State of New Mexico Energy, Minerals and Natural Resources Department

Michele Lujan Grisham

Governor

Sarah Cottrell Propst Cabinet Secretary

Todd E. Leahy, JD, PhDDeputy Cabinet Secretary

Jerry Schoeppner, Director Mining and Minerals Division



May 6, 2020

Ms. Samantha Kretz, Environmental Engineer GCC Rio Grande, Inc. Tijeras Mine and Mill P.O. Box 100 Tijeras, New Mexico, 87059

RE: Modification 20-1 Application to Permit No. BE001RE, Tijeras Mine & Mill, Bernalillo Co., NM Comments

Dear Ms. Kretz,

The New Mexico Mining and Minerals Division ("MMD") received *Modification 20-1 Application* ("Application") on January 27, 2020 to modify Permit No. BE001RE to extend the design limits by approximately 263.18 acres, add permit language to the Closeout Plan allowing for exploration drilling activities within the Permit Boundary, and add permit language to the Closeout Plan for the placement of off-spec coal into the cement kiln dust ("CDK") Pit located in Quarry 6.

On March 25, 2020 MMD received *Modification Application for Exploration Drilling and Off-Spec Coal Placement at GCC Rio Grande Tijeras Mine and Mill (Permit BE001RE)* ("amended Application"). This amended modification to the application deleted the portion of the original application related to extending the design limits of the mine. MMD has performed a review of the amended Application pursuant to §19.10.5.505 NMAC and sent copies of the amended Application to the required state agencies requesting their comments.

MMD has reviewed the amended Application received from GCC Rio Grande ("GCC") for the Tijeras Mine and Mill and has received comments from other state and federal agencies (Office of the State Engineer ("NMOSE"), The New Mexico Environment Department ("NMED"), Department of Cultural Affairs Historic Preservation Division ("NMDCA"), State of New Mexico Department of Game & Fish ("NMDG&F"), the New Mexico State Forestry ("NMSFD"), and the United States Forest Service ("USFS"). MMD provides the following comments on the amended Application in addition to providing copies of the comments received from other state agencies (attached).

MMD Comments

1. Confirm that Off-Spec Coal will be covered with 2 feet of soil material and reclaimed along with the surrounding quarry section as Kiln Dust reclamation is described in Section 5.3.1 Geomorphic Grading and Backfilling in the Revision 18-1 Closeout Plan.

RE: Modification 20-1 Application to Permit No. BE001RE, Tijeras Mine & Mill, Bernalillo Co., NM Comments

Page 2

- 2. Please provide information required by §19.10.3.302 D. (2), (4), (5), and (6) NMAC in Section 4 of the amended Application. Location information related to (2) can be provided in a general sense.
- 3. While conducting exploration activities within the Permit Boundary GCC shall follow §19.10.3.302 (K),(L), and (M) NMAC.
- 4. Change the reference of §19.10.3.302 (G) NMAC in Section 5. Exploration Drilling to §19.10.3.302.
- 5. New disturbance related to exploration drilling will have to be reported in the Annual Report and reflected in the Annual Fees each year.
- 6. Please provide a specific amount of Financial Assurance ("FA") that will give GCC the freedom to conduct exploration activities on the mine site. This shall be a "rolling" amount of FA that can be applied to new exploration activities once previous exploration sites have been properly plugged and reclaimed. Below are the current FA rates per MMD Guidance on exploration.
 - a. \$14 per foot for drill hole depth
 - b. \$8,900 for the first acre of disturbance
 - c. \$4,900 per acre for each additional acre

USFS Comments

1. Address the concerns in the USFS Comment Letter, dated March 5, 2020 and the email dated March 27, 2020

NMDCA Comments

1. Consider the recommendations from the NMDCA Comment Letter, dated April 6, 2020.

NMSFD Comments

1. Review the email from NMSFD, dated March 31, 2020

NMDGF Comments

1. Review the recommendations from the NMDGF. Specifically follow the guidelines set forth in the third and fifth paragraphs regarding protection of migratory birds under the Migratory Bird Treaty Act.

NMOSE Comments

1. Address the 4 concerns listed at the bottom of the NMOSE Memo, dated April 28, 2020

RE: Modification 20-1 Application to Permit No. BE001RE, Tijeras Mine & Mill, Bernalillo Co., NM Comments

Page 3

NMED Comments

- 1. Review and address the following comments and concerns contained in the following letters from NMED.
 - a. Letter dated April 2, 2020, Ground Water Quality Bureau Mining Environmental Compliance Section (MECS).
 - b. Surface Quality Water Bureau letter dated March 20, 2020. Disregard content in this letter related to the omitted design limit aspects of the original modification application.
 - c. Amended application comment letter dated April 29, 2020.

Please respond to the MMD comments and the attached comments from other state agencies within 30 days of receipt of this letter.

If you have any questions, please contact me at (505) 467-9589 or at clinton.chisler@state.nm.us.

Sincerely,

Clint Chisler Permit Lead

Clutho Chits

Mining Act Reclamation Program ("MARP")

Enclosures: NM Office of the State Engineer Comment Letter

The New Mexico Environment Department Ground Water Quality Bureau, Surface Water Quality Bureau, and Air Quality Bureau Comment Letters Department of Cultural Affairs Historic Preservation Division Comment Letter

State of New Mexico Department of Game & Fish Comment Letter

NM State Forestry Dept Comment Letter

USFS Comment Letter and email

cc: Holland Shepherd, MARP Mine File (BE001RE) From: Padilla, Jenna - FS

To: Chisler, Clinton, EMNRD

Cc: Powell, Crystal L -FS; Parsons, Zachary D -FS

Subject: [EXT] RE: Tijeras Mod. 20-1 Forest Service Comments

Date: Friday, March 27, 2020 10:27:24 AM

Attachments: <u>image001.png</u>

image002.png image003.png image004.png

Clint,

Thank you for the clarification and updated information. It is written in their proposal:

GCC is requesting allowances to conduct exploration drilling in locations to be determined throughout the quarry area and within the mine boundary.

Since NFS lands are within GCC's mine boundary, I would like to reiterate if there is exploration activities proposed on NFS lands the Cibola will need to be notified immediately by GCC Rio Grande. Pursuant to 36 CFR 228.4, an adequate Plan of Operations will need to be submitted to conduct operations on NFS lands which might cause disturbance of surface resources.

