

**PERMIT REVISION 16-1 TO PERMIT NO. GR009RE
CHINO MINE
EXISTING MINING OPERATION**

**MINING AND MINERALS DIVISION
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT**

This Permit Revision 16-1 (“Revision 16-1”) to Permit No. GR009RE is issued by the Director of the Mining and Minerals Division (“MMD”) of the New Mexico Energy, Minerals and Natural Resources Department to:

Freeport-McMoRan Chino Mines Company (“Chino”)
Whose correct address is: P.O. Box 10
Bayard, NM 88023

(“Permittee”) for the Chino Mine, located in Grant County, New Mexico.

This Permit Revision 16-1:

1. Approves an increase in the design limit to facilitate construction of the North Lampbright Waste Rock Stockpile (“NLWRS”) at the Chino Mine at the location shown on Figure 2 of *Application to Revise Mining Permit GR009RE for North Lampbright Waste Rock Stockpile* dated January 19, 2016;
2. Approves the closeout plan and financial assurance for the NLWRS;
3. Changes the reclamation schedule (Table 1) in Modification 16-3 by adding the NLWRS.

In order to accomplish the approval contemplated by this Revision 16-1, the following subparagraphs are added to Permit No. GR009RE:

Section 1 (Revision 16-1). STATUTES AND REGULATIONS

- A. This Permit modification is issued pursuant to the New Mexico Mining Act, NMSA 1978, §69-36-1, et seq. (1993, as amended through 2016) (“Act”) and New Mexico Mining Act Rules, Title 19, Chapter 10 of the New Mexico Administrative Code (“NMAC” or “Rules” or “Regulations”).
- B. This Permit modification is subject to the Act, the Rules, and any other applicable regulations, which are now or hereafter in force under the Act; and all such regulations are made a part of this Permit by this reference.

Section 1a (Revision 16-1). PERMIT APPLICATION PACKAGE

- A. The permit application package for Revision 16-1 (“16-1 PAP”) consists of:

1. *Application to Revise Mining Permit GR009RE for North Lampbright Waste Rock Stockpile*, dated January 19, 2016, prepared by Freeport-McMoRan Chino Mines Company (“Chino”);
2. *North Lampbright Waste Rock Stockpile Extension Closure/Closeout Plan*, dated January 15, 2016, prepared by Golder Associates on behalf of Chino;
3. Public notice documentation, dated February 8, 2016, regarding Chino’s submittal of *Application to Revise Mining Permit GR009RE for North Lampbright Waste Rock Stockpile*;
4. Public notice documentation, dated March 24, 2016, regarding MMD’s Administratively Complete Determination for the *Application to Revise Permit No. GR009RE* (Revision 16-1);
5. *Chino Response to MMD Technical Comments on Proposed Modification [sic] 16-1: Closure Closeout Plan Update, Permit No. GR009RE*, dated June 30, 2016, prepared by Chino;
6. *Rubio Peak Formation Demonstration Plot As-Built Report*, dated June 2016, prepared by Chino;
7. *Financial Assurance Cost Estimate – North Lampbright Waste Rock Stockpile Modification [sic] 16-1: Closure Closeout Plan Update, Permit No. GR009RE*, dated September 29, 2016, prepared by Chino, and *North Lampbright Waste Rock Stockpile Reclamation Cost Estimate*, dated September 28, 2016, prepared by Telesto Solutions;
8. *Response to Additional Technical Comments on Revision 16-1, North Lampbright Stockpile, New Unit Expansion, Permit No. GR009RE*, dated February 3, 2017, prepared by Chino.
9. *Partial Withdrawal of Design Limit Increase*, dated May 18, 2017, prepared by Chino. This document requests withdrawal of Chino’s request to expand the design limit of the existing Northeast Stockpile.
10. Updated cost estimate for North Lampbright Stockpile, submitted by Chino through electronic mail on June 7, 2017.

Section 2 (Revision 16-1).

PERMIT AREA AND DESIGN LIMITS

- A. The increased design limit to facilitate construction of the NLWRS is shown in Figure 2 of

Application to Revise Mining Permit GR009RE for North Lampbright Waste Rock Stockpile, dated January 19, 2016 and in Figure 2 of *Partial Withdrawal of Design Limit Increase*, dated May 18, 2017;

- B. The approved pre-reclamation area of disturbance and approved reclamation area (horizontal dimension) of the NLWRS is delineated in Figure 2 of *Application to Revise Mining Permit GR009RE for North Lampbright Waste Rock Stockpile*, dated January 19, 2016 and in Figure 2 of *Partial Withdrawal of Design Limit Increase*, dated May 18, 2017;
- C. The proposed design limit for Revision 16-1 is provided as “Santa Rita Beneficiation Design Limit Figure 2-4 Rev 7” within the May 18, 2017 correspondence from Chino entitled *Partial Withdrawal of Design Limit Increase*.

