Consultation response

Part 1: Your details

Original language of response: English

Name: Franco Oboni

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: Other

If 'Other', please specify below: Consultant in Risk Engineering, not designing our of ethical considerations

Are you responding on behalf of an organization? Yes

Please give the name of the organization: Riskope

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?
Partially

Which aspects of Principle 1 do your comments relate to?
Requirement 1.3,Requirement 1.2

Your comments on Principle 1
1.2 Site Characterization should include a risk baseline. All the updates should include a risk assessment update, which should include the changes to consequences (what is identified in 1.4). 1.3 Risk cannot be an '"'after thought'"'. Censoring to undefined '"'credible hypothetical'"' and then running a deterministic inundation study is a flawed approach which allows to '"'alter reality'"' ad lib. I have been personally involved in such studies where the Independent Review Board pressured all the parties to '"'reduce'"' reality to what they believed was '"'credible'"'. No one ever defined '"'credible'"'. BTW, the term '"'credible'"' has a consensus value in hazardous industries.... and it is quantitatively defined.

Principle 2

In your view, will compliance with this Principle and its Requirements contribute to the prevention of catastrophic failure of tailings facilities?
Not sure

Which aspects of Principle 2 do your comments relate to?
Comments on the Principle itself

Your comments on Principle 2
Nice words, but lack of clear definition will make it very easy to play words. Risk is invoked several times, never defined, not even in the glossary where we see the word dozens of times and the

only pseudo-definition is under '"'Major Hazards Risks'"'.

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?
Partially

Which aspects of Principle 3 do your comments relate to?
Comments on the Principle itself

Your comments on Principle 3
Lose language will create misunderstandings and mislead everyone. "Where the risks of a potential tailings facility failure could... " is an example. Apparently the author is using risk as a synonym of likelihood of probability... which is wrong. A global standard should have proper glossary definition and avoid this.

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?
Comments on the Principle itself

Your comments on Principle 4
If many facilities have extreme consequences (which may be true for a large majority today using the definition in the standard), then it is impossible to rationally decide where to mitigate unless the probability of failure, hence the risk (p*C) is considered. Written as is the standard put every dam portfolio I know in a non-constructive paralysis. Furthermore the consequence classification is flawed. The consequences of failures are always '"'additive'"' of the various dimensions. It is not '"'Lives'"' OR '"'environment'"' OR …. and select the worse to characterize the consequence. It is '"'lives+environment+.... and now build a consequence prioritization. Finally, '"'reducing risk to the greatest extent possible'"' requires definition. As is it means anything.

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?
Comments on the Principle itself

Your comments on Principle 5
Same as earlier. Minimize risk means anything unless terms and thresholds are defined. Robust design needs explanation. I bet all the dams that have failed were considered '"'robust'"' by lots of people. Yet they failed also because of normalization of deviance, human error, etc. I do not see any discussion or proposed mechanism for these. I see '"'risk assessment'"' mentioned here. Specs should be written for this. I have seen appalling risk assessments made by design engineers (self-assessment was a blatant conflict of interest also because of the remuneration structure of the engineers)… risk assessment prepared by people that think it is ok to copy a matrix and a checklist from the web. This has to stop and the standard should help, but it does not in its present stage of

development.

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?
Comments on the Principle itself

Your comments on Principle 6:
Same remark as to the prior point. Minimizing risks requires understanding what the risks are, quantifying them (in terms of consequences and probability). One cannot use a Factor of Safety as a proxy variable to "risk"! As is the standard promotes confusion and arbitrary decisions. There are engineers around the world that think they demonstrate their "genius" by reducing the factor of safety possibly "playing with words" in codes. That would not occur (or would be partially mitigated) if the probability of failure (quantitative) was enforced as a metric.

Principle 7

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 7 do your comments relate to?
Comments on the Principle itself

Your comments on Principle 7
See all my other comments.

Principle 8

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 8 do your comments relate to?
Comments on the Principle itself

Your comments on Principle 8
Comprehensive monitoring of all failure modes does not help monitoring the CAUSES of failure (eg. human error, deviance of intent, etc.), but only how the dam may fail (failure modes). The standard has to discuss '"'data indigestion'"' which lurks as an emerging risk thanks to IoT, big data, AI etc. New '"'toys'"' require more thinking. Te standard should tell people what to do with the monitoring results, control rooms, etc. In many cases, alerts may come too late.

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
I have already discussed all the terms in this point. Perhaps, if definitions are clear, this section will be clearer. NB: minimizing consequences oftentimes require changing a system. Mitigating a risk is oftentimes a probability reduction exercise. It is really not optimal to ""chop one arm"" and force consequence reductions only.

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:
This is very good and very true. I would add that also engineers and contractors remuneration should dis-incentivate excessive risk taking. Risk assessment should always be performed by a third party with proven NO conflict of interest, certainly not by the project engineers.

Principle 11

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 11 do your comments relate to?
Comments on the Principle itself

Your comments on Principle 11:
Now we see "unacceptable". This one is a really big word. It has to be defined. And to define it one has to define an acceptability threshold (risk tolerance). No definition. Risk acceptability threshold requires looking simultaneously at p,C. If all consequences are extreme and based on "the worse dimension" the all construction is biased, censored, "unstable". A reformulation "from the beginning" is necessary.

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?

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?
Partially

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?
Partially

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?
Partially

Which aspects of Principle 16 do your comments relate to?
Comments on the Principle itself

Your comments on Principle 16:
There are a few of these topic where the discussion is engaged by the phrase '"' … contribute to the prevention of catastrophic failures...'"' Now these topics are obviously post-catastrophic considerations. They do not prevent anything but help reducing some effects of a failure at various stages.

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?

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):
1: Falls well below my expectations

Please summarize why you chose this option:
Misleading glossary, will lead to paralysis and endless '"'words-plays'"'. Does not help to prioritize large portfolio and to make rational decisions.

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):
2: Will deliver minor improvements to the safety and security of tailings facilities

Please summarize why you chose this option:
Too many loose-ends. Not enough clarity in definitions. Perhaps not prescriptive enough.

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:
Risk is mentioned many times, never properly defined. Fundamental concepts like acceptability (tolerance) aren't defined. The standard should clearly say if a TSF is considered a hazardous facility. If it is, it should include the wealth of knowledge that already exists.

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?
I would expect that all the points I have discussed in the various topic are clearly dealt with.

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)