

STATE OF COLORADO

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Dedicated to protecting and improving the health and environment of the people of Colorado

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Colorado Department
of Public Health
and Environment

SEP 07 2011

Mr. Jim Cain
Radiation Safety Officer
Cotter Cañon City Milling Facility
P.O. Box 1750
Cañon City, CO 821215-1750

Subject: Appendix I to the Reclamation Plan, Dewatering Plan

Docket #9853

Mr. Cain,

Radiation Management Unit staff has reviewed the subject document and have the following comments that preclude approval at this time:

1. There is no metric to measure success of dewatering. Appendix J, *Settlement Monitoring Plan* uses 90% of anticipated consolidation, which has been used at numerous other UMTRA sites. While that value will work with respect to placement of the final cover, it is predicated on a good analysis of predicted settlement, which is not adequately presented. We also note the plan does not discuss residual head on the liner system in any detail.
2. There is no discussion of the URS report, *Phase I - Conceptual-Level Study of Dewatering Alternatives*, July 2008, which is germane to this report.
 - a. Note the URS report predicts use of finger drains alone would take between 1.8 to 50 years, depending on slime content. The time frames discussed in Appendix J are consistent with the low end of this range only.
 - b. The URS report discussed lowering the phreatic surface on the liner, which is not discussed in this report.
3. There are no contingencies proposed in case the finger drains fail prior to completion of dewatering. If the drains fail prior to sufficient dewatering, the cap will be subject to unacceptable settlement. While alternatives are briefly discussed, they did not include alternatives provided in the URS 2008 report, and none are listed as contingencies should the drains fail.
4. There is no technical discussion relative to primary consolidation, secondary settlement, or differential settlement as presented in the URS 2008 report. It is not clear to us why this was not brought forward into this plan.

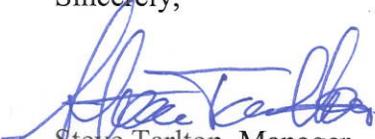
Prepared by: pve Reviewed by: LB Reviewed by: Mailed by: AS
Date: 8/29/11 Date: 8/29/11 Date: Date Mailed: SEP 07 2011

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Since the impoundments are now in closure rather some distant time in the future, significant more data needs to be presented. At a minimum, a Phase II study as suggested by URS should be conducted to evaluate alternatives and provide for a reasonable discussion of anticipated settlement of the Primary Impoundment, and data to support your position on the Secondary impoundment now that it is no longer flooded, other potential dewatering challenges, along with a schedule and budget.

As such, the Division expects a revised dewatering plan to developed and submitted. We suggest we meet to discuss this in the very near future, as there may be other metrics that could be considered. The revised plan should be provided to the Division in the 4th quarter of this calendar year. Please feel free to contact myself at (303) 692-3423 or electronically at steve.tarlton@state.co.us or Phil Egidi at (970) 248-7162 or phil.egidi@state.co.us if you have any questions concerning this letter.

Sincerely,



Steve Tarlton, Manager
Radiation Program

SFT:pve

CC:
Phil Egidi
Larry Bruskin
Edgar Ethington
File 369-01 F3

Cotter Corp/COT

369-01

9/12/2011

Radiation Management - State Licensing - Correspondence -
Appendix I of Reclamation Plan, Dewatering Plan

RM/3.2./1154



RM/3.2./293-06

Prepared by: pve Reviewed by: _____ Reviewed by: _____ Mailed by: _____
Date: 8/29/11 Date: _____ Date: _____ Date Mailed: _____