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Mr. David Ennis
Energy, Minerals and Natural Resources Department
Mining and Minerals Division
Mining Act Reclamation Program
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Dear Mr. Ennis:

Re: Response to Agency Comments on Revision 17-2: Permit No. GR009RE
Proposed 9 Waste Rock Stockpile and Associated Closure-Closeout Plan

Freeport-McMoRan Chino Mines Company (Chino) submitted an application dated April 5, 2017 to revise Permit No. GR009RE to increase the Permit Design Limit and to obtain approval for a closure plan for the proposed 9 Waste Rock Stockpile (9WRS). The Mining and Minerals Department (MMD) in a letter dated March 19, 2018 provided comments on this application to Chino. Chino responded to MMD's comments on May 17, 2018.

This letter provides Chino's responses to MMD's cooperating agencies that commented on the 9WRS application. The cooperating agencies' comments were provided to Chino on November 9, 2018. The cooperating agencies include the Department of Cultural Affairs Historic Preservation Division, State of New Mexico Department of Game and Fish, Office of the State Engineer Hydrology Bureau, New Mexico Energy, Minerals and Natural Resources Department-Forestry Division as well as the New Mexico Environment Department (NMED) Ground Water, Surface Water and Air Quality Bureaus. Each of the comments from the cooperating agencies is italicized below, followed by Chino's response.

Department of Cultural Affairs Historic Preservation Division:

[The Department] reviewed [its] records to determine if cemeteries, burial grounds or cultural resources listed on the State Register of Cultural Properties or the National Register of Historic Places exist within or near the permit area. Our records show that there are no cultural resources listed on the National Register or State Register within or near the proposed permit area and no known cemeteries or burial grounds. Although there are no cultural resources listed on the State or National Register, our records show five archaeological surveys within or near the permit area. Our records also show that the Bureau of Land Management Las Cruces District Office (BLM) is the lead federal agency for a Section 106 consultation, under which these five sites were recently revisited and documented. However, the BLM has not yet initiated Section 106 consultation with the State Historic Preservation Officer determine if these properties are eligible for listing in the National Register of Historic Places (NRHP) or how the expansion of 9WRS will affect them. The Section 106 consultation needs to be substantially complete before the expansion at the mine can proceed.

The BLM approved the proposed 9WRS in Chino's Mine Plan of Operations dated 1981. Chino will continue to work with the BLM on this project and all applicable requirements.

New Mexico Game and Fish comments:

The proposed 9 WRS will be located in the North Mine Area in a section that currently encompasses the operational 9 Reservoir. The 9 Reservoir contains water that has been impacted by acid mine drainage. During the most recent sampling event on 12 January 2017, the 9 Reservoir had a pH of 2.54, indicating a hazard to wildlife. The construction of the 9 WRS would require filling in the 9 Reservoir, thereby eliminating this hazard and creating a net benefit to wildlife. The radar-activated mechanical falcons that are currently deployed in the 9 Reservoir to deter bird use should be relocated to another area in the mine complex that poses a potential hazard to migratory and/or resident birds.

Chino is committed to wildlife protection as part of our business. Across its mining operations, Chino currently uses a combination of hazers and bird deterrents to prevent wildlife from accessing impacted reservoirs and ponds. Chino will use the radar-activated mechanical falcons previously dedicated to the 9 Reservoir where appropriate.

The expansion and extension of the Santa Rita Design Limit to allow for the construction of the 9 WRS will require the disturbance of Alligator Juniper-Oak Woodland and Alligator Juniper- Oak/Grama Woodland Alliance habitats. To avoid potential destruction of occupied migratory bird nests, eggs or nestlings and to comply with the Migratory Bird Treaty Act, ground disturbance and vegetation removal activities should be conducted outside of the breeding season for songbirds and raptors (1 April - 1 September). If ground disturbing and clearing activities during the migratory bird breeding season cannot be avoided, the area should be surveyed for active nest sites prior to any disturbance. For active nests detected, an adequate buffer zone should be established to minimize disturbance to nesting birds. Buffer distances should be at least 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.

Thank you for your comment. It is Chino's practice to conduct wildlife surveys by an independent biologist prior to engaging in new ground-disturbing and clearing activities during the breeding season and avoid or re-locate active nests as needed.

The application information states that Chino continually characterizes excavated materials during operations for routing to appropriate stockpile storage facilities. The Department supports the use of improved materials handling techniques to enhance the quality of reclamation cover materials for revegetation, and recommends that the Chino Mine operators commit to salvaging and separately stockpiling topsoil when mining operations are expanded into undisturbed areas. The salvaged topsoil should be used to augment cover material during reclamation activities.

