STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES MINING AND MINERALS DIVISION

IN THE MATTER OF REVISION 18-1 FOR THE 2018 UPDATED CLOSURE/CLOSEOUT PLAN FOR CHINO MINE, GRANT COUNTY, NEW MEXICO, PERMIT NO. GR009RE

HEARING OFFICER REPORT

Introduction

Applicant Freeport-McMoRan Chino Mines Company ('Applicant' or 'Chino') submitted to the Mining and Minerals Division (MMD) of the Energy, Minerals and Natural Resources Department (EMNRD) an application for a permit revision for the 2018 updated Closure/Closeout Plan (CCP) for Chino Mine, an existing mining operation located near the towns of Bayard and Hurley, in Grant County, New Mexico.

On July 24, 2019, the undersigned Hearing Officer accepted testimony and public comment in the Grant County Administration Center in Silver City, New Mexico as part of continued information gathering necessary for the Director of MMD to reach a decision on the permit revision application under Section 19.10 NMAC.

The hearing was conducted pursuant to Section 19.10.9.905 NMAC, Hearing Procedures. Following introductory remarks by the Hearing Officer and welcoming remarks by MMD Program Manager Holland Shepherd, all comment was taken under oath and subject to questioning by others present. Written comment and testimony was also submitted and accepted. The hearing, which was recorded and transcribed by Debra Ann Frietze of Russin Reporting, started at 5:30 p.m. and ended at 8:30 p.m. More than thirty people signed in; not everyone who was present is reflected on the

sign-in sheets. Chino distributed a Fact Sheet with information about the mine and permit revision, along with other materials. Chino also had a number of site-specific posters in the entrance hall, as an open house meeting had been held immediately prior to the hearing.

Notice of the hearing and opportunity to provide comment was sent by mail, email, and posted on the EMNRD webpage. The Hearing Officer also announced that following the hearing, written comment would be accepted by the Division through August 7, 2019.

The Director did not request a recommendation for action from the Hearing Officer under Section 19.10.9.905.A(3) NMAC. This Report includes only a review of written and oral comments submitted before, during and after the hearing; it does not include a review of any other part of the Department's administrative record.

Hearing Testimony for Permittee Freeport-McMoRan Chino Mines

Rita Lloyd-Mills has worked with Chino since 2011, and offered testimony about the permit revision, mine reclamation, and closeout activities as she proceeded through a PowerPoint presentation, attached. The CCP was put together by a team of scientists and engineers with experience in reclamation and closure planning, a few of whom she introduced. A copy of the plan is in the Bayard Community Library. Ms. Lloyd-Mills showed the location of the mine on a map, and noted that the CCP required by the Mining Act does not mean the mine is shutting down tomorrow. The CCP describes required reclamation and how environmental standards will be met after closure. They

will meet post-mining land use, wildlife and industrial, and provide for a self-sustaining ecosystem. Tr. pp. 8-10.

Ms. Lloyd-Mills described the CCP review and approval process, and noted that the plan submitted complies with the Groundwater Quality Act, the Mining Act, the Copper Rule, and the Mining Act Rules. In August 2018 they put together a workgroup that included Chino, state agencies, and Gila Resources Information Project (GRIP) in order to collaborate on the CCP and related financial assurance. The group came to agreement on a way forward in December 2018, a reclamation cost estimate was developed and submitted to the MMD and the New Mexico Environment Department (NMED) in May 2019. Tr. pp. 11-13.

Ms. Lloyd-Mills addressed the earth work required as part of the reclamation plan, including regrading, cover, revegetation, stormwater controls, and monitoring. There is an area of the mine in the pit area for which they have a waiver first granted in 2002. Some reclamation will be done there, but they do not have to have a selfsustaining ecosystem there. This permit revision would renew the waiver. Tr. pp. 13-16.

During mine operation, impacted water is retained and used in mine operations. After closure, Chino will continue to retain within the mine all water that does not meet standards, and most of it will be treated for use or release at a water treatment plant. Some buildings will b demolished, and fencing will be put up around the mine. The cost estimate for reclamation in current dollars is \$426 million, or \$212 million in net present value. Once the cost estimate is approved, Chino will post the financial assurance

instrument. Ms. Lloyd-Mills finished with a slide showing a reclaimed plot with antelope on it; they have seen many animals there, including predators. Tr. pp. 17-20.

