

ICOLD Presents a Technical Workshop

Tailings Dam Safety

India Expo Centre - National Capital Region New Delhi

Monday 6th April – Wednesday 8th April, 2020



Why is this workshop important?

The world is focussing on tailings dam safety in a genuine attempt to improve the performance of the important structures. ICOLD is taking a leading role in this effort, with development of technical guidelines and education of practitioners to help raise the level of understanding and skills of industry.

This ICOLD workshop brings together a number of eminent engineering professionals to share state of the art knowledge on investigation, design, construction, operation and closure of tailings dams. The workshop will introduce aspects of the new ICOLD Technical Guidelines for Tailings Dam Safety with detailed demonstration on its application

This workshop highlights the collaborative nature of the world dams industry and the willingness of ICOLD members to share knowledge for the benefit of the broader industry.

Who should attend?

This workshop will help managers, designers and mine operational personnel involved in tailings management, to understand current international best practice and help them understand how to improve tailings dam safety.

What to expect?

The workshop will feature technical presentations from leading practitioners in the field of tailings dam design and operation, including:

- Overview of **Current Practice** – background to existing documents leading to the development of the **Global Standard** – the status of the ICOLD Technical Guidelines on Tailings Dam Safety
- Understanding of **Consequence Category** – Use of **Dam Break** simulation and flood mapping to highlight identification of consequences and selection of Consequence Category
- Latest developments in **Site Investigations** including deciding the scope and extent to limit unknowns
- Assessment of the potential for **liquefaction**, determining **residual strength** and designing for liquefaction
- **Stability Analysis** – Cases – Selection of **Design Parameters**– understanding **Factors of Safety** – need for and how to do **Deformation** modelling
- **Water Management** – hydrology – **flood** selection - **spillway** systems during operation and closure
- **Risk Assessment** – Qualitative and Quantitative Risk Assessment – how to do it and how to use it
- **Operations** – **Governance** and Organisation Structure - Preparing Operation Maintenance and Surveillance (**OMS**) **Manuals** and **Emergency Response Plans** (ERPs)
- **Closure** - how should closure be tied into the **life cycle**? - What are today's requirements?

Workshop sessions will allow attendees opportunity for discussion of vital issues affecting our industry approach to tailings dam design operation and closure.

Presenters/Panel Eminent practitioners from ICOLD member countries including ANCOLD, CDA and USSD

The main presenters would be:



1. **Mr. Harvey McLeod, P.Eng., P.Geo, Vice President, Strategic Marketing, Principal and** Chairman Tailing Subcommittee, 45 years' experience with tailings dams
2. **Mr. Andy Small**, Co-op member of the tailings subcommittee, 35 years' experience with tailings dam
3. **Mr. David Brett**, ANCOLD member of the tailings subcommittee, 35 years' experience with tailings dams.
4. **Mr. Annika Bjelkivik** Vice Chair of the Tailings Subcommittee and SwedCOLD member of the tailing subcommittee, 25 years' experience with tailings dams

PROGRAMME

Monday	6th April	8:30am - 5pm			Tailings Dam Workshop Day 1
		8:30	9:00	30	Registration
		9:00	9:15	15	Introduction
		9:15	10:00	45	Overview of Current Practice/Global Standard and ICOLD
		10:00	10:30	30	Break
		10:30	11:30	60	Dam Break Assessment for Consequence Evaluation for dam break and environmental spills and for Emergency Planning
		11:30	12:30	60	Liquefaction Overview
		12:30	13:30	60	Lunch
		13:30	14:15	45	Site testing for liquefaction Assessment
		14:15	15:00	45	Laboratory testing for liquefaction Assessment
		15:00	15:30	30	Break
		15:30	17:00	90	Workshop Session 1 - Liquefaction Practice
	17:00	17:00	0	Close Day 1	
Tuesday	7th April	9am - 5pm			Tailings Dam Workshop Day 2
		9:00	13:00	240	Tailings Dam Technical Committee Meeting
		13:00	14:00	60	Lunch
		14:00	14:45	45	Operations- Governance, Organisation Structure, Engineer of Record, Independent Review, and Dam Safety Reviews
		14:45	15:30	45	O&M Manuals and Emergency Preparedness
		15:30	16:00	30	Break
		16:00	17:30	90	Workshop Session 2 Operations
		17:30	17:30	0	Close Day 2
Wednesday	8th April	9am - 5pm			Tailings Dam Workshop Day 3
		9:00	9:15	15	Introduction
		9:15	10:05	50	Stability Analysis - Factors of Safety
		10:05	10:55	50	Performance Based Risk Informed Design
		10:55	11:20	25	Break
		11:20	12:10	50	Water Management - environmental storage/flood and spillway
		12:10	13:00	50	Designing for Closure
		13:00	14:00	60	Lunch
		14:00	15:00	60	Tailings Papers Session 1
		15:00	15:30	30	Break
		15:30	16:30	60	Tailings Papers Session 2
16:30	17:00	30	Conclusion and sum up		
	17:00	17:00	0	Close Day 3	