Section 3 (Revision 16-1).

FINDINGS OF FACT

- A. The Permittee has paid the permit revision fee of \$4,500.00 as required by §19.10.2.201 NMAC.
- B. The application for permit revision has been reviewed in accordance with §19.10.5.505 NMAC and has been determined to be a revision in accordance with §19.10.5.505.B and §19.10.5.505.B(1) NMAC.
- C. Pursuant to §19.10.5.505.B(2) NMAC, the application for permit revision was accompanied by sufficient information for the Director to determine whether any of the factors listed in §19.10.5.505 NMAC are present.
- D. Pursuant to §19.10.5.505.B(3) the Director has consulted with the applicable state agencies including State Forestry Division, New Mexico Department of Game and Fish, Historic Preservation Division, New Mexico Environment Department, and the Office of the State Engineer.
- E. Pursuant §19.10.5.505.B(3) NMAC, the Director has consulted with the following tribal entities: Fort Sill Apache Tribe, Hopi Tribe, Mescalero Apache Tribe, Navajo Nation, Pueblo of Acoma, Pueblo of Isleta, and the White Mountain Apache Tribe.
- F. Pursuant to §19.10.5.505.C NMAC, the application for permit revision was in a format acceptable to the Director.
- G. Pursuant to §19.10.5.505.D NMAC, the permit revision meets the requirements of §19.10.5.507 (“Existing Unit Standards”) and §19.10.5.508 NMAC (“New Unit Standards”).

- H. Pursuant to §19.10.9 NMAC, a public hearing on Revision 16-1 was conducted in Silver City, New Mexico on October 27, 2016.

Financial Assurance and Instrument

- I. The financial assurance for reclamation of the NLWRS is in the form of Surety Bond No. SUR0042184, issued by Argonaut Insurance Company in the amount of \$3,581,931 after adjustment to reflect Net Present Value (“NPV”). In determining the appropriate cost estimate and NPV for the NLWRS financial assurance instrument, the Division used and accepted data and a methodology that are acceptable for this Revision 16-1 but that are different from those used to calculate cost estimate and NPV for the rest of the Chino Mine under Revision 01-1 to this permit. Neither the Division nor Permittee intend that the data and methodology used to calculate financial assurance under this Revision 16-1 shall set a precedent for the data and methodology to be used to calculate the cost estimate and NPV in any future revision of this or any other permit.

Waste Rock Material

- J. The mine waste rock that will be placed in the NLWRS is characterized as material that has the potential to discharge water contaminants. The NLWRS is subject to New Mexico Environment Department discharge permit requirements.

Cover Material for the North Lampbright Waste Rock Stockpile

- K. The proposed cover material for future reclamation of the NLWRS is the Rubio Peak Formation located southeast of the Main Lampbright Leach Stockpile.

Section 7 (Revision 16-1).

COMPLIANCE REQUIREMENTS

- A. The Permittee shall conduct mining and reclamation operations only as described in the approved 16-1 PAP, the Permit, and any revisions or modifications approved by the Director.
- B. This permit revision 16-1 is issued pursuant to NMSA 1978, Section 69-36-1 et. seq. and Title 19, Chapter 10 NMAC. Permittee may be required to comply with other federal, State, county or local laws or ordinances before or while undertaking the activity that is the subject of this permit revision. MMD does not, by issuing this permit revision or otherwise, make any comment on Permittee’s compliance with such other laws. It is Permittee’s sole responsibility to investigate and comply with the requirements of such other laws.
- C. The Permittee shall maintain all environmental permits required for the permit area, including but not limited to the Mine Plan of Operations approved by the BLM and Discharge Permits issued by NMED. Revocation or termination of such a permit or the

forfeiture of financial assurance related to such a permit is adequate grounds for the Director to issue a cessation order pursuant to §19.10.5.509.C and §19.10.11 NMAC.

- D. Permit revision 16-1 does not grant or create any water rights. Nor does MMD, by approving this permit revision or otherwise, make any comment on the water rights that the Permittee may or may not have available for use in the area covered by the permit revision. Permittee is solely responsible and obligated to comply with all state and federal laws related to water rights sufficient to support the activities contemplated by the permit revision.

Section 8 (Revision 16-1).

GENERAL OBLIGATIONS AND CONDITIONS

The conditions outlined in this section are required for the Permittee to meet certain requirements of the Rules. The specifications contained in this Section may be modified in final engineering design with MMD approval.

