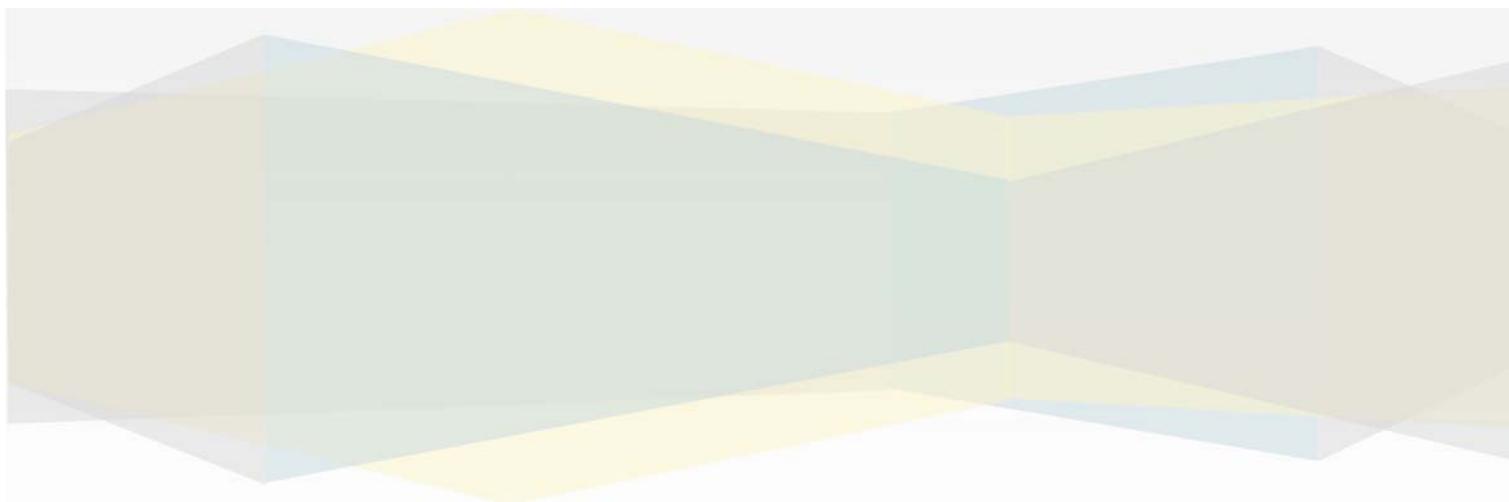# Towards Sustainable Mining

Tailings Management Protocol

TSM ASSESSMENT PROTOCOL

A Tool for Assessing Tailings Management Performance

Purpose

The purpose of the assessment protocol is to provide guidance to facilities in completing their evaluation of tailings management performance against TSM indicators. The assessment protocol sets out the general expectations for tailings management as part of the TSM initiative.

As with any assessment of a management system, professional judgment is required in assessing the degree of implementation of a system indicator and the quality of management processes and intervention. Application of this protocol will, therefore, require a level of expertise in auditing and systems assessment and knowledge of and experience in the practice of tailings management. This assessment protocol provides an indicator of the level of implementation of proactive tailings management practices as part of the TSM initiative. It is not, of itself, a guarantee of the effectiveness of tailings management activities.

Performance Indicators

Five performance indicators have been established:

1. Tailings management policy and commitment
2. Tailings management system
3. Assigned accountability and responsibility for tailings management
4. Annual tailings management review
5. Operation, maintenance and surveillance (OMS) manual

While this protocol focuses on the physical management of tailings facilities and internal accountability and review mechanisms, an additional critical component of good practice in tailings management is community engagement. TSM addresses tailings related community engagement as part of a broader topic on engagement regarding risks to communities and as such, tailings engagement requirements are contained in the TSM Aboriginal and Community Outreach Protocol. Specifically, Indicator 2 of the TSM Aboriginal and Community Outreach Protocol requires facilities to have processes in place to engage with COI on credible risks to the public that are associated with company activities, including tailings management. Specific topics for engagement should be determined through dialogue with COI.

Action Plans

Facilities that have not achieved a minimum of a Level A for the tailings management indicators are required to disclose in their company profile section of the annual TSM Progress Report actions that the company intends to take to achieve a Level A.

