

STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY
Department of Natural Resources

1313 Sherman St., Room 215
Denver, Colorado 80203
Phone: (303) 866-3567
FAX: (303) 832-8106



June 20, 2013

Glen Williams
Cotter Corp.
P.O. Box 700
Nucla, CO 81424

John W. Hickenlooper
Governor

Mike King
Executive Director

Loretta Piñeda
Director

RE: JD-9 Mine, File No. M-1977-306, Amendment (AM1) Second Adequacy Review

Dear Mr. Williams:

The Division of Reclamation, Mining and Safety (DRMS) is in the process of reviewing the above referenced application in order to ensure that it satisfies the requirements of the *Colorado Mined Land Reclamation Act* (Act) and the associated *Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for Hard Rock, Metal, and Designated Mining Operations* (Rules). During review of the material submitted, the Division determined that the following issue(s) shall be adequately addressed before the application can be considered for approval.

Exhibit A

1. The application form, introduction of the application and Exhibit A state that a reduction of 1.69 acres will be released as part of this amendment. Per Rule 4.17(3), The written notice requesting release shall be sent by certified mail and be separate from other types of communication. Therefore the release request cannot be considered at this time and the proposed permit acreage is 28.46 acres.
 - Response adequate and the proposed acreage amount of 26.72 acres is accepted. Please provide a revised table of surface disturbances to replace the originally submitted table located on page D-5.

Exhibit C

2. Due to the acreage release not being associated with this amendment please provide a revised Figure C4 2 of 2 that shows the entire permit area without the 1.69 acres removed.
 - Response adequate
3. Please provide two copies of Mine Plan maps that identify the current and proposed waste rock pile configuration. All mine plan maps submitted do not clearly identify the waste rock pile.
 - Response adequate

Exhibit D

4. Addressing Rule 6.4.4(e)(ii), on page D-6 under item a., the exhibit states that waste rock will be stacked to a height that will not impede grading to 2H:1V during reclamation. Please provide the Division with the maximum anticipated thickness that waste rock will be placed and justification for slopes steeper than 3H:1V.
 - Response adequate

5. Addressing Rule 6.4.4(e)(ii), on page D-7 under item b., the exhibit states that ore will be piled up to a workable stockpile. Please provide the Division with a maximum height anticipated.
 - Response adequate
6. On page D-7 under item b., it is stated that the ore pad will consist of a clay liner. Please specify the source of the clay proposed for the liner.
 - The response for the source of the clay liner is adequate. Please see the enclosed memo regarding "General Ore Pad Construction Criteria". Please commit to following the specifications that are required within the document with regards to the JD-9 ore pad construction.
7. On page D-7 under item b., it is stated "During reclamation of the pad, the compacted clay will also be removed and placed inside the mine." Please specify the location inside the mine the clay will be placed. Also, will any mine water come in contact at the proposed final placement of the clay?
 - Does the DOE allow placement of materials inside of the mine workings upon reclamation?
8. On page D-7 under item c., in regards to tree and shrub removal, the application states that trees and other woody material will be removed and placed in separate piles. Please specify this location(s) and provide revised figures for Exhibit C that shows the proposed location of the piles.
 - Response adequate
9. On page D-7 under item d., it is stated that the new water treatment ponds are located on Figure C4. The only pond shown to be proposed on Figure C4 is a retention pond located near the southwest corner. Please provide a revised figure that displays the proposed water treatment ponds.
 - Response adequate
10. On page D-9 table D-1 displays 4 different treated water pond liners. Please specify which one of the 4 liners listed will be used. If Cotter is uncertain which liner will be used an engineered design for each proposed liner will be required.
 - DRMS will allow the submittal of an engineered plan that details the construction of the liner and ponds prior to construction. The design must be submitted as a Technical Revision to the permit and will be subject to DRMS approval prior to any construction commences. Please commit to this requirement.
11. On Page D-5 under Item b, the applicant states that "A contractor will be used to haul the ore from the surface ore stockpile area to the mill. The ore haulage contractor will be responsible for a spill control plan." Per the requirements of Rule 3.1.13 the mine operator shall notify the

Division of any toxic or hazardous substance, including spills of petroleum products that occur within the permit area. Please commit to the requirements of Rule 3.1.13.