- A. Approximately 86 acres of the NLWRS is subject to the reclamation standards of §19.10.5.507.A NMAC (“Existing Unit Standards”). This area is the southern portion of the NLWRS where it overlaps with the north facing outslope of the Main Lampbright Leach Stockpile as depicted in Figure 6-2 of *North Lampbright Waste Rock Stockpile Extension Closure/Closeout Plan*, dated January 15, 2016, prepared by Golder Associates on behalf of Chino.
- B. The NLWRS will cover approximately 187 acres of disturbed and undisturbed acres. Of these, approximately 101 acres of the NLWRS is subject to the reclamation standards of §19.10.5.508 NMAC (“New Unit Standards”). This area is the northern portion of the NLWRS as depicted in Figure 6-2 of *North Lampbright Waste Rock Stockpile Extension Closure/Closeout Plan*, dated January 15, 2016, prepared by Golder Associates on behalf of Chino.

North Lampbright Waste Rock Stockpile Construction and Operation Conditions

- C. Within 90 days of the date of this Revision 16-1, the Permittee shall provide calculations demonstrating that the eastern diversions associated with the NLWRS meet the requirements of §19.10.5.508.B(4)(d) NMAC.
- D. During construction and operation of the NLWRS, the Permittee shall facilitate closure regrading efforts by optimizing lift height and setbacks and remain in compliance with the basis for the cost estimate, including:
1. Construction of the NLWRS up to an elevation of approximately 6,800 feet over the northern outslope of the existing Main Lampbright Leach Stockpile;

2. Constructed by end dumping in lifts approximately 50 feet high with approximate 100-foot benches on each lift;
3. Overall design of the NLWRS at approximately 3.5H:1.0V overall slope to facilitate final closure.

North Lampbright Waste Rock Stockpile Reclamation and Cover Material

- E. During reclamation, the NLWRS shall meet the key design criteria for closure of the NLWRS as shown in Table 4-1 *North Lampbright Waste Rock Stockpile Extension Closure/Closeout Plan*, dated January 15, 2016, prepared by Golder Associates on behalf of Chino, including:
1. Stockpile regrading to inter-bench slopes of between 3.0H:1V and 3.3H:1V;
 2. Maximum uninterrupted slope length of 200 feet for outslopes;
 3. Terrace benches with a maximum bench width of 50 feet;
 4. Bench longitudinal slopes at maximum of 5 percent;
 5. Top surface graded at a minimum final grade of 1 percent;
 6. Regrading to achieve the conveyance of surface water to the exterior perimeter of the stockpile;
 7. Slope channels located, where possible, in natural junctions or drainage chutes;
 8. Use of riprap and energy dissipation structures as appropriate;
 9. Placement of 36 inches of suitable cover material on the top slopes, outslope surfaces, and haul roads that are located on acid-generating material;
 10. Revegetation in accordance with Appendix C of the MMD permit and applicable modification;
 11. Implementation of a moderate maintenance program until cover vegetation meets standards.
- F. Rubio Peak Formation is conditionally approved as suitable cover material for reclamation of the NLWRS pending test plot evaluation of this material.
- G. Chino shall conduct a test plot study to demonstrate that the use of the Rubio Peak

Formation, proposed for placement on the NLWRS, will support a successful, self-sustaining plant community, and meet the Existing Unit Standards, the standards of Permit GR009RE, Appendix C of Revision 01-1 and New Unit Standards. The conditional approval of this alternative cover material for the NLWRS does not change any other cover material requirements of Permit No. GR009RE. A workplan for the test plot study shall be submitted to MMD within 90-days after Revision 16-1 approval.

- H. The associated cost estimate for the reclamation of the NLWRS is based upon the use of a conditionally approved alternative cover material that shall undergo testing in an approved test plot study. If the results of the test plot study indicate, as determined by MMD, that alternative or additional closeout actions are necessary to allow for the establishment of a self-sustaining ecosystem, and/or meet the requirements of reclamation defined under §19.10.1.7.R(1) NMAC, MMD may require that the Permittee submit a request to modify or revise the Permit in accordance with §19.10.5.504.B and §19.10.5.505.B NMAC.
- I. For construction of the Rubio Peak Formation test plot, Chino shall implement the material handling plan that was used when constructing the West Stockpile Test Plots, which is entitled *Quality Control – Standard Operating Procedure, Cover Material Hauling and Placement, West Stockpile Test Plots* (dated March 12, 2007). This handling plan specifies, in part, that Chino will attempt to obtain a rock fragment content of 50 to 60 percent by volume, but could vary from about 30 to 70 percent over a relatively small spatial scale. This plan can be modified under the final design and construction quality assurance/construction quality control (“CQA/CQC”) plan.

Cultural Resources

- J. The Permittee shall comply with all other state and federal requirements and standards as applicable, including without limitation any applicable requirements of the Cultural Properties Act, NMSA 1978, Section 18-6-1 to 27 and regulations promulgated pursuant thereto.

