

BEFORE THE WATER QUALITY CONTROL COMMISSION  
FOR THE STATE OF NEW MEXICO

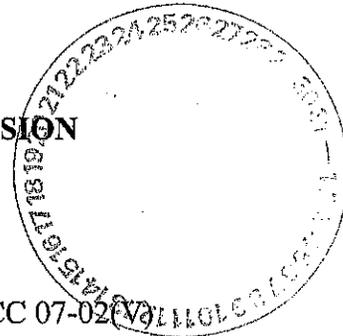
IN THE MATTER OF THE  
PETITION FOR VARIANCE FOR  
THE LEE HILL LEACH STOCKPILE,

CHINO MINES COMPANY,

Petitioner.



No: WQCC 07-02(V)



**FINDINGS OF FACT, CONCLUSIONS OF LAW, AND  
ORDER GRANTING VARIANCE WITH CONDITIONS**

THIS MATTER came before the New Mexico Water Quality Control Commission (“Commission”) upon a Petition for Variance (“Variance Petition”) filed by Chino Mines Company (“Chino”) under the Water Quality Act, NMSA 1978, Section 74-6-4(G), and the Commission’s Regulations, 20.6.2.1210 NMAC. The Commission held a public hearing on May 22, 2007 in Santa Fe, followed on May 23, 2007 by a public meeting for deliberations on this matter. The Commission heard all evidence, deliberated, and voted to grant the variance, subject to conditions recommended by the New Mexico Environment Department (“NMED”), for the reasons set forth below.

Findings of Fact

Procedural Findings

1. On or about April 5, 2007, Chino filed with the Commission a written Variance Petition. [Petitioner’s Exhibit 1].
2. On or about April 9, 2007, NMED filed with the Commission a Recommendation to Approve Variance with Conditions. [NMED Exhibit 4; Petitioner’s Exhibit 2].
3. At the Commission’s public meeting on April 10, 2007, the Commission set a public

- hearing on the Petition for Variance for May 22, 2007.
4. On or about April 23, 2007, the Commission published Public Notices of the Hearing in *The Albuquerque Journal* and the *Silver City Daily Press and Independent* in compliance with the Commission's Regulations. [NMED Exhibit 1].
  5. On or about May 8, 2007, Chino and NMED each filed a Statement of Intent to Present Technical Evidence at the May 22, 2007 hearing. No other person filed a Statement of Intent.
  6. On May 22, 2007, the Commission held a public hearing in Santa Fe, New Mexico regarding this matter. The public hearing was recorded by a court reporter.
  7. Chino presented direct testimony from three witnesses, Richard N. Mohr, David Banton, and David Rhoades, in support of the Petition for Variance at the hearing. Chino made these three witnesses and two additional witnesses, Timothy Eastep and Mark Birch, available for cross examination and questions from the Commission. Chino also submitted written exhibits in support of the Petition. [Petitioner's Exhibits 3, 4 and 5].
  8. NMED presented direct testimony from one witness, Kevin Myers, a hydrogeologist with the NMED Ground Water Quality Bureau, in support of NMED's Recommendation to Approve Variance with Conditions. NMED made this witness and another witness, Bill Olson, Chief of the NMED Ground Water Quality Bureau, available for cross-examination and questions from the Commission. NMED also submitted written exhibits. [NMED Exhibits 2, 3 and 6].
  9. On May 23, 2007, the Commission held deliberations in this matter. At the conclusion of the deliberations and by a vote of six in the affirmative and two in the

negative, the Commission voted to grant the variance subject to the conditions recommended by NMED.

### Substantive Findings

1. Petitioner Chino is the owner and operator of the Santa Rita Mine on Santa Rita Mine Road in Bayard, New Mexico, including the Santa Rita Pit and the Lee Hill Stockpile located in a portion of the Santa Rita Pit. The Lee Hill Stockpile is located approximately five miles from the town of Bayard and approximately two miles from the town of Hanover, as shown by a map identified as Attachment C of the Variance Petition. [Petitioner's Exhibit 1].
2. Chino's address is 210 Cortez Avenue, Hurley, New Mexico 88043. [Petitioner's Exhibit 1].
3. NMED has determined that the ground water within the Santa Rita Open Pit is protectable under the Water Quality Act and the Commission's Regulations, 20.6.2 NMAC, and specifically that the ground water represents a place of withdrawal of water for present and reasonably foreseeable future use under section 74-6-5(E)(3) of the WQA. As such, any discharge to the ground water in this area requires a discharge permit under Commission Regulations, and the discharge permit must meet all requirements for approval of such a permit pursuant to Section 20.6.2.3109 NMAC. [Petitioner's Exhibits 1 and 2; Testimony of Richard Mohr and Kevin Myers].
4. Chino disagreed with NMED's determination that the ground water within the Santa Rita Open Pit is protectable under the Water Quality Act and the Commission's Regulations, and reserved its rights regarding this determination.

