requirements contribute to the prevention of catastrophic failure of tailings facilities?

Which aspects of Principle 10 do your comments relate to?

Your comments on Principle 10:

Requirement 10.3

Hecla supports the comments of the Mining Association of Canada that through its Toward Sustainable Mining (TSM) Tailings Management Protocol, it requires that accountability, responsibility, authority, and role be by a Responsible Person, not necessarily an engineer.

Principle 11

In your view, will compliance with this Principle and its Requirements contribute to the prevention of catastrophic failure of tailings facilities?

Which aspects of Principle 11 do your comments relate to?

Your comments on Principle 11:

Hecla believes it to be overly restrictive to forbid in this requirement to use the same consultant on a subsequent DSR. In many cases having that institutional memory and understanding on why previous recommendations were made and how they have been responded to is most effective.

Principle 12

In your view, will compliance with this Principle and its Requirements contribute to the prevention of catastrophic failure of tailings facilities?

Which aspects of Principle 12 do your comments relate to?

Your comments on Principle 12:

The responsible person should not have to be an engineer as referenced in Requirement 10.3 above.

Principle 13

In your view, will compliance with this Principle and its Requirements contribute to the prevention of catastrophic failure of tailings facilities?

Which aspects of Principle 13 do your comments relate to?

Your comments on Principle 13:

Principle 14

In your view, will compliance with this Principle and its Requirements contribute to the prevention of catastrophic failure of tailings facilities?

Which aspects of Principle 14 do your comments relate to?

Your comments on Principle 14:

Topic V: Emergency Response and Long-Term Recovery

Principle 15

In your view, will compliance with this Principle and its Requirements contribute to the prevention of catastrophic failure of tailings facilities?

Which aspects of Principle 15 do your comments relate to?

Your comments on Principle 15:

Principle 16

In your view, will compliance with this Principle and its Requirements contribute to the prevention of catastrophic failure of tailings facilities?

Which aspects of Principle 16 do your comments relate to?

Your comments on Principle 16:

Topic VI: Public Disclosure and Access to Information

Principle 17

In your view, will compliance with this Principle and its Requirements contribute to the prevention of catastrophic failure of tailings facilities?

Which aspects of Principle 17 do your comments relate to?

Your comments on Principle 17:

Part 3: Your views on the Standard

Your view as to whether the content of the Standard meets your expectations

Your view as to whether the content of the Standard meets your expectations (closed question):

Please summarize why you chose this option:

Your view on whether the Standard will create a step change for the industry in the safety and security of tailings facilities

Your view on whether the Standard will create a step change for the industry in the safety and security of tailings facilities (closed question):

Please summarize why you chose this option:

Does the content of the Standard address all aspects of tailings facility management adequately?

Does the content of the Standard address all aspects of tailings facility management adequately (closed question)?

Please explain why and/or what is missing:

Part 4: Suggestions for topics to be included in the accompanying Recommendations Report

On which topics would you expect to have further clarification or guidance in this document?

Other information

Non-fitting response text (text submitted which did was not in response to one of the questions above)

On behalf of Hecla Mining Company (Hecla) thank you for the opportunity to comment on the draft Global Standard for Tailings Management (the Standard). Hecla is a 128-year-old US based metals mining company. We support the objective of the Global Tailings Review to preclude catastrophic failures of tailings facilities. Hecla was an early adopter of the filtered or dry-stack method for tailings management and also utilizes a high percentage of tailings as structural fill in its underground mine operations.

Hecla is a member of the Mining Association of Canada (MAC) and supports their comments on this draft Standard. The Standard should be focused on the intended outcomes and not prescribe how owners should go about meeting those outcomes. We refer the Expert Panel to their Toward Sustainable MIning (TSM) program as a potential model for how this tailings Standard could be implemented.

Recognition of Existing Programs and Equivalency

The draft Standard does not appear to fully recognize that many existing programs are in place and work well to ensure the safe management of tailings and prevent catastrophic dam failures. In the U.S. tailings management is highly regulated and fully disclosed to the public by existing Federal and State regulatory and permitting programs. We believe there are many aspects of the Standard that are potentially duplicative with efforts of TSM, Association of Dam Safety Professionals and other existing state and federal permitting requirements (e.g. requiring alternatives analyses for tailings locations, mine wide environmental and social assessments, engagement with stakeholders in displaying project alternatives and impacts, and requirements for financial assurance for reclamation and closure of mine facilities, including tailings facilities). The Standard should recognize equivalent regulatory and management systems to not duplicate or conflict with them as this could undermine the intent of the Standard.