Chino has committed in its closure-closeout plans to salvage topsoil where practical prior to construction of mining units. The topography at the proposed 9WRS location however consists of steeply sloping bedrock with very little topsoil available to salvage practically and economically. Chino will not be able to salvage topsoil in this location.

New Mexico Office of the State Engineer:

Thank you for forwarding materials related to Freeport-McMoRan Chino Mines Company request to revise mining permit to expand the Santa Rita Beneficiation Design Limit boundary to include the proposed 9 Waste Rock Stockpile and incorporate a related closeout plan and financial assurance.

The proposed activity does not appear to relate to the request for a new water right or transfer of a water right, or for direct approval of construction or plugging of any well (although the plugging/replacement of one or more monitor wells is referenced in Section 3.1 of the 9WRS Closure/ Closeout Plan, and reference is made regarding the installation of additional monitor wells in Section 3.3.8 of Closure / Closeout Plan).

The applicant is directed to make inquiry to our Deming Water Resource Allocation Program Office (Office of the State Engineer – District 3, PO Box 844, Deming, NM 88030; 575-546-2851) regarding the need to file for and receive approval of a Well Plugging Plan of Operations prior to plugging / abandonment of the unneeded well(s), and for well construction permits as may be needed for additional or replacement monitor wells.

In the event the proposed project revisions affect status of a NMOSE regulated dam (dams that equal or exceed 25 feet in height, which exceed 15 acre-feet of storage or dams that equal or exceed 50 acre-feet storage, which equal or exceed 6 feet in height are under the jurisdiction of the State Engineer), the applicant is directed to make inquiry to our Dam Safety Bureau (5550 San Antonio Drive NE, Albuquerque, NM 87109; 505-383-4134). Persons or entities who plan to construct a new dam or modify an existing dam must obtain approval from the Dam Safety Bureau. Dams that have the potential to cause loss of life during a failure or potential to damage property and lifeline infrastructure are required to prepare and exercise an emergency action plan. The Dam Safety Bureau reviews these plans for completeness.

Thank you for your comment. The 9 Reservoir does not include a jurisdictional dam. Chino will continue to comply with all applicable OSE requirements for plugging and abandoning wells and installing new and replacement wells.

Energy Mineral and Natural Resources Department-Forestry Division:

Thank you for providing me with the opportunity to review and comment on Revision 17-2, for the construction of 9 Waste Rock Stockpile New Unit expansion and extension of the Santa Rita Beneficiation Design Limit at the Chino Mine in Grant County, New Mexico (No. GR009RE). I do not anticipate any impacts to state listed endangered plants from the proposed expansion of the design limit area, or the updated closure closeout plan.

*However, part of the proposed expansion of the design limit boundary may contain a known location for Mimbres figwort (*Scrophularia macrantha*), a State and USFWS Species of Concern, and a BLM Sensitive Species. More information on this species can be found at:*

http://nmrareplants.unm.edu/rarelist_single.php?SpeciesID=165

The occurrence is located on the west side of the Kneeling Nun. The BLM has more precise location information available. It is one of only three locations where this species is known to occur, in the world. The largest population of Mimbres figwort occurs in the Black Range, on Forest Service lands. Unfortunately most of these plants burned during the 2013 Silver Fire and their habitat was destroyed. Losing the Kneeling Nun population as well might push this species closer to state and federal listing. I would highly recommend avoiding the location and protecting it from any mining impacts, if at all possible.

Thank you for your comment. In 1995, Chino had a third-party survey BLM lands as part of its application to amend its Mine Plan of Operations. Eight populations of the Mimbres figwort were identified in 5 areas, all outside of the 9WRS footprint. In 1998, Golder Associates confirmed the presence of six populations of the figwort in four areas within the BLM "Kneeling Nun" triangle and one population on Chino property, at the head of Rustler Canyon. None of these areas will be disturbed by the 9WRS.

Surface Water Quality Bureau (SWQB):

No perennial or intermittent water bodies are known within the proposed design limit expansion. However, stormwater impoundments created by ditches or berms to prevent erosion or collect water and sediment may be considered waters of the state under NMAC 20.6.4.7 and subject to the State's Antidegradation Policy as described in NMAC 20.6.4.8. due to their location on federally administered public land. Stormwater emanating from the stockpile would report to the Santa Rita Open Pit, which acts as a hydrologic break to other nearby surface waters in the Mimbres Basin including Whitewater Creek.