NMED also reserved its rights in its Recommendation to Approve Variance with Conditions.

5. Chino requested a variance from 20.6.2.3109(C)(1) and (2) and -3109(H) NMAC.

Section 20.6.2.3109(C)(1) and (2) NMAC provides:

Provided that the other requirements of this part are met and the proposed discharge plan, modification or renewal demonstrates that neither a hazard to public health nor undue risk to property will result, the secretary shall approve the proposed discharge plan, modification or renewal if the following requirements are met:

(1) groundwater that has a TDS [total dissolved solids] concentration of 10,000 mg/l [milligrams per liter] or less will not be affected by the discharge, or

(2) the person proposing the discharge demonstrates that the approval of the discharge plan, modification or renewal will not result in concentrations in excess of the standards of 20.6.2.3103 NMAC or the presence of any toxic pollutant at any place of withdrawal of water for present or reasonably foreseeable future use, except for contaminants in the water diverted as provided in Subsection D of 20.6.2.3109 NMAC . . . .

[Petitioner's Exhibit 1].

6. NMED determined that Chino must seek a variance from the requirements of Section 20.6.2.3109.C(1) and (2) NMAC because ground water within the Santa Rita Open Pit has a concentration of 10,000 mg/l or less TDS and the discharge from Lee Hill operations will result in concentrations in ground water in excess of ground water quality standards of Section 20.6.2.3103 NMAC. [Petitioner's Exhibits 1 and 2; Testimony of Mohr and Myers].
7. Section 20.6.2.3109.H(3) NMAC prohibits the Secretary of NMED from approving a "discharge of any water contaminant which may result in a hazard to

public health . . . .” “Hazard to public health” is defined in Section 20.6.2.7.AA NMAC as existing when:

. . . .water which is used or is reasonably expected to be used in the future as a human drinking water supply exceeds at the time and place of such use, one or more of the numerical standards of Subsection A of 20.6.2.3103 NMAC, or the naturally occurring concentrations, whichever is higher, or if any toxic pollutant affecting human health is present in the water . . . .

[NMED Exhibit 3].

8. NMED determined that Chino must seek a variance from the requirements of Section 20.6.2.3109.H(3) because the discharge from Lee Hill will result in concentrations of water contaminants in ground water in excess of the human-health based ground water quality standards of 20.6.2.3103.A NMAC.  
[Petitioner’s Exhibits 1 and 2; Testimony of Myers].
9. Chino disagreed with NMED’s determination that the ground water within the Santa Rita Open Pit could pose a hazard to public health under the Water Quality Act and the Commission’s Regulations, and reserved its rights regarding this determination. NMED also reserved its rights in its Recommendation to Approve Variance with Conditions.
10. The Variance Petition requested a variance for the Lee Hill stockpile within the Santa Rita Open Pit, below the elevation of 6040 feet above mean sea level, which represents the approximate ground water seepage face of the pit. The purpose of the variance is to allow for the issuance of a discharge permit for Lee Hill, which will include the placement of leach ore within the northern part of the Santa Rita Open Pit. [Petitioner’s Exhibit 1; NMED Exhibit 3]
11. A variance from Commission Regulations should be allowed sparingly, and only

in a unique set of circumstances in which the goals of the Water Quality Act are not undermined. [NMED Exhibit 3; Testimony of Myers]