- Response adequate

Exhibit E

12. On page E-4 under item g., it states that the transformer stations and power lines are the property and responsibility of the San Miguel Power Association. Though the statement clarifies who owns and who is responsible for the equipment it is still the responsibility of the operator to assure all mining related equipment and infrastructure required to support a mining operation be removed upon reclamation. Please commit to having the transformer station and powerlines removed upon reclamation.

- Response adequate

13. On page E-4 item h., it is stated that Maps F-1A and B show the final configuration and grading for the site. The referenced figures were not submitted with the application. Please provide 2 signed copies of the referenced figures. Also, this section states that cross sections are shown on Map C3. This is not a true statement as Map C3 has no cross sections included. Please provide to copies of a figure with the cross sections to support the proposed reclamation of the waste rock pile.

- Response adequate

14. On page E-5 item i., it is stated that Map C-2B shows the 50' x 50' ore pad area. The referenced figure was not submitted with the application. Please provide 2 copies of the mentioned figure.

- Response adequate

15. On page E-5 section i., it is stated that pad material will be placed inside the mine and that interaction with water is not a concern since the majority of the water in the mine is from the ore zone. Will the ore pad material be in contact with water when it is placed in the mine?

- Does the DOE allow placement of materials inside of the mine workings upon reclamation?

16. Per Rule 3.1.10(6) methods of weed control shall be employed for all prohibited noxious weed species. In the event that noxious weeds become present on the site what methods of weed control will be implemented? Please submit a weed control plan for the site.

- Response adequate

Exhibit T

17. On page T-1 it states Cotter is working on a notarized damage agreement between Cotter and the San Miguel Power Association. Please provide a copy of the notarized agreement.

- - Response adequate

Exhibit U

18. Addressing Rule 6.4.21(6)(b)(iii), please describe how Cotter Corp. will prevent adverse off-site impacts during periods of Temporary Cessation.

- Response adequate

19. Addressing Rule 6.4.21(7), the EPP states that a radiometric survey will be completed prior to mining in order to document baseline conditions at the site. Baseline conditions shall be established as part of this amendment process. Please conduct a radiometric survey of the affected area and submit the results to the Division along with an evaluation of the expected effectiveness of the proposed EPP, which specifically addresses the risks, from uranium, uranium byproducts, and any other radionuclides expected to be encountered during this operation, to human health, property and the environment.

- Response adequate

20. Page U-5 (1)3. refers to Map C-2C for a diagram that shows the path of water through the treatment process. Please provide 2 copies of Map C-2C.

- DRMS will allow the submittal of a certified engineered plan that details the path of water through the treatment process prior to any treatment activities. The design must be submitted as a Technical Revision to the permit and will be subject to DRMS approval prior to any construction commences. Please commit to this requirement.

21. Page U-5 (2) states that maps showing drill hole data are found in this exhibit. A map showing drill hole data was not provided. Please submit 2 copies of a map that displays drill hole data.

- Response adequate

22. Page U-13 states that a small spring near the mine portal discharges water from a perched aquifer. Has this spring ever been sampled for water quality analysis?

- Response adequate

23. Please clarify the term "RL" in Tables 3 and 4.

- Response adequate

24. Regarding Table 4, the data collected on 4/26/2007 should be omitted due to it not being a part of the continuous data set. Furthermore, the values recorded for the sample are outliers and drastically influence the average values listed in the table. Please provide a revised Table 4 without the 4/26/2007 data.

- Response adequate

25. Page U-22 states "Water quality is poor as indicated by a sulfate level of 2160mg/L." The sulfate level mentioned factors the average with the data from the 4/26/2007 sample and is therefore not

considered statistically viable. Please revise the statement with a level without the influence of the 4/26/2007 sample data.

- Response adequate

26. Addressing Rule 6.4.21(10)(a), Please provide design specifications certified by a licensed professional engineer for all Environmental Protection Facilities. This includes the water treatment facility, water treatment ponds and transport infrastructure for mine dewatering to the water treatment facility.

