



GBA TAILINGS EOR TASK FORCE

MEETING MINUTES

TELECON

THURSDAY, OCTOBER 13, 2016 (5 P.M. PT)

MEETING PARTICIPANTS:

In Person:

Chair - Kim Morrison (Morrison Geotechnical Solutions, Inc.); Members - Bob Snow & Jim Withiam (D'Appolonia), Rick Heckel (Ardent), Keith Mobley (NGE-Terra Firma Testing), Alex Sy (KCB), and Pete Bush (Fugro)

Via Telecon / Skype for Business:

Vice-Chair – Chris Hatton (Haley & Aldrich); Collaborating Members – Charlie Cobb (Alaska DNR & ASDSO Tailings Dam Regulatory Board Group), Mark Abshire (Engineering Analytics & USSD Task Force on Tailings Closure and Reclamation).

MISSION STATEMENT:

Raise awareness among the GBA member firms that perform tailings storage facility design services of the concerns and issues related to Engineer of Record (EOR) for these ever-changing facilities; perform outreach to industry, other organizations, and regulatory agencies, as appropriate, for feedback on the issues; and develop internal and outreach documentation on the issue, including defining roles/responsibilities of the EOR and implementation of a transfer process for EOR for tailings storage facilities.

MINUTES:

- Introductions (All)
- Old Business / Status Updates:
 - Provided a quick overview via PowerPoint for benefit of those in attendance who have not been participating in previous calls with regard to what other organizations are doing concerning the EOR issue ([appended](#)).
 - GBA Business Brief
 - The Business Brief was issued on September 28th.
 - GBA Best Practices Document:

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- Continued discussion of development of a guidance document (i.e., GBA Best Practices) focusing on development of internal guidelines for GBA Member Firms on how to handle the EOR issue. At this time, the BP document is anticipated to follow a full-day facilitated session/discussion on the topic.
- New Business:
 - ASDSO - Charlie Cobb provided us with an update on ASDSO. He was involved in formation of the Tailings Dam Regulatory Board Group, and is working with USSD. He stated that only about half of the states in the US actually regulate tailings dams, leaving many tailings dams unregulated. ASDSO is working to form a committee and a coalition to consolidate and synthesize information and push it down to the states. They plan to meet again in January to confirm development of a committee.
 - USSD – Mark Abshire stated that he is working with Phil Krause (of MWH/Stantec) on developing a white paper with regard to tailings dam closure and reclamation. In this paper, they are planning to discuss emerging philosophies and ideologies with respect to EOR.
 - Discussed development and planning of a facilitated Tailings EOR Session in conjunction with GBA’s Winter Leadership Conference (WLC) to be held in Denver the last weekend of January. Everyone in attendance was keen on the idea, and would like for this to happen as soon as possible to maintain momentum and forward movement. Preliminary planning of the event was discussed to include:
 - Date: Thursday, January 26th (in advance of the regularly-scheduled WLC meeting)
 - ***ACTION – GBA staff to see if space is available at the conference venue (i.e., Denver Grand Hyatt). If space not available, other Denver locations will be explored such as at a member firm office.***
 - Full-day session, split between presentations and facilitated discussion on various issues
 - Potential presenters to include: Steve Vick with regard to Tailings Review Boards (***ACTION – Bob Snow to follow up with Steve to see if he is able to participate***); Harvey McCleod to present on perspectives and work by various organizations that he leads up tailings issues for, including CDA, ICOLD and BCMEM (***ACTION – Alex Sy to follow up with Harvey to see if he is able to participate***); Others (***ACTION – All task force members to consider other presentations/presenters that would be beneficial to the topic at hand***).
 - Obtain a facilitator for the session (***ACTION – Chris Hatton to see if his firm’s facilitator is available to assist***).
 - ***ACTION – Kim Morrison to work with GBA staff on meeting logistics.***
 - ***ACTION – Bob Snow and Kim Morrison to work on developing a targeted list of topics/questions to focus on with regard to the facilitated discussion*** (e.g., EOR definition [Designer vs. In-house TSF qualified person]; EOR scope of work definition; role of EOR throughout life cycle, including into closure and post-closure; owner’s responsibilities with regard to responding to EOR recommendations; guidance for contracts; reliance of other parties on information).
- Meeting Adjournment and Schedule:
 - Next meeting is tentatively scheduled for Thursday, January 26th in Denver in conjunction with GBA’s Winter Leadership Conference. Call-in information will be made available for those not able to attend in person.

Tailings Engineer of Record (EOR) Task Force

Meeting – October 13, 2016



Engineer of Record (EOR)

- Broadly-used term “EOR”
 - Applied universally
 - Interpreted differently by various parties
- Recent TSF failures have brought into question the EOR paradigm




EOR Importance for Tailings Management

- TSFs are living structures
- TSFs service lives can transcend generations
- Ownership transitions
- Transient support systems
- Changing practice




Tailings EOR Task Force

- Creation of Task Force driven by the ever-increasing levels of risk facing member firms in tailings-related work
- Our **MISSION** is to:
 - Raise awareness among the GBA member firms that perform tailings storage facility design services of the concerns and issues related to Engineer of Record (EOR) for these ever-changing facilities; perform outreach to industry, other organizations, and regulatory agencies, as appropriate, for feedback on the issues; and develop internal and outreach documentation on the issue, including defining roles/responsibilities of the EOR and implementation of a transfer process for EOR for tailings storage facilities.



