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ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
and the
ENVIRONMENT DEPARTMENT

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Via the Federal eRulemaking Portal

July 11, 2017

The Honorable Scott Pruitt
Administrator
U.S. Environmental Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

RE: State of New Mexico Comments on Proposed Rule: Financial Responsibility Requirements Under CERCLA § 108(b) for Classes of Facilities in the Hardrock Mining Industry, Docket ID No. EPQ-HQ-SFUND-2015-0781

Dear Administrator Pruitt:

The State of New Mexico, through the New Mexico Environment Department ("NMED") and the New Mexico Energy, Minerals, and Natural Resources Department ("EMNRD") (collectively, "the Agencies"), appreciates the extended opportunity to comment on the U.S. Environmental Protection Agency's ("EPA's") proposed rule entitled "Financial Responsibility Requirements Under CERCLA § 108(b) for Classes of Facilities in the Hardrock Mining Industry" ("Proposed Rule"). As elaborated in the comments below, the Agencies administer comprehensive and integrated regulatory programs under the New Mexico Mining Act and the New Mexico Water Quality Act that address and mitigate the risks of releases of hazardous substances from existing and new mining operations in the State. These regulatory programs thus address the very same risks contemplated under CERCLA § 108(b), rendering the Proposed Rule duplicative and unnecessary. The accelerated rulemaking schedule set by the consent order negotiated by EPA and environmental groups in *In re Idaho Conservation League, et al.*,[1] has resulted in a hastily thrown together rule that is based on numerous flawed assumptions and inaccurate or incomplete factual, technical, and legal assessments regarding the CERCLA risks associated with active hardrock mining. The formulaic approach taken by the rule is misguided and seeks to substitute ill-conceived, one-size-fits-all federal requirements for existing state regulatory requirements that have been developed over decades of on the ground experience regulating hardrock mining operations, and that account for site-specific conditions.

[1] Case No. 14-1149, 2016 WL 374443 (D.C. Cir., Jan. 29, 2016).

New Mexico has serious concerns that the Proposed Rule could preempt critical aspects of the Agencies' regulatory programs, creating the potential for resource-draining litigation, as well as significant disruption in New Mexico's ability to effectively regulate hardrock mining operations within the State. For these reasons, New Mexico urges EPA to abandon its efforts to promulgate this duplicative, unnecessary, and fundamentally flawed rule, and allow New Mexico to continue to comprehensively and effectively regulate the risks of such operations as it has already been doing for decades.

I. Background on the Proposed Rule

The Proposed Rule is driven by CERCLA Section 108(b), which requires the President to "promulgate requirements . . . that classes of facilities establish and maintain evidence of financial assurance ***consistent with the degree and duration of risk*** associated with the production, transportation, storage, or disposal of hazardous substances."[2] The statute instructs the President to "identify those classes for which requirements will be first developed," with priority being "accorded to those facilities, owners, and operators which the President determines ***present the highest level of risk of injury***."[3]

Additionally, CERCLA Section 114(d) expressly preempts state financial assurance addressing releases of hazardous substances, providing as follows:

> Except as provided in this title, no owner or operator of a vessel or facility who establishes and maintains evidence of financial responsibility in accordance with this title shall be required under any State or local law, rule, or regulation to establish or maintain any other evidence of financial responsibility in connection with liability for the release of a hazardous substance from such vessel or facility. Evidence of compliance with the financial responsibility requirements of this title shall be accepted by a State in lieu of any other requirement of financial responsibility imposed by such State in connection with liability for the release of a hazardous substance from such vessel or facility.[4]

The CERCLA provisions governing the Proposed Rule were passed in 1980, at a time when there was little to no environmental regulation of hardrock mining operations. Back then, it may have made sense to require bonding for potential CERCLA liabilities. But EPA allowed several decades to elapse before beginning the process dictated by CERCLA Section 108(b), and in that time period, New Mexico and other states stepped in and developed their own regulatory programs, including financial assurance requirements, to address the very same risks that CERCLA Section 108(b) sought to ameliorate. As demonstrated below, New Mexico's program is extensive, and includes mandatory, detailed closure and reclamation requirements, long-term water management and treatment requirements to protect, and if necessary, remediate water resources, as well as financial assurance requirements to ensure that these measures will be fully funded if a mining company becomes unable to carry them out.

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[2] 42 U.S.C. § 9608(b)(1) (emphasis added).
[3] *Id.* (emphasis added).
[4] 42 U.S.C. § 9614(d).

In selecting active hardrock mines as the first priority category for development of financial assurance requirements, EPA entirely ignored this history, and disregarded the key fact that state programs like New Mexico's now comprehensively address the risks associated with hazardous substance releases at active hardrock mines, both in terms of preventing such releases and remediating them if and when they occur. In assessing potential risk from active mining operations, EPA looked almost exclusively at the environmental impacts of past mining operations that occurred during an era with virtually no regulation and used obsolete mining practices. This analysis is irrelevant to discerning the current level of risk associated with active mining operations. Given New Mexico's extensive regulatory program for hardrock mining in the state – including full bonding requirements addressing reclamation, closure, water pollution prevention, and abatement of pollution – it simply is not the case under modern day circumstances that such mines present even a significant risk, let alone "the highest level of risk," of becoming taxpayer-funded CERCLA liabilities.