12. Because it is often the case that compliance with environmental regulations is more expensive than not complying with such regulations, a variance should not be granted solely because it is more expensive for a discharger to comply with Commission Regulations than not. Expense alone does not justify not complying with Commission regulations designed for protection of New Mexico's limited ground water resources. Granting a variance based on expense alone would result in an unfair playing field for other operators in the industry who have complied with Commission Regulations, paid the costs for compliance, and built those costs into their operations.
13. In this case, the leaching and stockpiling activities at Lee Hill present a unique set of circumstances that support the unusual action of allowing a variance because, in the end, the operations at Lee Hill will not undermine the goals of the Water Quality Act. [Petitioner's Exhibit 4; NMED Exhibits 3 and 5; Testimony of David Banton and Myers].
14. The unique set of circumstances at the Lee Hill stockpile and leaching operations represented in this matter is set forth as follows:
  - a. While ground water located within the Santa Rita Open Pit area will be affected by the proposed discharge, the impacted ground water should be entirely contained within a unique hydrogeological feature, the passive hydrologic sink created by the Open Pit, and will eventually upwell within the Lee Hill, Estrella or East Pit sumps. The passive hydrologic sink at the Santa Rita Open Pit

does not require pumping to be maintained. This feature should limit and constrain the contamination of ground water.

b. Locating the leaching and stockpiling operations at Lee Hill will limit the footprint of the mining operations to an area in which ground water is already heavily impacted. The Santa Rita Open Pit mine was started in 1910, and was preceded by underground mining operations. Ground water within the area affected by the variance already has been impacted by these historical and existing mining operations.

c. If the Lee Hill stockpile and leach operations are located within the Santa Rita Open Pit, compliance with the ground water quality standards for the affected area is not feasible by the maximum use of technology. NMED required Chino to evaluate additional pollution control measures to control discharges from the Lee Hill stockpile and leach operations. The irregular and sometimes unstable surfaces of the pit wall would render placement of synthetic liners ineffective to technically infeasible. At the bottom of the sub pit area, a partial liner would be limited in its effectiveness because of the difficulty to connect with the existing Lee Hill waste rock pile and its existing liner system. Also, the upward vertical gradient causes inflow of ground water which would put pressure on any liner system, such that it would partially float a liner in the bottom of the Lee Hill subpit during or after installation, thereby damaging the integrity of the liner. The pit walls would also unravel over time and would further puncture and abrade any liner or bedding system for a liner, again compromising the integrity of the liner. Other technologies, such as grouting,

would be no more effective than the rock walls of the Santa Rita Open Pit.

d. The Variance Petition and testimony presented on behalf of Chino at the public hearing identified Chino's need to expand its existing capacity to place waste rock and conduct leaching operations in order to maintain Chino's existing mining operations. That testimony demonstrated that if Chino is not able to obtain a discharge permit for the Lee Hill stockpile and leach operations in the near future, Chino's mining operations may be significantly impacted and Chino would have to re-evaluate its mine plans.

e. Chino will be required to comply with other requirements of a discharge permit. NMED presented the Commission with a draft of the proposed discharge permit, Discharge Permit 1568 ("DP-1568"), for the Lee Hill operations. Requirements of DP-1568 will include:

- i. Implementing pollution prevention measures during operations where technologically feasible and practical, such as lining the collection sump in Estrella pit and any new booster pumping stations;
- ii. Undertaking ground water monitoring and reporting requirements;
- iii. Implementing contingency plan requirements;
- iv. Complying with the abatement requirements required by 20.6.2.4000 to -4115 NMAC; and
- v. Complying with any applicable closure and financial assurance requirements, as required under Chino's Supplemental

Discharge Permit for Closure, DP-1340, which would be modified to include DP-1568.

These requirements in the discharge permit will provide additional protections and, in particular, the ground water monitoring information will be evaluated periodically to ensure that the discharge to ground water from the Lee Hill operations is being contained within the Open Pit.

f. Section 74-6-4(G) of the Water Quality Act provides that the Commission “may only grant a variance conditioned upon a person effecting a particular abatement of water pollution within a reasonable period of time.” Pursuant to this statutory provision, Chino will be required to abate the water pollution resulting from the Lee Hill operations in accordance with the Commission’s abatement regulations at 20.6.2.4000 to -4115 NMAC. [Petitioner’s Exhibits 1, 4 and 5; NMED Exhibit 5; Testimony of Banton, Myers, and Rhoades].

15. The Variance Petition and testimony presented on behalf of Chino at the public hearing identified and evaluated alternative locations other than Lee Hill to place waste rock and to conduct leaching operations. [Petitioner’s Exhibits 1, 4 and 5; Testimony of Banton and David Rhoades].
16. The evidence presented by Chino showed that most of the alternative locations lacked sufficient capacity for waste rock and leach ore to maintain Chino’s existing mining operations. The alternative locations that would have sufficient capacity are located outside of the hydrologic sink of the Santa Rita Open Pit and would not have the benefit of containment of solutions that the hydrologic sink

would provide and could result in impacts to ground water outside of the hydrologic sink. The other locations have other disadvantages, including increased costs and consumption of fuel and other resources, disturbance of additional lands, and disturbance of community view sheds. [Petitioner's Exhibit 5; Testimony of Rhoades].