I am teleworking right now, as I think you are as well. Feel free to contact me by email or cell phone (number is below) if you have any questions. Hope you are doing well!

Thanks,



Jenna Padilla Geologist

Forest Service

Cibola National Forest and National Grasslands

p: 505-346-3840 c: 505-269-1336

jenna.padilla@usda.gov 2113 Osuna Road NE, Albuquerque, NM 87113

www.fs.fed.us

Caring for the land and serving people

From: Chisler, Clinton, EMNRD [mailto:Clinton.Chisler@state.nm.us]

Sent: Tuesday, March 24, 2020 12:15 PM

To: Maurer, Anne, NMENV < Anne. Maurer@state.nm.us>; Powell, Crystal L -FS

<crystal.powell@usda.gov>; Padilla, Jenna - FS <jenna.padilla@usda.gov>; Roth, Daniela, EMNRD

<Daniela.Roth@state.nm.us>; Musharrafieh, Ghassan R., OSE

<ghassan.musharrafieh@state.nm.us>; Matthew.Wunder@state.nm.us; Kellermueller, Ronald, DGF

<Ronald.Kellermueller@state.nm.us>; Reycraft, Richard, DCA <richard.reycraft@state.nm.us>

Cc: Ennis, David, EMNRD <David.Ennis@state.nm.us>; Shepherd, Holland, EMNRD <holland.shepherd@state.nm.us>

Subject: Tijeras Mod. 20-1

Agencies,

I had a conversation with Samantha Kritz from GCC yesterday and they are planning on amending Mod. 20-1 to drop the part regarding the pit expansions and new units. This is because of errors in the application I found and also miscommunication between the mining and environmental/permitting groups at GCC. The amended application will only include:

- 1. Off-Spec Coal disposal on site
- 2. Exploration Verbiage for the Closeout Plan

I haven't received the official amendment application but wanted to give you a heads up and also ask if the agencies would still be able to provide comments on the above two items within the April 4th deadline. Thank you for your consideration. Once the amendment application comes in from GCC I will provide you with official correspondence on this matter.

Clint

CLINTON M. CHISLER
RECLAMATION SOIL SCIENTIST
WINING AND MINERALS DIVISION
MINING ACT RECLAMATION PROGRAM
WENDELL CHINO BUILDING 3RD FLOOR ROOM 363
1220 S. ST. FRANCIS DRIVE
1220 S. ST. FRANCIS DRIVE
1330 J 476-3413 (CURRENTLY NOT ANSWERING DUE TO COVID-19 SITUATION)
CLINTON.CHISLER@STATE.NM.US

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STATE OF NEW MEXICO DEPARTMENT OF CULTURAL AFFAIRS HISTORIC PRESERVATION DIVISION

BATAAN MEMORIAL BUILDING 407 GALISTEO STREET, SUITE 236 SANTA FE, NEW MEXICO 87501 PHONE (505) 827-6320 FAX (505) 827-6338

February 13, 2020

Clint Chisler
Permit Lead, Mining Act Reclamation Program
Mining and Minerals Division
1220 South Saint Francis Drive
Santa Fe, NM 87505

Re: HPD Log No. 112466: Request for Review and Comment on Regular Existing Mine Modification 20-1 Application, GCC Rio Grande Inc. Tijeras Mine and Mill, Bernalillo Co., NM Permit Tracking No. BEE001RE

Dear Mr. Chisler:

I am writing in response to your request for review and comment on the above referenced Mine Modification Plan received at this office February 7^{th} , 2020.

Pursuant to 19.10.5.505 NMAC, Permit Modifications and Revisions, the Director shall determine whether a permit modification would have an adverse impact on cultural resources listed on either the National Register of Historic Places or the State Register of Cultural Properties or be located in a known cemetery or other burial ground.

According to our files, there are no cultural resources listed on either the National Register of Historic Places or the State Register of Cultural Properties in the permit area. There are also no known cemeteries or other burial grounds. Based on this information, this permit will have no adverse impacts to cultural resources listed on the National or State Registers.

Although there are no cultural resources listed on either the National Register of Historic Places or the State Register of Cultural Properties, The permit area has not been archeologically surveyed since 1974; therefore this office recommends a cultural resources survey be conducted on any undisturbed portions of mine property where proposed new ground disturbance will occur for this permit.

This survey should be performed by a qualified professional to determine if any historic or archaeological properties are present and if so, to provide documentation of those resources to our office. This information can then be used to evaluate the National Register of Historic Places eligibility of any resources identified during the survey and determine project effects on those resources. A list of state permitted archaeologists and archaeological firms are available from this office upon request or can be downloaded from our web site at:

http://www.nmhistoricpreservation.org/documents/consultants.html

If you have any questions concerning these comments, please do not hesitate to contact me by phone at (505)-452-6115 or e-mail me at richard.reycraft@state.nm.us

Sincerely,

Richard Reycraft

Richard. Reycraft Staff Archaeologist

Sandia Ranger District 11776 Highway 337 Tijeras, NM 87059 505-281-3304 Fax: 505-281-1176

File Code: 2810 Date: March 5, 2020

Clint Chisler Permit Lead Mining and Minerals Division 1220 South St. Francis Drive Santa Fe, NM 87505

Dear Mr. Chisler,

I appreciate the opportunity to review and provide comment to GCC Rio Grande's submission of a Modification Application for New Units, Exploration Drilling, and Off-Spec Coal Placement at Tijeras Mine and Mill (Permit BE00JRE), dated January 24, 2020, (Application). The Tijeras Mine and Mill is located 0.5 miles south of the Village of Tijeras, in Bernalillo County, New Mexico. This project is bordered by the Sandia Ranger District of the Cibola National Forest and Grasslands (Cibola).

Based on our review of the Application, I am requesting more information on GCC Rio Grande's proposal of increasing the extent of the design limits of Quarry 4. Specifically, it is unclear whether the eastern application area of Quarry 4 may extend onto National Forest System (NFS) lands (see enclosure-Figure 2 of Application). We recommend an additional figure to the Application that displays the application area with surface ownership and boundaries. If there is indeed mining activities proposed on NFS lands, the Cibola will need to be notified immediately by GCC Rio Grande. Pursuant to 36 CFR 228.4, an adequate Plan of Operations will need to be submitted to conduct operations on NFS lands which might cause disturbance of surface resources.

