

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Fernando Martinez, Director
Mining and Minerals Division



October 4, 2013

Mr. Joe Lister
Mine Manager
Mount Taylor Mine
Rio Grande Resources Corporation
P.O. Box 1150
Grants, NM 87020

RE: Technical Adequacy Review, Revision Application 13-2, Mt. Taylor Mine, Permit CI002RE

Dear Mr. Lister,

The New Mexico Mining and Minerals Division ("MMD") has conducted a technical adequacy review of the Mt. Taylor Mine Revision Application 13-2 and Closeout/Closure Plan which was dated April 5, 2013. Our review generated the following comments:

Revision 13-2 Application

19.10.5.502.D:

1. Section 2.6 - What is the proposed disposition of the native soil currently covering the ore stockpile?
2. Section 3.1, Page 9 - Why is the Water Quality Standard 30 pCi when EPA MCL is 5pCi?
3. Section 3.1.2, Page 11 - Ponds: Please add detail for pond liners, i.e., weight, tear strength.
4. Figure 2-1 - The map legend indicates a permit boundary, but it is the Mine Unit Area boundary that is depicted on the map. Please correct the legend.

Closeout/Closure Plan

19.10.5.506.B:

1. Please add a map of the entire 4006.7-acre Mt. Taylor Mine Permit Area, including the water discharge pipeline route.
2. Drawing MT13-CL-02 - The map legend indicates a permit boundary, but it is the Mine Unit Area boundary that is depicted on the map. Please correct the legend.

3. Drawing MT 13-CL-12 - There is a typo in the Toe of Slope Elevation at the upper right, the number should be 7346 not 7246.

4. Section 2.4.2, Page 9 - RGR discusses removing vegetation and contaminated sediments from the eight mine water treatment ponds when they are upgraded. Table 2.4 indicates the levels of contamination within the sediments. Section 3.1.2 of the Revision 13-2 Application states that each pond will be cleared of sediment. The planned disposition of the contaminated sediments is not clear, but these sediments need to be placed in a lined facility.

5. Section 2.4.5, Page 11 - At what uranium content value does rock become ore? RGR discusses a radionuclide level as being essentially background level. What number does RGR use to classify material as being at background levels?

6. Section 2.4.6 and Section 2.7 in the Revision 13-2 Application - State that sediments from the two storm water retention ponds exceed the 6.8 pCi/g limit and will be removed and placed on the waste pile. These sediments need to be placed in a lined facility.

7. Section 2.5, Page 12 - States that the north waste rockpile is the only future unit not existing at this time. However, in Section 2.1 of the Revision 13-2 Application, it is stated that a third shaft would be required approximately 10 years after mining resumes. Page 5 in the 1994 MMD Permit Application mentions that an additional disturbance of about 50 acres will result from a third shaft to be located in the SE 1/4 of Section 30, T13N, R7W. Per 19.10.12.1202.A.1, the cost estimate for financial assurance shall include the entire permit area. Reclamation plans and costs for the third shaft therefore need to be included.

8. Section 3.2, Page 14 - Leaving large buildings on mines as a donation to landowners, without a well-developed post mine plan for the structures, may result in vandalism and dilapidation. The high utility bills associated with large buildings are an unpleasant surprise to post mine landowners, and such buildings are beyond the average person's ability to maintain and repair. The large buildings at Mt. Taylor should be demolished unless a commercial or industrial occupant can be found prior to mine closure. The reclamation costs need to be adjusted to reflect demolition of the large buildings as the default action.

9. Per Section 3.2.2 of the Revision 13-2 Application, the north waste rock pile is proposed to be included as a unit within the existing mine permit boundary. Pursuant to 19.10.12.1202.A.1 NMAC, the cost estimate for financial assurance shall include the entire permit area. The reclamation costs of the north waste rock pile, as well as the access route to the pile, need to be included in the financial assurance proposal.

10. Section 4.3, Page 18 - Past experience with concrete is that it becomes gravel and fines once it is broken up and exposed to the elements. MMD does not believe broken concrete would make adequate rip-rap. Please specify adequately-sized rip-rap.

11. Section 4.4, Page 19 - The cover material suitability characteristics are not made clear in this section. Soil chemistry data is presented in Appendix D (Table D.3.1), however these appear to be site-wide soil sample results and it remains unclear which sample results are being used to demonstrate suitable cover materials. The Closeout/Closure Plan should demonstrate cover suitability in reference to the MMD Mining Act Reclamation Program Soil Suitability Guidelines document. This includes all cover materials such as the borrow area and Mine Water Treatment Pond berms.

12. Section 4.4, Page 19 - The cover material placement depths are not consistently reported for each mine facility in this section. Drawing MT13-CL-13 describes cover depths for individual facilities, and this same information should be included in the text in Section 4.4.

13. Section 4.4, Page 19 - The borrow material volumes are not identified. The Closeout/Closure Plan should clearly identify, in a tabular format, the amount of cover material needed for each facility and the amount of material available from proposed borrow sources.

14. Section 4.4.1, Page 19 - The characteristics of the materials below any proposed contamination excavation in this facility are not identified in this section. It is assumed from the text in this section and from Drawings MT13-CL-13 and MT13-CL-07 that the reclamation plan for this facility does not include cover material placement. Therefore, the physical and chemical characteristics of materials that will remain at the surface as a planting media should be identified.