17. NMED's Recommendation to Approve Variance with Conditions and its hearing exhibits identified seven specific conditions recommended by NMED. [Petitioner's Exhibit 2; NMED Exhibit 4]
18. Closure requirements will be addressed under the terms and conditions of Supplemental Discharge Permit for Closure DP-1340, which specifies closure requirements for all discharging facilities at Chino, including the existing Lee Hill stockpile. DP-1340 expires in February 2008, and Chino is required to submit an updated closure plan to NMED in August 2007 as part of the permit renewal process that will include the Lee Hill leaching operation. [NMED Exhibits 4 and 5; Testimony of Myers].
19. Presently, DP-1340 would require Chino to cover the top of the existing Lee Hill stockpile, but does not require Chino to regrade and cover the slopes of the stockpile. DP-1340 also would require treatment of the ground water impacted by the operations. DP-1568 will require closure of the Lee Hill operations consistent with the terms and conditions DP-1340. [Testimony of Myers].
20. While the Commission is not establishing specific conditions for closure of the Lee Hill stockpile operations in this variance, beyond those required in the conditions of the variance, the Commission strongly urges NMED and Chino to

implement all appropriate closure measures for the Lee Hill Stockpile, including requiring source control through regrading and covering of the slopes of the Lee Hill stockpile.

21. The Gila Resources Information Project (“GRIP”) appeared at the public hearing through counsel and presented written public comments on the Variance Petition. GRIP did not oppose the granting of the Petition. The Commission considered GRIP’s comments in making its decision. [GRIP Exhibit 1 – Public Comment of Allyson Siwik, Executive Director].
22. GRIP questioned whether the Commission was presented with a full presentation of the alternatives available with respect to the Lee Hill operations. Although an alternatives analysis is not a required element of a Variance Petition, the Commission finds that the Variance Petition and the testimony presented at the public hearing presented an evaluation of several alternatives that was helpful in the Commission’s evaluation of the Variance Petition. [GRIP Exhibit 1 – Public Comment of Allyson Siwik, Executive Director].
23. GRIP commented that the variance should be granted with conditions related to abatement and closure, and specifically GRIP questioned whether the slopes of the Lee Hill stockpile should be regraded and covered. The conditions recommended by NMED and adopted by the Commission address abatement and closure, with the caveat that the Commission strongly urges NMED and Chino to implement all appropriate closure measures for the Lee Hill Stockpile, including requiring source control through regrading and covering of the slopes of the Lee Hill stockpile. [GRIP Exhibit 1 – Public Comment of Allyson Siwik, Executive

Director].

Conclusions of Law

1. The Commission has jurisdiction to hear and decide this matter pursuant to NMSA 1978, Section 74-6-4(G), 20.6.2.1210 NMAC and 20.1.3 NMAC.
2. Under NMSA 1978, Section 74-6-4(G), the Commission shall adopt regulations specifying the procedure under which variances may be sought, which regulations shall provide for the holding of a public hearing before any variance may be granted.
3. The Commission adopted regulations specifying the procedure under which variances may be sought, 20.6.2.1210 NMAC and 20.1.3.300 NMAC, which specify the contents of a Variance Petition and provide for the holding of a public hearing before any variance may be granted.
4. The Variance Petition satisfies the requirements of 20.6.2.1210 NMAC.
5. In accordance with the applicable laws and regulations, the Commission held a public hearing on the Variance Petition, provided public notice of the hearing, and conducted the hearing in this matter.
6. Under NMSA 1978, Section 74-6-4(G), the Commission may grant an individual variance from any regulation of the Commission if it finds that compliance with the regulation will impose an unreasonable burden upon any lawful business, occupation or activity.
7. Chino demonstrated, and NMED has concurred, that compliance with the regulations from which a variance is sought, namely 20.6.2.3109(C)(1) and (2) and -3109(H)(3) NMAC, would impose an unreasonable burden upon the Lee Hill facilities and operations which are the subject of the Variance Petition and which are a lawful

business or activity.

