

State of New Mexico
Energy, Minerals and Natural Resources Department

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Via ELECTRONIC MAIL

October 8, 2020

Mr. Bruce Norquist, Facilities Manager
Mount Taylor Mine
Rio Grande Resources Corporation
P.O. Box 1150
Grants, NM 87020

RE: Comments on the Application for Modification 20-1 to Mt. Taylor Mine, Permit No. CI002RE, Rio Grande Resources Corporation

Dear Mr. Norquist:

On May 15, 2020, the New Mexico Mining and Minerals Division (“MMD”) received an application (“Application”) from Rio Grande Resources Corporation (“RGR”) requesting a modification to Permit No. CI002RE. The modification application (assigned by MMD as Modification 20-1) for the Mt. Taylor Mine permit proposes to:

- A. Update the Reclamation Schedule found in Section 9.S of Revision 13-2.
- B. Expand the South Waste Rock Pile and Disposal Cell.
- C. Modify the Post-Mining Land Use of some of the structures located within the mine permit area.

MMD has reviewed the Application and has requested comments from other state agencies. MMD provides the following comments on the Application and the comments from the other state agencies are attached. Please review and provide a response to all comments within 60-days of receipt of this letter.

1. Section 1.1.2, Closeout/Closure Activities Remaining to be Completed, page 2 of the Application, should also include:
 - a. the reclamation and post-reclamation radiological survey,
 - b. the monitoring and maintenance for erosion,
 - c. noxious weed management,
 - d. performing the revegetation test plot study,
 - e. compliance with the New Mexico Environment Department (“NMED”) requirements and other environmental permits, and
 - f. all applicable requirements of Permit No. CI002RE.
2. Section 2.1.1, Details of Schedule Changes, 2nd bullet, 2013 CCP Schedule, page 3 of the Application states that under the 2013 CCP Schedule one assumption is that multi-task work crews are simultaneously active during mine closeout. However, the 2020 CCP Schedule

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omits that assumption. Please explain why the 2020 CCP schedule omits using simultaneous work crews during mine closeout.

3. Section 2.1.1, Details of Schedule Changes, 7th bullet, Demolition, Shaft Headframes, page 4 of the Application states that the demolition of the shaft headframes will be delayed so RGR may obtain approval to leave them in place as raptor habitat or designation as historic structures with cultural significance. MMD has received comments on the Application from the New Mexico Department of Game and Fish (“NMDG&F”) and the New Mexico Department of Cultural Affairs (“NMDCA”) and they are attached to this letter. The NMDG&F does not support the use of the shaft headframes as raptor habitat and the NMDCA has not commented on designation of the shaft headframes as historic structures. MMD does not support the change requested by RGR to retain the shaft headframes indicated in Table 5.1, Building List – Demolish and Retain, Appendix B of the Application, and the shaft headframes shall be demolished.
4. Section 2.1.1, Details of Schedule Changes, 7th bullet, Demolition, Surface Facilities, page 4 to 5 of the Application states that the facilities planned for the Post-Mining Land Use (“PMLU”) of a water supply system as RGR states on page 1 of the Application, will be, *pushed towards towards the end of the [mine closeout] project in order for RGR to obtain 3rd party commitments*. MMD will consider approving the proposed change of the PMLU of the buildings from demolition to retain for a water supply PMLU after RGR provides to MMD permits, contracts, written agreements and/or other supporting documents that have been obtained to facilitate a water supply PMLU. Until MMD approves the change of the PMLU of these facilities from demolition to retain for a water supply PMLU, the disposition of the Ion Exchange Plant, the Phase II and III Water Wells, MWTU Pond 5, the Flocculant Treatment Facility, and the Barium Chloride Treatment Facility, shall be “Demolish”. Please revise Table 5.1, Building List – Demolish and Retain of the Application to change the disposition of these facilities to “Demolish (until MMD approves the water supply PMLU)”. In addition, the closeout costs for demolishing these facilities shall remain in the closeout plan financial assurance until MMD approves a water supply PMLU that uses these facilities.
5. Section 2.1.1, Details of Schedule Changes, 8th bullet, Shaft Plugging, page 5 of the Application states that, *RGR is looking into an alternative to shaft plugging*. MMD has not received additional information including proposed designs for an alternative to shaft plugging. MMD cannot consider changes to the shaft plugging without the additional information.
6. Section 2.1.1, Details of Schedule Changes, 9th bullet, Well and Conduit Plugging, page 5 of the Application states that there are, *approximately 26 deep wells to be fully grouted*. The closeout plan cost estimate based on 2016 costs approved under Revision 13-2 assigned a cost of \$6.60 per linear foot to plug these deep wells. MMD has re-examined this cost estimate and has determined that it underestimates the well plugging costs and that the well plugging costs should be in the range of at least \$14.00 to \$24.00 per linear foot or higher depending on site-specific conditions. MMD requires that the cost estimate for well plugging be revised as part of Modification 20-1.
7. Section 2.1.1, Details of Schedule Changes, 10th bullet, Earthwork, Ore Pad and Runoff Retention Pond, page 5 of the Application states that, *RGR is estimating the volume of*

