

Consultation response

Part 1: Your details

Original language of response: English

Name: Thomas Hartney

Country of residence: Ireland

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: Mineral Benefication (Alumina Extraction)

Are you responding on behalf of an organization? Yes

Please give the name of the organization: Rusal Aughinish (Ireland) subsidiary of United Company RUSAL

Your level within the organisation: Officer

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?

Your comments on Principle 1

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, Requirement 2.1

Your comments on Principle 2

PRINCIPLE 2 , the word ""sites"" should be prefixed by the word ""NEW sites"" to distinguish from existing sites. The footnote 9 referring to Technologies should be revised to "" The Standard does not endorse or ban any specific design technology

such as upstream tailings facilities. The "" endorsing or banning"" of technologies was outside the Expert Panel's scope of work.....""

Req. 2.1 the words "" feasible sites"" should be replaced by the words "" viable sites""

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?

Which aspects of Principle 4 do your comments relate to?

Requirement 4.1, Requirement 4.3

Your comments on Principle 4

4.1a) replace ""no potential"" with ""a non credible potential""

4.1b) after ""feasible"" insert ""unless unless either the Operator through legal acquisition or the appropriate Regulatory authority has zoned the prohibition of directly affected downstream residential activities and settlements""

4.3 after ""reduce the risks"" replace ""potential failure"" with ""credible failure""

replace ""greatest extent possible"" with ""be reasonably practicable""

OTHER COMMENTS In order to focus the Standard on the effective management of the most significant business risks WE propose the following:

1. Accept a TSF classification:
 - 1.1. by size (design capacity) -- risk of physical damage in case of accidents,
 - 1.2. by significant content of hazardous pollutants in tailings dumps, that stable in the natural environment-the risk of irreversible pollution of land and water.
2. Define applicable TSF classes for each Principle of the Standard.
3. Accept by default that principles are applied to designed / planned enterprises with their designed / planned TSF.
4. Separately mark principles that applicable for existing enterprises with their TSF (existing and designed/developing).
5. Add notes that existing enterprises operate in defined circumstances, including socio-economic and natural environment, as result diversity of technological solutions by such enterprises is limited by the history of an enterprise. Acceptability

must be technically and economically feasible.

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?

Requirement 5.1, Requirement 5.6

Your comments on Principle 5

5.1 replace ""external tailings"" with ""above ground tailings"" 5.6 replace ""immediate implementation"" with ""planned implementation""

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 6.4

Your comments on Principle 6:

6.4 Replace ""EOR"" with ""Designer of Record""

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 7.5

Your comments on Principle 7

7.5 Replace "" Deviance Accountability Report "" by either "" Change Accountability Report "" or ""Design Variance Report"". The word ""deviance "" has totally non professional connotations

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 8.1

Your comments on Principle 8

8.1 Replace ""all potential failure modes"" with ""all credible failure modes""

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?

Your comments on Principle 10:

Principle 11

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 11 do your comments relate to?

Requirement 11.1, Requirement 11.4

Your comments on Principle 11:

11.1 insert after " IRTB " as follows "IRTB or Senior Technical Reviewer"

11.4 last sentence revise to " The DSR contractor can conduct a subsequent DSR on the same facility provided the EOR and Accountable Executive agree and document specific reasons for it." Comment on 11.4 The DSR contractor has valuable insight to give meaningful observations on subsequent DSR audits if he is familiar with the facility. The DSR is a snapshot audit in time and so much has to be absorbed by the DSR contractor during that snapshot.

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?

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:

We do not accept that the ""Extreme Classification"" should be the DEFAULT classification on existing facilities unless there is clear technical evidence to indicate that this is in fact the case.

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:

All mining and tailings companies adopting the same standard must be a very significant improvement on the existing situation

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:

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?