8. Under NMSA 1978, Section 74-6-4(G), the Commission may only grant a variance conditioned upon a person effecting a particular abatement of water pollution within a reasonable period of time.
9. NMED proposed that the variance be conditioned as follows: "Upon completion of mining operations, Chino shall abate water pollution in the Santa Rita Pit in accordance with the Commission's pollution abatement regulations in 20.6.2.4000 to -4115 NMAC." The Commission conditions the granting of the variance on this condition, which satisfies the requirement to effect a particular abatement of water pollution within a reasonable period of time.
10. Under NMSA 1978, Section 74-6-4(G), any variance shall be granted for the period of time specified by the Commission. Under 20.6.2.1210 NMAC, a variance may be granted for a maximum period of five years, subject to the Petitioner's right to apply for renewal of the variance.
11. Granting the variance subject to these conditions is consistent with the purposes of the Water Quality Act and the Commission's regulations to prevent or abate water pollution.
12. The Commission grants the variance for a period of five years.

#### Order

Based upon these Findings of Fact and Conclusions of Law, the Commission renders the following decision and order:

IT IS THEREFORE ORDERED that:

1. The Commission hereby grants Chino a variance from compliance with certain regulations of the Commission, 20.6.2.3109(C)(1) and (2) and -3109(H)(3), for the purpose of allowing NMED to issue a discharge permit, DP-1568, for the Lee Hill operations.
2. The variance is granted subject to the following conditions:
  - a. The variance is applicable only to the Lee Hill facility and the appurtenant effects the Lee Hill facility will have on ground water within the confines of the hydrologic sink of the Santa Rita Pit. For the purposes of the variance, the hydrologic sink is defined as the area within the Santa Rita Pit below an elevation of 6040 feet above mean sea level, which is the approximate elevation of the ground water seepage face in the pit.
  - b. Chino shall conduct all operations and activities at the Lee Hill Facility in accordance with DP-1568 approved by the NMED.
  - c. Chino shall monitor ground water impacts related to the waste rock storage and leaching operations at the Lee Hill facility in accordance with the requirements of DP-1568.
  - d. With the exception of not lining the Lee Hill Stockpile, Chino shall take all other reasonable and technologically possible pollution prevention measures to limit other sources of ground water contamination from the Lee Hill operations including but not limited to: (i) synthetically lining collection ponds, sumps and pumping stations (other than the Lee Hill sump) and (ii) installing high density polyethylene pipelines and lined collection tunnels for conveyance of water contaminants generated.

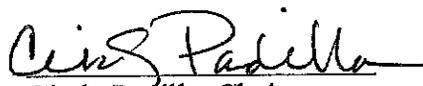
e. Upon completion of mining operations, Chino shall abate water pollution in the Santa Rita Pit in accordance with the Commission's pollution abatement regulations in 20.6.2.4000 to -4115 NMAC.

f. Chino shall comply with any applicable closure and financial assurance requirements required under Chino's Supplemental Discharge Permit for Closure, DP-1340, and DP-1568, which would include putting in to place an interim financial assurance instrument approved by NMED prior to initiation of operations. The Commission strongly urges that source control through regrading and covering of the slopes be included in the renewal of DP 1340.

g. Nothing in NMED's recommendation to approve the Variance Petition with conditions or the Commission's approval of the Variance Petition shall be construed to infer that ground water affected by the proposed discharge is not located at a "place of withdrawal of water for present or reasonably foreseeable future use" based upon an interpretation of the Water Quality Act, the Commission Regulations, and the decision in *Phelps Dodge Tyrone, Inc. v. Water Quality Control Commission*, 2006 NMCA 115, 143 P.3d. 502 (Ct. App. 2006). In addition, nothing in NMED's recommendation to approve the Variance Petition with conditions or in the Commission's approval of the Variance Petition shall be used as evidence in any proceedings related to a determination of ground water having a "place of withdrawal of water for present or reasonably foreseeable future use," including the *Matter of the Supplemental Discharge Permit for Closure (DP-1341) for Phelps Dodge Tyrone, Inc.*, Nos. WQCC 03-12(A) and 03-13(A) and the *Matter of GRIP's Appeal of the Chino Mines*

*Company's Ground Water Supplemental Discharge Permit for Closure – DP-1340, No. WQCC 03-14(A).*

3. This variance is granted for a period of five years from the date of this Order.  
Chino may reapply for this variance in accordance with 20.6.2.1210 NMAC.

  
Cindy Padilla, Chairperson  
On behalf of the Commission

Date: June 12, 2007