- Please see responses to items 10 and 20.

27. Regarding the ponds the operator must commit to using a double lined design with a leachate collection system. Furthermore, the division will require the installation of piezometers as a secondary method of leachate detection. Please commit to incorporating the requirements into the engineered design specifications.

- Response adequate

28. Addressing Rule 6.4.21(12), on page U-22, the EPP states that the JD-9 Mine will not have any adverse effect on any surface waters; thus it is not necessary at this time to implement a monitoring plan. Rule 6.4.21(12) applies to both surface and ground water. Since groundwater has been encountered during mining, a minimum of three monitoring wells shall be installed an up gradient well, a down gradient well and a point of compliance well. The location of the point of compliance must be approved by the Division prior to installation. Also, subject to Division approval, a sampling and analysis plan shall be implemented in accordance with Rule 6.4.21(12) and Rule 3.1.7, regardless of the results of the chemical analysis. Please commit to the installation of the mentioned wells and please submit a sampling and analysis plan for review.

- The response provided states that Cotter will commit to install two additional monitoring wells. However, Cotter's response also cited Rule 6.4.21(1)(d) and whether or not performance standards apply due to the poor quality of the ambient ground water conditions and the 0.04 ft/yr transport rate of groundwater in the Salt Wash sandstone. Furthermore, Cotter's response stated that issues of distribution of groundwater in the Salt Wash may produce a well that does not encounter groundwater. Addressing the response regarding the poor quality and slow transport rate Cotter should take into consideration 3.1.7(2)(c)(ii) which protects ambient groundwater that exceeds values for protection from further degradation of the groundwater quality, this rule applies to the JD-9 mine site. In the event that a dry well is drilled it is considered a baseline condition that characterizes the properties of the ambient subsurface state. The DRMS is requiring the drilling of two additional monitoring wells. Please submit the proposed location of the point of compliance well and the location of the required additional monitoring well. The submittal of a sampling and analysis plan must be submitted as part of this permit review and as previously stated the plan must meet the requirements of Rule 6.4.21(12) and Rule 3.1.7.

29. Due to the waste rock containing constituents at levels higher than federal, state and agricultural levels is any type of impermeable liner proposed below the waste rock pile to prevent unpermitted discharges?

- Response adequate

30. Addressing Rule 6.4.21(14), SPLP tests were conducted in order to characterize the waste rock generated at this site. According to this rule, the ore must also be characterized. Please submit to the Division, a geochemical evaluation of the ore to be mined. Alternatively, if ore samples are not available at this time, commit to submitting this information to the Division, for review and approval, prior to any stockpiling on the surface.

- Response adequate
31. Addressing Rule 6.4.21(16), on page U-20, the EPP states that design and implementation of the Drainage Design Plan will be overseen by a registered professional engineer. Please commit to submitting an "As-Built Certification" to the Division following construction.
- Response adequate
32. Addressing Rule 6.4.21(16), on page U-20, the EPP states that Cotter Corp. will conduct regular inspections of all structures. Please inform the Division of the anticipated minimum inspection frequency interval.
- Response adequate
33. Addressing Rule 6.4.21(18)(b), please describe the measures Cotter Corp. intends to take to prevent wildlife from coming into contact with uranium, uranium by-products or any other radionuclides.
- Response adequate

Please submit your response(s) to the above listed issue(s) by July 1, 2013, in order to allow the Division sufficient time for review prior to the July 15, 2013 decision date. If additional time is required to respond to the issues a request to extend the decision date must be submitted no later than July 1, 2013 or the application may be denied. The Division will continue to review your application and will contact you if additional information is needed.

If you require additional information or have questions or concerns, please contact me at the DRMS Grand Junction Field Office at phone no. (970) 241-2042.

Sincerely,



Travis Marshall
Environmental Protection Specialist

cc: Ed Cotter
U.S. Department of Energy
2597 Legacy Way
Grand Junction, CO 81503

Russ Means, DRMS