Implementation

We understand the intended accompanying report (the 'Report') will propose an implementation method that is intended to 'harmonize with existing assurance schemes'. Without proper consideration of these issues across the broad range of jurisdictions, mining companies could be required to implement one set of requirements proposed by regulatory agencies and separate requirements under this Standard. We encourage the Expert Panel to take the time necessary to fully consider existing programs in development of this Report.

As the intent of the Standard is to minimize risk, we further support MAC's comments that the Standard should use the ALARP principle ('as low as reasonably practicable'). This principle, widely used in risk management, recognizes there is a point when further risk reduction is disproportionate

to the time, money and effort to be achieved.

The Independent Review Board, independent senior technical reviewer or other Tailings management professionals should not be required to also provide oversight of the environmental and social aspects of the Standard - these are very different skill sets and dilutes the Standard's focus of preventing catastrophic tailings failures.

We further support MAC's comments on the Standard's requirements on long-term recovery. As the intent of this Standard is to preclude a catastrophic failure it is not clear how a company could show conformance with the Standard in absence of a failure. We agree with MAC that this aspect could be included in the recommendations Report but does not seem consistent with the intent to be included as a requirement of the Standard itself.

Attachment 1 reference (if applicable)

ref:0000001141:Q83

Attachment 2 reference (if applicable)



Subject: Hecla Mining Company Comments on the Draft Global Standard for Tailings Management

Dear Professor Oberle and Expert Panel Members,

On behalf of Hecla Mining Company (Hecla) thank you for the opportunity to comment on the draft Global Standard for Tailings Management (the Standard). Hecla is a 128- year-old U.S. based metals mining company. We support the objective of the Global Tailings Review to preclude catastrophic failures of tailings facilities. Hecla was an early adopter of the filtered or dry-stack method for tailings management and also utilizes a high percentage of tailings as structural fill in its underground mine operations.

Hecla is a member of the Mining Association of Canada (MAC) and supports their comments on this draft Standard. The Standard should be focused on the intended outcomes and not prescribe how owners should ago about meeting those outcomes. We refer the Expert Panel to their Toward Sustainable Mining (TSM) program as a potential model for how this tailings Standard could be implemented.

Recognition of Existing Programs and Equivalency. The draft Standard does not appear to fully recognize that many existing programs are in place and work well to ensure the safe management of tailings and prevent catastrophic dam failures. In the U.S. tailings management is highly regulated and fully disclosed to the public by existing Federal and State regulatory and permitting programs. We believe there are many aspects of the Standard that are potentially duplicative with efforts of TSM, Association of Dam Safety Professionals and other existing state and federal permitting requirements (e.g. requiring alternatives analyses for tailings locations, mine wide environmental and social assessments, engagement with stakeholders in displaying project alternatives' and impacts, and requirements for financial assurance for reclamation and closure of mine facilities, including tailings facilities). The Standard should recognize equivalent regulatory and management systems to not duplicate or conflict with them as this could undermine the intent of the Standard.

Implementation. We understand the intended accompanying report (the "Report") will propose an implementation method that is intended to "harmonize with existing assurance schemes". Without proper consideration of these issues across the broad range of jurisdictions, mining companies could be required to implement one set of requirements proposed by regulatory agencies and separate requirements under this Standard. We encourage the Expert Panel to take the time necessary to fully consider existing programs in development of this Report.

As the intent of the Standard is to minimize risk, we further support MAC's comments that the Standard should use the ALARP principle ("as low as reasonably practicable). This principle, widely used in risk management, recognizes there is a point when further risk reduction is disproportionate to the time, money and effort to be achieved.

The Independent Review Board, independent senior technical reviewer or other Tailngs management professionals should not be required to also provide oversight of the environmental and social aspects of the Standard – these are very different skill sets and dilutes the Standard's focus of preventing catastrophic tailings failures.

We further support MAC's comments on the Standard's requirements on long-term recovery. As the intent of this Standard is to preclude a catastrophic failure it is not clear how a company could show conformance with the Standard in absence of a failure. We agree with MAC that this aspect could be included in the recommendations Report but does not seem consistent with the intent to be included as a requirement of the Standard itself.

We provide more specific comments on requirements below and appreciate your consideration.

