State of New Mexico
Energy, Minerals and Natural Resources Department

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ELECTRONIC SUBMITTAL

March 14, 2025

Anita Willcox, Department Specialist III
Mt. Taylor Mine
Rio Grande Resources Corporation
P.O. Box 1150
Grants, NM 87020

Melissa Meyer, Project Manager
Engineering Analytics Inc.
1600 Specht Point Road, Suite 209
Fort Collins, CO 80525

Re: 3rd Comment Letter, Mt. Taylor Mine, Disposal Cell Expansion and Update of Closeout/Closure Plan, Revision 22-1, Permit No. CI002RE

Dear Ms. Meyer,

The New Mexico Mining and Minerals Division (MMD) received a submittal from Rio Grande Resources Corporation (RGR) titled, *Rio Grande Resource's Response to 2nd Round of Comments of June 20, 2024, from Mining and Minerals Division of New Mexico Energy Minerals and Natural Resources Department for Closeout/Closure Plan, Revision 22-1 Permit No. CI002RE,* dated March 6, 2025 (Response). Please see MMD's 3rd round of comments below in response to RGR's Response to the 2nd round of agency comments. Also attached to this letter are associated comments by the New Mexico Environment Dept. (NMED). Office of the State Engineer (OSE) comments regarding the closure of the shafts and wells onsite will be addressed separately through their regulatory process.

MMD Comments

1. Comments responses 1-13: Acknowledged, no further comment.
2. Comment 14 Response: Please provide an anticipated timeline for when the Site Investigation Plan will be approved.
3. Comment 15 Response: Acknowledged, no further comment

4. Comment 16 Response: Please provide the updated cost estimate by the end of 2nd quarter FY25 with associated updates to the Closeout Plan
5. Comment 17 Response: Acknowledged, no further comment

As indicated in the spreadsheet by RGR, additional information and responses to comments are due to MMD by the end of 2nd Quarter FY25 on June 30, 2025. Responses to the attached NMED comment document will also be due at this time. Additionally, MMD strongly recommends that RGR engage with OSE regarding their regulatory process in relation to the closing of the two shafts on site.

Please contact me at (505) 467-9589 or at clinton.chisler@emnrd.nm.us if you have any questions.

Sincerely,

Clint Chisler, Permit Lead
Mining Act Reclamation Program (MARP)

Attachment: NMED Response to comments dated 25th of April 2025.

cc: DJ Ennis, Program Manager, MARP
Cory Dimond, Mining Environmental Compliance Section, New Mexico Environment Department, Ground Water Quality Bureau
Mine File (CI002RE)

Electronic Transmission

MEMORANDUM

Date: April 25, 2025

To: Clint Chisler, Permit Lead, Mining Act Reclamation Program

Through: Amber Rheubottom, Mining Act Team Leader, Mining Environmental Compliance Section (MECS)

From: Corey Dimond, Mining Environmental Compliance Section (MECS)

Subject: **New Mexico Environment Department (NMED) Comments Round 3, Mt Taylor Uranium Mine Closure/Closeout Plan, Cibola County, New Mexico, Mining Act Permit No. CI002RE**

On May 17, 2023, the New Mexico Environment Department (NMED) commented on the Revision 22-1 Application, Mt. Taylor Mine, Permit No. CI00RE. On November 10, 2023, Rio Grande Resources Corporation (RGR) provided a response and NMED made a second Round of comments on June 11, 2024 to MMD. NMED received a response from RGR on March 3, 2025,

The MECS comments below are in response to RGR and correspond to the 2nd Round (Round 2) of comments and the numbers below correspond to the numbers in that document. MECS is only providing comments on those responses that need additional attention. If there are no comments below, MECS deems the RGR response to be adequate.

4. *<u>MECS Comment, Round 2</u> - Section 2.3.2, Pg. 9 of CCP (NMED June 11, 2024) – NMED acknowledges RGR's response. Based on a site inspection on April 8, 2024, RGR indicated that the stormwater drainage channels, and specifically the channel to the south of the WRP/disposal cell, will be designed for greater than a 24-hour, 100-year event. Please address what the stormwater drainage channel design storm is and where these flow-designs are being considered. Please update the storm water diversion structure designs and include in an updated CCP.*

RGR's Response, Round 2 - The stormwater drainage channels are being designed for a 24-hour, 500-year storm event. We will include updated water diversion structure designs when the designs are complete.

The South Diversion Ditch runs from east to west and is located to the south of the disposal cell. The North Diversion Ditch run from south to north and bisects the Ore Pad and Borrow Area A.

The South Diversion Channel design is anticipated to be completed in 2025. Since the areas to the west and east of the North Diversion Channel will likely require removal of several feet of material for reclamation, The North Diversion Channel design is on hold until after-site reclamation is complete.