Feel free to contact Jenna Padilla, Cibola Geologist, for any questions. She can be reached at (505) 346-3840 or by email at jenna.padilla@usda.gov.

Sincerely

CRYSTAL POWELL District Ranger

Enclosures: Figure 2- Quarry Design Limits of Modification Application for New Units, Exploration Drilling, and Off-Spec Coal Placement at Tijeras Mine and Mill (Permit BE00JRE)

Cc: Holland Shepard, Program Manager, MMD-via email Zachary Parsons, Cibola NF REALM Staff Officer-via email Jenna Padilla, Cibola NF Geologist-via email



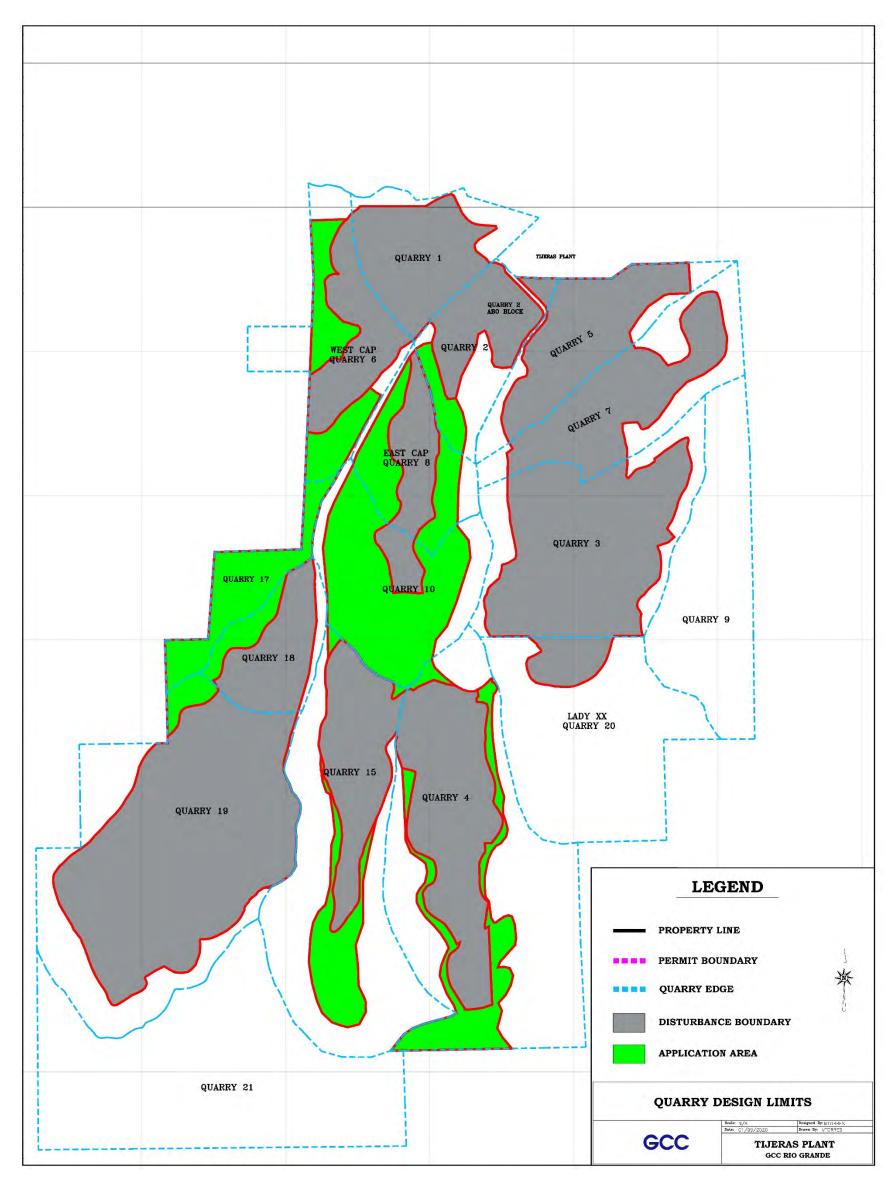


Figure 2: Quarry Design Limits

GOVERNOR Michelle Lujan Grisham



STATE OF NEW MEXICO DEPARTMENT OF GAME & FISH

One Wildlife Way, Santa Fe, NM 87507

Post Office Box 25112, Santa Fe, NM 87504

Tel: (505) 476-8000 | Fax: (505) 476-8123

For information call: (888) 248-6866

www.wildlife.state.nm.us

STATE GAME COMMISSION

SHARON SALAZAR HICKEY

nair

ROBERTA SALAZAR-HENRY Vice-Chair

Las Cruces

JIMMY RAY BATES, SR. Albuquerque

GAIL CRAMER

Mayhill TIRZIO J. LOPEZ

Cebolla

DAVID SOULES

JEREMY VESBACH

Placitas

31 March 2020

Clint Chisler, Permit Lead Mining Act Reclamation Program Mining and Minerals Division (MMD) 1220 South St. Francis Drive Santa Fe, NM 87505

RE: Regular Existing Mine Modification 20-1 Application, GCC Rio Grande, Inc. Tijeras Mine and Mill, Bernalillo County, NM Permit No. BE001RE. NMDGF# 19701.

Dear Mr. Chisler:

The New Mexico Department of Game and Fish (Department) has reviewed the proposed application modification for exploration drilling and off-spec coal management referenced above. GCC Rio Grande, Inc. (GCC) is requesting allowances to conduct exploration drilling in locations to be determined throughout the quarry area and within the mine permit boundary. GCC is also requesting that the facility be permitted to place off-spec coal into the cement kiln dust pit.

GCC's application does not provide adequate details about the proposed drilling operations such as; estimated total acreage to be disturbed, type of drilling rig and if mud pits will be required or a closed loop containment system will be utilized to contain drilling fluids, and a description of post site disturbance reclamation plan including the native seed mix that will be used. In the absence of a more detailed drilling operations plan, the Department provides the following recommendations to minimize impacts to wildlife and habitats.