Sincerely,

uke Russell

VP External Affairs

Hecla Mining Company Comments on Specific Requirements

REQUIREMENT 1.1 : Develop and <u>regularly</u> update knowledge about the social, economic and environmental context of a tailings facility, aligned with international <i>best practice</i> .	Regularly update should be clarified. We also suggest the standard consider use of "maintained" and updated only when there are material changes to a tailings facility. This comment would be made wherever in the document the term regulatory is used.
REQUIREMENT 1.3: Where there is a potential for flow failure, conduct and regularly update an inundation study for the tailings facility using a methodology that considers credible hypothetical failure modes, site conditions, tailings facility conditions, hydraulic routing models of the slurry, and the amount of tailings and downstream materials entrained in the outflow. The results of the study should include estimates of the inundation area, flow arrival times, depth and velocities, duration of flooding, and depth of material deposition.	This requirement implies a full inundation study be completed for all tailings facilities regardless of consequences. Such a full study on a dry stack tailings facility is not likely warranted. Hecla supports the intent of this proposed requirement however, it is overly prescriptive, and the level of detail required may not be achievable in all cases. In addition, regular updates may not be necessary and not contribute any new information from the design stage analysis. Unless there are material changes such as a mine life extension that would increase the capacity of the tailings facility, there is no value in requiring regular updates to inundations studies.
REQUIREMENT 1.4: Identify stakeholders and how they are related to the tailings facility site, inundation area and impacted area; collect land, livelihood and demographic data for groups most at risk from a tailings facility failure.	Such as referenced in 1.3 not all facilities have significant credible runout failure mechanisms. Also, such social and demographic data is obtained during project permitting. We recommend the standard reflect this equivalency and not duplicate such analysis specifically for tailings facilities.
REQUIREMENT 2.1: Undertake a formal, multi- criteria alternatives analysis of all feasible sites and technologies for tailings management with the goal of minimizing risk to people and the environment. Use the knowledge base to inform this analysis and to develop facility designs, inundation studies, a monitoring program, Emergency Preparedness and Response Plans (EPRP), and closure and post- closure plans.	While we support meaningful alternative analysis be conducted the Standard should clarify this is only applicable to new facilities rather than existing facilities.
REQUIREMENT 2.2: Engage an Independent Tailings Review Board (ITRB) or an independent senior technical reviewer with no conflicts of interest to assess and review the alternatives analysis for site and technology selection	Hecla is concerned there is simply a lack of qualified reviewers to meet this requirement. The Standard should acknowledge that firms and engineers with requisite experience can serve as independent reviewers where they are not engaged by the Operator for tailings engineering services at the same site.
REQUIREMENT 2.3: Use the knowledge base to assess the social, economic and environmental impacts of the tailings facility and its potential failure. Develop impact mitigation and	This requirement seems inconsistent with the objective of the Standard to preclude a catastrophic tailings failure especially in light that not all facilities will fail. It is suggested that conformance with this requirement to develop hypothetical mitigation plans be focused on

management plans, and meaningfully engage potentially affected communities in the process	tailings facilities with very high/extreme consequences and not all facilities.
REQUIREMENT 2.5: The amount of financial assurance shall be reviewed periodically and updated based on estimated closure and post-closure costs	Financial assurance for reclamation and post closure conditions is generally required by State and Federal authorities. The Standard should acknowledge meeting these requirements would be conformance with this requirement.
REQUIREMENT 2.6: Taking into account actions to mitigate risks, the Operator will consider obtaining appropriate insurance to the extent commercially reasonable or providing other forms of financial assurance if appropriate to address risks relating to the construction, operation, maintenance, and/or closure of a tailings facility	The Standard should recognize state and federal financial assurance requirements for reclamation and closure.
PRINCIPLE 3: Respect the rights of project-affected people and meaningfully engage them at all stages of the tailings facility lifecycle	Hecla supports the comments of the Mining Association of Canada and recommendations the Expert Panel reference as equivalent the protocols of Toward Sustainable Mining (TSM) for project-affected people including Indigenous and Communities, among other TSM protocols
PRINCIPLE 4: Design, construct, operate and manage the tailings facility on the presumption that the consequence of failure classification is 'Extreme', unless this presumption can be rebutted.	This Principle seems contrary a risk based and site-specific hazard classification approach and principle of knowledge base to understand risks and consequences and appropriately manage both to preclude catastrophic tailings failures. The Principle and associated Requirements should be clarified to apply to new facilities.
with Requirements 4.1 and 4.2. Where the required upgrade is not feasible, the Board, or senior management (as appropriate based on the Operator's organizational structure), with input from the ITRB, shall approve the implementation of measures to reduce the risks of a potential failure to the greatest extent possible	Standard should use the ALARP principle ("as low as reasonably practicable) which includes: "risks lower than the tolerable risk reference line, are tolerable only if risk reduction is impracticable or if the next increment of risk reduction is not cost effective compared to the improvement gained " (US Army Corps of Engineers, revised from ICOLD)
REQUIREMENT 7.1: Build, raise, operate, monitor and close the <i>tailings facility</i> according to the design intent of all stages of the <i>tailings facility lifecycle</i> , using qualified personnel and appropriate methodology, equipment, procedures, data acquisition, the <i>TMS</i> and the <i>environmental and social management system</i> (ESMS).	The Standard should be clarified that the ESMS could be for the mine site and not require a stand along ESMS for the tailings facility.
REQUIREMENT 7.3: Prepare a detailed Construction Records Report at least annually or whenever there is any change to the tailings facility, its infrastructure or its monitoring system. The EOR shall sign this report.	Requirement should be clarified that construction reports required only in years of embankment construction. In addition, construction reports not required for closed facilities.
REQUIREMENT 7.8: Independent senior technical reviewers, with qualifications and expertise in	Requirement is outside of the focus of Principle 7 (Build and operate the tailings to minimize risk). A site-wide