Testimony on Behalf of Gila Resources Information Project (GRIP)

Ms. Allyson Siwik offered opening remarks for GRIP; she is the Executive Director. GRIP has worked on mining issues for more than 20 years. They have facilitated informed public participation in natural resource-use decisions, and have pushed mine operators and state regulators to ensure that copper mining is done responsibly in Grant County. GRIP is not anti-mining, but company profit should not come at the expense of community health and the environment. Tr. pp. 21-22.

With the Chino CCP and financial assurance more than a decade out of date, they are pleased to have been a part of the reclamation cost estimating methodology workgroup, and that differences have been resolved; we can move forward to get updated financial assurance in place. The CCP includes water treatment that will save enormous quantities of groundwater relied upon for drinking water. GRIP continues to disagree with Chino and state agencies as to the use of a third-party or parent company guarantee, which puts the state and the public at risk in the event the applicant can no longer cover its environmental liabilities. Although allowed by the state, parent company guarantees are forbidden by the Forest Service and the Bureau of Land Management. Tr. pp. 22-25.

James Kuipers began with a summary of his remarks and his professional history and qualifications as he proceeded through a PowerPoint presentation (attached). He noted that the real purpose of the New Mexico Mining Act is to promote responsible

utilization and reclamation of effective mine lands. Financial assurance is required for all mining operations in the U.S.; we never really know when a mining company will close. He hopes Chino and Tyrone mine every last pound of copper in the deposits, but the world market and other factors will dictate mine life. Financial assurance is used in the event of bankruptcy o foreclosure; it is based on cost estimates, but does not include unplanned catastrophic events. Tr. pp. 25-31.

The workgroup spent the majority of their time over the past year working on the cost estimate. GRIP's objectives in participating in the technical discussions included reviewing the water management and treatment designs and financial assurance to ensure consistency with an earlier settlement; to provide technical expertise; to expedite the establishment of an updated CCP; and to identify potential changes necessary in policy, practice, or regulation to ensure financial assurance is kept current and reflects best practice. Tr. pp. 31-35.

Mr. Kuipers stated that they are very comfortable with the CCP produced; it is a great effort. It provides the required information; the direct cost estimates are based on accepted engineering methods; and the indirect cost estimates were calculated consistent with the method used by BLM and most states. They have one recommendation regarding long-term costs: ongoing costs should not be reduced in long-term cost estimates, as reductions are hypothetical. Tr. pp. 36-37.

Mr. Kuipers also testified concerning planning for the next 5-year CCP, which should happen next year in order to get back into the proper cycle. GRIP proposed additional discussions about the water discharge, considering how scarce a commodity

it is in this region, and the options available for aquifer recharge or municipal or agricultural use. Existing storm event criteria are not adequate considering climate change and the 100-year events that are occurring much more frequently than 100 years. In Montana, they are trending toward using 200-year storm events in their calculations. The company may want to make this change as part of its risk management efforts. Although the CCP uses a term of 100 years for planning and financial assurance purposes, actual requirements are predicted to continue beyond that time. BLM recently used 500 year long-term estimates for financial assurance; he'd like to see that here. As to net present value and the percent discount rate, it is best to take a conservative approach because interest and inflation rates are difficult to predict. Finally, Mr. Kuipers noted GRIP's concerns about the form of financial assurance. Preferred forms are cash or equivalent, not a corporate guaranty. Tr. pp. 37-44.

On questioning, Mr. Kuipers agreed that a significant amount of Chino's existing financial assurance is in cash, and that amount has been increasing over time. Proven technologies can be taken into account in cost estimates, but anticipating an advancement without reasonable basis should not be. Some of their recommendations are based on best industry practice rather than limited to what the law requires. BLM's 500 year lookout is in guidance, not in regulation. Tr. pp. 45-61.

Other Public Comment

Mark Osborn started working at Chino Mine in 1976. It sounds as though there is actual forward movement this time in the discussions, but when does GRIP supersede NMED? Somebody needs to go. Tr. pp. 62-64.

Sam Morales is from a family of men who worked at the Mine and recently retired after 46 years. There were some problems with ground water pollution, but they have cleaned things up. He's worried about hamstringing Chino into an earlier closure. Tr. pp. 64-67.

