



## **MINING ASSOCIATION OF CANADA'S GUIDANCE ON TAILINGS MANAGEMENT**

Presented By

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This short course will provide an in-depth examination of the principles of responsible tailings management, with a focus on risk management and continual improvement. The session will be based on two key guidance documents on tailings management produced by the Mining Association of Canada (MAC):

- *A Guide to the Management of Tailings Facilities* (the Tailings Guide); and
- *Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities* (the OMS Guide)

Responsible tailings management is an important focus of MAC, the national industry association for mining in Canada. MAC released the first edition of the Tailings Guide in 1998, followed by the OMS Guide in 2003. In 2004, MAC established the *Towards Sustainable Mining*® (TSM®) initiative, with tailings management as a core component. Implementation of TSM at Canadian operations is a condition of MAC membership, and it is also being applied by members at operations around the world. In addition, TSM has been adopted by industry associations in Finland, Spain, Botswana, Argentina and the Philippines.

The Tailings Guide and OMS Guide are written for both Canadian and international audiences and are in use world-wide, and are recognized as leading practice. They are freely available and can be implemented at any site, regardless of whether TSM is being applied.

The Tailings Guides describes a management systems approach to tailings governance and management, building on principles in the ISO 14000 standards on environmental management, but tailored to the unique considerations and challenges of tailings management. The intent of the Tailings Guide is to facilitate the development and implementation of facility-specific tailings management systems that address the

specific needs of individual Owners and tailings facilities across the entire life cycle. The Tailings Guide does not provide technical guidance or standards for tailings facility design, construction or operation.

The third edition of the Tailings Guide was released in 2017 and reflects the outcomes of comprehensive internal and external reviews of the tailings management component of *TSM*, which were initiated in 2015. These reviews considered lessons learned and the evolution of best practices for tailings management in Canada and internationally.

The third edition of the Tailings Guide retains a strong emphasis on management systems, while strengthening technical components, especially those critical to the physical and chemical stability of tailings facilities. The Tailings Guide is also consistent **with the International Council of Mining & Metals' Tailings Governance Framework**. The third edition strengthens key concepts, including:

- integrating a risk-based approach into tailings management systems;
- selecting and implementing best available technologies and best available practices;
- designing and operating for closure; and
- independent review.

The OMS Guide provides guidance on developing site-specific operation, maintenance and surveillance manuals as an integral component of optimizing tailings facility performance and managing risk. MAC is currently finalizing the second edition of the OMS Guide, which expected to be released before the end of 2018. The second edition of the OMS Guide underscores the importance of developing OMS manuals on a site-specific basis, and:

- integrates a risk-based approach and critical controls management;
- strengthens guidance on developing and updating OMS manuals; and
- establishes clear linkages with emergency preparedness and response planning.

Short course participants will be provided with in-depth presentations on the Tailings Guide and OMS Guide, and will have opportunity to ask questions and discuss the guidance and concepts presented on both documents.

Course Instructors:

Michael Davies, Ph.D. - Senior Advisor, Tailings and Mine Waste, Teck Resources

Mike has been providing assistance to a wide array of technical considerations for the Teck organization. He is now in a phased retirement role from being Vice President Environmental for more than five years. Mike previously served as a consultant for

more than 25 years providing practical and cost-effective solutions to mine waste and related challenges.

Charles Dumaresq, M.Sc. - Vice President, Science and Environmental Management, Mining Association of Canada

**Charles has played a leadership role in MAC's review of their guidance on tailings management, and is also engaged on other regulatory and environmental aspects of mining, including effluent and water quality, and monitoring and mitigation of effects on the aquatic environment. Prior to joining MAC in 2015, Charles spent 22 years with Environment Canada, Canada's national environmental regulator, working on regulatory and policy development related to mining and the environment.**