All migratory birds are protected against direct take under the federal Migratory Bird Treaty Act (16 U.S.C. Sections 703-712). In addition, hawks, falcons, vultures, owls, songbirds, and other insect-eating birds are protected from take under New Mexico State Statutes (17-2-13 and 17-2-14 NMSA), unless permitted by the applicable regulatory agency. To minimize the likelihood of adverse impacts to migratory bird nests, eggs or nestlings during exploration drilling activities, the Department recommends that ground disturbance and vegetation removal activities be conducted outside of the primary breeding season for migratory songbirds and raptors (1 March − 1 September). If ground disturbing and clearing activities during the breeding season cannot be avoided, the area should be surveyed for active nest sites (with birds or eggs present in the nesting territory), and when occupied, nest disturbance should be avoided until young have fledged. For active nests, adequate buffer zones should be established to minimize disturbance to nesting birds. Buffer distances should be ≥100 feet from songbird and raven nests, and 0.25 mile from raptor nests. Active nest sites in trees or shrubs that must be removed should be

mitigated by qualified biologists or wildlife rehabilitators. Department biologists are available for consultation regarding nest site mitigation, and can facilitate contact with qualified personnel.

The Department recommends the use of closed loop containment systems utilizing tanks to contain the drilling fluids. Closed containment systems require minimal or no maintenance, and can be relocated to another site when no longer needed. Closed containment systems also eliminate soil contamination, reduce reclamation expenses, and will not attract wildlife.

If closed containment systems are not used, ponds or mud pits should be covered or fenced and netted to exclude flying and terrestrial animals from contacting sources of potentially contaminated water, and to prevent wildlife entrapment. Extruded plastic, knit or woven netting material is preferred. Monofilament nylon netting should not be used due to its tendency to ensnare wildlife and cause injury or death. All materials should be resistant to corrosion and ultraviolet radiation. The Department recommends a mesh size of $\frac{3}{6}$ inch to exclude smaller animals. Netting must be held taut and securely fastened to a rigid and adequately supportive frame to prevent sagging into drilling fluids. Regular inspection and maintenance is critical to maintain integrity of the netting by repairing holes and to restore tension as needed. The Department is available for consultation regarding netting options for site-specific pond sizes and containment needs.

The Department recommends that only native plant species are used in the reclamation seed mix. The Department also recommends that the seed mix and mulch be certified weed-free, and that seed test results are requested from the vendor in order to avoid inadvertently introducing non-native species to the reclamation site. Any alternate seeds used to substitute for primary plant species that are unavailable at the time of reclamation should also be native. When possible, the Department recommends using seeds that are sourced from the same region and habitat type as the reclamation site.

Thank you for the opportunity to review and comment on the proposed permit modification. If you have any questions, please contact Ron Kellermueller, Mining and Energy Habitat Specialist, at (505) 476-8159 or ronald.kellermueller@state.nm.us.

Sincerely.

Matt Wunder, Ph.D.

Chief, Ecological and Environmental Planning Division

cc: USFWS NMES Field Office

From: Roth, Daniela, EMNRD

To: Chisler, Clinton, EMNRD

Subject: RE: Tijeras Mod. 20-1

Date: Tuesday, March 31, 2020 8:33:23 AM

Dear Clinton Chisler:

Thank you for giving me the opportunity to review and comment on Modification 20-1 to the GCC Rio Grande Inc. Tijeras Mine and Mill Application Amendment in Bernalillo County, NM. (Permit No. BEO01RE).

I do not anticipate any impacts to state listed endangered plants from Modification 20-1.

Please let me know if I can be of further help.

Sincerely,

Daniela Roth

Botany Program Coordinator EMNRD – Forestry Division 1220 S. Saint Francis Drive Santa Fe, NM 87505 505-476-3347 http://www.emnrd.state.nm.us/SFD/

From: Chisler, Clinton, EMNRD <Clinton.Chisler@state.nm.us>

Sent: Monday, March 30, 2020 2:02 PM

To: Roth, Daniela, EMNRD < Daniela. Roth@state.nm.us>

Cc: Shepherd, Holland, EMNRD < holland.shepherd@state.nm.us>

Subject: FW: Tijeras Mod. 20-1

Agencies,

As a follow up to my 3/24/2020 email I am attaching the official correspondence for the amendment to Modification 20-1 Application submitted previously by GCC, Tijeras Mine and Mill. Please let me know if you have any further questions. Attached is the request for comment letter and the amendment application.

Clint



FLOOR ROOM 363 Y NOT ANSWERING DUE TO COVID-19 SITUATION)

From: Chisler, Clinton, EMNRD

Sent: Tuesday, March 24, 2020 12:15 PM

To: Maurer, Anne, NMENV Anne, Maurer@state.nm.us

<crystal.powell@usda.gov>; 'Padilla, Jenna - FS' <ienna.padilla@usda.gov>; Roth, Daniela, EMNRD

<<u>Daniela.Roth@state.nm.us</u>>; Musharrafieh, Ghassan R., OSE

<ghassan.musharrafieh@state.nm.us>; Wunder, Matthew, DGF <<u>Matthew.Wunder@state.nm.us></u>;

Kellermueller, Ronald, DGF < Reycraft, Richard, DCA

<richard.revcraft@state.nm.us>

Cc: Ennis, David, EMNRD < <u>David.Ennis@state.nm.us</u>>; Shepherd, Holland, EMNRD

<holland.shepherd@state.nm.us>

Subject: Tijeras Mod. 20-1

Agencies,

I had a conversation with Samantha Kritz from GCC yesterday and they are planning on amending Mod. 20-1 to drop the part regarding the pit expansions and new units. This is because of errors in the application I found and also miscommunication between the mining and environmental/permitting groups at GCC. The amended application will only include:

- 1. Off-Spec Coal disposal on site
- 2. Exploration Verbiage for the Closeout Plan

I haven't received the official amendment application but wanted to give you a heads up and also ask if the agencies would still be able to provide comments on the above two items within the April 4th deadline. Thank you for your consideration. Once the amendment application comes in from GCC I will provide you with official correspondence on this matter.