Peter Wyman challenged a statement in Ms. Siwik's May 3, 2019 letter that the Silver City Daily Press reported the area experiences 500- to 1,000-year storm events at least twice a year. The quote was attributed to the Silver City Manager, who denies saying it. He believes it is fear tactics. Tr. pp. 67-69.

Andy Payne noted that the area's natural resources include copper deposits and a large, clean aquifer. Neither should be allowed to destroy the other. A reclamation plan with strong protections should be put into place. Water should be treated to high quality; climate change effects should be taken into account; the plan should be updated frequently; and the form of financial assurance should be more secure than a third-party guarantee. Tr. pp. 70-72.

Glenn Griffin noted it wasn't long ago, August 2005, that ASARCO Mining Company filed for bankruptcy, citing environmental liabilities and the high cost of pension and health care benefit plans. He can easily believe Freeport would do the same, leaving pollutants to contaminate the drinking water aquifer. Chino said nothing could be done with the 8,000 acres of toxic tailings, but it's not true. Future tailings should always be lined. Freeport must post sufficient resources for reclamation; a thirdparty guarantee will drive down the price of ranchland. Why should taxpayers bail out a rich mining corporation? Tr. pp. 72-74.

Janet Wallet-Ortiz thanks GRIP for their hard work in protecting the community. Freeport is a giant corporation whose net income was \$270 million in 2018 from Grant County mines alone. Freeport should take responsibility for the toxic waste they generate, establish a sizable trust fund to protect water into perpetuity, and put up adequate cash. Tr. pp. 74-76.

Frances Gonzalez was born and raised in the mining district; her father was a mine employee for 45 years and died of mine-related lung cancer. New Mexico is a poor state and would be ruined of taxpayers were left to pay. Freeport is making an effort, but the financial assurance should not be divisive. Let's be community stewards together. Tr. pp. 76-78.

Kate Brown is a 40-year resident of Grant County. She is gratified by the collaboration described. Reclamation means jobs, and financial assurance means the jobs will be there. Tr. p. 79.

Dr. Gavin Clarkson is the former deputy assistant secretary for policy and economic development in the Trump administration, where he supervised a multibillion portfolio of oil, gas, coal, and minerals. He teaches finance entrepreneurship, and 95% of his students have to leave New Mexico to get a job. The mining industry offers everything from skilled trades to senior executive positions. Mining allows families to stay together; we should protect this industry in New Mexico. Freeport should be allowed to post a guarantee; they are a multi-billion dollar company. Tr. pp. 80-82.

Harry Browne is a Grant County Commissioner. Strong and secure financial assurance is crucial to Grant County; this would not include a guarantee by a parent

company. This country's history is littered with examples of corporate guarantees that were no good because of bankruptcy. This is not the first time that folks have worried that the company would close if it were required to comply with state law; these same claims were made 19 years ago. To the contrary, they absorbed the cost of providing responsible financial assurance as a cost of doing business, and now the mine is closed. GRIP's point in the May letter was not to report data but to note that there was no data on how frequently major storm events were occurring; the next sentence was "please provide the data in the CCP." Tr. pp. 82-86.

Rachel Valencia is from a long-lived mine family, which is not suffering. Many kids depend on their parents working at the mine, and she does not find it helpful for folks to move from out of state to tell the locals they are suffering. Tr. pp. 86-87.

Mary Hukill read excerpts from a report on precipitation from NOAA Atlas 14. The author states that the results showed little observable or geographically consistent impacts of climate change. Tr. pp. 87-89.

Karl Hardin has worked at the mine for 37 years and seen a lot of change in the mining companies. We can't predict the future. He agrees with the proposal from the mine and GRIP. Tr. pp. 90-91.

Dr. Michael Brown retired recently as a chiropractor. He used to measure radioactivity at uranium mines; it may have caused his cancer. He does not oppose mining; he wants them to take care of the water and what they leave behind for future generations. Tr. pp. 92-93.

Eduardo Arguello retired from Chino after 32 years. He supports mining as long as it's done responsibly. Future generations depend on all of us to preserve ground water quality. He has joined the GRIP board only to preserve the well-being of the community. We all need clean drinking water. Mining operations deserve to make a profit; with that comes the responsibility to invest some of the profits to assure the integrity of ground water forever. Tr. pp. 94-96.

