



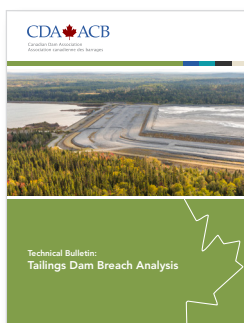
TAILINGS DAM BREACH ANALYSIS

Technical Bulletin

The Canadian Dam Association (CDA) published Technical Bulletin: *Tailings Dam Breach Analysis* in 2021, after extensive consultation and collaboration within the tailings dam community. This project was overseen by the CDA Mining Dams Committee.

Every tailings dam is unique and has site specific conditions and requirements that must be taken into consideration for any technical analysis, including tailings dam breach analysis (TDBA). The Bulletin addresses the need for guidelines that deal with the hydrotechnical, geotechnical, and rheological considerations that are specific to tailings outflows.

Best practices for TDBA are still evolving, and as such, this Bulletin aims to provide a consistent basis for analysis based on the current state of knowledge. The Bulletin outlines a process and key steps for conducting TDBA, applicable to both high-level or desktop-type (qualitative) analyses and to detailed (quantitative) analyses. These analyses are used to predict the potential impacts of a dam failure.



The Bulletin is available for purchase in print or PDF format, in English, French and Spanish, through Shop CDA at www.cda.ca.

CDA offers a professional development workshop which builds on the concepts from the Technical Bulletin. For more information, see the following page.



Workshop Description

CDA offers a workshop (short course) based on the *Technical Bulletin: Tailings Dam Breach Analysis*. The workshop has the following objectives:

- Promote the science of tailings dam breach analyses (TDBA) and build awareness on the risk of tailings dam failures
- Present and promote the use of *Technical Bulletin: Tailings Dam Breach Analysis*
- Provide training to dam safety professionals who undertake such studies for their sites and projects
- Share experiences and collect comments from participants to advance the current state of practice for TDBA

The workshop focuses on the issues and challenges that are specific to tailings dams and must be captured in such studies. The importance of these issues has become more apparent from recent catastrophic tailings dam failures.

The main topics to be covered in the workshop are:

1. A brief overview of the Bulletin and TDBA process
2. Terminology
3. Failure scenarios and modes/mechanisms of tailings dam breach
4. Geotechnical issues of tailings relevant to TDBA
5. Rheological behavior of tailings
6. Challenges to breach modelling and outflow hydrograph/volume estimation
7. Selection of TDBA modelling cases
8. Modelling of breach runout processes (hydraulic modeling)
9. Geo-mechanical models and their limitations
10. Scope and requirements of sensitivity analysis
11. Inundation mapping and reporting
12. Common mistakes and pitfalls
13. Case studies based on recent failures.

Target Audience

This workshop will be of particular interest to dam owners and operators of mining facilities, regulators, non-governmental organizations, emergency planners, risk assessors and the consultants who provide services to the owners. It is helpful if the participants already have some familiarity with tailings dam operation or management.

The workshop is intended to meet requirements for continuing professional development.

With support from:



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For more information visit www.cda.ca