Clint

FLOOR ROOM 363

Y NOT ANSWERING DUE TO COVID-19 SITUATION)



Michelle Lujan Grisham Governor

Howie C. Morales
Lieutenant Governor

NEW MEXICO ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

1190 Saint Francis Drive / PO Box 5469 Santa Fe, NM 87502-5469 Phone (505) 827-2900 Fax (505) 827-2965 www.env.nm.gov



James C. Kenney
Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

MEMORANDUM

Date: April 2, 2020

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

Through: Anne Maurer, Mining Environmental Compliance Section

From: Amber Rheubottom, Mining Environmental Compliance Section

Alan Klatt, Surface Water Quality Bureau

Rhett Zyla, Air Quality Bureau

Subject: NMED Comments, Modification 20-1 Application, Proposal for Exploration

Drilling and Off-Spec Coal Placement Activities to be Added to Closeout Plan, GCC Rio Grande Inc., Tijeras Mine and Mill, New Mexico Mining Act

Permit No. BE001RE

The New Mexico Environment Department (NMED) received correspondence from the Mining and Minerals Division (MMD) on February 4, 2020 requesting NMED review and provide comments on the above-referenced MMD permitting action. On March 24, 2020, NMED received an email from Clint Chisler with MMD that GCC Rio Grande, Inc. (GCC) will amend their Modification 20-1 application to remove the request to add new units but will retain the request to add off-specification (off-spec) coal disposal and exploration activities to the permit. NMED is providing comments specifically on the off-spec coal disposal and exploration activities based on the March 24, 2020 email. In accordance with 19.10.3.302.G NMAC, NMED is providing comments within the 60-day comment period prescribed in the regulation. NMED has the following comments.

Background

GCC is requesting to modify the permit to authorize exploration drilling within the permit boundary and placement of off-spec coal into the cement kiln dust (CKD) pit located in Quarry 6.

Air Quality Bureau

The Air Quality Bureau previously commented on the Tijeras Mine and Mill closeout plan revision for the requested environmental determination (attached). The Air Quality Bureau has no additional comments.

Surface Water Quality Bureau

The Surface Water Quality Bureau comments are attached under separate letterhead.

Mining Environmental Compliance Section (MECS)

Based on the results of a sampling event in 2017, NMED determined a discharge permit was not required for site operations. On June 11, 2019, NMED provided the environmental determination to MMD, who then approved the closure plan under Revision 18-1, which updated operational activities and associated reclamation plans. The activity of off-spec coal disposal in Modification 20-1 is a new activity that may have the potential to cause groundwater impacts. NMED is requesting a Notice of Intent to Discharge (NOI) be submitted for this activity, prior to implementation of this proposed action. A NOI form can be found on the NMED website https://www.env.nm.gov/gwqb/forms/.

Exploration borings must be abandoned in accordance with the New Mexico Office of State Engineer requirements and the New Mexico Mining Act Rules, including complete plugging from the bottom of the hole to the land surface with cement or high-density bentonite clay. If the approved plugging material is not cement then the top ten feet of the column must be a concrete plug. The hole must be backfilled with topdressing or topsoil from above the cement plug to the original ground surface.

NMED Summary Comment

NMED finds that off-spec coal disposal may have the potential to impact the environment, and is therefore requiring submittal of a NOI to NMED. The exploration project is likely to have a minimal impact to the environment if operated and reclaimed with the approved permits, pollution controls, and the comments above.

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

cc: Shelly Lemon, Bureau Chief, SWQB
Liz Bisbey-Kuehn, Bureau Chief, AQB
Jerry Schoeppner, Director, EMNRD-MMD
Clint Chisler, Lead Staff, EMNRD-MMD
Kurt Vollbrecht, Program Manager, MECS
Amber Rheubottom, MECS



Michelle Lujan Grisham Governor

Howie C. Morales
Lt. Governor

NEW MEXICO ENVIRONMENT DEPARTMENT

Surface Water Quality Bureau

Harold Runnels Building 1190 Saint Francis Drive, PO Box 5469 Santa Fe, NM 87502-5469 Telephone (505) 827-2855 www.env.nm.gov



James C. Kenney
Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

DATE: March 20, 2020

TO: Kurt Vollbrecht, Manager, Mining Environmental Compliance Section, Ground Water Quality Bureau

FROM: Alan Klatt, Watershed Protection Section, Surface Water Quality Bureau

SUBJECT: Request for Comments, Modification 20-1 Application, Proposal for New Units, Exploration Drilling and Off-Spec Coal Placement Language to be Added to Closeout Plan, GCC Rio Grande Inc., Tijeras Mine and Mill, New Mexico Mining Act Permit No. BE001RE

On February 5, 2020 Surface Water Quality Bureau (SWQB) received a request for comments regarding the subject application. The proposed permit modification requests to increase the extent of the design limits of the Tijeras Mine and Mill by approximately 263.18 acres, allow exploration drilling within the permit boundary, and allow off-spec coal that is generated at a rate of 25 tons per month to be used to backfill Quarry 6 which is collocated with the cement kiln dust (CKD) pit. Pursuant to 19.10.5.505 B (3) New Mexico Administrative Code, SWQB has prepared the following comments:

SWQB recommends that the application further support the statement that there will not be any new point sources and that there will be no new sources of potential release of acid or toxic forming materials into the hydrologic system at the quarry. Quarry 6 is approximately 1,000 feet from Corral Canyon, a surface water of the state subject to 20.6.4 NMAC. The U.S. Environmental Protection Agency's EnviroAtlas indicates that Quarry 6 is located in a "hydrologically connected zone" that is connected to Corral Canyon¹. It is SWQB's understanding that the off-spec coal is coal waste and has the potential to adversely affect surface water quality of Corral Canyon. More information such as the total amount of cement kiln dust and off-spec coal that would be disposed of in Quarry 6, along with surface run-on and surface run-off controls and other erosion controls and maintenance measures for Quarry 6 should be described. The application provides a toxicity characteristic leaching procedure (TCLP) analysis of the cement kiln dust which did not detect any mercury or metals. A TCLP analysis of the off-spec coal would further support that no new sources toxic forming materials would be introduced into the hydrologic system. Materials that have the potential to leach toxic forming materials must be properly disposed of outside of areas that are hydrologically connected to surface waters of the state.

¹ A hydrologically connected zone is defined as surface water plus any connected cells with high water accumulation based on watershed contributing area, slope, and overland flow – such areas have been shown to significantly influence watershed health and function (EnviroAtlas Fact Sheet, Waterscape: Hydrologically Connected Zone, https://www.epa.gov/enviroatlas).

SWQB recommends that the application further support the statement that no tributary water courses, wetlands, wells, springs, stock water ponds, reservoirs, perennial or intermittent streams and ditches on the affected land and on adjacent lands will be affected by the proposed mining operations. For example, a map identifying water features, exploratory drilling, and quarries would help affirm that surface waters will not be affected by mining operations. Corral Canyon and Apachitos Canyon run throughout the permit boundary and it is unclear from the application where in relationship to these waters the exploratory drilling will occur and the new limestone quarries will be located.

