Tailings Dam Safety Management and Engineer of Record

April 23, 2020
Full Day Workshop

USSD Committee on Tailings Dams

Teaching Moment
Attendees will receive analysis of EOR/governance challenges which must be overcome to prevent further failures; a breakdown of recent changes to tailings dam safety management guidance documents and learn about their application; and share industry experiences with the EOR role.

Workshop Description
Inadequate Dam Safety Management Systems and governance have contributed to recent tailings dam failures. Current guidance for tailings dams includes the recent Canadian Dam Association update of Application of Dam Safety Guidelines to Mining Dams, the MAC 2017 Guide to the Management of Tailings Facilities, and the GBA 2018 Proposed Best Practices for Engineer of Record (EOR) for Tailings Dams. Other guidance and standards for tailings management are being developed by ICOLD and ICMM. Understanding and applying the various guidance documents is not straightforward. Specifically, navigating the responsibilities of the Dam Safety Management System (DSMS) team, including the EOR, is important for the safe and successful design and operation of a tailing facility.

The Workshop will present an analysis of the Mt. Polley, Samarco and Brumadinho failures and how the DSMS and EOR responsibilities were applied (or not applied). Attendees will then actively discuss the application of the guidance and DSMS organizational roles; and share successes and impediments in the industry with respect to responsibilities of the Owner, EOR and others in meeting dam safety goals.

Preliminary Agenda
Introduction & Safety Share
Opening Thoughts and Analysis of Recent Failures
Overview of Available Guidance (not detail, will be provided for pre-reading)
Analysis of EOR/Governance Challenges (group activity)
Application of Governance Framework (ICMM Format) with Respect to EOR (Group Discussion) Discuss each concept and share successes in the industry and impediments to implementation:
  • Accountability/Responsibility/Competency (How to apply the framework)
  • Planning and Resources (Attracting new talent to EOR careers)
  • Risk Management (Just having an EOR is not enough to eliminate risks)
  • Change Management (What works and what doesn’t)
  • Emergency Preparedness and Response (What role do the Owners, Regulators and EOR play)
  • Review and Assurance (What behaviors are needed to improve quality)
Closing Thoughts and Actions (highlights of the previous discussions will be captured and summarized)