Tailings management action plans should address at a minimum:

- Identified gaps in indicators where the facility has not achieved a Level A
- Specific actions the company will take to reach a Level A
- Timeline for implementing actions
  (note: actions must be implemented within three years)

1. TAILINGS MANAGEMENT POLICY AND COMMITMENT

Purpose

To confirm that companies have established and effectively communicated a policy and commitment that expresses intention, commitments and principles in relation to tailings management.

Tailings Management Policy and Commitment: *Assessment Criteria*

LEVEL	CRITERIA
C	No tailings management policy and/or commitments developed. Policy and/or commitments assumed to be covered by overall site management policies, but these do not specifically address tailings management. Action plan to meet the requirements of Level A has been developed.
B	Tailings management policy and/or commitments are in place, but not in conformance with MAC's *A Guide to MAC's A Guide to the Management of Tailings Facilities*. Action plan to meet the requirements of Level A has been developed.
A	**Policy and/or commitments:** • Are in conformance with MAC's A Guide to the Management of Tailings Facilities; • Are approved by senior management and endorsed at governance level. **There is a process in place to ensure that:** • The policy and/or commitments are communicated to employees; • Employees and contractors whose roles, either directly or indirectly, may affect the safety of tailings facilities understand the policy to a degree appropriate to their relevant level and function; and • Policy and/or commitments are implemented with budget allocation. Internal audit is conducted to determine whether the tailings management policy and commitments, and their implementation, meet the requirements listed above.
AA	External audit is conducted to determine whether the tailings management policy and commitments, and their implementation, meet the requirements of Level A.
AAA	The external audit, as outlined in Level AA, also involves an evaluation of the effectiveness of the policy, commitments and their implementation.

Tailings Management Policy and Commitment Frequently Asked Questions

#	FAQ	PAGE
1	Does a "tailings policy" have to be a stand-alone document?	13
2	Can corporate documentation be used to demonstrate commitment?	13
3	Can a facility effectively implement a tailings management system without having a tailings management policy in place?	13
4	Indicator 1 seeks to confirm that there is a process in place to ensure that employees and contractors with direct or indirect responsibilities for the safety of tailings facilities understand the policy. What are some examples of positions with direct and indirect responsibilities for the safety of tailings facilities?	13
7	What does "audit" mean?	14
8	What does "evaluation of effectiveness" mean?	14
9	What is meant by the governance level of the company?	15
10	What does it mean to be in conformance with the Guide to the Management of Tailings Facilities and Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities?	15

2. TAILINGS MANAGEMENT SYSTEM

Purpose

To confirm that companies have a tailings management system in conformance with the tailings management framework in MAC's *A Guide to the Management of Tailings Facilities* aimed at to providing a systematic structure for the assessment of risks, setting of goals and objectives, implementation of activities to achieve goals, assignment of responsibilities, and assurance processes to ensure that tailings facilities are managed safely and effectively.

Tailings Management System: *Assessment Criteria*

LEVEL	CRITERIA
C	No tailings management system developed, documented or implemented. Action plan to meet the requirements of Level A has been developed.
B	Tailings management system is implemented but not in conformance with the tailings management framework in MAC's *A Guide to the Management of Tailings Facilities*; or Gap analysis of existing management practices against the MAC tailings management framework prepared. Development of a tailings management system in conformance with the tailings management framework in MAC's A Guide to the Management of Tailings Facilities underway. Action plan to meet the requirements of Level A has been developed.
A	Tailings management system is in conformance with the tailings management framework in MAC's A Guide to the Management of Tailings Facilities, and implemented. It includes relevant requirements related to all life phases of the tailings facilities such as site investigation and selection, design, construction, operation and post-closure. Internal audit is conducted to determine whether the tailings management system meets the requirements listed above.
AA	External audit is conducted to determine whether the tailings management system meets the requirements listed in Level A.
AAA	External audit as outlined in Level AA also involves an evaluation of the effectiveness of the tailings management system, and its implementation.

Tailings Management System: *Frequently Asked Questions*

#	FAQ	PAGE
3	Can a facility effectively implement a tailings management system without having a tailings management policy and/or commitments in place?	13
7	What does "audit" mean?	14
8	What does "evaluation of effectiveness" mean?	14
10	What does it mean to be in conformance with the Guide to the Management of Tailings Facilities and Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities?	15
12	Does a tailings management system need stand-alone documentation?	16

3. ASSIGNED ACCOUNTABILITY AND RESPONSIBILITY FOR TAILINGS MANAGEMENT

Purpose

To confirm that accountability is assigned to an executive officer (CEO or COO) and an appropriate management structure and resources are in place to provide assurance to the corporation that tailings are managed responsibly.