Construction Quality Assurance / Construction Quality Control

- K. The Permittee shall submit a final design and construction quality assurance/construction quality control (“CQA/CQC”) plan to MMD for approval not less than 180 days prior to proposed commencement of reclamation and shall implement the plan after MMD approval. If applicable, the design will include detailed engineering designs addressing slopes, surface erosion controls and stormwater management structures for MMD approval. The CQA/CQC plan shall include: a description of work to be conducted and identification of borrow areas. Design specifications may be modified during the final engineering design with MMD approval.
- L. The Permittee shall submit a final CQA/CQC report to MMD not more than 180 days after

reclamation construction completion. This report shall provide summaries of the quality assurance data, documenting that the project was completed according to the approved final design and CQA/CQC plan with significant exceptions explained. The report shall include a summary of work conducted, as-built drawings, soil testing results, laboratory analytical reports, and quality assurance data for outsoles, covers and for stormwater management structures. The final report shall provide a final topographic map with no greater than two-foot contour intervals for the top surfaces and no greater than five feet for outsoles, and construction photographs.

Financial Assurance

- M. The Permittee shall maintain adequate financial assurance for the North Lampbriht Waste Rock Stockpile in the amount of \$3,581,931 (after NPV) with MMD and NMED as joint beneficiaries.

Reclamation Schedule

- N. During reclamation, measures shall be taken to provide for the stabilization of the disturbances that will minimize future impact to the environment and protect air and water resources. The reclamation schedule is required pursuant to §19.10.5.506.B.1 NMAC. The reclamation schedule for the North Lampbriht Waste Rock Stockpile shall begin in accordance with the schedule identified below in Table 1, unless earlier reclamation is required by other agencies.

Table 1: Reclamation Schedule

Unit	Anticipated or Actual Start Date for Reclamation to Begin^a	Anticipated Duration (Years)^b or Completion Date
North Lampbriht Waste Rock Stockpile	Five years following cessation of leaching operations at the Main Lampbriht Stockpile	5

Notes:

a Anticipated start dates are subject to modification based on the reclamation sequence identified in Revision 01-1 Condition 8.P to Permit No. GR009RE.

b Estimated duration for facility reclamation does not include regulatory design review and approval processes.

Section 9 (Revision 16-1).

CONCLUSIONS OF LAW

- A. The Director has jurisdiction over the Permittee and the subject matter of this proceeding.
- B. The 16-1 PAP is complete, accurate, and complies with the requirements of the Act and Sections §19.10.5.502 NMAC and §19.10.5.503 NMAC and with conditions described in this Permit Revision document.

- C. The 16-1 PAP is complete, accurate, and complies with the requirements of Section §19.10.5.505 NMAC. The Permittee is permitted, pursuant to the New Mexico Mining Act, to conduct mining and reclamation operations at the Chino Mine, Grant County, New Mexico, upon the condition that the Permittee complies with the requirements of this Order, the Act, the Rules, and Permit No. GR009RE and all revisions thereof and modifications thereto.

All other provisions, modifications, and revisions for mining and reclamation contained in the Chino Mine Permit No. GR009RE, remain unchanged.

CERTIFICATION

I certify that I have read, understand and will comply with the requirements of this Permit, this Permit Modification, the Act, the Rules, including without limitation that I will allow the Director to enter the Permit Area as required by the Permit and/or the Rules and/or as otherwise required by law.

Chad D. Tuff

Authorized Representative of the Permittee

President & General Manager

Title

Chino Acquisition LLC and
Freeport-McMoRan Chino Inc., General Partners of
~~Freeport-McMoRan Chino Mines Company~~
Company

State of New Mexico
County of Grant

Subscribed and sworn to before me this 4th day of October, 2017

Sandra L. Martin
Notary Public

My Commission Expires

August 24, 2020




OFFICIAL SEAL
SANDRA L. MARTIN
NOTARY PUBLIC - STATE OF NEW MEXICO
MY COMMISSION EXPIRES

August 24, 2020

ORDER

NOW THEREFORE, IT IS HEREBY ORDERED that the Director approves Permit Revision 16-1 to the Chino Mine, Permit No. GR009RE, located in Grant County, New Mexico. The approval is for construction and reclamation of the North Lampbright Waste Rock Stockpile and approves the closeout plan and financial assurance for the North Lampbright Waste Rock Stockpile.

By Order of the Director, Mining and Minerals Division, Energy, Minerals and Natural Resources Department, of the State of New Mexico.

By: 

Fernando Martinez, Director
Mining and Minerals Division
Energy, Minerals and Natural Resources Department

Date: 10/13/2017