

Consultation response

Part 1: Your details

Original language of response: English

Name: Joe Carr

Country of residence: United Kingdom

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: Systems provider

Are you responding on behalf of an organization? Yes

Please give the name of the organization: Inmarsat

Your level within the organisation: 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?

Comments on the Principle itself

Your comments on Principle 1

There is no function to update the knowledge base in terms of best practice and ensure these are used on site in terms of training and professional development of engineers on site

Principle 2

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 2 do your comments relate to?

Comments on the Principle itself, Requirement 2.5

Your comments on Principle 2

There is no section in here on applying "Best Available Technology" only that companies should have a goal to minimise risk – there is no hard application. Operators only have to "consider" obtaining insurance (or another instrument for financial assurance) for the TSF across its life cycle.

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?

Requirement 3.3

Your comments on Principle 3

operators only have to "consider" additional measures to minimize risks

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?

Your comments on Principle 4

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

Your comments on Principle 5

no basis for what constitutes a minimum water balance plan. Given the criticality of water in failures; the only variable companies can actively manage, there should be a basis of what is a minimum standard as well as reporting frequencies. This may be contained within the suggested water management plans – however there is no set standard referenced.

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?

Requirement 7.4

Your comments on Principle 7

There is little in here around the surveillance, are there any best practice references you wish to

include? Otherwise operators will be left to define what they mean by it

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, Requirement 8.3, Requirement 8.2

Your comments on Principle 8

(202 words) – There are more words in the preamble or in the footnotes of page 9 than in the section for monitoring. Given the criticality of monitoring and the lack of escalation and controls put in place for monitoring being key to the recent failures we believe this section should be of greater depth and detail. REQUIREMENT 8.2: Says to record, evaluate and publish at an "appropriate frequency". This fails to address what appropriate is and continues to leave room for mining companies to choose when, what and if ever to publish. The Chilean program continues to set standards in this regard, having set what is minimum in terms of instruments, the reporting frequency minimums and also where they have to report to and the access others have to that information. We would want to see as a minimum replication of the work done in Chile. REQUIREMENT 8.3: The decision to analyse data is to be set by the EOR (engineer of record). Although this is a step in the right direction, it is clearly a step back in terms of responsibility on and off site. Board level members are responsible for TFS' yet data is only be analysed as/when the EOR deems appropriate. This makes no change to the current system and leaves knowledge gaps. It would be best practice to ensure there was a real time mechanism for reporting and analysis. Performance outside the expected ranges shall be addressed swiftly through critical controls or trigger response action plans – yet reviews are only as/when recommended by the EOR

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?

Partially

Which aspects of Principle 10 do your comments relate to?

Requirement 10.2, Requirement 10.4

Your comments on Principle 10:

REQUIREMENT 10.2: what is the process for companies with multiple dams (tens or hundreds)? This seems impractical and a system of reporting and monitoring should be set in place for upwards reporting. Without this we run the risk of two issues – 1 the reporting and meetings simply will not happen as they cannot be managed (there is no definition for "regular scheduled communication". 2) one EOR becomes responsible for multiple facilities, which would be

impractical on the EOR side and would undermine the impartiality of the engineer. You could have the very probable situation of one EOR responsible for 50+ dams. This would be unsustainable workload and mean that the process was undermined. REQUIREMENT 10.4: This may drive the wrong behaviors, rewarding employees on integrity of TFS's. It should be noted that other failures e.g. SAMARCO showed over time many issues which were warning signs. These, it was concluded were not reported upwards and acted upon. Remunerating employees based on these kind of factors could potentially drive poor decisions and should be taken with caution.

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?

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?

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?

Partially

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?

Partially

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:

REQUIREMENT 17.3: We applaud this commitment, however we would like to see greater information as to what this means in practice - its easy to say, harder to do

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:

I find the standard is lacking in the core areas of active monitoring - leaving the key decisions to be made by personnel already working with the dam. Also the standard runs the very real risk of concentrating responsibility in the hands of a few EORs who would have commercial not to demand changes from organisations.

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:

It will move the industry forward. There is little in here about how smaller players will implement these changes. Realistically outside of the majors, smaller players may be hit hardest. The requirements around financial instruments and insurance will have the biggest impact as many dams are un-insurable in the current climate.