MECS Comment, Round 3 - NMED acknowledges RGR's response. NMED requested updated storm water diversion structure designs included in an updated CCP in Round 2 comments, yet RGR did not provide them. Please provide updated water diversion structure designs for a 24-hour, 500-year storm event in an updated CCP by June 30, 2025.

6. *MECS Comment, Round 2 - Section 2.4.2.2, Pg. 15 (NMED June 11, 2024) – The estimated contaminated soil remaining is approximately 4,200 cu. yds. NMED is currently waiting for the official results of the recently approved Reclamation and Post-Reclamation Radiological Work. Because RGR has not completed all of the planned soil profiling of the MWTU area, perhaps an estimated volume range of contaminated soils remaining should be included in the CCP or the CCP shall be updated once the official results are received. NMED acknowledges RGR's response regarding there being sufficient clean soil surrounding the ponds in order to fill and bring the ponds to the intended topographic graded surface.*

   RGR's Response, Round 2 - RGR is continuing to perform radiological profiling on site and is concluding profiling of the MWTU area, with final MWTU reports estimated to be complete in the 1st quarter of 2025. RGR will provide an updated estimated volume of impacted soils and amount of clean material to be imported once the radiological study has been completed.

   MECS Comment, Round 3 - RGR has indicated that profiling of the site will be completed in the 1st quarter of 2025. Please indicate if this has been completed. If so, please indicate when it will be submitted. Please provide an updated estimated volume of impacted soils and amount of clean material to be imported in an updated CCP by June 30, 2025.

7. *<u>MECS Comment, Round 2</u> - Section 2.4.4, Pg. 16 (NMED June 11, 2024) – NMED acknowledges that no soil samples were taken from the ore pad in 2012 and only a gamma ray survey conducted over the ore pad was performed in 2023. The map provided illustrates the lack of soil sampling at the ore pad except for a few samples sent to the lab to only be analyzed for Ra-226. However, the April 2023 Surface Gamma Scan Survey does reveal high surface soil gamma radiation in the windblow area directly north of the ore pad and Marquez Arroyo. Please provide a scope of work regarding how the ore pad and wind blow area to the north will be further characterized with a schedule of the characterization work to be performed. More accurate volume estimates need to be determined to design the disposal cell expansion. NMED is concerned with the volume of impacted soil associated with the ore pad and the windblown areas. NMED wants to ensure that the permitted area of the expanded disposal cell is adequate to contain all of the impacted soil on-site.*

   <u>RGR's Response, Round 2</u> -A radiological study of the windblown area, ore pad, and portions of the Mine Compound were completed and reported in the August 14, 2023 (AVM 2023) report titled Surface and Subsurface Soil Radiological Characterization, Windblown Area, Ore Pad Area and Mine Compound, Mount Taylor Mine Site, by AVM Environmental Services. The methods and procedures were consistent with the June 2020 Work Plan for Post-Mining Radiological Surveys of Permit Area and Impacted Lands. This report was provided on February 6, 2025 via email by RGR.

   The field investigations included, both static 0.5 inch thick lead (Pb) collimated and uncollimated (bare) 2x2 sodium iodide detector gamma radiological survey measurements and Differential Global Positioning System (DGPS) based bare detector gamma scan surveys along with ex-situ soil screening, soil sampling and offsite vendor laboratory analysis.

   The ore pad is assumed to be uniformly constructed with the waste rock depth from surface level to the native soil at approximately three to five feet. (Section 4.5 AVM 2023). The north portion of the ore pad showed deeper elevated materials potentially due to a previously backfilled treatment pond or backfilled portions of the ore pad stormwater retention pond. Soil samples were taken from the Ore Pad and are tabulated in Table 4 (AVM 2023). Since the Ore Pad is uniformly constructed, RGR believes the AVM 2023 appropriately characterizes the area.

   The windblown area was fully characterized in the AVM 2023 report with the field investigation methods described above. 24 surface and subsurface samples screened on-site were sent to the off-site vendor laboratory and the results are presented in Table 3.

The only location above the investigation level was WBSB-08 at 9.7 pCi/g, indicating a small area above the IL (investigation level) in the top inch of soil.

Using the AVM 2023 report, the 2024 radiological study, and future studies, RGR will continue to refine the volume of elevated soils and ensure the disposal cell is of adequate size.

MECS Response, Round 3 - NMED acknowledges receipt of past reports and agrees with the overall characterization of the subject areas to date. Past investigations have included the Marquez Canyon arroyo, and the other San Mateo Creek tributaries situated north and east of the Village of San Mateo. All the surveys and soil sampling found uranium and radium at background concentrations along these drainages. However, soil sample location WBSB-08 was at 9.7 pCi/g indicating an area above the IL level. This area and potentially other areas identified in additional studies will need to be included in an updated impacted soil volume estimate. Please provide an updated estimated volume of impacted soils in an updated CCP by June 30, 2025.