Surface Water Quality Bureau has developed the following list of Best Management Practices (BMPs) which have been designed to reduce potential impacts associated with exploration activities and recommends that such BMPs are implemented to protect and maintain surface water quality:

- Appropriate spill clean-up materials such as absorbent pads must be available on-site at all times during road construction, site preparations, and drilling activities to address potential spills. Report all spills immediately to the NMED as required by the New Mexico Water Quality Control Commission Regulations (20.6.2.1203 NMAC). For non-emergencies during normal business hours, call 505-428-2500. For non-emergencies after hours, call 866-428-6535. For emergencies only, call 505-827-9329 twenty-four hours a day (New Mexico Department of Public Safety).
- The applicant must contain any water produced from the exploration holes at the drill site to
 prevent erosion and gully formation. Drilling cores and drilling mud must be collected and
 disposed of properly.
- Pressure wash and/or steam clean all mobile equipment used in the project area before the start of the project and inspect daily for leaks. A written log of inspections and maintenance should be kept on-site.
- The use of overland travel and site selection, design, and construction of well pads, reserve pits, and roads should comply with the guidelines described in the Bureau of Land Management "Gold Book" 2. Suspend construction, maintenance activities, or off-road travel during periods when the soil is too wet to adequately support heavy equipment without causing surface disturbance. The operator should commit to repair any surface disturbance they caused.
- Roads, pads, and other facility structures should be set back a minimum of 100 feet from any watercourses, including springs, wetlands, and arroyos.
- Implement Best Management Practices to prevent direct impacts to watercourses, including springs, wetlands, and arroyos. For temporary surface disturbances during exploration and reclamation activities, the operator should implement erosion control measures that are designed, constructed and maintained using professionally recognized standards (e.g., Natural Resource Conservation Service standards or the Bureau of Land Management "Gold Book").
- The applicant should ensure that stormwater entering the project area ("run-on") is diverted from soil storage piles and should place piles uphill of excavations when possible.
- This project may qualify for coverage under Sector J Mineral Mining And Dressing, of the National Pollutant Discharge Elimination System (NPDES) 2015 Multi-Sector General Permit

² https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/operations-and-production/the-gold-book

(MSGP) for storm water discharges. Information on permit coverage requirements can be found at https://www.epa.gov/npdes/stormwater-discharges-industrial-activities or by contacting:

EPA Region 6 1201 Elm St. Dallas, Texas 75202

Ph: 800-887-6063 or 214-665-2760 if calling from outside Region 6

or Jennifer Foote, NMED-SWQB, at (505) 827-0596.

• Activities within watercourses or wetlands may require coverage under a Clean Water Act Section 404 permit. If you have questions about this permitting, please contact:

Regulatory Division, Albuquerque District, US Army Corps of Engineers 4101 Jefferson Plaza NE Albuquerque, New Mexico 87109-3435 Ph: 505-342-3678

For questions related to these comments, please contact Alan Klatt, SWQB, at 505-827-0388.



Michelle Lujan Grisham Governor

Howie C. Morales
Lieutenant Governor

NEW MEXICO ENVIRONMENT DEPARTMENT

Harold Runnels Building
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James C. Kenney
Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

August 23, 2019

Secretary of the Environment Department Determination, Provided Pursuant to the New Mexico Mining Act (NMMA), NMSA 1978, § 69-36-7(P)(2), and New Mexico Mining Act Rule 19.10.5.506.J(5) NMAC, for the Tijeras Mine and Mill, Permit No. GR002RE

GCC Rio Grande, Inc. has submitted an application for a revised closure/closeout plan for the Tijeras Mine and Mill to the Mining and Minerals Division of the New Mexico Energy, Minerals and Natural Resources Department pursuant to the NMMA that includes an updated reclamation plan in the application.

A determination is hereby provided to GCC Rio Grande, Inc., Tijeras Mine and Mill by the Secretary of the Environment Department that the applicant has demonstrated that the activities to be permitted or authorized will be expected to achieve compliance with all applicable air, water quality, and other environmental standards if carried out as described in the NMMA permit and associated state and federal environmental permits.

Applicant:

GCC Rio Grande, Inc.

Operation:

Tijeras Mine and Mill

Permit:

BE001RE

Determination by:

Hames C. Kenney, Secretary

New Mexico Environment Department



Michelle Lujan Grisham Governor

> Howie C. Morales Lieutenant Governor

NEW MEXICO ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

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James C. Kenney **Cabinet Secretary**

Jennifer J. Pruett **Deputy Secretary**

MEMORANDUM

Date:

August 23, 2019

To:

Holland Shepherd, Program Manager, Mining Act Reclamation Program

Through: Jeff Lewellin, Mining Act Team Leader, Mining Environmental Compliance Section

From:

Alan Klatt, Surface Water Quality Bureau

Rhett Zyla, Air Quality Bureau

Subject: NMED Comments, GCC Rio Grande, Inc., Tijeras Mine and Mill, Environmental Determination, Bernalillo County, New Mexico, New

Mexico Mining Act Permit No. BE001RE, Revision 18-1

Mine and Mill Description

The GCC Rio Grande, Inc. (Permittee), Tijeras Mine and Mill, is a regular existing mine that includes limestone quarries (mine) and a Portland cement plant (mill) and is assigned MMD Permit No. BE001RE. Revision 18-1 is a revised draft closeout plan (CP) that has been created in conjunction with a new long-term mine development plan. As stated in the revised draft CP, the goal is to provide for the reestablishment of a self-sustaining ecosystem on the permit area following closure that is consistent with the surrounding area and post-mining land use.

The Tijeras Mine and Mill are located in Bernalillo County approximately 0.5 miles south of the Village of Tijeras, New Mexico, on approximately 2,119 acres. The facility is bordered on the west and east by U.S. Forest Service land within the Cibola National Forest. The U.S. Department of Energy also owns land adjacent to the southern boundary. The site is bordered by private land on the north and east. The revised draft CP indicates there are approximately 584 acres of disturbed land and 73 acres have been reclaimed. The mine and mill began operation in 1959 and is projected to continue operations for approximately 70 more years.