The Chino Facility currently has coverage under Section 402 (NPDES) of the Clean Water Act, under the Multi-Sector General Permit (MSGP) #NM R053259. The most recent inspection occurred in April 2016. There are no violations on file under this NPDES permit. The proposed action may require updating the existing SWPPP to include erosion and stormwater controls at the new waste rock storage facility. If you have questions about this coverage please contact Sarah Holcomb, SWQB, at (505) 827-2798

Construction activities in ephemeral drainages may require a federal Clean Water Act Section 404 Dredge and Fill Permit and the corresponding Section 401 State of New Mexico Certification of the federal permit. For details contact the US Army Corps of Engineers Las Cruces Regulatory Office at (575) 268-8612.

The SWQB finds that FMI's proposed design limit expansion and 9 Waste Rock Pile is likely to have minimal impacts to surface waters of the state if operated and

reclaimed with the approved permits including relevant stormwater management, post-mining cover requirements and revegetation standards specified in "Closure Requirements of Copper Mine Facilities--NMAC 20.6.7.33

Thank you for your comments. Chino will continue to operate in accordance with its MSGP obligations and any required federal 404 Dredge and Fill Permit requirements.

Ground Water Quality Bureau (GWQB):

MECS has reviewed the CCP dated March 30, 2017 for the proposed 9WRS and associated Mining Act application document titled, "Freeport-McMoRan Chino Mines Company: Application to Revise Mining Permit GR009RE for 9 Waste Rock Stockpile," dated April 5, 2017 and offers the following comments.

Comments pertaining to the document titled, "Freeport-McMoRan Chino Mines Company: Application to Revise Mining Permit GR009RE for 9 Waste Rock Stockpile," dated April 5, 2017"

- 1) *Surface and Ground Water (p.4): This paragraph states that the proposed 9WRS will be inside the "open pit capture zone." It is stated later in the paragraph that, "additional ground water information in this area will be supplied under DP-376." The "open pit capture zone" in this area is based primarily on a modeled projection as there is insufficient ground water data to determine whether the proposed 9WRS will be inside or outside the open pit capture zone. NMED will be unable to determine the location of the 9WRS relative the open pit capture zone and/or Open Pit Surface Drainage Area ("OPSDA"; Section 20.6.7.7(42) NMAC) until a ground water discharge permit application, including the additional groundwater information referenced above is submitted to MECS and deemed technically complete.*

Thank you for your comment. Chino submitted an application to modify DP-459 to authorize the 9WRS on February 15, 2018. The application included a technical memorandum by Golder. The memo is dated February 9, 2018 and titled "Summary of North Mine Area Groundwater Evaluation and Results". The memo describes how the proposed 9WRS is within both the open pit capture zone and the OPSDA.

- 2) *Right-hand column of Paragraph (a) of Table 1 on page 6: It is stated that the, "9WRS is located in the OPSDA ... " NMED seeks clarification of the use of the term "open pit capture zone" discussed in comment 1 above and the use of the OPSDA in paragraph (a) of Table 1. In addition, NMED stands by comments made above that there is insufficient ground water data to determine the location of the OPSDA relative to the proposed 9WRS. It is stated later that, "an application to modify DP-376 to include the construction of this stockpile has been submitted to NMED for review and approval." This statement is incorrect as NMED has not received a discharge permit application. Furthermore, when an application is submitted, NMED expects it be submitted to modify DP-459 and not DP- 376.*

Please see the response to Comment 1. As is stated in Comment 1 above, the technical memorandum by Golder clarifies the use of the term "open pit capture zone" as it relates to the area of open pit hydrologic containment and goes on to

demonstrate that the proposed 9WRS lies within the OPSDA. Please note that the statement "an application to modify DP-376..." should have read "DP-459". Chino apologizes for the typo and the confusion.

- 3) *Right-hand column of Paragraph (b) of Table 1 on page 6: It is stated that: "Currently, stormwater in the 9WRS basin flows into the open pit." This statement contradicts with the statement made in Section 3.3.4 of the CCP: "Surface water discharge in this small basin is now collected in Reservoir 9 to prevent discharge, towards the north, into the Santa Rita Pit." NMED seeks clarification on this contradiction.*

The CCP is correct when it states that surface water is contained within Reservoir 9. Table 1 on page 6 should read as follows, "Currently, storm water in the 9WRS basin is contained within Reservoir 9."