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 above. We feel the time given to actual monitoring and management of facilities in this report is lacking. Very little is defined. The authors would have been better placed looking into the system proposed by Chile as it provides a much better baseline of monitoring.

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?

Monitoring needs to be greatly expanded. Also I would like to see commitments on best available technology and implementation of standards and databases rather than position statements which cannot be enforced.

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)

ref:0000000804:Q83 - text from attachments matches that in response

Attachment 2 reference (if applicable)

ICMM Response

TOPIC I: KNOWLEDGE BASE

Principle 1: Knowledge Base

There is no function to update the knowledge base in terms of best practice and ensure these are used on site in terms of training and professional development of engineers on site

Principle 2: Integrate the social, economic, environmental and technical information to select the site and the technologies to minimize the risk of tailings facility failure.

There is no section in here on applying “Best Available Technology” only that companies should have a goal to minimise risk – there is no hard application

Operator only have to “consider” obtaining insurance (or another instrument for financial assurance) for the TSF across its life cycle.

Topic II: AFFECTED COMMUNITIES

Principle 3: Respect the rights of project-affected people and meaningfully engage them at all stages of the tailings facility lifecycle.

Requirement 3.3: operators only have to “consider” additional measures to minimise risks

TOPIC III: DESIGN, CONSTRUCTION, OPERATION AND MONITORING OF THE TAILINGS FACILITY

Principle 5: Develop a robust design that integrates the knowledge base and minimizes the risk of failure for all stages of the tailings facility lifecycle.

REQUIREMENT 5.2: no basis for what constitutes a minimum water balance plan. Given the criticality of water in failures; the only variable companies can actively manage, there should be a basis of what is a minimum standard as well as reporting frequencies. This may be contained within the suggested water management plans – however there is no set standard referenced.

REQUIREMENT 7.4: There is little in here around the surveillance, are there any best practice references you wish to include? Otherwise operators will be left to define what they mean by it

PRINCIPLE 8: Design, implement and operate monitoring systems

(202 words) – There are more words in the preamble or in the footnotes of page 9 than in the section for monitoring. Given the criticality of monitoring and the lack of escalation and controls put in place for monitoring being key to the recent failures we believe this section should be of greater depth and detail.

REQUIREMENT 8.2: Says to record, evaluate and publish at an “appropriate frequency”. This fails to address what appropriate is and continues to leave room for mining companies to choose when, what and if ever to publish. The Chilean program continues to set standards in this regard, having set what is minimum in terms of instruments, the reporting frequency minimums and also where they have to report to and the access others have to that information. We would want to see as a minimum replication of the work done in Chile.

REQUIREMENT 8.3: The decision to analyse data is to be set by the EOR (engineer of record). Although this is a step in the right direction, it is clearly a step back in terms of responsibility on and

off site. Board level members are responsible for TFS' yet data is only be analysed as/when the EOR deems appropriate. This makes no change to the current system and leaves knowledge gaps. It would be best practice to ensure there was a real time mechanism for reporting and analysis.

Performance outside the expected ranges shall be addressed swiftly through critical controls or trigger response action plans – yet reviews are only as/when recommended by the EOR

TOPIC IV: MANAGEMENT AND GOVERNANCE

REQUIREMENT 10.2: what is the process for companies with multiple dams (tens or hundreds)? This seems impractical and a system of reporting and monitoring should be set in place for upwards reporting. Without this we run the risk of two issues – 1 the reporting and meetings simply will not happen as they cannot be managed (there is no definition for “regular scheduled communication”. 2) one EOR becomes responsible for multiple facilities, which would be impractical on the EOR side and would undermine the impartiality of the engineer. You could have the very probable situation of one EOR responsible for 50+ dams. This would be unsustainable workload and mean that the process was undermined.

REQUIREMENT 10.4: This may drive the wrong behaviours, rewarding employees on integrity of TFSs. It should be noted that other failures e.g. SAMARCO showed over time many issues which were warning signs. These, it was concluded were not reported upwards and acted upon. Remunerating employees based on these kind of factors could potentially drive poor decisions and should be taken with caution.

TOPIC VI: PUBLIC DISCLOSURE AND ACCESS TO INFORMATION

PRINCIPLE 17: Provide public access to information on tailings facility decisions, risks and impacts, management and mitigation plans, and performance monitoring

REQUIREMENT 17.3: We applaud this commitment, however we would like to see greater information as to what this means in practice - its easy to say, harder to do