

Consultation response

Part 1: Your details

Original language of response: English

Name: Ian Hammond

Country of residence: South Africa

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? Yes

Please give the name of the organization: Geotheta (Pty) Limited

Your level within the organisation: Executive Management

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?

No

Which aspects of Principle 1 do your comments relate to?

Comments on the Principle itself

Your comments on Principle 1

Having this data will no affect the way in which a TSF could fail. It will only highlighgt the consequences of failure.

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?

Comments on the Principle itself

Your comments on Principle 2

I feel there may be a slight confusion on whether we are minimising risk or minimising consequence of failure. I feel this section needs to be extended and (1) consequence addressed then (2) risk addressed. Location, social, environmental and economic are all primarily consequence, while technical information addresses risk of failure. We must please be very careful to keep consequence and risk very separate in these and any other standards.

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, Requirement 3.3

Your comments on Principle 3

Again, we need to separate consequence and risk here. In 3.3 would be more accurate is it read ""Where the consequence of a potential tailings failure could be the loss of life or sudden""

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?

Comments on the Principle itself

Your comments on Principle 4

Here we have the ""consequence"" properly used. This is correct. I disagree with other parties saying that these standards cannot be retrospective. It has to be. It is historic facilities that fail, and the frequency of these failures needs to be brought to zero.

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?

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?

Yes

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?

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?

Requirement 8.3, Requirement 8.4

Your comments on Principle 8

8.3 I feel that maximum prescribed intervals would be appropriate dependent on the Consequence classification. It may even need to be continuous monitoring for Extreme Consequence Classification facilities. 8.4 Quarterly may be too frequent for some low consequence, low risk small facilities. I think this minimum frequency should be based on consequence classification - annually for low consequence and some dormant facilities, up to monthly or even fortnightly for extreme consequence 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?

Yes

Which aspects of Principle 9 do your comments relate to?

Your comments on Principle 9

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?

Comments on the Principle itself

Your comments on Principle 10:

For some small mining companies, some with low risk facilities, I don't think these levels of boards or holding companies are available. I am thinking with small scale alluvial diamond mines, some sand quarries, etc, that are sometimes even family-owned businesses. I just think that this Principle may make it appear to these guys that if this doesn't apply, then the whole standard won't apply. I suggest that an alternative responsibility structure be considered for small, family-owned, types of business. This is also however perfect for larger corporations and in that I fully support the proposed structure.

Principle 11

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 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?

Your comments on Principle 12:

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?

Comments on the Principle itself

Your comments on Principle 15:

In my experience it is somewhat difficult to get local people downstream of facilities to understand that there is a risk. I have witnessed, once, a trial run of an ERP and people just looked around wondering what was going on, with no concept of the "danger". I think therefore that this principle must incorporate an education step that must be done, and regularly done, on the local population at risk.

Principle 16

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 16 do your comments relate to?

Comments on the Principle itself

Your comments on Principle 16:

This Principle addresses actions to be taken after any potential failure and as such does not contribute to preventing failures. This is purely semantic so it just a comment. The Principle is 100% necessary.

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?

Comments on the Principle itself

Your comments on Principle 17:

Again, the education/enlightenment of the local population to the potential dangers and consequences is important. I think this is the correct Principle to bring this in.

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):

4: Goes somewhat beyond my expectations

Please summarize why you chose this option:

It is a very good document, although a bit broad. The consequence classifications are 5 in number, with 3 levels of storms and earthquakes. It seems counter intuitive to grade something down to 5 levels, then sum it back up to 3. I would prefer 5 levels of storms and earthquakes. The standards also leave a lot of responsibility on the engineers to properly design and monitor the facility, which is what I wanted as a professional engineer.

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:

The only thing holding back a number 5 is the willingness of the industry to implement this. That it is investor driven (you have no idea how fearful the local industry is of the Church of England!) means that it will be implemented by these mining houses who need investors and large insurers. Smaller guys and family guys may not see the investor pressure and hence will likely carry on as always. This is a much needed step up from SANS 10286 - what I am most familiar with. I hope my colleagues here in South Africa can see this as an evolution, not a revolution!

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)?

Yes

Please explain why and/or what is missing:

Just the education of the local population at risk, on the risks of the facility. This needs to be brought in please.

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?

The gradation of consequence versus design precipitation and earthquakes - 5 gradations on both please.

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)