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:0000000921:Q83

Attachment 2 reference (if applicable)

PRINCIPLE	No.	REQUIREMENT	Proposed change denoted by red text
<p>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.</p>	N/A	N/A	<p>PRINCIPLE 2: Integrate the social, economic, environmental and technical information to select the new site and the technologies to minimize the risk of tailings facility failure.</p>
<p>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.</p>	2.1	<p>Undertake a formal, multi-criteria alternatives analysis of all feasible sites and technologies for tailings management with the goal of minimizing risk to people and the environment. Use the knowledge base to inform this analysis and to develop facility designs, inundation studies, a monitoring program, Emergency Preparedness and Response Plans (EPRP), and closure and post-closure plans.</p>	<p>Undertake a formal, multi-criteria alternatives analysis of all feasible viable sites and technologies for tailings management with the goal of minimizing risk to people and the environment. Use the knowledge base to inform this analysis and to develop facility designs, inundation studies, a monitoring program, Emergency Preparedness and Response Plans (EPRP), and closure and post-closure plans.</p>
	Footnote 9 under Req. 2.4	<p>The Standard does not ban any specific design technology such as upstream tailings facilities. The banning of technologies was outside the Expert Panel's scope of work.....</p>	<p>The Standard does not endorse or ban any specific design technology such as upstream tailings facilities. The endorsing or banning of technologies was outside the Expert Panel's scope of work.....</p>
<p>PRINCIPLE 4: Design, construct, operate and manage the tailings facility on the pre-sumption that the consequence of failure classification is 'Extreme', unless this pre-sumption can be rebutted.</p>	4.1	<p>Presume the consequence of failure classification of all new tailings facilities as being 'Extreme' (see Annex 2, Table 1: Consequence Classification Matrix) and design, construct, operate and manage the facility accordingly. This presumption can be rebutted if the following three conditions are met:</p>	<p>Presume the consequence of failure classification of all new tailings facilities as being 'Extreme' (see Annex 2, Table 1: Consequence Classification Matrix) and design, construct, operate and manage the facility accordingly. This presumption can be rebutted if the following three conditions are met:</p>

	4.1(a)	a) The knowledge base demonstrates that a lower classification can be applied for the near future, including no potential for impactful flow failures;	a) The knowledge base demonstrates that a lower classification can be applied for the near future, including a non credible no potential for impactful flow failures "
	4.1(b)	b) A design of the upgrade of the facility to meet the requirements of an 'Extreme' consequence of failure classification in the future, if required, is prepared and the upgrade is demonstrated to be feasible	b) A design of the upgrade of the facility to meet the requirements of an 'Extreme' consequence of failure classification in the future, if required, is prepared and the upgrade is demonstrated to be feasible unless either the Operator through legal aquisition or the appropriate Regulatory authority has zoned the prohibition of directly affected downstream residential activities and settlements
<p>PRINCIPLE 4: Design, construct, operate and manage the tailings facility on the pre-sumption that the consequence of failure classification is 'Extreme', unless this pre-sumption can be rebutted.</p>	4.3	Existing facilities shall comply with Requirements 4.1 and 4.2. Where the required upgrade is not feasible, the Board, or senior management (as appropriate based on the Operator's organizational structure), with input from the ITRB, shall approve the implementation of measures to reduce the risks of a potential failure to the greatest extent possible.	Existing facilities shall comply with Requirements 4.1 and 4.2. Where the required upgrade is not feasible, the Board, or senior management (as appropriate based on the Operator's organizational structure), with input from the ITRB, shall approve the implementation of measures to reduce the risks of a potential credible failure to the greatest extent possible "be reasonable practicable" .
<p>PRINCIPLE 5: Develop a robust design that integrates the knowledge base and mini-mizes the risk of failure for all stages of the tailings facility lifecycle.</p>	5.1	Consider implementation of alternative options, including but not limited to in-pit disposal and underground tailings placement, and application of the technologies selected according to Requirement 2.1, to minimize the amount of tailings and water placed in external tailings facilities.	Consider implementation of alternative options, including but not limited to in-pit disposal and underground tailings placement, and application of the technologies selected according to Requirement 2.1, to minimize the amount of tailings and water placed in external above ground tailings facilities.

