

Consultation response

Part 1: Your details

Original language of response: English

Name: Thomas Henrie

Country of residence: United States

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: Mining Industry

If 'Other', please specify below:

Are you responding on behalf of an organization? Yes

Please give the name of the organization: Materion

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?

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?

Which aspects of Principle 2 do your comments relate to?

Your comments on Principle 2

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?

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?

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?

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?

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?

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?

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?

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?

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?

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?

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?

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?

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?

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?

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?

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):

Please summarize why you chose this option:

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):

Please summarize why you chose this option:

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)?

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:0000001016:Q83

Attachment 2 reference (if applicable)

December 20, 2019

Submitted via online portal to
www.globaltailingsreview.org

Comments on the November 2019 Draft Global Tailings Standard

Materion Natural Resources Inc. submits these comments on the November 2019 Draft Global Tailings Standard (hereinafter referred to as the “draft standard.” While the draft standard seeks the laudable goal of preventing harm to human health and the environment, it can be improved.

LACK OF DIFFERENTIATION OF TAILINGS FACILITIES

The draft standard explicitly states that it “compels” all tailings facilities to comply with its planning, design, construction, operation, maintenance, monitoring and closure requirements. The draft standard fails to recognize differences that exist when widely varying facilities seek to apply these standards. As a result, facilities that have no potential for impactful flow failures are compelled to undertake a wide variety of tasks for no corresponding benefit. The standard needs to be revised so that, where appropriate, such facilities are not covered and their tasks under the standard are streamlined.

In terms of the requirements to be met, there is a cluster of factors that warrant fewer and less burdensome requirements, especially where those requirements essentially apply under applicable law and have been completed. Thus, important differences exist among facilities that are either planned, existing or closed, and these differences can warrant different requirements. Likewise, small tailings facilities, those in arid or semi-arid areas that use evaporation to dry tailings and those remote from surface waters and population areas represent far less potentials for impactful flow failures. Thus, a small facility in a remote, flat desert area represents a far different situation than the facilities whose failures (“dams”) are referred in the Foreword to the draft standard and may warrant fewer and less burdensome requirements.

Most importantly, a different situation exists for facilities that are subject to regulatory controls and reviews by governmental agencies (which may require independent third-party review) under applicable law that details the planning, design, construction, operation, maintenance, monitoring and closure requirements for planned, existing and closed tailings facilities. While the draft standard recognizes that it does not pre-empt applicable legal standards, it fails to provide a path for the

recognition of these standards as well as other features, such as small facilities located in remote, flat desert areas, in the application of the standard. This failure will result of in the unproductive expenditure of time and effort to “check a box” where boxes have already been checked or have no application to a facility.

In sum, the standard needs to be tailored so that facilities do not have to make demonstrations or take other steps that are unproductive given existing compliance requirements and locational or other relevant features.

TABLE 1 CONSEQUENCE CLASSIFICATION MATRIX

Table 1 is to be applied so that the facility is classified according to the most extreme consequence described under the various loss categories. Some of the incremental loss categories contain an element, which is not objectively described, which by of themselves are insufficient to establish a loss. For example, under the environment category an element is “Process water moderately toxic.” This element does not per se portend a release or an impact of any nature or degree. To seize upon a single element, such as this one, would produce an erroneous classification.

Few of the requirements of the draft standard take into account the Consequence Classification that is derived from applying the matrix. Greater use of this classification can be used to reduce the requirements for facilities that do not pose a high consequence for facility failures.

TAILINGS FACILITIES NOT LOCATED AT MINE SITES

Some tailings facilities, like that of Materion Natural Resources, are not located at the mine site. Some requirements, such as Requirement 5.2 requires plans for “the overall mine site.” These requirements should be revised so that they apply only to the site containing the tailings facility when the mining and milling occur at separate locations.

DESIGNS FOR ALL STAGES OF THE FACILITY

In contrast to some requirements which use the term “tailings facility,” some sections, such as Requirement 5.5, require that a design be developed “for all stages of the facility.” These requirements should be clarified so that the term “tailings facility” is used consistently throughout the draft standard to avoid confusion. Some mining properties contain decades of ore reserves, and it is premature to develop plans for portions of the “facility” that will not be mined or otherwise used for many years.

Likewise, for tailings facilities that are designed to be capable of expanded, the design requirements for possible, contingent expansions should not be expected to be nearly as detailed as the designs for the construction currently planned. This change would avoid the need for costly designs that are never constructed or multiple designs of expansions as plans change in the future.

ANNUAL AND TRIENNIAL REVIEWS

Requirement 7.3 requires preparation of a detailed Construction Records Report at least annually. No such report should be required when a tailings facility is not undergoing construction.

Requirement 7.8 requires full review of “the ESMS and monitoring results every three years” and the preparation of annual summary reports to relevant stakeholders. As ESMS comprises the entirety of the requirements in the draft standard, review by independent senior technical reviewers would necessarily include elements where no change has occurred. Limiting such reviews to areas in which significant change or expansion had occurred would be more productive and efficient.

PARENT CORPORATION BOARD OF DIRECTORS ACTION SPECIFIC TO TAILINGS FACILITIES

Requirement 10.1 requires the Board of Directors of the ultimate parent corporation of the operator of the tailings facility to establish certain policies or make certain commitments with respect to the tailings facility. This requirement should be eliminated, as Boards of Directors should have the ability to establish corporate-wide policies that apply throughout the corporate enterprise and empower subsidiaries to achieve those policies through appropriate action relevant to their respective facilities.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tom Henrie", with a stylized flourish extending to the right.

Thomas Henrie, PE
Site Operations Leader
Materion Natural Resources

Cc Veronika Shime, NMA Vice President, International Policy