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**NEW MEXICO
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MEMORANDUM

Date: July 27, 2020

To: Holland Shepherd, Program Manager, Mining Act Reclamation Program

Through: Anne Maurer, Mining Environmental Compliance Section

From: Ashlynn Winton, Mining Environmental Compliance Section
Alan Klatt, Surface Water Quality Bureau
Rhett Zyla, Air Quality Bureau

Subject: **NMED Comments, Modification 20-1, Mt. Taylor Mine, Rio Grande Resources, Cibola County, New Mexico Mining Act Permit No. CI002RE**

The New Mexico Environment Department (NMED) received correspondence from the Mining and Minerals Division (MMD) on June 26, 2020 requesting NMED comment on the Modification 20-1 application for the Mt. Taylor Mine from Rio Grande Resources (RGR). This has permit tracking No. CI002RE. NMED has the following comments.

Background

The Modification 20-1 application proposes to update the reclamation schedule found in Section 9.S of Revision 13-2. In addition, RGR proposes to expand the South Waste Rock Pile and Disposal Cell and modify the post-mining land use (PMLU) of some of the structures located within the mine permit area.

Air Quality Bureau

The Air Quality Bureau comments are attached.

Surface Water Quality Bureau

The Surface Water Quality Bureau comments are attached.

Mining Environmental Compliance Section (MECS)

The MECS has the following comments:

1. RGR needs to include a discussion on how settlement will be addressed as a result of placing demolition debris and other contaminated material in the expanded waste rock pile.
2. NMED understands that ongoing investigations related to the diesel plume and groundwater abatement may reveal additional impacted material that needs to be managed in a manner that is protective of water quality. It is not clear if the waste rock pile expansion contemplates the necessary volume required for placement of the soils excavated from the diesel plume contamination, and other soils excavated as part of abatement and reclamation activities.
3. Section 4.5, Requested Changes to the Approved PMLU: RGR lists facility components that are intended to be preserved throughout the duration of closure activities. Included in this list are “Abatement wells (NMED, DP-61 permit monitoring)”, and “All other Groundwater Monitoring wells (NMED, DP-61 permit monitoring)”. NMED requests that RGR include in the list a mention of any new wells to be drilled for the diesel investigation and the additional site wide groundwater investigation.

NMED Summary Comment

The permit modification states that water from the Point Lookout Sandstone and other aquifers may be provided to end-users for various types of beneficial use. Water quality of any water provided to end users must be appropriate for the intended use and discharged in compliance with applicable state and federal standards as opposed to simply meeting the water quality standards of 20.6.2.3103.A NMAC. As discussed above, additional information is needed before NMED can determine whether the activities proposed in the Modification 20-1 application will be protective of the environment.

If you have any questions, please contact Kurt Vollbrecht at (505) 827-1095.

cc: David Ohori, Lead Staff, EMNRD-MMD
Kurt Vollbrecht, Program Manager, MECS
Shelly Lemon, Bureau Chief, NMED-SWQB
Elizabeth Bisbey-Kuehn, Bureau Chief, NMED-AQBs



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MEMORANDUM

DATE: July 27, 2020

TO: Kurt Vollbrecht, Program Manager, Mining Environmental Compliance Section

FROM: Alan Klatt, Watershed Protection Section, Surface Water Quality Bureau
Daniel Valenta, Point Source Regulation Section, Surface Water Quality Bureau

SUBJECT: **Request for Comments, Modification 20-1, Mt Taylor Mine, New Mexico Mining Act Permit No. CI002RE**

The Surface Water Quality Bureau (SWQB) of the New Mexico Environment Department (NMED) has reviewed the Subject Request for Comments on the modification of the Mt. Taylor Mine. The modification proposes to update the reclamation schedule, expand the south waste rock pile and disposal cell, refurbish and upgrade the stormwater drainage system, and modify the post-mining land use in order to exercise water rights in support of watering livestock, supporting on-site commercial activities, irrigation, and 3rd party end-users. Pursuant to §19.10.5.505 New Mexico Administrative Code (NMAC), SWQB has prepared the following comments.

Comments from the Watershed Protection Section:

The modification request explains that water will be supplied to customers that are down-gradient in San Mateo Creek and the Bluewater Basin. This water will be supplied from the Point Lookout formation which should not require treatment to meet New Mexico human health organism only standards, and that lesser amounts of water may be pumped from the Gallup/Dakota aquifers and blended with the Point Lookout aquifer in a manner that would meet New Mexico's ground water quality standards under 20.6.2.3103A NMAC.