Holland Shepherd, Program Manager August 23, 2019 Page 2 of 3

Background

The New Mexico Environment Department (NMED) received correspondence from the Mining and Minerals Division (MMD) on June 5, 2018 requesting that NMED review and provide comments on the draft revised CP for the Tijeras Mine and Mill. The draft revised CP was distributed to the Ground Water Quality Bureau (GWQB) Mining Environmental Compliance Section (MECS), Surface Water Quality Bureau (SWQB) and Air Quality Bureau (AQB) for comment. On August 1, 2018, the Mining Act Team Leader provided the combined NMED comments from the MECS, SWQB, and AQB to MMD. The August 1, 2018 NMED comments to MMD noted deficiencies associated with the closure plan related to reclamation of the mine and protection of surface water quality upon closure of the mine.

On February 25, 2019 personnel from MMD requested an environmental determination from NMED for the Tijeras Mine and Mill revised draft CP for Permit Number BE001RE, Modification 18-1. NMED responded to MMD on April 22, 2019 that the Permittee had not submitted any additional information that addressed the protection of surface water quality associated with the revised CP and the environmental determination was being withheld by NMED until the deficiencies were addressed. On May 15, 2019 NMED received a document from MMD entitled, "Recommended Updates to the Draft Closeout Plan, GCC Rio Grande – Tijeras Mine and Mill, June 2016". The report was forwarded to the SWQB for review and comment. On June 3, 2019 a memorandum was sent to the NMED Mining Act Team Leader indicating the additional information provided by the permittee addressed the deficiencies noted in the revised draft CP and the SWQB would have no additional comments.

Air Quality Bureau

For purposes of protection of air quality, the Tijeras Mine and Mill is under the jurisdiction of the City of Albuquerque Environmental Health Department Air Quality Program which acts as the agent for the Albuquerque-Bernalillo County Air Quality Control Board. The Tijeras Mine and Mill is not under the jurisdiction of the AQB of NMED. AQB personnel contacted personnel with the City of Albuquerque Environmental Health Department Air Quality Program to determine compliance with air quality regulations. NMED AQB personnel received a response that the most recent completed inspection conducted by City of Albuquerque Environmental Health Department Air Quality Program found no areas of concern related to the Title V Operating Permit of the permittee.

Surface Water Quality Bureau

The SWQB provided a memorandum on June 3, 2019 that indicates the information provided in the "Recommended Updates to the Draft Closeout Plan, GCC Rio Grande – Tijeras Mine and Mill, June 2016" is sufficient to expect that surface water quality standards would be achieved upon closure and reclamation of the mine.

Holland Shepherd, Program Manager August 23, 2019 Page 3 of 3

Regarding the Permittee's National Pollutant Discharge Elimination System (NPDES) surface water discharge permit, the Tijeras Mine and Mill is under the jurisdiction of the Environmental Protection Agency, Region 6 which administers the NPDES program in New Mexico. The SWQB assists EPA with implementation of the NPDES program by conducting federal compliance evaluation inspections on behalf of EPA and certifying that federal permits comply with New Mexico law. EPA personnel conducted a compliance inspection of the Tijeras Mine and Mill on April 17, 2019. The inspection report notes some areas of noncompliance, but these findings do not affect the closeout plan and its expected compliance with surface water quality standards. If the closeout plan is carried out as described, surface water quality standards should be met.

Mining Environmental Compliance Section

In correspondence on February 17, 2017 to the permittee from the MECS, the permittee was required to complete a Notice of Intent to Discharge (NOI). On July 12, 2017 personnel from the MECS performed a cooperative inspection and sampling event at the Tijeras Mine and Mill related to the NOI. The cooperative inspection and sampling event involved the collection of samples from two on-site production wells and one other discharge point at the cooling towers. The samples were split between personnel from the MECS and the permittee and submitted for laboratory analysis. Based on the results of the sampling event, NMED issued a no discharge permit required determination to the permittee on January 23, 2018. If the mine is reclaimed in accordance with the closeout plan, there should be no adverse impact to groundwater associated with site.

NMED Summary Comment

Pursuant to 19.10.5.506.J(5) NMAC of the New Mexico Mining Act, Director approval of an application to incorporate a closeout plan requires a written determination from the Secretary of the Environment Department stating that the application has demonstrated that the activities to be permitted or authorized will be expected to achieve compliance with all applicable air, water quality, and other environmental standards if carried out as described in the closeout plan. NMED has reviewed the materials submitted to MMD as part of the application process and issues the attached determination.

If you have any questions, please contact Jeff Lewellin at (505) 827-1049.

Attachment: NMED Environmental Determination, Tijeras Mine and Mill, BE001RE, Revision 18-1

cc: Rebecca Roose, Director, Water Protection Division Shelly Lemon, Bureau Chief, SWQB Liz Bisbey-Kuehn, Bureau Chief, AQB Fernando Martinez, Division Director, EMNRD-MMD Clint Chisler, Lead Staff, EMNRD-MMD Kurt Vollbrecht, Program Manager, MECS



STATE OF NEW MEXICO DEPARTMENT OF CULTURAL AFFAIRS HISTORIC PRESERVATION DIVISION

BATAAN MEMORIAL BUILDING 407 GALISTEO STREET, SUITE 236 SANTA FE, NEW MEXICO 87501 PHONE (505) 827-6320 FAX (505) 827-6338

April 6, 2020

Clint Chisler
Permit Lead, Mining Act Reclamation Program
Mining and Minerals Division
1220 South Saint Francis Drive
Santa Fe, NM 87505

Re: HPD Log No. 112792, Request for Review and Comment, Regular Existing Mine Modification 20-1 Application Amendment, dated March 25, 2020, GCC Rio Grande Inc. Tijeras Mine and Mill, Bernalillo Co., NM, Permit Tracking No. BE001RE

Dear Mr. Chisler:

I am writing in response to your request for review and comment on the above referenced application amendment to the Tijeras Mine and Mill Mine Modification Plan received at this office March 30, 2020.

Pursuant to 19.10.5.505 NMAC, Permit Modifications and Revisions, the Director shall determine whether a permit modification would have an adverse impact on cultural resources listed on either the National Register of Historic Places or the State Register of Cultural Properties or be located in a known cemetery or other burial ground.

According to our files, there are no cultural resources listed on either the National Register of Historic Places or the State Register of Cultural Properties in the permit area. There are also no known cemeteries or other burial grounds. Based on this information, this permit will have no adverse impacts to cultural resources listed on the National or State Registers.

