

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**Fernando Martinez, Director**  
Mining and Minerals Division



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**CERTIFIED MAIL – RETURN RECEIPT REQUEST**

November 14, 2014

Lynn A. Lande  
Chief Environmental Engineer  
Freeport-McMoRan Inc., Chino Operations  
P.O. Box 10  
Bayard, NM 88023

**RE: Proposed 3A Waste Rock Pile, Modification14-2 to Permit No. GR009RE, Chino Mine**

Dear Ms. Lande,

The New Mexico Mining and Minerals Division (“MMD”) received (on July 14, 2014) from Freeport-McMoRan Copper & Gold, Chino Operations (“Chino”) an application proposing to modify Permit No. GR009RE to accommodate the construction of the 3A waste rock pile at the Chino Mine. The proposed development of the 3A waste rock pile occurs within the Santa Rita Open Pit, and Beneficiation Unit design limits currently approved by MMD. The proposed 3A waste rock pile will contain 150 million tons of waste and will encompass an area approximately 210 acres, prior to reclamation, and is proposed to be located at the site of the former 3A Reservoir (57 acres). Construction and closure of the waste rock pile will impact about 145 acres of undisturbed vegetation.

The application provided information on the construction and closeout of the proposed 3A waste rock pile including a cost estimate for reclaiming the proposed 3A stockpile. MMD performed a review of the application and pursuant to 19.10.5.505.B(3) NMAC, sent copies of the application to other state agencies, requesting their comments. MMD performed site visits to the proposed 3A waste rock pile area on February 26, 2014 and August 21, 2014.

MMD has reviewed the Application and supporting information received from Chino and has received comments from other state agencies. MMD provides the following comments on the application in addition to providing copies of the comments received from other state agencies (attached):

MMD Comments

1. Revision 01-1 to Permit No. GR009RE approves the use of Kneeling Nun rhyolite, or other approved cover material, as cover material for the stockpiles at the Chino Mine. Revision 01-1 provides for the demonstration that alternate cover material(s) will meet MMD requirements through the test plot studies. The “leach cap” material has been proposed by Chino as an alternate cover material. The suitability of the leach cap, in combination with Kneeling Nun rhyolite, or as a separate material, is currently undergoing evaluation in the test plot studies. Therefore, the use of leach cap as cover material, or combination of leach cap with other materials, has not been approved for use as cover at the Chino mine. Ultimately, the use of this material, and the application of this material, will be contingent upon the outcome of the test plots. Please explain

how materials to be used as cover on the 3A stockpile compare with materials currently being examined in the test plot program.

2. Please explain what contingency plan is available if the proposed cover material proves to be unsupportive of a self-sustaining ecosystem, via the test plot program.
3. Assuming that blended Kneeling Nun rhyolite and leach cap is approved as suitable cover material at the conclusion of the test plot studies, please explain how Kneeling Nun and leach cap cover material will be handled to insure cover material, to be applied at reclamation, will have appropriate textural and chemical characteristics to be used as a store and release soil cover system. Alternatively, if this information already exists, please explain how the material to be used as cover on the Waste rock pile will meet criteria for a store and release soil cover system. Note, please include any special cover material handling needs in the cost estimate.
4. Upon reclamation, the waste rock pile is proposed to be sloped to direct surface water south into a tributary of Martin Canyon currently not directly impacted by mining activities. Please explain how the 3A waste rock pile will be reclaimed to address potential surface water and groundwater impacts to Martin Canyon.
5. The application should include a general description of appropriately designed stormwater drainage and diversion features, water treatment, and associated armoring, to manage a 100 year, 24-hour storm event. Please revise the application to include this description and a cost estimate to address these storm water design features.
6. Please adjust the cost estimate accordingly for the placement of the stored organic material and topsoil during reclamation, of the 3A waste rock pile, if applicable.
7. Please include in the cost estimate the capital costs needed to remove any infrastructure and the utilities associated with the operations of the 3A waste rock pile.
8. Please include in the cost estimate the costs needed to perform post-reclamation operations and maintenance.
9. On page 7 of the application in the section titled "Financial Assurance", it states that the financial assurance could be adjusted during the future renewal of the site-wide closure closeout plan. MMD agrees with this statement, however, for this specific case, and in accordance with 19.1012.1201.A NMAC, Chino shall provide a financial assurance proposal, for the reclamation of the 3A waste rock pile, to MMD following MMD's determination that the permit modification is technically approvable, but prior to the permit modification approval.
10. On the Reclamation Summary page of the cost estimate, under the category of Direct Costs, there is a line item titled "Other": please provide a description of the task. Is this task for special handling needs (e.g., screening) of the cover material?
11. The volume of cover material needed appears to have been calculated for the 210 acre footprint of the waste rock stockpile. Please provide in the cost estimate the volume of cover material needed for a trapezoidal-shaped pile with a 210 acre footprint.

12. The cost estimate needs to be updated to include indirect costs, selected equipment, associated production and performance factors, and cycle times that were approved in the February 11, 2002 site-wide cost estimate. Additionally, identify the location of the stockpile from where the proposed cover material will be taken.
13. The cover material haul distance needs to be adjusted, and/or checked, to reflect the actual haul distance as illustrated on Figure 1 of the PAP.

Other State Agency Comments (see attached documents)

1. Archeological surveys were conducted over most of the stockpile area in 1996 and 1997, but it appears that a small area between the two survey areas was not covered. Please address the Department of Cultural Affairs comments on the need to update the archeology survey in relation to this proposed disturbance from expansion of the 3A waste rock pile.
2. Please address the comments from Office of the State Engineer concerning the plugging and replacement of monitoring wells, and the status of Chino's application for permit to Alter or Rehabilitate a Dam or Reservoir.

Please respond to the MMD comments and the comments from other state agencies within 30 days of receipt of this letter. Feel free to contact me at (505) 476-3438 or at [chris.eustice@state.nm.us](mailto:chris.eustice@state.nm.us) if you have any questions.

Sincerely,



Chris Eustice  
Permit Lead  
Mining Act Reclamation Program ("MARF")

cc: Holland Shepherd, Manager, MARF  
Keith Ehlert, MECS/GWQB/NMED  
Allyson Siwik, Gila Resources Information Project  
Mine File (GR009RE)