- contaminated material to be about 6 times the amount projected in 2013.* Please provide the estimated volume in cubic yards or tons of the contaminated material to be excavated from the Ore Pad and Runoff Retention Pond.
8. Section 2.1.1, Details of Schedule Changes, 10th bullet, Earthwork, Contaminated Soils, page 6 of the Application states that, *RGR estimates the remaining contaminated materials around the site to be two and a half times more than originally estimated in 2013.* Please provide the estimated volume in cubic yards or tons of the contaminated material estimated in 2020 that will be excavated from the mine site area.
 9. Section 2.1.1, Details of Schedule Changes, 10th bullet, Earthwork, MWTU Ponds, page 6 of the Application states that, *the estimated quantity of backfill needed is about 2 times that estimated 2013.* Please provide the estimated volume in cubic yards or tons of the quantity of backfill needed for the MWTU ponds.
 10. Section 2.1.1, Details of Schedule Changes, 10th bullet, Earthwork, Waste Pile, page 6 of the Application states that, *construction of a clay cap and growth media cover layer over the proposed expanded disposal cell area will be performed.* MMD requires RGR to provide an updated closeout plan cost estimate that includes the additional earthwork and other applicable reclamation costs (e.g., placement of vegetative cover material, stormwater handling features, revegetation, and monitoring and maintenance) for the expanded waste disposal cell. In addition, MMD requires that the updated closeout plan cost estimate include the additional earthwork and other applicable reclamation costs for closeout of the ore pad and runoff retention pond, the residual contaminated soil at the mine site, and the MWTU Ponds due to the increased amount of contaminated materials and backfill that RGR has indicated in the Application.
 11. Section 2.1.1, Details of Schedule Changes, 10th bullet, Earthwork, Site Revegetation, page 6 of the Application states that, *This task is significantly longer than that estimated in 2013 because of the long distance between locations. Because of the travel time to different locations, the effective work day is only about fifty percent.* MMD requires that the updated closeout plan cost estimate account for the reduction in the effective workday for the site revegetation.
 12. Section 2.1.1, Details of Schedule Changes, 12th bullet, Post Closure Monitoring and Maintenance, page 6 to 7 of the Application discusses continued access o the reclaimed areas of the mine site for post-closure monitoring and maintenance. MMD requires that the updated closeout plan cost estimate include post-closure monitoring and maintenance costs including radiological testing if it does not already include them, or updating these costs if they are included in the 2016 cost estimate approved under Revision 13-2.
 13. Section 2.1.1, Details of Schedule Changes, 13th bullet, Stage II Abatement, page 7 of the Application states that, *The updated CCP schedule may need to be extended depending on the successful progression of the abatement plan, and, Planned 2020 abatement activities will impact CCP tasks located around the disposal cell, waste rock pile and 24-ft. production shaft areas.* MMD requests an update from RGR on the impact of the Stage II Abatement, and the diesel spill investigation, on the proposed CCP schedule.

