

# Consultation response

## *Part 1: Your details*

**Original language of response:** English

**Name:** Anonymous

**Country of residence:** Canada

**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:** Consultant (geotechnical)

**If 'Other', please specify below:**

**Are you responding on behalf of an organization?** No

**Please give the name of the organization:**

**Your level within the organisation:**

## *Part 2: Your views on each of the Principles and Requirements in the Standard*

### *Topic 1: 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?**

Yes

**Which aspects of Principle 1 do your comments relate to?**

Requirement 1.3

#### **Your comments on Principle 1**

Inundation studies should also be updated following material changes in downstream conditions. These are currently not mentioned specifically in the requirement.

#### *Principle 2*

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

Yes

**Which aspects of Principle 2 do your comments relate to?**

Requirement 2.6

### **Your comments on Principle 2**

Consider using different terminology to 'consider'. I would rephrase as 'the operator will obtain appropriate insurance to the extent commercially reasonable and/or provide other forms of financial assurance'

## **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?**

Yes

**Which aspects of Principle 3 do your comments relate to?**

**Your comments on Principle 3**

## **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?**

Partially

**Which aspects of Principle 4 do your comments relate to?**

Requirement 4.1

### **Your comments on Principle 4**

The use of a 5-tier dam safety consequence classification is out of date and does not reflect the goal of 'zero-harm'. Many of the top-tier mining companies and consultants are moving to an initial 2-tier system, dams that have the potential to cause loss of life and dam that do not. In this system all dams that can cause loss of life are designed as if they are extreme consequence (i.e. PMF and MCE), i.e. no loss of life under foreseeable conditions is acceptable. The board should consider adopting such a system. As written Requirement 4.1 at present may lead to facilities being initially designed as one consequence classification which then increases due to conditions not considered at the initial design stage. The standard should have robust language stating that where the whole facility cannot be upgraded to meet the higher consequence classification the facility will require review and sign off by executive board. Part c) Suggest that language indicating that the possible suitability of the consequence classification be reviewed annually by the EOR as part of dam safety inspection reporting.

### **Principle 5**

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

Partially

**Which aspects of Principle 5 do your comments relate to?**

Requirement 5.2, Requirement 5.4

**Your comments on Principle 5**

5.2: Water balance should also be updated regularly 5.4: Requirement should be linked to whole life-cycle. i.e. designs should address all credible failure modes including for future changes and uses. The standard should state that independent third party review should be required for all designs of facilities with the potential to cause a loss of life. Such reviews could be completed by the ITRB or a third part reviewer without a conflict of interest in the facility. This is similar to requirements 2.2, 6.4 and 7.8. This is common practice in the structural engineering industry and should be adopted for tailings dam design.

**Principle 6**

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

Partially

**Which aspects of Principle 6 do your comments relate to?**

Requirement 6.2

**Your comments on Principle 6:**

Would encourage the standard to discourage the use of prescribed factors of safety, i.e. 1.5 for static loading conditions. While these are usually mentioned as being minimum factors of safety in my experience they are often used by designers as a target. Suitable factors of safety should be determined by the designer based on known conditions and consequences (i.e. in line the general philosophy outlined in requirement 6.2.

**Principle 7**

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

Yes

**Which aspects of Principle 7 do your comments relate to?**

Requirement 7.2, Requirement 7.8

**Your comments on Principle 7**

7.2: The need for the designer to be directly involved in the CQA and QAA process should be stated explicitly. In the past situations have occurred where the designer has been shut out of CQA activities when budgets have been restricted. 7.8: Frequency of a full review of the ESMS should be linked to consequence classification. It also seems excessive to do EMS reviews every 3-years when the standard proposes a frequency of 5-10 years for DSR

**Principle 8**

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

No

**Which aspects of Principle 8 do your comments relate to?**

Requirement 8.1, Requirement 8.2

**Your comments on Principle 8**

8.1: The observational method is too frequently used as an excuse for not identifying failure modes when they occur. In addition the observational method will not identify brittle soil or undrained failure modes. The observational method should be considered but should not be compulsory for all facilities. 8.2: Define appropriate in this text as with others.

**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?**

Partially

**Which aspects of Principle 9 do your comments relate to?**

Comments on the Principle itself

**Your comments on Principle 9**

As per previous comments consideration should be facilities that have potential to cause loss of life and those that do not. Other than this the principle is ok.

**Principle 10**

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

Partially

**Which aspects of Principle 10 do your comments relate to?**

Comments on the Principle itself

**Your comments on Principle 10:**

A new requirement is necessary stating the importance of staff retention in key roles. Management should implement policy and procedures to maximize staff retention in key roles. High staff turnover in key positions can endanger facilities. A new requirement is necessary stating the importance that key staff are provided with sufficient time and resources to adequately complete their role. Key staff should not be encouraged or required to take on additional roles.

**Principle 11**

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

No

**Which aspects of Principle 11 do your comments relate to?**

Requirement 11.3, Requirement 11.5

**Your comments on Principle 11:**

11.3: Requirements should state that where the review is completed by a senior independent reviewer the EOR should be involved. 11.5: This requirement in conjunction with the proposed dam consequence classification in the annex, suggests that facilities with the potential to cause 1 to 10 deaths do not require accountable executive sign-off. This is contour to the principle of zero-harm. Consider changing so that facilities which cause cause loss of life require accountable executive review and sign-off.

**Principle 12**

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

Partially

**Which aspects of Principle 12 do your comments relate to?**

Comments on the Principle itself, Requirement 12.2

**Your comments on Principle 12:**

12.2: Should also list owners responsibilities. Should also note that these agreements should be bespoke to each facility. 12.5: Reiterate from earlier that succession planning for EOR roles is critical to knowledge retention. In addition should be reiterated that retention of EOR is preferable to change and the relationship should be seen as a long-term commitment. Consider adding a statement that long-term retention of an EOR should be encouraged through long-term (5+ year) contractual agreements.

**Principle 13**

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

Yes

**Which aspects of Principle 13 do your comments relate to?**

No

**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?**

Yes

**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?**

Yes

**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?**

Yes

**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?**

Partially

**Which aspects of Principle 17 do your comments relate to?**

Requirement 17.3

**Your comments on Principle 17:**

Guidance should be provided on which documents would normally be made available to the public or clear statements around the fact that not all document would be expected to be available for disclosure to public, i.e. it should be clear that not all documents will be disclosed and this is not being non-transparent.

## ***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):**

3: Meets my expectations

**Please summarize why you chose this option:**

In general the standard ties up many existing requirements and makes they applicable to all operators across the world.

***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):**

4: Will deliver improvements across all aspects of the safety and security of tailings facilities

**Please summarize why you chose this option:**

Some aspects should be improved for instances the use of the dam consequence classification that allows up to 10 deaths without scrutiny is not acceptance or compliant with the concept of zero-harm.

*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)?**

No

**Please explain why and/or what is missing:**

As per comments within the document.

**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?**

See comments throughout. Ambitious terms should be defined to prevent misinterpretation and non-standard approaches.

**Other information**

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

*Attachment 1 reference (if applicable)*

*Attachment 2 reference (if applicable)*