Prior to any discharge to San Mateo Creek, or other surface waters of the state, a demonstration must be made that state Surface Water Quality Standards will be met (State of New Mexico, Standards for Interstate & Intrastate Surface Waters, New Mexico Water Quality Commission, 20.6.4 NMAC, as amended through December 17, 2019), and contaminants will not be mobilized.

Comments from the Point Source Regulation Section:

A Construction General Permit (CGP) is not required if the disturbing activities are part of the normal day-to-day operation of a completed facility (e.g., daily cover for landfills, maintenance of gravel roads

or parking areas, landscape maintenance). If work performed is routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility, or if the Wastewater System Improvement Project goes beyond routine maintenance, see below.

Clean Water Act, Section 402 NPDES Industrial Storm Water Construction General Permit (CGP)

The U.S. Environmental Protection Agency (USEPA) may require a National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) coverage for storm water discharges from construction activities (such as clearing, grading, excavating, and stockpiling) that disturb (or re-disturb) one or more acres. Prior to discharging storm water related to construction activities, operators may need to obtain coverage under the CGP.

Among other things, this permit requires that a Storm Water Pollution Prevention Plan (SWPPP) be prepared for the project, including support and staging areas, and that appropriate Best Management Practices (BMPs) be installed and maintained both during and after construction to prevent, to the extent practicable, pollutants (primarily sediment, oil & grease and construction materials from construction sites) in storm water runoff from entering waters of the U.S. This permit also requires that permanent stabilization measures (re-vegetation, paving, etc.), and permanent storm water management measures (storm water detention/retention structures, velocity dissipation devices, etc.) be implemented post construction to minimize, in the long term, pollutants in storm water runoff from entering these waters.

Part 9 of the 2017 CGP includes permit conditions applicable to specific states, Indian country lands, or territories. In the State of New Mexico, except on tribal land, permittees must ensure that there is no increase in sediment yield and flow velocity from the construction site (both during and after construction) compared to pre-construction, undisturbed conditions (see Subpart 9.4.1 of the 2017 CGP).

USEPA requires that all "operators" (see Appendix A of the 2017 CGP) obtain NPDES permit coverage by submitting a Notice of Intent (NOI) for construction projects. Generally, this means that at least two parties will require permit coverage.

The owner/developer of this construction project who has operational control over project specifications, the general contractor who has day-to-day operational control of those activities at the site, which are necessary to ensure compliance with the SWPPP and other permit conditions, and possibly other "operators" will require appropriate NPDES permit coverage for this project.

The CGP, NOI, deadlines for submitting an NOI, Fact Sheet, and Federal Register notice are available at: <https://www.epa.gov/npdes/stormwater-discharges-construction-activities>.



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MEMORANDUM

DATE: July 9, 2020

TO: Kurt Vollbrecht, Program Manager, Mining Environmental Compliance Section

FROM: Rhett Zyla, Environmental Scientist & Specialist - Air Quality Bureau

RE: Request for Comments, Modification 20-1, Mt. Taylor Uranium Mine and Mill, New Mexico Mining Act Permit No. CI002RE

The New Mexico Air Quality Bureau (AQB) has completed its review of the above-mentioned mining project. Pursuant to the New Mexico Mining Act Rules, the AQB provides the following comments.

Air Quality Permitting History

The AQB has not issued any air quality permits for this operation.

Details

Rio Grande Resources (RGR) is requesting a modification to MMD permit CI002RE, at the Mt. Taylor Uranium Mine and Mill, ½ mile northeast of the Village of San Mateo, New Mexico, in Cibola County, Section 24, T13N, R8W. The Closeout/Closure Plan schedule (CCP) of 2013 is being updated to reflect the current status of the Mt. Taylor Mine.

RGR initiated closure activities at the beginning of January 2020 and is implementing the approved CCP of 2013. This plan anticipated a series of closeout activities based on assumptions that the orebody would be mined out, the site would be ready for decommissioning and the operations would be in cessation. Because this set of assumed conditions was not realized, RGR found it necessary to update the CCP to meet conditions presently existing at the site that resulted from the Phase I construction in 2018-2019.

The proposed updated CCP schedule follows the task structure of the one presented and approved in 2013. The primary difference between the two schedules is that the 2020 schedule has an expanded timespan to account for anticipated work productivity and

increased quantities of materials at the site under present conditions.

