

GR009RE
Rev. 16-1



Freeport-McMoRan Chino Mines Company
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Certified Mail #70160750000113394667
Return Receipt Requested

Mr. David Ennis
Mining and Minerals Division
Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Dear Mr. Ennis:

Re: Response to Additional Technical Comments on Revision 16-1
North Lampbright Stockpile, New Unit Expansion, Permit No. GR009RE

The Mining and Minerals Division (MMD) on October 27, 2016 held a public hearing for the North Lampbright Stockpile new unit expansion and closeout plan, Revision 16-1. The MMD in a letter dated December 15, 2016 which Chino received on January 2, 2017, requesting Freeport-McMoRan Chino Mines Company (Chino) to respond to additional technical comments on Revision 16-1. The MMD's additional information request is italicized followed by Chino's responses.

- 1. The application for Revision 16-1 does not specifically address 19.10.5.508.A of the Mining Act Rules. MMD requests that Chino specifically evaluate how the proposed operation of the NLS and reclamation design of the NLS is the most appropriate technology and employs best management practices.*

The Chino operating and reclamation plan submitted under Revision 16-1 describes the most appropriate technology and employs best management practices for a mine waste rock pile constructed in the desert Southwest. The proposed stockpile plan evaluates and addresses all MMD requirements for a new unit at an existing mine site. To list just some of the information that has been submitted for MMD review and discussed at the public hearing are site location, operational and closeout water management and reclamation plans. The Closeout Plan (CP) describes measures to minimize impacts to the hydrologic balance, wildlife and domestic animals. It evaluates and includes measures to protect wildlife as well as ongoing monitoring, maintenance and long term reporting requirements. The CP also includes the reclamation designs, earthwork takeoffs and reclamation design criteria. Prior to construction financial assurance will be provided to the agency that can be used for reclamation in the unlikely case that the mining operation defaults over the next five years.

- 2. In the document entitled "Application to Revise Mining Permit GR009RE for North Lampbright Waste Rock Stockpile" dated January 19, 2016 submitted by Chino, attachment 1 and 3 from Knight Piesold Consulting provide a conceptual level*

design of the "operational stormwater diversion channel" proposed to the east of the NLS. This operational channel was conceptually designed to accommodate the 100-year/24-hour storm event, which is consistent with the requirements under 19.10.5.508.8(5) NMAC.

However, at closure of the NLS, an unnamed second diversion channel approximately 5,000 feet long is proposed as shown in Appendix A within the document entitled "North Lampbright Waste Rock Stockpile Extension Closure/Closeout Plan" dated January 15, 2016. This second diversion channel runs the length of the north side of the NLS with surface flow shown to be in two directions: -2,500 feet toward the operational stormwater diversion channel and -2,500 feet toward the pit. The conceptual design and hydraulic analysis of the operational stormwater diversion channel by Knight Piesold does not appear to take into account the added surface water flow from the additional watershed that will occur at closure once the unnamed second diversion channel ties into the operational stormwater (as shown in Appendix A of the Closure/Closeout Plan).

Please address the design adequacy of the operational stormwater channel taking the added -2,500 feet of additional channel and associated watershed into account as well as the requirements of:

- 19.10.5.508.8(4)(d)(i) for diversions that have a watershed larger than 10 acres, diversion channels shall be designed to safely pass the peak runoff from a 10- year, 24-hour precipitation event;*
- 19.10.5.508.8(4)(d)(iii) for diversions that have a water shed larger than 10 acres, diversion channels shall be certified by a NM professional engineer;*
- 19.10.5.508.B(5)(a) for permanent diversions, the diversion shall be adequate to safely pass the 100-year, 24-hour precipitation event.*

Chino agrees that a small watershed to the north of the stockpile was not included in the Knight Piesold analysis of flow for the operational diversion channel. However, the design calculations also note that the size of the channel was determined by constructability considerations and will likely carry the additional flow from this small watershed. Chino will provide an additional hydrologic evaluation of this channel to confirm that the design will carry the flow from the entire contributing area.

- 3. The cost estimate for the NLS utilizes a capital indirect cost of 22.5% for the closure estimate and 17.5% for operation and maintenance. MMD has recently issued a guidance document for the calculation of indirect costs. It is MMD's understanding that FMI is not yet ready to apply this guideline to the NLS cost estimate, while the guidance document is in review by industry, New Mexico Mining Association representatives, and/or non-governmental organizations. In the meantime MMD will consider the approved Chino site-wide capital indirect cost of 39.6% to be utilized for the cost estimate. This is consistent with recently approved modifications for the North Chino Haul Road (Modification 15-2) and 3A Stockpile (Modification 14-2). Indirect costs can be re-evaluated during renewal of the site-wide Chino Closure/Closeout Plan.*

Chino is requesting a revision to NMAC Permit GR009RE. The NMAC (19.10.5.505) states that revisions are modifications that require public notice and an opportunity for public hearing pursuant to 19.10.9 NMAC. A permit modification or revision shall be required for any changes in the approved closeout plan. As part of the revision package Chino is proposing to update the proposed stockpile financial assurance estimate to 2017 dollars as well as the indirect

percentage rates. Chino has scheduled on going meetings with MMD staff to discuss this comment.

Public Comments

Several public comments, which are provided on MMD's website in the hyperlink above, were received on the Revision 16-1 application that are required to be addressed by Chino in order for MMD to proceed with permitting Revision 16-1:

4. *Please address Chino's future operational plans for leaching on top of the NLS. See GRIP comment page 2 for additional details.*

Chino has indicated to the public, MMD and NMED that possible future plans for this site may include a leach stockpile. However, at this time no plans have been developed. If and when plans are developed for leaching on top of the NLS, Chino will submit the appropriate applications to MMD and NMED.

5. *During operation of the NLS, please address how Chino proposes to characterize the waste material that will be placed in the NLS. See GRIP comment page 4 for additional details and concerns.*

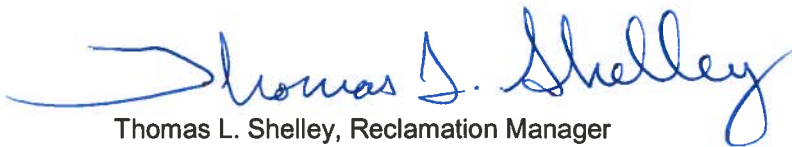
Chino underwent a major waste rock characterization effort in the late 1990s. This information was submitted to NMED on August 10, 1998 in a report titled *Waste Rock Characterization, Chino Mines*. The waste rock being placed at NLS location. The waste rock at Chino is known to be pyritic and therefore may produce seepage with degraded water quality.

6. *One of the public comments pertains to the financial assurance proposal for the NLS (see GRIP comment page 5). Please identify the financial assurance instrument that Chino will likely use for bonding the NLS.*

Chino will submit a proposal for the financial assurance instrument once the application is deem approvable. The instrument as always will be in a form acceptable to the MMD director.

Please contact Ms. Lynn Lande at (575) 912-5235 if you have any questions regarding these responses.

Sincerely,

A handwritten signature in blue ink that reads "Thomas L. Shelley". The signature is fluid and cursive, with a large initial "T" and "S".

Thomas L. Shelley, Reclamation Manager

TLS: rlm
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