Assigned Accountability and Responsibility for Tailings Management: *Assessment Criteria*

LEVEL	CRITERIA
C	Accountability and responsibility for tailings-related issues and performance is defined, but not documented. Action plan to meet the requirements of Level A has been developed.
B	Documented assignment of accountability to an executive officer is in place and responsibility for tailings-related issues and performance has been delegated. Action plan to meet the requirements of Level A has been developed.
A	Documented assignment of accountability to an executive officer. Responsibility, budgetary authority and accountability for implementation of, and reporting on, the tailings management system is delegated in writing to qualified personnel, and is in conformance with the tailings management framework in MAC's A *Guide to the Management of Tailings Facilities*. Internal audit is conducted to determine whether there is documented assignment of accountability to an executive officer and delegated responsibility that meets the requirements listed above.
AA	External audit is conducted to determine whether there is documented assignment of accountability to an executive officer and delegated responsibility that meets the requirements of Level A.
AAA	The external audit as outlined in Level AA also involves an evaluation of the effectiveness of the assignments and/or delegations of accountability, responsibility and budget authority.

Assigned Accountability and Responsibility for Tailings Management: *Frequently Asked Questions*

#	FAQ	PAGE
5	How can a facility demonstrate whether personnel are "qualified"?	13
6	What are examples of actions that should be the responsibility of the accountable executive officer to demonstrate accountability for tailings management?	14
7	What does "audit" mean?	14
8	What does "evaluation of effectiveness" mean?	14
10	What does it mean to be in conformance with the Guide to the Management of Tailings Facilities and Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities?	15

4. ANNUAL TAILINGS MANAGEMENT REVIEW

Purpose

To confirm there is an annual review of tailings management that is reported to the accountable executive officer to ensure corporate governance over tailings facilities and to ensure that the company is satisfied that the tailings management organizational structures and systems are effective and continue to meet the needs of the organization.

Annual Tailings Management Review: *Assessment Criteria*

LEVEL	CRITERIA
C	No annual review of tailings management reported to the accountable executive officer. Periodic, un-documented reviews of the tailings management system and performance at the facility level, but not in conformance with the tailings management framework in MAC's *A Guide to the Management of Tailings Facilities*. Action plan to meet the requirements of Level A has been developed.
B	No annual review of tailings management reported to the accountable executive officer. Periodic, documented reviews of the tailings management system and performance at the facility level in conformance with the tailings management framework in MAC's *A Guide to the Management of Tailings Facilities*. Action plan to meet the requirements of Level A has been developed.
A	Documented annual review of tailings management is reported to the accountable executive officer. The review is in conformance with the tailings management framework in MAC's *A Guide to the Management of Tailings Facilities* and ensures that: • Deficiencies are identified and there are plans for corrective action with timelines. • Progress towards completing corrective actions are tracked and reported at least annually to the accountable executive officer. Internal audit is conducted to determine whether the annual tailings management review meets the requirements listed above. Results of the internal audit(s) are reported to the accountable executive officer.
AA	External audit is conducted to determine whether the annual tailings management review meets the requirements listed above. Results of the external audit(s) are reported to the accountable executive officer.
AAA	The external audit in Level AA also involves an evaluation of the effectiveness of the annual tailings management reviews. Results of the evaluation of effectiveness are reported to the accountable executive officer.

Annual Tailings Management Review: *Frequently Asked Questions*

#	FAQ	PAGE
7	What does "audit" mean?	14
8	What does "evaluation of effectiveness" mean?	14
10	What does it mean to be in conformance with the Guide to the Management of Tailings Facilities and Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities?	15

5. OMS MANUAL

Purpose

To confirm that the facility has developed and implemented a tailings OMS manual in conformance with *Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities* to serve as a key component in implementing the tailings management system (Indicator 2) and to provide a reference point to facilitate continuity of knowledge regarding the tailings facility and its related requirements over time.