Although there are no cultural resources listed on either the National Register of Historic Places or the State Register of Cultural Properties, The permit area has not been archeologically surveyed since 1974; therefore this office recommends a cultural resources survey be conducted on any undisturbed portions of mine property where proposed new ground disturbance will occur for this permit.

This survey should be performed by a qualified professional to determine if any historic or archaeological properties are present and if so, to provide documentation of those resources to our office. This information can then be used to evaluate the National Register of Historic Places eligibility of any resources identified during the survey and determine project effects on those resources. A list of state permitted archaeologists and archaeological firms are available from this office upon request or can be downloaded from our web site at:

http://www.nmhistoricpreservation.org/documents/consultants.html

If you have any questions concerning these comments, please do not hesitate to contact me by phone at (505)-452-6115 or e-mail me at richard.reycraft@state.nm.us

Sincerely,

Richard. Reycraft

Richard Reyeraft

Staff Archaeologist

MEMORANDUM

OFFICE OF THE STATE ENGINEER

Hydrology Bureau

DATE: April 28, 2020

TO: Clinton Chisler, Mining Act Reclamation Program ("MARP")/MMD, Santa Fe

THROUGH: Ghassan Musharrafieh, Ph.D., P.E., Chief, Hydrology Bureau, Santa Fe

FROM: Steve Acheampong, Ph.D., Hydrologist, Hydrology Bureau, Santa Fe SYA

SUBJECT: Comments on Modification Application for Exploration Drilling and Off- Spec Coal

<u>Placement at GCC Rio Grande Tijeras Mine and Mill Facility, Bernalillo County, New</u>

Mexico, Modification 20-1 Amendment on MMD Permit BE001RE

The Hydrology Bureau of the New Mexico Office of State Engineer (NMOSE) received a request from the Mining and Minerals Division (MMD) of the Mining Act Reclamation Program (MARP) for comment on the GCC Rio Grande, Inc., Tijeras Mine and Mill Facility Modification 20-1 Amendment on MMD Permit BE001RE on March 30, 2020. The mine and Mill are located south of Tijeras at 11783 State Highway 337, Tijeras, New Mexico. The modification seeks to remove the expansion of design limits from Mod. 20-1 and maintain the request of exploration drilling verbiage and off-spec coal management. GCC would like to add permit language to allow exploration drilling within the permit boundary and placement of off-spec coal into the cement kiln dust (CKD) pit.

Hydrology Bureau has reviewed the documents submitted with the application and other related documents made available on the Mining and Minerals Division (MMD) website: http://www.emnrd.state.nm.us/MMD/MARP/BE001RE.html.

It is indicated that the expansion of the design limits and new units are removed by GCC Rio Grande, Inc. as part of the modification request (personal communication by E-mail from Clint Chisler of MMD to Ghassan Musharrafieh of Hydrology Bureau, March 24, 2020). Accordingly, items under Section 2.1.a (i – iii) of the modification letter "Modification Application for Exploration Drilling and Off- Spec Coal Placement at GCC Rio Grande Tijeras Mine and Mill (Permit BE001RE) " of March 25, 2020 would not apply and there will be no expected changes in water use or water supply development. Otherwise, the following clarifications are being sought under Section 2.1.a (ii), Justification of proposed changes, and Section 4, Exploration Drilling:

- 1. Known depth to groundwater in the area
- 2. Number and locations of anticipated exploration drill holes
- 3. Dimensions of drill holes diameter and anticipated depths of drill holes
- 4. Anticipated action should exploration drilling encounter groundwater



Michelle Lujan Grisham Governor

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James C. Kenney
Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

MEMORANDUM

Date: April 29, 2020

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

Through: Anne Maurer, Mining Environmental Compliance Section

From: Amber Rheubottom, Mining Environmental Compliance Section

Alan Klatt, Surface Water Quality Bureau

Rhett Zyla, Air Quality Bureau

Subject: NMED Comments, Amended Modification 20-1 Application, Proposal for

Exploration Drilling and Off-Spec Coal Placement Activities to be Added to Closeout Plan, GCC Rio Grande Inc., Tijeras Mine and Mill, New Mexico

Mining Act Permit No. BE001RE

The New Mexico Environment Department (NMED) received correspondence from the Mining and Minerals Division (MMD) on March 30, 2020 requesting NMED review and provide comments on the above-referenced MMD permitting action (Application). GCC Rio Grande Inc. (GCC) submitted an amendment to the Application on March 25, 2020, which removed language proposing a pit expansion and new units. Exploration drilling and off-specification coal disposal were retained in the amended Application. NMED provided comments specifically pertaining to the items proposed in the amended Modification 20-1 Application on April 2, 2020. The comments provided on April 2, 2020 still stand. In accordance with 19.10.3.302.G NMAC, NMED is providing comments within the 60-day comment period prescribed in the regulation. NMED has the following comments.

Background

GCC is requesting to modify the permit to authorize exploration drilling within the permit boundary and placement of off-specification coal into the cement kiln dust (CKD) pit located in Quarry 6.

Holland Shepherd, Program Manager April 29, 2020 Page 2 of 2

Air Quality Bureau

The Air Quality Bureau previously commented on the Tijeras Mine and Mill closeout plan revision for the requested environmental determination. The Air Quality Bureau has no additional comments.

Surface Water Quality Bureau

The Surface Water Quality Bureau (SWQB) has no additional comments. It is important to note that the SWQB comments previously submitted on April 2, 2020 included a reference to the proposed design unit expansion. Any statements regarding the proposed design unit expansion are no longer applicable as part of this amendment to the Application, but the comments that pertain to exploration drilling and off-specification coal disposal still stand.

Mining Environmental Compliance Section (MECS)

MECS has no additional comments.

NMED Summary Comment

NMED requires evaluation to determine if off-specification coal disposal has the potential to impact water quality, and is therefore requiring submittal of a Notice of Intent (NOI) to NMED, as stated in the April 2, 2020 comment letter. The exploration project is likely to have a minimal impact to the environment if operated and reclaimed with the approved permits, pollution controls, and the comments above, pending outcome of evaluation of the required NOI.

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

cc: Shelly Lemon, Bureau Chief, SWQB
Liz Bisbey-Kuehn, Bureau Chief, AQB
Jerry Schoeppner, Director, EMNRD-MMD
Clint Chisler, Lead Staff, EMNRD-MMD
Kurt Vollbrecht, Program Manager, MECS