



COLORADO

Division of Reclamation,  
Mining and Safety

Department of Natural Resources

1313 Sherman Street, Room 215  
Denver, CO 80203

May 29, 2017

Mr. Jack Henris  
Cripple Creek & Victor Gold Mining Company  
100 N. Third Street  
P.O. Box 191  
Victor, CO 80860

**Re: Project, Permit No. M-1980-244;  
Technical Revision (TR-89) Second Adequacy Review**

Dear Mr. Henris:

On May 19, 2017 the Division of Reclamation, Mining and Safety (Division) received your responses to our April 7 and 12, 2017 Preliminary Adequacy Review (PAR) letters for Technical Revision (TR-89).

**The decision date for TR-89 is currently May 31, 2017.** Please be advised that if you are unable to satisfactorily address any concerns identified in this review before the decision date, **it will be your responsibility to request an extension of the review period.** If there are outstanding issues that have not been adequately addressed prior to the end of the review period, and no extension has been requested, the Division may deny this Technical Revision (TR).

The following comments are based on the Division's review of CC&V's responses to the Division's PAR:

Part I The responses to the six issues identified in the April 7, 2017 PAR (Part I) are adequate.

General Comments.

- A) The High Grade Mill – Please commit to providing a certification report. CC&V's commitment to provide the requested documents within 60 days of completion of final construction is adequate.
- B) Additional flotation tanks - CC&V's response proposing the installation of two additional flotation tanks within the High Grade Mill (HGM), referred to as the cleaner concentrate circuit is adequate.
- C) List of other permits – The Division understands a revised CCMOD is in process with Teller County, and based on CC&V's response, no other permits are required for this modification. The response is adequate.



Comments Specific to the Submittal.

- D) Concentrate Stockpile Clarification – The response is not adequate. No response was provided outlining the procedure planned to ensure the capacity is not exceeded.
- E) Hazardous Material Discussion:
- i. Clarify the rationale – The response is adequate.
  - ii. Provide Safety Data Sheet (SDS) – the response is adequate.
- F) Secondary Containment for the Breezeway (p. 2, 6<sup>th</sup> paragraph) – The response is not adequate. The Division has stated numerous times the liner under the High Grade Mill Facility (HGH) is not considered to be secondary containment; only tertiary containment. As a brief reminder, this is due to the fact the liner has some storage capacity, is only double-lined (unlike the triple-lined valley leach facilities), and it has no leak detection system. Please provide more details on the drip pan under the breezeway conveyor belt to assure the Division it has adequate secondary containment capacity.
- G) Pad Extension (p. 3, 2<sup>nd</sup> paragraph). Please provide the following:
- i. A complete set of current specifications intended for the pad extension signed by a professional engineer licensed in Colorado. The response is not adequate. No reference is made to the specifications included in Attachments 14 through 16. The structural fill specifications stated in the response differ from those in Attachment 14. No stamped specifications were provided as requested (note the specifications in Attachments 14 through 16 were dated and stamped in May 2013 long before this modification was conceived, and therefore the proposed conditions were not considered by the engineer stamping the specifications provided in Attachments 14 through 16). Again, please provide a complete set of current specifications intended for the pad extension signed by a professional engineer licensed in Colorado
  - ii. Rationale for why three different slopes are proposed. The response proposing steepened slopes of 2H:1V raises reclamation concerns. The proposed steeper slopes are steeper than the generally accepted 2.5H:1V slopes for reclamation on the Cresson Project. Please provide a reclamation plan for the 2H:1V slopes.
  - iii. Discussion on whether or not additional liner is required. The response is adequate.

Drawings.

- H) Drawing 20-647-001A. The response is adequate.
- I) Drawing 20-647-002A. The response is adequate.

Nonagglomerated Tailings Strength Assessment and Stability Evaluation.

- J) The Technical Memorandum (TM) prepared by NewFields:
- i. A realistic assessment of the worst case ratio of tailings to ore – The response requires more discussion. In the original TR-89 request, NewFields stated they would adhere to the Division's Factor of Safety goal for critical structures of 1.3 and 1.15 for static and pseudostatic conditions. NewField's response now backs away from this for Section B, stating this area is no longer critical (p. 4 last paragraph above Section 3.1).

- The Division disagrees as the VLFs are Environmental Protection Facilities (EPFs). A failure along the slope represented by Section B would allow significant amounts of impacted ore and likely a significant amount of cyanide leaching solution off liner. The Division considers this a potentially major environmental impact. As such, the slope represented by Section B must also achieve a FoS of 1.3 & 1.15, respectively. Furthermore, the Division is unconvinced that both the 2.5H:1V and the 1.6H:1V slopes achieve an identical FoS of 1.3 as depicted in the circular failure. Please elaborate.
- ii. A written commitment to follow NewFields' recommendation in Section 4.0 – The provided commitment is adequate.

Supplemental Strength Assessment and Stability Evaluation Technical Memorandum.

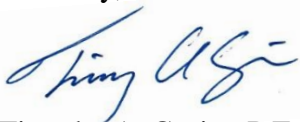
- K) The Technical Memorandum (TM) prepared by NewFields (dated March 8, 2017):
- i. Revisions to achieve the required Factors of Safety and addressing the comments in Item L below. The response is adequate.
  - ii. Requested specifications in Item G(i). The response is not adequate, see Item G(i) above.
- L) Slope stability analyses (Attachment A). Please revise the analyses to include the following:
- i. Section A – fully loaded haul truck and seepage layer – the response is adequate,
  - ii. Section B - fully loaded haul truck and the 3,000/3,360 ton stockpile, concentrate storage structure and concrete base – the response is adequate.

Additional Comments.

- M) Attachment 5, Drawing 20-647-84. This drawing is dated 4/27/2017 and shows a road configuration different from that in Attachment 4 (Drawing 30-647-19, dated 4/13/2017 and the Figure 1 in NewField's Attachment 12, also dated 4/27/2017. The Attachment 5 drawing shows the access road to the concentrate building coming in from the east and the AGVLF. Has the access road approach/alignment changed? If so, the stability analyses will need to be re-assessed.

If you have any questions or need further information, please contact me at (303)866-3567 x8169.

Sincerely,



Timothy A. Cazier, P.E.  
Environmental Protection Specialist

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