OMS Manual: *Assessment Criteria*

LEVEL	CRITERIA
C	No OMS manual developed. Action plan to meet the requirements of Level A has been developed.
B	OMS manual developed, but not in conformance with MAC's *Developing an Operating, Maintenance and Surveillance Manual for Tailings and Water Management Facilities*; or Development of OMS manual, in conformance with MAC's *Developing an Operating, Maintenance and Surveillance Manual for Tailings and Water Management Facilities*, is underway; and Roles and responsibilities for facility personnel are defined and documented. Action plan to meet the requirements of Level A has been developed.
A	OMS manual developed and implemented that is in conformance with MAC's Developing an *Operating, Maintenance and Surveillance Manual for Tailings and Water Management Facilities*. Emergency preparedness and response plans developed and tested that are in conformance with MAC's Developing an *Operating, Maintenance and Surveillance Manual for Tailings and Water Management Facilities*. Internal audit is conducted to determine whether the OMS Manual meets the requirements listed above.
AA	External audit is conducted to determine whether the OMS Manual meets the requirements listed in Level A.
AAA	External audit as outlined in Level AA also involves an evaluation of the effectiveness of the OMS Manual and the emergency preparedness and response plans.

OMS Manual: *Frequently Asked Questions*

#	FAQ	PAGE
7	What does "audit" mean?	14
10	What does it mean to be in conformance with the Guide to the Management of Tailings Facilities and Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities?	15

APPENDIX 1: FREQUENTLY ASKED QUESTIONS

Protocol-Specific Guidance

1. Does a "tailings policy" have to be a stand-alone document?

No. MAC's A Guide to the Management of Tailings Facilities states (Section 2.1) that the requirement for a specific tailings policy can be met within an overarching company operations or environmental policy if that policy contains specific reference to tailings management, which includes the policies and commitments as outlined [in the Guide].

2. Can corporate documentation be used to demonstrate commitment?

Written senior management commitment at the corporate level (e.g. a corporate policy) can be accepted as evidence during a corporate and/or facility-level self-assessment or TSM verification if it is accompanied by evidence that the corporate commitment is being applied and adhered to. There must be evidence of a link between the corporate documentation and facility-level practices. If this linkage is established, then the corporate documentation can be accepted as evidence of corporate and/or facility-level commitment.

3. Can a facility effectively implement a tailings management system without having a tailings management policy and/or commitments in place?

No. There is a direct linkage between Indicators 1 and 2 of this protocol. A facility must have a tailings management policy and/or commitments in place in order to effectively implement a tailings management system, since the policy provides direction and is part of the management system. A facility cannot achieve a Level A for Indicator 2 (Tailings Management System) if it has not achieved a Level A or higher for Indicator 1 (Tailings Management Policy).

4. Indicator 1 seeks to confirm that there is a process in place to ensure that employees and contractors with direct or indirect responsibilities for the safety of tailings facilities understand the policy. What are some examples of positions with direct and indirect responsibilities for the safety of tailings facilities?

Examples of those with direct responsibility for the safety of tailings facilities would include mill managers, tailings pipeline inspectors, and employees undertaking geotechnical surveillance and environmental monitoring activities. An example of a position with indirect responsibilities for the safety of tailings facilities include supply chain personnel as they may order critical control parts, pipes, etc. for the tailings facilities, but do not work directly on tailings.

5. How can a facility demonstrate whether personnel are "qualified"?

Considerations for determining whether a person is qualified include, but are not limited to:

- previous training experience
- previous experience in performing the task/activity
- knowledge and specific safety and tailings-related training
- formal education and training
- regulatory or industry-driven definitions of "qualified"

6. What are examples of actions that should be the responsibility of the accountable executive officer to demonstrate accountability for tailings management?

Examples of actions the accountable executive officer can take to demonstrate accountability for tailings management could include:

- ensuring that the senior management team and/or Board or governance level are appropriately informed on tailings management issues;
- reviewing risk assessment results;
- participating in tailings reviews;
- reviewing and approving adequate resources for tailings management;
- participating in independent tailings review meetings; and
- participating in crisis management planning simulation exercises.

7. What does "audit" mean?

Audit of tailings facility management is undertaken to demonstrate conformance with MAC's _A Guide to the Management of Tailings Facilities._ It is conducted by an individual or team which, although perhaps employed by the company, is in a position to be independent, impartial and objective with regard to the evaluated site or facility.

This should not be confused with the verification system as described in the TSM Assessment Protocols, which is – largely a desk-top exercise in which the TSM rating self-assigned by a facility or company against a given indicator is verified. The TSM verification is not equivalent to an audit or assessment of tailings facility management as outlined in the preceding paragraph.