social and environmental sciences and ESMS would include many elements unrelated to tailings performance management, shall carry out a full management. review of the ESMS and monitoring results every 3 years, with annual summary reports provided to We refer the Expert Panel to the Toward Sustainable relevant stakeholders. Mining (TSM) protocols that could be considered equivalent to these requirements on environmental and social management. **REQUIRMENT 8.1:** Design, implement and Requirement should be clarified that this would be operate a comprehensive performance applied to all "credible" failure modes. monitoring program for the tailings facility that allows full implementation of the Observational Method and covers all potential failure modes. **REQUIREMENT 8.2:** Establish performance We recommend this focus on internal monitoring and objectives, indicators, criteria, and performance reporting so as to take necessary adaptive management parameters and include them in the design a actions to address site specific conditions. External monitoring program that measures performance at reporting should include interpretation and not simply all stages of the tailings facility lifecycle. Record, raw data. evaluate and publish the results at appropriate frequencies. Based on the data obtained, update the monitoring program throughout the tailings facility lifecycle to confirm that it remains effective. The reporting frequency should be a risk-based decision **REQUIREMENT 8.4:** Report the results of the and as otherwise require by regulatory authorities, which monitoring program at the frequency required to meet company, regulatory and public disclosure is typically on an annual basis. Quarterly reporting would requirements, and as a minimum on a quarterly be excessive for downstream or dry stack tailings basis. The RTFE and the EOR shall review and facilities. approve these reports. REQUIREMENT 9.2: For an existing facility, where a It may not be possible to reduce or minimize potential credible failure could have 'Very High' or consequences for an existing facility, but it may be possible to implement additional measures to reduce the 'Extreme' consequences, the Board or senior risk of failure. Suggest this requirement be modified to management (as appropriate based on the focus on risk reduction to extent technically and Operator's organizational structure) shall mandate economically feasible for existing facilities with very high additional steps to minimize the consequences and publish reasons for its decision. This process is to or extreme consequences. be repeated at the time of every Dam Safety Review (DSR). Hecla supports the comments of the Mining Association REQUIREMENT 10.3: Appoint a site-specific Responsible Tailings Facility Engineer (RTFE) who is of Canada that through its Toward Sustainable Mining (TSM) Tailings Management Protocol, it requires that accountable for the integrity of the tailings facility, accountability, responsibility, authority, and role be by a liaises with the EOR, the Operations and the Responsible Person, not necessarily an engineer. Planning teams and who either reports directly to the Accountable Executive, or via a reporting line that culminates with the Accountable Executive. The RTFE will have a dotted reporting line to mine management to represent the delivery of services to the site. Hecla believes it to be overly restrictive to forbid in this **REQUIREMENT 11.4:** A senior independent technical reviewer shall conduct an independent requirement to use the same consultant on a subsequent

DSR periodically (every 3 to 10 years, depending on performance and complexity, and the Consequence Classification of the tailings facility). The DSR shall include technical, operational and governance aspects of the tailings facility and shall be done according to best practices. The DSR contractor cannot conduct a subsequent DSR on the same facility.	DSR. In many cases having that institutional memory and understanding on why previous recommendations were made and how they have been responded to is most effective.
REQUIREMENT 12.3: Establish and implement a system to manage the quality of all engineering work, the interactions between the EOR, the RTFE and the Accountable Executive, and their involvement in the tailings facility lifecycle as necessary to confirm that both the implementation of the design and the design intent are met in all cases	The responsible person should not have to be an engineer as referenced in Requirement 10.3 above.