15. Section 4.4.3, Page 21 - States that investigative radiation surveys and soil sampling were performed in Spring 2012 in the mine area to establish background levels of radium and...found uranium and uranium progeny at background levels. What are the background levels for radium and uranium?

16. Section 4.4.3, Page 22 - Reiterates that contaminated soil material will be placed on the south waste pile. This material needs to be placed in a lined facility.

17. Section 4.4.4, Page 23 - Reiterates that contaminated soil and pond sediments will be placed on the south waste pile. These materials need to be placed in a lined facility.

18. Section 4.4.4 - It is unclear whether the reclamation designs for the proposed disposal facilities have accounted for the approximate 80,000 cubic yards of contaminated soil material. Although some of the drawings indicate contaminated soil placement, quantification of the volumes is not presented in the plan. Please confirm that the calculated final fill volumetrics (and the final grading plan) for these facilities has included this volume. As previously stated, MMD considers that contaminated soils and pond sediments need to be placed in a lined facility.

19. Section 5.1.2, Page 32 - States that Point Lookout water will be tested for the parameters listed in Table 2.2 to demonstrate that the water quality meets human health standards per 20.6.2.3103 NMAC. Why doesn't the water quality have to meet the entire human health standards as per parts A, B and C of 20.6.2.3103 NMAC?

20. Section 5.3.2, Page 33 - Radiation monitoring after closeout activities are completed needs to be conducted across the reclaimed areas, as well as in buildings that may be retained for the post mine land use. Please propose a post-reclamation site surveying methodology that will determine whether compliance with the proposed 6.8 pCi/g cleanup standard has been achieved across all reclaimed areas, with vertical profiling to a depth of at least 12 inches.

21. Table 5.1 - The access/utility tunnel is proposed for retention. Page 17 of the Revision 13-2 Application has a statement that the tunnel contains a pipe that runs from a sump at the southeast corner of the shaft area and discharges into Pond #1. It appears from review of Drawing MT13-CL-04, however, that there may be additional sumps in the service building, the compressor building and the car shop. It appears that the discharge end of the tunnel/pipeline is on the Candelaria property. It is doubtful that the Candelarias wish to receive uncontrolled and potentially contaminated discharge from pipelines/sumps in the Sandoval buildings after mine closure. The

disposition of the access/utility tunnel system needs to be reconsidered, and the financial assurance costs need to be adjusted, accordingly.

22. Drawing MT 13-CL-04 - It appears that the service building encroaches upon the Candelaria property from the Sandoval property. Does RGR have a plan to address this encroachment?

23. Table 5.4 and Table C.5.2- Please correct miss-spellings of Winterfat in both tables, and in both lists within each table.

24. Identification of the route to be used to transport waste rock to the north waste rock pile, and a plan for the crossing of the Marquez Canyon arroyo, including culvert sizing if applicable, are needed.

25. Section 7, Page 35 - The text states: "The cost estimate does not include closure costs for the north waste pile. If this pile is needed, RGR will update the cost estimate to include costs related to closure of this facility." Per MMD Comment 9 above, the cost estimate is required now. Please remove the quoted sentence.

26. Appendix C, Section 2.2 - RGR has reported that water inundated the mine and rose up the shafts within a few weeks of ending depressurization pumping. It seems likely this will occur again at the end of mining. Wooden debris dropped down the shaft would float on water in the shaft, potentially obstructing debris disposal. What effect will this have on disposal and the shaft lining?

27. Table 2.5 - The Min and Max Volumes, in cy and acre feet, appear to be transposed for Pond #1. Please correct.

28. Appendix C, Page 6 - Mine Utility Conduits: States that "steel casings, 11.5 inches diameter, shall be plugged with concrete from 18 feet depth to 2.0 feet below grade. Top 2.0 feet of casing to be removed, and remaining hole shall be backfilled with soil." These holes are 3,000 feet deep and most likely contain water at the bottom. They should be plugged with cement from bottom to within two feet of the surface, like the wells.

29. Appendix E - A discrepancy in Total Direct cost of \$20,891 was calculated by MMD, compared to the \$3,529,269 provided by RGR. Please correct the apparent multiplication errors in Appendix E: 1.1.2 – lines 2 and 3; 1.1.6 – line 3; 1.2.2 – line 1; 1.3.7 – line 1; 1.3.8; and 1.5.1.

30. Appendix E - Section 1.4.7 - Finish grading; Bench Wall Slope Reduction, needs to be a cost estimate that reflects the difficult nature of the material and location. Current estimate is not sufficient.

Pursuant to 19.10.5.505.B(3) and 19.10.5.506.E NMAC, MMD requested comments on Revision 13-2 and the Closeout/Closure Plan from the Department of Cultural Affairs, the Office of the State Engineer, the State Forestry Division, the Department of Game and Fish, and the Environment Department by letters dated July 11, 2013. Comments subsequently received from each of these agencies are enclosed.

Please respond to each of the MMD comments and the other agencies' comments, and revise Revision Application 13-2 and the Closeout/Closure Plan, accordingly.

Thank you for your cooperation. If you have any questions, please contact me at (505) 476-3416 or by email at: david.clark@state.nm.us .

Sincerely,

A handwritten signature in blue ink that reads "David L. Clark". The signature is fluid and cursive, with the first name "David" being the most prominent.

David L. Clark
Coal Program Manager

Cc: Fernando Martinez – MMD
Michele Ensey – HPD
Daniela Roth – SFD
Michael Johnson – OSE
Matthew Wunder – DGF
Keith Ehlert – NMED
Mine File No. CI002RE