MAC's _A Guide to the Management of Tailings Facilities_ defines audit as follows:
Audits (both internal and external): the formal, systematic and documented examination of a tailings facility's conformance with explicit, agreed, prescribed criteria, often requirements stipulated in law or regulation or, in the Owner's tailings management system. Audits evaluate and report on the degree of conformance with stipulated criteria, based on the systematic collection and documentation of relevant evidence. Audits involve some degree of judgment but are not designed to determine root cause of deficiencies, or to evaluate management system effectiveness.

External audits are conducted by auditors who are external to the company being audited. Independence can be demonstrated by the freedom from responsibility for the activity being audited or freedom from bias and conflict of interest. (ISO 19011).

8. What does "evaluation of effectiveness" mean?

An evaluation of effectiveness goes beyond determining whether a condition has been met, and includes an assessment of whether the system (or components thereof) is achieving the intended results. It considers both the extent to which planned activities have been realized, and the extent to which desired results and outcomes have been achieved.

Criteria to be examined will depend on the scope of the evaluation. Typical sources of information that should be considered when evaluating **system effectiveness** include changes

in internal/external conditions that could have a bearing on the system and achievement of established objectives

Performance results and trends that should be evaluated to determine the effectiveness of management system and its implementation include:

- The extent to which objectives have been achieved
- The extent to which planned activities have been implemented as intended
- Fulfilment of compliance obligations
- Non-conformities and corrective actions based on inspection and audit results
- Surveillance results
- Adequacy of resources to support achievement of objectives
- Any additional relevant information or feedback from COIs or others

9. What is meant by the governance level of the company?

For the purposes of the *Tailings Management Protocol*, the company board of directors (or a sub-committee of the Board of Directors) is considered the governance level of a company. For companies headquartered outside of Canada that do not have a Canadian Board of Directors, the governance level would be equivalent to the highest level committee or board within Canada that provides oversight and review of tailings management activities. Endorsement of the tailings management policy and/or commitments at the governance level will vary from company to company. For example, a board resolution adopting the policy will be appropriate for some companies, while others will fulfill this requirement through a presentation on the tailings management policy to a sub-committee of the board of directors.

10. What does it mean to be in conformance with the Guide to the Management of Tailings Facilities and Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities?

For Indicators 1-4, facilities must be able to demonstrate conformance with the Guide to the Management of Tailings Facilities (Tailings Guide) to achieve Level A performance. The Table of Conformance provided in Appendix 3 defines which aspects of the Tailings Guide must be implemented to achieve Level A for each indicator.

For Indicator 5, facilities must be able to demonstrate conformance with *Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities* (OMS Guide) to achieve Level A performance. Upon completion of the review of the OMS Guide, the Table of Conformance provided in Appendix 3 will be updated to also define which aspects of the OMS Guide must be implemented to achieve Level A for Indicator 5.

A facility would be deemed not conforming with the guides when there is a:

- an absence of a complete program area (e.g. risk assessment, training processes, independent review);
- a chronic deficiency of a single program area or a control that directly affects safety, environment or quality (e.g. routine exceedance of critical controls, monitoring requirements frequently missed).

Non-conformances that represent an administrative issue or a non-repetitive finding that does not directly affect safety, environment or quality (e.g. minor gap in training records, irregularity

in scheduled inspection records, etc.) should not prevent a facility from achieving a Level A for the relevant indicator.

Professional judgment must be applied in assessing the significance of identified non-conformances.

11. How long are audits valid?

Internal and external audits remain valid up to a maximum of three years for active tailings facilities or inactive tailings facilities within the footprint of an operating mine or ore processing facility. The schedule of internal and external audits for inactive tailings facilities is not subject to this requirement and companies have the flexibility to schedule their audits for inactive tailings facilities on a site-specific basis in accordance with the assessed risk.

12. Does a tailings management system need stand-alone documentation?

No. Reference to a 'tailings management system' does not imply the need for separate documentation exclusively for a stand-alone management system for tailings. A tailings management system will likely prove most effective and resilient if incorporated into broader site management systems but it is ultimately up to each company to decide how best to organize and integrate the relevant tailings-related information.