	5.6	<p>REQUIREMENT 5.6: Design the closure stage in a manner that meets all the Requirements of the Standard with sufficient detail to demonstrate the feasibility of the closure scenario and allows immediate implementation of elements of the design, as required. The design should include, where possible, progressive closure and reclamation during operations.</p>	<p>Design the closure stage in a manner that meets all the Requirements of the Standard with sufficient detail to demonstrate the feasibility of the closure scenario and allows planned immediate implementation of elements of the design, as required. The design should include, where possible, progressive closure and reclamation during operations.</p>
<p>PRINCIPLE 6: Adopt design criteria that minimize risk.</p>	6.4	<p>The EOR shall prepare a Design Basis Report (DBR) that details the design criteria, including operating constraints, and that provides the basis for the design of all stages of the tailings facility lifecycle. The DBR must be reviewed by the ITRB or senior independent technical reviewer.</p>	<p>The EOR Designer shall prepare a Design Basis Report (DBR) that details the design criteria, including operating constraints, and that provides the basis for the design of all stages of the tailings facility lifecycle. The DBR must be reviewed by the ITRB or senior independent technical reviewer.</p>
<p>PRINCIPLE 7: Build and operate the tailings facility to minimize risk.</p>	7.5	<p>Implement a formal change management system that triggers the evaluation, review, approval and documentation of all changes to design, construction, operation and monitoring during the tailings facility lifecycle. The change management system shall also include the requirement for a periodic Deviance Accountability Report (DAR), prepared by the EOR, that provides an assessment of the cumulative impact of the</p>	<p>Implement a formal change management system that triggers the evaluation, review, approval and documentation of all changes to design, construction, operation and monitoring during the tailings facility lifecycle. The change management system shall also include the requirement for a periodic Change Deviance Accountability Report (CAR) or Design Variance Report (DVR) , prepared by the EOR, that provides an assessment of the cumulative impact of the changes on the risk level of as-constructed facility. The DAR shall provide any resulting requirements for updates to the design, DBR, OMS and the monitoring program.</p>

		changes on the risk level of as-constructed facility. The DAR shall provide any resulting requirements for updates to the design, DBR, OMS and the monitoring program.	
PRINCIPLE 8: Design, implement and operate monitoring systems.	8.1	Design, implement and operate a comprehensive performance monitoring program for the tailings facility that allows full implementation of the Observational Method and covers all potential failure modes.	REQUIREMENT 8.1: Design, implement and operate a comprehensive performance monitoring program for the tailings facility that allows full implementation of the Observational Method and covers all credible-potential -failure modes.
PRINCIPLE 11: Establish and implement levels of review as part of a strong quality and risk management system for all stages of the tailings facility lifecycle.	11.1	Conduct and regularly update risk assessments with a qualified multi-disciplinary team using best practice methodologies. Transmit risk assessments to the ITRB for review, and address with urgency all risks considered as unacceptable.	REQUIREMENT 11.1: Conduct and regularly update risk assessments with a qualified multi-disciplinary team using best practice methodologies. Transmit risk assessments to the ITRB or Senior Technical Reviewer for review, and address with urgency all risks considered as unacceptable.
	11.4	A senior independent technical reviewer shall conduct an independent DSR periodically (every 3 to 10 years, depending on performance and complexity, and the Consequence Classification of the tailings facility). The DSR shall include technical, operational and governance aspects of the tailings facility	A senior independent technical reviewer shall conduct an independent DSR periodically (every 3 to 10 years, depending on performance and complexity, and the Consequence Classification of the tailings facility). The DSR shall include technical, operational and governance aspects of the tailings facility and shall be done according to best practices. The DSR contractor cannot conduct a subsequent DSR on the same facility provided the EOR and Accountable Executive agree and document specific reasons for it.

		and shall be done according to best practices. The DSR contractor cannot conduct a subsequent DSR on the same facility.	
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In order to focus the Standard on the effective management of the most significant business risks we propose the following:

1. Accept a TSF classification:
 - 1.1. by size (design capacity) -- risk of physical damage in case of accidents,
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