A principle driver for the modification arises from the need to expand the disposal cell, which was filled to capacity at the end of 2019 during construction. The expansion is necessary to accommodate the anticipated remaining contaminated materials to be remediated at the site.

Post mining land use (PMLU) includes watering livestock, supporting on-site commercial activities, irrigated agricultural land and 3rd party end-users. These may occur on the site or peripherally. Commercially, RGR intends to maintain a presence on the site as part of its business plan and ownership of the land. Water will be needed to support those activities.

Air Quality Requirements

The New Mexico Mining Act of 1993 states that “Nothing in the New Mexico Mining Act shall supersede current or future requirements and standards of any other applicable federal or state law.” Thus, the applicant is expected to comply with all requirements of federal and state laws pertaining to air quality. Current requirements which may be applicable in this mining project include, but are not limited to the following:

Paragraph (1) of Subsection A of 20.2.72.200 NMAC, *Application for Construction, Modification, NSPS, and NESHAP - Permits and Revisions*, states that air quality permits must be obtained by:

“Any person constructing a stationary source which has a potential emission rate greater than 10 pounds per hour or 25 tons per year of any regulated air contaminant for which there is a National or New Mexico Ambient Air Quality Standard. If the specified threshold in this subsection is exceeded for any one regulated air contaminant, all regulated air contaminants with National or New Mexico Ambient Air Quality Standards emitted are subject to permit review.”

Further, Paragraph (3) of this subsection states that air quality permits must be obtained by:

“Any person constructing or modifying any source or installing any equipment which is subject to 20.2.77 NMAC, *New Source Performance Standards*, 20.2.78 NMAC, *Emission Standards for Hazardous Air Pollutants*, or any other New Mexico Air Quality Control Regulation which contains emission limitations for any regulated air contaminant.”

Also, Paragraph (1) of Subsection A of 20.2.73.200 NMAC, *Notice of Intent*, states that:

“Any owner or operator intending to construct a new stationary source which has a potential emission rate greater than 10 tons per year of any regulated air contaminant or 1 ton per year of lead shall file a notice of intent with the department.”

The above is not intended to be an exhaustive list of all requirements that could apply. The applicant should be aware that this evaluation does not supersede the requirements of any current federal or state air quality requirement.

Fugitive Dust

Air emissions from this project should be evaluated to determine if an air quality permit is required pursuant to 20.2.72.200.A NMAC (e.g. 10 lb/hour or 25 TPY). Fugitive dust is a common problem at mining sites and this project will temporarily impact air quality as a result of these emissions. However, with the appropriate dust control measures in place, the increased levels should be minimal. Disturbed surface areas, within and adjacent to the project area, should be reclaimed to avoid long-term problems with erosion and fugitive dust. EPA's *Compilation of Air Pollutant Emission Factors, AP-42, "Miscellaneous Sources"* lists a variety of control strategies that can be included in a comprehensive facility dust control plan. A few possible control strategies are listed below:

Unpaved haul roads and traffic areas: paving of permanent and semi-permanent roads, application of surfactant, watering, and traffic controls, such as speed limits and traffic volume restrictions.

Paved roads: covering of loads in trucks to eliminate truck spillage, paving of access areas to sites, vacuum sweeping, water flushing, and broom sweeping and flushing.

Material handling: wind speed reduction and wet suppression, including watering and application of surfactants (wet suppression should not confound track out problems).

Bulldozing: wet suppression of materials to "optimum moisture" for compaction.

Scraping: wet suppression of scraper travel routes.

Storage piles: enclosure or covering of piles, application of surfactants.

Miscellaneous fugitive dust sources: watering, application of surfactants or reduction of surface wind speed with windbreaks or source enclosures.

Recommendation

The AQB has no objection to the current request for a permit modification to the CCP.

The applicant is expected to comply with all requirements of federal and state laws pertaining to air quality. This written evaluation does not supersede the applicability of any forthcoming state or federal regulations.

If you have any questions, please contact me at (505) 476-4304.