Definition of Key Terms

13. What is a "system"?

A system, or "management system" represents processes and procedures that collectively provide a systematic framework for ensuring that tasks are performed correctly, consistently and effectively to achieve a specified outcome and to drive continual improvement in performance. A systems approach to management requires an assessment of what needs to be done, planning to achieve the objective, implementation of the plan and review of performance in meeting the set objective. A management system also considers necessary personnel, resources and documentation requirements. Other definitions associated with systems are:

Policy: The expression of management's commitment to a particular issue area that presents the stance of the company to interested external parties.

Practice: Undocumented approaches to carrying out a task.

Procedure: A documented description of how a task is to be carried out.

14. What does "accountability" mean?

Accountability: The tailings management system must identify the party who is ultimately answerable for tailings management performance and the development and implementation of the tailings management system at the facility. This accountability cannot be delegated. Resources are available to the accountable party to ensure proper systems (training, equipment, communications, etc.) are in place to effectively meet their tailings management goals.

Overall accountability for tailings management must be assigned to an executive officer of the company. For companies headquartered in Canada, the executive officer is the CEO or COO.

For companies headquartered outside of Canada, accountability for tailings management should be assigned to the most senior executive in Canada.

15. What does "responsibility" mean?

Responsibility: Within the tailings management system, specific tailings management related requirements and tasks are identified and assigned to qualified personnel within the facility. It is important that responsibilities are clearly communicated so that each position understands what is expected of them.

APPENDIX 2: TSM SELF ASSESSMENT CHECKLIST

Tailings Management

Facility Name:		Company Name:	
Assessed By:		Date Submitted:	

Supporting Documentation / Evidence:	
NAME OF DOCUMENT	**LOCATION**

Interviewees:			
NAME	**POSITION**	**NAME**	**POSITION**

	QUESTION	Y	N	NA	DESCRIPTION & EVIDENCE
INDICATOR 1: TAILINGS MANAGEMENT POLICY AND COMMITMENT					
INDICATOR 1 LEVEL B	Is a tailings management policy and commitment in place, or is one being developed in conformance with MAC's *A Guide to the Management of Tailings Facilities*?				
	Has an action plan to meet the requirements of Level A been developed?				
	If you have answered "Yes" to all of the Level B questions, continue to the Level A questions. If you have not answered "Yes" to all of the Level A questions, assess the facility as a Level C.				
INDICATOR 1 LEVEL A	Is a tailings management policy and/or commitments in place that is in conformance with MAC's *A Guide to the Management of Tailings Facilities*?				
	Is the policy and/or commitments approved by senior management and endorsed at the governance level?				
	Is the policy and/or commitments communicated to employees?				
	Do employees and contractors whose roles, either directly or indirectly, may affect the safety of tailings facilities understand the policy to a degree appropriate to their relevant level and function?				
	Is the policy and commitment implemented with budget allocation?				
	Has an internal audit been conducted to determine whether the tailings management policy and commitments, and their implementation, meet the requirements listed above?				
	If you have answered "Yes" to all of the Level A questions, continue to the Level AA questions. If you have not answered "Yes" to all of the Level A questions, assess the facility as a Level B.				
INDICATOR 1 LEVEL AA	Has an external audit been conducted to determine whether the tailings management policy and commitments, and their implementation, meet the requirements of Level A?				

	QUESTION	Y	N	NA	DESCRIPTION & EVIDENCE
	If you have answered "Yes" to all of the Level AA questions, continue to the Level AAA questions. If you have not answered "Yes" to all of the Level AA questions, assess the facility as a Level A.				
INDICATOR 1 LEVEL AAA	Did the external audit as outlined in Level AA also involve an evaluation of the effectiveness of the policy, commitments and their implementation?				
	If you have answered "Yes" to all of the Level AAA questions, assess the facility as a Level AAA. If you have not answered "Yes" to all of the Level AAA questions, assess the facility as a Level AA.				
	ASSESSED LEVEL OF PERFORMANCE FOR INDICATOR 1				**Level: _____**