Tailings EOR Task Force

- Business Brief published in late September 2016 – introduce issue
- Task Force still in infancy, working to obtain more participation and achieve alignment:
 - GBA Member Firms that provide tailings management services
 - United States Society on Dams (USSD)
 - Association of State Dam Safety Officials (ASDSO)
 - Canadian Dam Association (CDA)
 - British Columbia Ministry of Energy & Mines (BCMÉM)
 - Mining Industry (i.e., Owners)




Canadian Dam Association (CDA) Works to Address Issue

- CDA established a Mount Polley Task Group
 - Members of Dam Safety and Mining Dams Committees
 - Coordinate follow-up to the Mt Polley Panel Report
- Task Group made recommendations to CDA:
 - Regulatory roles and responsibilities
 - Improving tailings dam safety (BAPs, BATs)
 - Revisions to FS criteria
 - Assessment of consequences of dam failure
 - Improve definition of the EOR




CDA – EOR Definition (1 of 2)

“The Owner is ultimately responsible for the safety and operation of their dam(s) during construction, operation, and closure.”

“Owner’s policy should clearly demonstrate the organization’s commitment to safety management throughout the dam’s life cycle.”

This includes “delegation of responsibility and authority for all dam safety activities.”

“The owner’s staff and any consultants or contractors who carry out dam safety activities on behalf of the Owner should be aware of the decision making process and who is accountable for that.”




CDA – EOR Definition (2 of 2)

“The Dam Safety Engineer of Record (EOR) [is] an integral part of risk management for mining dams.”

“The EOR should be an individual clearly identified by the Owner with the concurrence of the EOR.”

“In the case of a change in the EOR or Owner, the Owner shall be responsible to ensure that reports, files, knowledge, and dam safety records are comprehensively transferred to the new Owner and/or new EOR.”




BCMCM Works to Address Issue

- Following the Mount Polley TSF breach and recommendations in the Panel Report
- British Columbia’s Ministry of Energy and Mines (BCMCM)
 - Revised Health, Safety and Reclamation Code for Mines (i.e., Mining Code)
 - Contains new tailings management requirements
 - Released in July 2016
 - Several key legislated requirements for TSFs in BC




BCMCM – Revised Mining Code (1 of 2)

Key components:

- The Mine Manager is ultimately responsible for the safety of all TSFs on a site, and is required to designate a TSF Qualified Person, and ensure that each TSF has an EOR and an Independent Tailings Review Board (ITRB).**
- The TSF Qualified Person (usually a mine personnel) is responsible for implementing the tailings and water management plans for the TSFs under their supervision, including coordination of the design, construction, and overall management of TSFs on the site with the EOR as well as internal and external resources. The TSF Qualified Person is also responsible for developing succession plans for the EOR.




BCMCM – Revised Mining Code (2 of 2)

Key components (cont.):

- The EOR (usually a consultant) is a qualified and competent engineer with experience commensurate with the consequence classification and complexity of the facility.
- The responsibilities of the EOR must be assigned to an individual and not a firm.**
- The ITRB is made up of independent subject matter experts not currently involved in or responsible for the design, operation, or construction of the facility, who provides non-binding advice and guidance, but does not direct the work or perform the role of the EOR.




ASDSO

- ASDSO acknowledged the importance of safe tailings dams
- Signed a resolution on 14 September 2016




USSD

- Committee on Tailings Dams

USSD COMMITTEE ON TAILINGS DAMS CHARTER
Approved by the Board of Directors on 10/21/11

COMMITTEE DESCRIPTION

The Committee on Tailings Dams contributes to the USSD vision of a world class organization dedicated to ensuring the safe and sound and leading the community of practice. The committee engages in activities that contribute to and support the USSD Mission: operations of assessing, evaluating, collaborating and enhancing. Specifically the Committee on Tailings Dams:

- Advocates for engineering, construction, operation, and rehabilitation of tailings dams and civil construction improvements in a safe, environmentally, and socially responsible manner.
- Facilitates by providing a forum for exchange of knowledge and experience in tailings dams and civil construction improvements, design, construction, operation and performance, and risk management and the community of practice. The committee also disseminates information from the committee through webinars and its continuing to resources provided by USSD or ICOLD.
- Collaborates by providing a forum for exchange of information between members of the committee, by attending and participating in activities with other USSD committees and by providing a forum with the ICOLD Committee on Tailings Dams and other USAGS.
- Collaborates by providing a community of practice related to tailings dams and civil construction improvements.

ISSUES OF REFERENCE

The Committee on Tailings Dams was established by the Board of Directors of USSD (the predecessor of USSD) in 1998 as a subcommittee of the Committee on Tailings Dams and Waste Legions of ICOLD. The Committee on Tailings Dams is charged with all providing safe, environmentally and socially responsible practices for tailings dams and civil construction improvements through design, construction, operational performance, and rehabilitation, and by collaborating with other national and international professional organizations involved with tailings dams and civil construction improvements, such as the Committee on Tailings Dams and Waste Legions of ICOLD. The Committee leads the general membership through the use of dissemination of knowledge and other shared information to the ICOLD membership. One of the committee's activities is the USSD website, and in the organization and execution of committee activities. The Committee collaborates and works with other committees in identifying and providing education and training activities under the four imperatives of the 2014-2018 Strategic Plan - enhance, educate, collaborate, and culture.

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Structural EOR

- Key Points:
 - A new EOR should not be held responsible for accuracy of information provided to him/her when taking over the responsibility
 - The EOR needs to have both responsibility and authority, while a team concept makes authority less clear
 - The EOR needs to retain contractual ability to do QA along the way



Where Do We Go From Here?

- Face-to-face facilitated ½-day or full-day session attended by stakeholders to land on a path forward to address the EOR issue
- Conference program(s)
- GBA Best Practices document
- Messaging Documents (e.g., Message to Owners)