MEMORANDUM
OFFICE OF THE STATE ENGINEER
Hydrology Bureau

DATE: July 24, 2020

TO: David Otori, Permit Lead, Mining Act Reclamation Program (MARP)/MMD
Holland Shepherd, MARP Program Manager

THROUGH: Ghassan Musharrafieh, Ph.D., P.E., Hydrology Bureau Chief *JRM*

FROM: Kamran H. Syed, Ph.D., P.E., Water Resources Engr., Hydrology Bureau *KHS*

SUBJECT: Comments on Modification 20-1 to Mt. Taylor Mine Permit No. CI002RE, Rio Grande Resources Corporation – Closeout/Closure Plan

On June 26, 2020, the Hydrology Bureau of the New Mexico Office of the State Engineer (NMOSE) received a request for comments by the Mining and Minerals Division (MMD) of the Energy, Minerals and Natural Resources Department (EMNRD) for the Rio Grande Resources Corporation's (RGR) proposed modification 20-1 of MMD Mt. Taylor mine permit No. CI002RE (Permit). The application is for the modification of the Closeout/Closure Plan. The project is located approximately 1/2 mile northeast of the Village of San Mateo, New Mexico in portions of Sections 24, Township 13N, Range 8W in Cibola County.

The Mt. Taylor mining activities originally started in 1980. This is an underground mine for the extraction of Uranium ore from depths greater than 3000 feet below ground surface. The mine has been through phases of active production, cessation of mining and standby status since then. The current submittal is made to update the original closeout plan. The original closeout plan was submitted in 1998. The closeout plan was for operations related to closing the mine. A separate plan (closure plan) was submitted (also in 1998) for closure of the discharge permit.

In 2012, as part of the original permit renewal, MMD required RGR to update the mine closeout and discharge closure plan to reflect current regulatory standards and actual site conditions that existed at the time of submittal. Additionally, MMD allowed RGR to submit one (combined) plan for both closeout and closure (hereinafter referred to as CCP for brevity). The original closeout and closure plans (of 1998) were revised and updated several times after their submission. In one of the previous revisions, it was identified that the then current conditions did

not reflect the need for water supply plans. The latest updated plan (subject of this review) anticipates revival of water supply scheme after mine closeout. The other proposed modifications are:

1. Update to the post mining land use (PMLU);
2. Update of the CCP plan schedule; and,
3. An expansion of the disposal cell.

The Hydrology Bureau of the NMOSE reviewed the requested update to the CCP. The following comments and recommendations are offered to summarize our observations regarding the proposed update.

Comments/Recommendations

1. The shaft and conduit workings have penetrated unsaturated geologic units, as well as saturated units and confining units to terminal depth. Previous CCP plans indicate that these shafts and conduits were cased and grouted to prevent water intrusion. We would be interested in the original design and construction details of these shafts. The update request also indicates a possibility of simply capping the shafts (without plugging). We would like to know which regulatory agency offers approval that simply capping a shaft might offer perpetual segregation of aquifers.
2. Groundwater may still enter and fill a subsurface mine over time, but it would seem appropriate that the loss of hydraulic head from one aquifer to the other ought to be addressed in post-closure phase. In my opinion, there is value in measuring and recording data to monitor for continued integrity of grout and casing material to ensure segregation of shallow and deep aquifer waters, as intended.
3. Numerous project wells exist on the mine site (production wells, dewatering wells, monitor wells, or some form of environmental characterization / abatement wells). A number of these wells will remain operational (while some will be plugged and abandoned). Therefore, it would be beneficial to have a detailed tabulation of existing project wells on file, reflecting location, depth / design character, use / potential future use, and the nature of any sampling, water level measurement, or metered withdrawals for continued reference as closure activities proceed.

4. For wells designated for decommissioning, NMOSE Well Plugging Plan of Operations WD-08 Form must be filed with and approved by the NMOSE Albuquerque District 1 Water Rights Division prior to the initiation of any well plugging activity. The approval process reviews the appropriateness of proposed sealant choice and placement in the decommissioning of wells.
5. The update request notes potential for new or revised uses of groundwater in the future. In the event that proposed water right use is different from the current water right uses, then the Albuquerque District 1 Water Rights Division should be consulted to determine the need for and nature of filing an application to change an existing water right to accommodate the proposed use(s). Similarly, should future use of groundwater be transferred to additional or new ownership, application must be made to the NMOSE Albuquerque District 1 Water Rights Division.
6. Two surface water drainage systems exist in close proximity of the mine: 1) San Mateo Creek which is a perennial stream located approximately ½ mile south of the mine; and, 2) Marquez Canyon, an ephemeral stream located immediately north of the mine. Care should be exercised during closeout/closure operations to ensure that these surface water bodies are not impacted. Measures should be taken to ensure that the channel geometry is not disturbed and their waters and stream bed & banks are not contaminated as a result of closeout/closure operations.