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14. Section 2.2, Expanded Disposal Cell, page 7 of the Application states that, *RGR does not expect to construct the cell to full build-out unless the volume of contaminated materials discovered during the CCP implementation requires it.* Please update the Application with the source and approximate current amount of contaminated materials anticipated to be placed in the expanded disposal cell.
15. Section 4.1, PMLU Uses, page 7 to 8 of the Application lists some of the proposed short-term and long-term PMLU water uses at the mine. Please provide the approximate annual water short-term and long-term water usage that RGR anticipates during and after mine closeout.
16. Section 4.4, Water Supply, page 8 of the Application states that, *RGR expects to acquire use-agreements and contracts for the water supply [in] the near future.* Please see MMD Comment # 4 above. In addition, RGR proposes the aquifers that RGR anticipates pumping water from, and the anticipation of meeting New Mexico water quality standards, in part, by blending waters from different aquifers for the water supply system. Based on the information RGR has provided, MMD does not understand why RGR proposes to retain the Ion Exchange Plant, MWTU Pond 5, the Flocculant Treatment Facility, and the Barium Chloride Treatment Facility for the water supply PMLU. Please provide information to support the use of these facilities under the proposed water system PMLU.
17. Section 4.5, Requested Changes to the Approved PMLU, page 9 of the Application refers to Table 5.1, Building List – Demolish and Retain. This section also lists the facilities that RGR proposes to retain during the mine closeout and abatement activities including the Phase I and Phase II Dewatering Wells. Table 5.1 also lists Phase III Water Wells. Please provide the well numbers and locations of all of the Phase I, II, and II wells on a map, the depth of each well and the geologic formation and aquifer that each well is completed. In addition, please specify the proposed disposition for each well under the mine closeout plan and the Application.
18. Section 4.5, Requested Changes to the Approved PMLU, page 9 of the Application lists the Site Access Roads that RGR proposes to retain during the mine closeout and abatement activities. MMD received a letter from RGR, dated August 4, 2020, with a drawing of the Facility Roads Identified for Continued Site Maintenance (Figure 1-2). Please provide a drawing similar to Figure 1-2 labeling the site access roads listed in Section 4.5 of the Application.
19. Table 5.1, Building List – Demolish and Retain of the Application lists the currently approved Disposition at Closeout for the buildings and facilities at the mine. Please provide a drawing of the mine site with these buildings and facilities labelled.
20. Table 5.1, Building List – Demolish and Retain of the Application lists the Disposition at Closeout for the 24- and 14- Foot Shaft Headframes changing from demolish to Retain for Owner PMLU. See Comment #3 above.
21. Figure 1, Waste Rock Pile and Disposal Cell (Conceptual Full Buildout) of the Application shows a plan view of the existing Waste Pile and Disposal Cell and the proposed four expansion phases of the Waste Pile and Disposal Cell with two cross-section lines drawn (A-A' and B-B'). Figure 2, Proposed Expansion of Waste Rock Pile and Disposal Cell Sections of the Application shows the cross-sectional drawings A-A' and B-B'. MMD requests additional

cross-sectional drawings of each of the four Expansion Cell Phases oriented in a north to south direction.

22. Figure 2, Proposed Expansion of Waste Rock Pile and Disposal Cell Sections of the Application has a caption, *Future Contaminated Fill*, below and at the A' side of the cross-section drawing. Please explain what this caption refers to in the A-A' cross-section drawing.
23. Figure 3, Mt. Taylor Updated Closeout/Closure Schedule (May 15, 2020) of the Application shows bars labelled Task, Summary, and Critical in the bottom legend. All three bars appear to be black and of the same thickness. Please revise this figure to show clear differentiation between the bars if that was the original intention.
24. MMD received an e-mail from Bruce Norquist, Facilities Manager of the Mt. Taylor Mine, dated August 11, 2020 requesting to remove the Carpenter Shop building superstructure. The previous landowner of the Carpenter Shop had requested that this building be reserved for the Commercial PMLU and this building was approved to be retained for a Commercial PMLU in Revision 13-2 to Permit No. CI002RE. RGR has recently indicated that the Carpenter Shop is now owned by RGR and it is proposed to be demolished in the Application. After consultation with NMED, MMD conditionally approved the removal of the Carpenter Shop building superstructure, in an e-mail to RGR, dated September 23, 2020. MMD requested a timetable for RGR to demolish the Carpenter Shop foundation and cautioned RGR to not damage or disturb other applicable mine facilities that are needed for ground water monitoring or abatement.
25. MMD received a letter from RGR, dated September 15, 2020, requesting that the Disposition of the Electrical Building at the mine be changed from Demolish, to Retain for Owner PMLU. RGR stated that the reason for the request is that the Electrical Building, *is a key center of power for the site*, and that it is needed, *To provide electricity to the retained buildings under the PMLU*. MMD will include this request as a supplement to the Application.

If you have any questions, please contact me at (505) 216-8945 or at David.Ohori@state.nm.us.

Sincerely,

/s/ David Ohori

David Ohori, Permit Lead
Mining Act Reclamation Program ("MARF")
Mining and Minerals Division

Enclosures

cc: (with attachments) Ashlynn Winton, NMED Ground Water Quality Bureau (GWQB)
Mine File (CI002RE)

cc: (without attachments) Holland Shepherd, MARF Program Manager
Anne Maurer, Mining Act Team Leader, NMED GWQB