Kim Clark's family moved to the Gila Valley in 1880. She commends Freeport, the state, and GRIP for successfully negotiating the details of the CCP. GRIP considers itself to be a watchdog, but does not represent the majority of Grant County residents. A third-party guarantee is sufficient as allowed by law. Tr. pp. 99-100.

Jamie Mitchell was born and raised in the area. She wants the Chino people to know that she can see the improvements they are making to protect water. She would appreciate it if GRIP would step back and allow the mine to do what they've promised. Tr. pp. 100-101.

Juan Juarequi is a second-generation miner. The Mine's main focus is safety; its second focus is environmental. Climate change has never been proven; we should worry about drug use instead. Tr. 101-103.

Helen Nordell is from a mining family, and used to play in the tailings; she's fine. Tr. p. 104.

Cindy Donovan believes that GRIP ultimately wants to close the mine. They do not represent her or thousands of others in Grant County. Tr. pp. 105-106.

Liz Morales's family dates back hundreds of years; her great, great, greatgrandparents mined for gold in Pinos Altos. Her family, friends, and neighbors work for the mine. We've got to take care of the earth, but GRIP goes too far to make things difficult for Freeport. Tr. pp. 179-180.

Mary Walker notes that the environmental workgroup can oversee things now; she does not understand GRIP's influence. GRIP was recently pushing for regulations that would have been impossible to meet and caused mine closures; she doesn't think they are pro-mine now. Tr. p. 110.

Written Comments

The record includes fifteen pages with the words "MMD Chino CCP Public Hearing July 24, 2019" in bold across the top of the page. There may have been some confusion caused by these sheets, which were apparently set out by the Applicant on a table in the foyer. Some attendees may have confused these sheets with the MMD signin sheets. The Hearing Officer attempted to clear up this confusion during the hearing, and accepted comments from anyone who had signed either set of sign-in sheets. In any event, some attendees wrote comments after giving their name and phone number, and the Division agreed to consider them as written public comments.

Comments in Support of Permit Revision Approval As Proposed

Written comments in support of mine permit approval were received from several of those providing verbal testimony at the hearing and from Mary Alice Murphy, Candy Luhrsen, Charles and Carol Coon, Susan and Doug Bryant, James and Cyndi Donovan, and Grant County Commissioner Gerald W. Billings, Jr.

Reasons cited for support of CCP approval included jobs; the ability of the Mine to use science to protect the environment, the successful reclamation of another mine; Chino Mine's compliant and safe operation; the fact that there has never been a default by mining company in New Mexico; and the proposed use of treated wastewater at closure is not required by the Mining Act and is not reasonable.

Several emails did not affirmatively express support for the mine, but did state that GRIP "did not speak for them," including Iris N. Woman, Laura Wygant, Linda Beattie, Carolyn Garnsey, Fr John H. Price, III, Raymond Barnes, Ted and Melinda Stout, L. Martin, Lynda Bosworth, Garrett Clark, John Mahl, Julie Forlizzo, Armando Tavizon, Nancy Pidutti, Rosalie and Robert Baker, Daniel Klement, Kathy Davis, Jan McClain, Kenneth C. Herrera, and Wayne Ebaugh.

Comments in Support of Proposed Special Permit Conditions

Special permit revision conditions were suggested in the written public comment from Rebecca Summer [in addition to GRIP, among others, in verbal testimony]. These included requiring detailed maps of fractures and faults, chronological seismic data of the mine and surrounding region, evaluation of the density of monitoring wells, designing for more severe weather events as a result of climate change, and addressing groundwater pollutants at the mine. CarolBeth Elliott also wrote about further revisions requested by GRIP and strict future compliance with the 5-year review requirement. Sharon Bookwalter focused on requiring cash or cash equivalent rather than a parent company guarantee as financial assurance. Caroline Metzler supported all of these conditions.

Written Comments of Those Providing Verbal Testimony

Written comments consistent with verbal comments made at hearing and already set out above were received from Peter Wyman; Allyson Siiwik plus 36 more who signed a petition to urge the MMD Director to support clean water and healthy communities by approving a strong reclamation plan for Chino; and Glenn Griffin.

The transcript, slide presentations, hearing sign-in sheets, and written public comment submitted during the hearing have already been delivered to the Division.

Respectfully submitted,

-original signed by-Felicia L. Orth, Hearing Officer