Comments pertaining to the document titled, "9 Waste Rock Stockpile Closure/Closeout Plan," dated March 30, 2017

- 4) *Subsection B of 20.6.24 NMAC of the Copper Mine Rule states the following: "Leach stockpiles, waste rock piles, and other regulated mine units in and surrounding an open pit surface drainage area shall be designed and located to minimize the size of the open pit surface drainage area to the extent practicable." The CCP submitted for the 3A Waste Rock Stockpile approved in DP-459 is designed such that drainage off the top surface of the reclaimed waste rock stockpile at closure will be directed south and away from the OPSDA, to the extent practicable. NMED will seek clarification during the permitting process on why a similar design is not being proposed for the 9WRS.*

Chino would have preferred to design the 9WRS to a higher elevation to able to direct storm water from the surface of the stockpile to the south during reclamation. However, the 9WRS footprint and closure design is constrained by Chino's existing Mine Plan of Operations approved by the U.S. Bureau of Land Management. Chino does not have authorization from the Bureau to disturb Bureau-administered lands adjacent to the 9WRS footprint. In the future if Chino obtains authorization from the Bureau to expand the 9WRS footprint, Chino will modify its closure-closeout designs for the 9WRS for NMED and MMD approval to enable diverting water to the south during reclamation.

- 5) *Currently, fluids collected in the Rustler Canyon Containment are pumped to Reservoir 9. The applicant will be required to submit a revised water management plan to NMED for the Rustler Canyon Containment as part of the application to modify DP-459.*

Chino submitted an updated Stormwater Operational and Emergency Response Plan for the Chino North Mine Area, dated June 11, 2018 to the NMED. An evaluation of the Rustler Canyon Containment is included in this Plan.

- 6) *In order for the CCP to be in accordance with the Copper Mine Rule NMED will, at a minimum, be seeking additional information to fulfill the requirements of Subsection A of 20.6.7.33 NMAC (i.e., Design storm event) for all permanent storm water conveyances, ditches, channels and diversions required for closure.*

Section 5.0 of the CCP states that channels will be designed to convey the peak flow generated by the 100 year, 24-hour storm event. In support of the North Lambright Stockpile application and the Chino updated CCP, Chino and Golder conducted a supplemental analysis for the bench channels and downdrains using the Rational Method to calculate the peak surface runoff rates associated with the 100-year, 24-hour storm event and individual drainage basins associated with the conveyance channels (see Golder August 20, 2018 Chino CCP Conceptual Hydraulic Analysis). The results indicated that the dimensions of the typical channels presented in the CCP will convey the peak flow generated by the 100 year, 24-hour storm event. These analyses also support the same conclusion for the 9WRS CCP.

- 7) *Except for Comments #4 and #6 above, the CCP for the 9WRS appears to conform with Copper Mine Rule (Part 20.6.7 NMAC) reclamation requirements for a waste rock stockpile located outside an OPSDA.*

See the response to NMED Comments 1 and 2 above.

NMED Summary Comment: *NMED finds that it is likely environmental standards will be met pending review of the CCP and the application for modification of DP-459 by MECS, and if the above comments are addressed.*

Comment noted.

NMED Determination: *NMED is withholding issuance of the determination pending completion of technical review of the application for modification of DP-459 and the CCP.*

Thank you for your comments. Chino is currently responding to comments received directly from the NMED and will continue to work with the MMD on this permit modification process.

Air Quality Bureau:

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 has the following comments:

Air Quality Permitting History

Freeport-McMoRan Chino Mines Company (Chino) holds a Title V Operating Permit #P066R2 and a revised NSR Permit# 0298-M8 that was issued on July 12, 2016. To ensure compliance with state and federal air regulations, the permit includes conditions that limit the emissions, hours of operation, production rate, and conditions that will require record keeping and reporting to the Department.

Details

The applicant proposes to expand the existing Santa Rita Beneficiation Design Limit (DL) boundary (6,350 acres) to the south and northeast of Reservoir 9 by approximately 248 acres to allow construction of the 9 Waste Rock Stockpile (9WRS) and associated infrastructure. The footprint of the 9WRS is expected to cover approximately 159 acres. Approximately 99 acres will be located beyond the

currently approved DL. The 9WRS is designed to contain approximately 76 million tons of mine waste rock. The applicant also proposes to incorporate into the permit a closure/closeout plan (CCP) and proposed financial assurance (FA) for the 9WRS.

Recommendation

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

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.

Chino appreciates the AQB review of the 9 Stockpile CCP. Chino will continue to operate in accordance with the Air Quality Bureau regulations.

Please contact Ms. Rita Lloyd-Mills at (575) 912-5778 if you have questions on these responses.

Sincerely,



Sherry Burt-Kested, Manager
Environmental Services

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