	QUESTION	Y	N	NA	DESCRIPTION & EVIDENCE
INDICATOR 2: TAILINGS MANAGEMENT SYSTEM					
INDICATOR 2 LEVEL B	Has a tailings management system been implemented, or has a gap analysis of existing management practices against the MAC tailings management framework been prepared?				
	Is development underway of a tailings management system that is in conformance with the tailings management framework in MAC's *A Guide to the Management of Tailings Facilities?*				
	Has an action plan to meet the requirements of Level A been developed?				
	If you have answered "Yes" to all of the Level B questions, continue to the Level A questions. If you have not answered "Yes" to all of the Level B questions, assess the facility as a Level C.				
INDICATOR 2 LEVEL A	Is the tailings management system in conformance with the tailings management framework in MAC's *A Guide to the Management of Tailings Facilities,* and implemented?				
	Does the tailings management system include relevant requirements related to all life phases of the tailings facilities such as site investigation and selection, design, construction, operation and post-closure?				
	Has an internal audit been conducted to determine whether the tailings management system meets the requirements listed in Level A?				
	If you have answered "Yes" to all of the Level A questions, continue to the Level AA questions. If you have not answered "Yes" to all of the Level A questions, assess the facility as a Level B. *NOTE: A tailings management policy is an inherent component of the tailings management system, and a facility cannot achieve Level A on Indicator #2 without achieving Level A or higher on Indicator #1.*				

	QUESTION	Y	N	NA	DESCRIPTION & EVIDENCE
INDICATOR 2 LEVEL AA	Has an external audit been conducted to determine whether the tailings management system meets the requirements listed in Level A?				
	If you have answered "Yes" to all of the Level AA questions, continue to the Level AAA questions. If you have not answered "Yes" to all of the Level AA questions, assess the facility as a Level A.				
INDICATOR 2 LEVEL AAA	Did the external audit as outlined in Level AA also involve an evaluation of the effectiveness of the tailings management system, and its implementation?				
	If you have answered "Yes" to all of the Level AAA questions, assess the facility as a Level AAA. If you have not answered "Yes" to all of the Level AAA questions, assess the facility as a Level AA.				
	ASSESSED LEVEL OF PERFORMANCE FOR INDICATOR 2		**Level: _____**		

	QUESTION	Y	N	NA	DESCRIPTION & EVIDENCE
INDICATOR 3: ASSIGNED ACCOUNTABILITY AND RESPONSIBILITY FOR TAILINGS MANAGEMENT					
INDICATOR 3 LEVEL B	Has accountability for tailings management been assigned to an executive officer?				
	Has responsibility for tailings-related issues and performance been delegated?				
	Has an action plan to meet the requirements of Level A been developed?				
	If you have answered "Yes" to all of the Level B questions, continue to the Level A questions. If you have not answered "Yes" to all of the Level B questions, assess the facility as a Level C.				
INDICATOR 3 LEVEL A	Has responsibility, budgetary authority and accountability for implementation of, and reporting on, the tailings management system been delegated in writing to qualified operations and/or corporate personnel, and is it in conformance with the tailings management framework in MAC's *A Guide to the Management of Tailings Facilities*?				
	Has an internal audit been conducted to determine whether there is documented assignment of accountability to an executive officer and delegated responsibility that meets the requirements listed above?				
	If you have answered "Yes" to all of the Level A questions, continue to the Level AA questions. If you have not answered "Yes" to all of the Level A questions, assess the facility as a Level B.				
INDICATOR 3 LEVEL AA	Has an external audit been conducted to determine whether there is documented assignment of accountability to an executive officer and delegated responsibility that meets the requirements of Level A?				
	If you have answered "Yes" to all of the Level AA questions, continue to the Level AAA questions. If you have not answered "Yes" to all of the Level AA questions, assess the facility as a Level A.				
INDICATOR 3 LEVEL AAA	Did the external audit as outlined in Level AA also involves an evaluation of the effectiveness of the assignments and/or delegations of accountability, responsibility and budget authority?				

	QUESTION	Y	N	NA	DESCRIPTION & EVIDENCE
	If you have answered "Yes" to all of the Level AAA questions, assess the facility as a Level AAA. If you have not answered "Yes" to all of the Level AAA questions, assess the facility as a Level AA.				
	ASSESSED LEVEL OF PERFORMANCE FOR INDICATOR 3				**Level: _____**

