Consultation response

Part 1: Your details

Original language of response: English

Name: Anonymous

Country of residence: Chile

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 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?

Yes

Which aspects of Principle 1 do your comments relate to?

Requirement 1.4, Requirement 1.3, Requirement 1.2

Your comments on Principle 1

Requirement 1.2: In cases where no ""extreme"" consequences are present I recommend to only require to identify possible changes on "" geomorphology, geology, geochemistry, hydrogeology, geotechnical, seismicity and hydrology"" and to characterize these changes if they are material. Requirement 1.3: Please note that in the spanish version it has been written ""potencial de liquefacción"" instead of ""potential for flow failure"". To be corrected. Requirement 1.4: This is valid for initial conditions. What happens con new communities are installed in the downstream area during operation and after closure?

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?

Requirement 2.4, Requirement 2.2, Requirement 2.6

Your comments on Principle 2

Requirement 2.2: The alternative of an independent senior technical reviewer should be accepted only if no extreme consequences are present and to relatively small operations. Requirements 2.4: It is not mentioned the case in which new communities are established in the area downstream of the TFS. It seems logic to inform the authorities and to discuss the additional marginal risk if any. The authorities should inform all new people establishing in the area about the risk involved. This point need to be analyzed in detail. Requirement 2.6: This requirement is not clear. Maybe some examples could help.

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?

Comments on the Principle itself

Your comments on Principle 3

The issue of new people or communities establishing in are downstream of TFS is also present in this Principle

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? Yes

Which aspects of Principle 4 do your comments relate to?

Requirement 4.2, Requirement 4.3

Your comments on Principle 4

The Owner represented of the Board is the final responsible for any decision or approval that could impact on he safety of the TFS. The Board can delegate some actions on the accountable executive but the responsibility should stay in the Owner/Board.

Principle 5

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 5 do your comments relate to?

Comments on the Principle itself

Your comments on Principle 5

Several times are mentioned issues as risk assessment or risk management without emphasizing that formal risk analysis and risk assessment are needed. mainly to support important decisions. To require not only robust design but also resilient

Principle 6

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 6 do your comments relate to?

Requirement 6.1, Requirement 6.3, Requirement 6.2

Your comments on Principle 6:

Requirement 6.1 To emphasize the need for formal numerical risk analysis Requirement 6.2 and 6.3. To recommend probability analysis of factor of safety when variance of basic parameters is present. And/or recommend that sufficient geotechnical investigation has to be done in order to reach a condition of low uncertainty.

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?

Your comments on Principle 7

Principle 8

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 8 do your comments relate to?

Your comments on Principle 8

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?

Requirement 9.1, Requirement 9.2

Your comments on Principle 9

The Owner/Board and not the senior management should be responsible. Board could delegate some actions in senior management but they should keep full responsibility.

Principle 10

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 10 do your comments relate to?

Requirement 10.2, Requirement 10.3

Your comments on Principle 10:

The Owner/Board should the responsible for these situations, independently that they could delegate these actions on the Responsible Tailings Facility Engineer (RTFE) or the Accountable Executive. the last should be accountable to the Board but the Board is accountable for the authorities.

Principle 11

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

Which aspects of Principle 11 do your comments relate to?

Your comments on Principle 11:

Principle 12

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 12 do your comments relate to?

Requirement 12.1

Your comments on Principle 12:

The great value of the EoR is his independence from the company. The alternative ""the Operator may appoint an employee with expertise and experience in comparable facilities as the EOR"" should not be acceptable in very high or extreme consequences TFS.

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?

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?

Yes

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):

2: Falls somewhat below my expectations

Please summarize why you chose this option:

The standard is not giving proper emphasis to the need of formal and numerical risk analysis; to the need of probability analysis in case on uncertainties in basic parameters. The standards does not give proper emphasis on the final and not delegable responsibility of TFS safety of the Owner represented by the Board of Directors

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):

3: Will strengthen some but not all aspects of the safety and security of tailings facilities

Please summarize why you chose this option:

The standard is not giving proper emphasis to the need of formal and numerical risk analysis; to the need of probability analysis in case on uncertainties in basic parameters. The standards does not give proper emphasis on the final and not delegable responsibility of TFS safety of the Owner represented by the Board of Directors

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)? $_{\rm N\cap}$

Please explain why and/or what is missing:

Issues that are not receiving proper attention or detail: Formal risk analysis and failure mode analysis Occasional need to perform probability analysis Probability of failure and acceptable societal risk limits are not mentioned

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?

Maybe to mention the convenience to consider present and updated technical recommendations from organizations like ICOLD, MAC, CDA, Bureau; USACE could define the technical level representing the best practice.

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)