

**Oregon Consolidated Application and Permitting Process – Chemical Process Mine  
Calico Resources USA**

**TECHNICAL REVIEW TEAM – Tailings Facility Design Subcommittee**

**Teleconference January 17, 2018 9:00 am – 11:00 am (Pacific)**

**Meeting Summary**

**Attendees**

Randy Jones, DOGMI	Tom Segal, ODFW	Nancy Wolverson, Calico / Paramount
Karen Colvin, DOGAMI	Phil Milburn, ODFW	Richard DeLong, EM Strategies
Bob Brinkmann, DOGMI	Phil Marcy, OWRD	Chris MacManon, Golder Dr. Adam Bonin, Cardno
Larry Knudsen, DEQ	Tony Janicek, OWRD	Adele Clouse, Cardno
John Dadoly, DEQ	Jonathan Westfall, BLM	Chris Lewis, Tetra Tech
Bill Mason, DEQ	Andrea Bowen, BLM	Libby Barg, Barney & Worth
Jim Billings, DEQ		
Ken Lucas, DEQ		

**1. Chris Lewis, Tetra Tech presented the Summary of Technical Review of Calico Conceptual Design – Tailings Storage Facility**

Subcommittee questions covered the following topics:

- Design / operation of leak detection system / leachate collections system
- Applicability of solid waste rules and method to include them in permitting process (dust, closure cover)
- Storm event interval used for design
- Conceptual design inclusion of all reasonable, practicable, and available technologies
- Wildlife protection measures to meet zero wildlife-mortality goal
- Cyanide fate and management

**2. Dr. Adam Bonin, Cardno, provided an overview of cyanide chemistry and its use in mining.**

**3. The group identified key issues for TRT Discussion at 2/5/18 Meeting**

- More information is needed about the treatment and monitoring protocols for the supernatant pond.
- *Makeup-water* quantity needs to be addressed.
- Need more details on what information is needed to determine TSF dam-hazard rating and dam-safety conclusions.
- Need to look closer at DEQ OAR's for location of the tailings facility and leak detection requirements.
- Need to know what amount of cyanide will be used (at each stage of beneficiation).
- Need to know the applicability of DEQ solid waste rules.
- Need to better understand the need for and applicability of an engineered spillway.
- Need final TSF design.
- Need to consider the overarching policy requirements in OAR 340-043-000 guidance so that eventual "findings" can be as clear as possible.
- Need to better understand risk-response relative to leak detection in the TSF basin liner.

The key issues will be reviewed by the subcommittee, then shared with the full TRT at the 2/5/18 meeting.