9. *MECS Comment, Round 2 - Section 4.3.2, Pgs. 31-32 (NMED June 11, 2024) – NMED acknowledges RGR's response and finds it satisfactory. A future meeting will be scheduled between NMED, NMOSE, and RGR to further develop a plan for plugging and abandonment of the shafts.*

RGR's Response, Round 3 - RGR had a meeting with OSE, MMD and MECS on July 24, 2024, to start the engagement process. RGR is committed to continue working with OSE on the regulatory process regarding the shaft closure/plugging plan.

To adequately address OSE comments regarding the 1) commingling of inter-aquifer exchange of groundwater, 2) prevent the loss of hydraulic head between hydrogeological zones or units, and 3) prevent the flow of contaminated or low-quality water, RGR is compiling geologic, hydrologic, and geochemical data into a geospatial database to develop a Site Conceptual Model of the groundwater system at Mount Taylor.

MMD has indicated that RGR may continue to work on the shaft closure as a separate item as we continue to work toward approval of the CCP.

MECS Comment, Round 3 - NMED agrees with and acknowledges that MMD has indicated that RGR may continue to work on the shaft closure as a separate item from approval of an updated CCP. However, this does not signify that a shaft closure proposal can be put on hold indefinitely. RGR shall continue to develop and propose a shaft closure plan to the

New Mexico Office of State Engineer and subsequently update the CCP and cost estimates when all agencies involved are in agreement of a plan.

NMED is additionally concerned with the long-term integrity of the shafts in association with the measured shaft water level relative to the depth of the Point Lookout Sandstone aquifer. Due to the lack of a plan and the rate of groundwater recovery in the absence of active dewatering, NMED will be requesting new monitoring requirements under DP-61 to monitor the water levels of the shafts and the groundwater quality of the Point Lookout Sandstone in a forthcoming correspondence to RGR.

15. *MECS Comment, Round 2 - Section 4.4.1 Pg. 38 (NMED June 11, 2024) - NMED acknowledges that there should be no saturation within the contaminated materials due to the clay and loam cover, but the clay liner serves as a secondary protective barrier for meteoric water infiltration to groundwater. Please provide data or academic research that supports the assumption that one foot of clay will be environmentally protective for groundwater if there is a breach in the clay and loam cover. One foot is the minimum thickness that can be placed and compacted with large earthwork equipment. NMED suggests erring on the side of caution by placing slightly greater than one foot. Variability in clay mineralogy and mechanical properties may lead to a margin of error in what may be protective for groundwater.*

    RGR's Response, Round 3 - The construction of the current waste rock pile and disposal cell, including the 1-foot barrier, was previously approved through the 13-1 CCP submittal.

    RGR will include analyses of the proposed clay liner systems and compare them with other liner options for future cell expansions.

    MECS Comment, Round 3 - Please provide analyses of the proposed clay liner systems and the comparisons with other liner options in an updated CCP by June 30, 2025.

28. *MECS Comment, Round 2 - Section 4.5.2, Pg. 48 (NMED June 11, 2024) – There is a concern that the additional material may make maintaining the current slope and grade difficult. NMED requests that a future survey be considered to verify cover thickness across outslopes followed by a post-reclamation radon survey. Prior to a Construction Quality Control Plan (CQAP) a better understanding of the growth media cover thickness is necessary. Please comment if these are concerns that should be addressed.*

RGR's Response, Round 3 - RGR will supply a workplan for a soils investigation in Q1 2025. The purpose of the investigation is to verify growth media thickness and radon barrier thickness for the existing disposal cell where the slopes will remain as-is after the expanded disposal cell construction. RGR agrees that these items should be done prior to submitting a CQAP.

RGR will perform a post-reclamation radon survey after construction of the expanded disposal cell.

MECS Comment, Round 3 RFAI - Please provide the workplan for a soils investigation by June 30, 2025.

NMED Summary Comment

In reviewing the current cost estimate, NMED notes the absence of a section for groundwater abatement, outside of the closure of 5 abatement monitoring wells. NMED and RGR began discussions on the financial assurance associated with groundwater abatement in 2022. These discussions were not finalized. NMED will be re-initiating these discussions in a forthcoming correspondence to RGR. The outcome of these discussions may require a separate update to the financial assurance and cost estimate following these negotiations.

NMED is withholding issuance of the environmental determination pending completion of the technical review of the DP-61 renewal and modification application to ensure compliance with 20.6.2.NMAC.

If you have any questions, please contact Corey Dimond at (505) 795-4216 or corey.dimond@env.nm.gov.

cc: Joseph Fox, Program Manager, NMED-MECS