	QUESTION	Y	N	NA	DESCRIPTION & EVIDENCE
INDICATOR 4 LEVEL B	Are there periodic reviews of the tailings management system and performance at the facility level in conformance with the tailings management framework in MAC's *A Guide to the Management of Tailings Facilities*?				
	Has an action plan to meet the requirements of Level A been developed?				
	If you have answered "Yes" to all of the Level B questions, continue to the Level A questions. If you have not answered "Yes" to all of the Level B questions, assess the facility as a Level C.				
INDICATOR 4 LEVEL A	Are the results of the documented annual review of tailings management reported to the accountable executive officer?				
	Is the review in conformance with the tailings management framework in MAC's *A Guide to the Management of Tailings Facilities?*				
	Does the review ensure that: • Deficiencies are identified and there are plans for corrective action with timelines, and • Progress towards completing corrective actions are tracked and reported to the accountable executive officer?				
	Has an internal audit been conducted to determine whether the annual tailings management review meets the requirements listed above?				
	If you have answered "Yes" to all of the Level A questions, continue to the Level AA questions. If you have not answered "Yes" to all of the Level A questions, assess the facility as a Level B.				
INDICATOR 4 LEVEL AA	Has an external audit been conducted to determine whether the annual tailings management review meets the requirements listed above?				

INDICATOR 4: ANNUAL TAILINGS MANAGEMENT REVIEW

	QUESTION	Y	N	NA	DESCRIPTION & EVIDENCE
	If you have answered "Yes" to all of the Level AA questions, continue to the Level AAA questions. If you have not answered "Yes" to all of the Level AA questions, assess the facility as a Level A.				
INDICATOR 4 LEVEL AAA	Did the external audit as outlined in Level AA also involve an evaluation of the effectiveness of the annual tailings management reviews?				
	If you have answered "Yes" to all of the Level AAA questions, assess the facility as a Level AAA. If you have not answered "Yes" to all of the Level AAA questions, assess the facility as a Level AA.				
	ASSESSED LEVEL OF PERFORMANCE FOR INDICATOR 4				**Level: _____**

	QUESTION	Y	N	NA	DESCRIPTION & EVIDENCE
INDICATOR 5: OMS MANUAL					
INDICATOR 5 LEVEL B	Has an OMS manual been developed, or is an OMS manual, in conformance with MAC's *Developing an Operating, Maintenance and Surveillance Manual for Tailings and Water Management Facilities*, being prepared?				
	Have roles and responsibilities for facility personnel been defined and documented?				
	Has an action plan to meet the requirements of Level A been developed?				
	If you have answered "Yes" to all of the Level B questions, continue to the Level A questions. If you have not answered "Yes" to all of the Level B questions, assess the facility as a Level C.				
INDICATOR 5 LEVEL A	Has an OMS manual been developed and implemented in conformance with MAC's *Developing an Operating, Maintenance and Surveillance Manual for Tailings and Water Management Facilities*?				
	Have emergency preparedness and response plans been developed and tested that are in conformance with MAC's *Developing an Operating, Maintenance and Surveillance Manual for Tailings and Water Management Facilities*?				
	Has an internal audit been conducted to determine whether the OMS Manual meets the requirements listed above?				
	If you have answered "Yes" to all of the Level A questions, continue to the Level AA questions. If you have not answered "Yes" to all of the Level A questions, assess the facility as a Level B.				
INDICATOR 5 LEVEL AA	Has an external audit been conducted to determine whether the OMS Manual meets the requirements listed in Level A?				
	If you have answered "Yes" to all of the Level AA questions, continue to the Level AAA questions. If you have not answered "Yes" to all of the Level AA questions, assess the facility as a Level A.				

	QUESTION	Y	N	NA	DESCRIPTION & EVIDENCE
INDICATOR 5 LEVEL AAA	Did the external audit as outlined in Level AA also involve an evaluation of the effectiveness of the OMS Manual and the emergency preparedness and response plans?				
	If you have answered "Yes" to all of the Level AAA questions, assess the facility as a Level AAA. If you have not answered "Yes" to all of the Level AAA questions, assess the facility as a Level AA.				
	ASSESSED LEVEL OF PERFORMANCE FOR INDICATOR 5			**Level: _____**	

For more information about the TSM initiative, visit:

The Mining Association of Canada
www.mining.ca/tsm

Mining Association of British Columbia
www.mining.bc.ca/tsm

Quebec Mining Association
www.amq-inc.com

Finnish Mining Association
www.kaivosvastuu.fi/in-english

The Argentinean Chamber of Mining Entrepreneurs (CAEM)
www.caem.com.ar/hms/

Botswana Chamber of Mines
www.bcm.org.bw