Following the 2009 identification of the hardrock mining sector as the priority class of facilities for regulations under CERCLA 108(b), EPA began a lengthy process of consulting with stakeholders, including industry and the states, during which time New Mexico and other states expressed significant concerns that a federal financial assurance program would preempt and displace critical aspects of state regulatory programs.[5] By November 2014, EPA had developed an anticipated schedule that would result in the adoption of a final rule – should EPA determine that a rule was needed – by August of 2019. However, in August of 2014, environmental groups filed a lawsuit seeking to force EPA to take action on a greatly accelerated schedule. EPA and the plaintiffs finalized a settlement in August of 2015, committing EPA to issue a proposed rule by December 1, 2016, and a final rule by December 1, 2017.

From the time of the 2014 lawsuit, EPA largely stopped communicating and consulting with the states and other stakeholders, and charged ahead with the development of a one-size-fits all proposed rule that is based on a fundamentally flawed analysis of the risks posed by modern day hardrock mining operations, and entirely fails to account for the robust state regulatory programs that already minimize and mitigate the very risks that the Proposed Rule aims to address.

However, CERCLA 108(b) does not mandate that EPA adopt regulations governing financial assurance for hardrock mines. Nor does the settlement agreement in the 2014 lawsuit commit EPA to promulgating such a rule. Instead, as the D.C. Circuit Court of Appeals explained in denying industry groups' motion to intervene in the 2014 lawsuit, EPA retains the discretion not to promulgate any rule:

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[5] *See, e.g.*, Letter to James R. Berlow, Director, Program Implementation and Information Division, Office of Resource Conservation and Recovery, USEPA, from William C. Olson, Groundwater Bureau Chief, and Charles de Saillan, Assistant General Counsel, New Mexico Environment Department (Feb. 28, 2011); Letter to James R. Berlow, Director, Program Implementation and Information Division, Office of Resource Conservation and Recovery, USEPA, from William Brancard, General Counsel, New Mexico Energy, Minerals and Natural Resources Department (Feb. 28, 2011).

> [T]he proposed joint order does not *require* EPA to promulgate a new, stricter rule. At most, it merely requires that EPA conduct a rulemaking and then decide whether to promulgate a new rule—the content of which is not in any way dictated by the proposed order on consent—using a specific timeline. The timeline in the joint motion requires that EPA commence a rulemaking with respect to hardrock mining by December 1, 2016, and provide "notice of its final action" by December 1, 2017. Although more is required with respect to hardrock mining than the other identified industries, where EPA retains discretion not to conduct a rulemaking at all, EPA retains discretion to promulgate a rule or decline to do so even for the hardrock mining industry.[6]

New Mexico believes that the state regulatory programs described in this comment letter fully and adequately address any potential CERCLA risks from hardrock mining in New Mexico, and thus EPA should refrain from promulgating the Proposed Rules, which are duplicative, unnecessary, and potentially harmful to New Mexico's existing regulatory programs.

II. State Regulation of the Hardrock Mining Industry in New Mexico Significantly Lowers Potential CERCLA Risks

Hardrock mining facilities are subject to extensive regulation in New Mexico that greatly reduces any risk of these facilities causing injury to either the environment or the taxpayer. Two New Mexico statutes cover the same class of facilities covered by the Proposed Rules, and regulate their operation and closure with the goal of minimizing the current and long term environmental risks posed by these operations. Active hardrock mines must be permitted under both the New Mexico Mining Act and the Water Quality Act, each of which impose operational and closure requirements, and mandate financial assurance to secure the closure obligations.

A. The New Mexico Mining Act

The New Mexico Mining Act[7] ("Mining Act") was adopted in 1993. Its purposes include "promoting responsible utilization and reclamation of lands affected by exploration, mining or the extraction of minerals".[8] The scope of the Mining Act exceeds the universe of hard rock mining facilities covered by the Proposed Rule, covering both existing hard rock mines and inactive mines that had production since 1970. The Mining Act broadly defines "mining"[9] and "minerals"[10] to cover the extraction and processing of hard rock minerals. The Mining Act not only applies to currently active facilities as the Proposed Rule does, but also to mines active since 1993 or active for at least two years between 1970 and 1993.[11] Further, unlike the

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[6] *See In re Idaho Conservation League, et al.*, 811 F.3d 502, 514 (D.C. Cir. 2016) (internal citations and quoted authority omitted).
[7] NMSA 1978, §§ 69-36-1 to 20 (1993)
[8] NMSA 1978, § 69-36-2
[9] NMSA 1978, § 69-36-3(H).
[10] NMSA 1978, § 69-36-3(G)
[11] NMSA 1978, § 69-36-3(E) (definition of "existing mining operation")

Proposed Rule, the Mining Act also regulates exploration projects and mines with less than five acres of disturbance. [12]

1. Permitting and Enforcement

Mining operations, both "existing" and "new"[13], are required to obtain permits which include closeout, or reclamation, plans. These plans, which are developed in coordination with closure plans required under the Water Quality Act, address the areas disturbed by mining including impacts from any of the 13 site features identified by EPA as the sources of releases or threatened releases at hardrock mining sites.[14] The reclamation and remediation of these site features, which include tailings, waste rock, leach piles and open pits, are addressed in the permits issued under the Mining Act and the Water Quality Act. The table included in Attachment 1 to this letter provides an example of the regulations and permit requirements for one mining operation (Chino Mine) that apply to each of the thirteen site features identified by EPA.

Mining operations are subject to significant compliance and enforcement provisions. The Mining Act mandates a specific set of minimum inspections for each class of facility including one inspection a month when a mine is conducting significant reclamation activities. [15] If the agency determines that a facility is in violation of the Act, regulations or the permit or is creating an imminent danger to public health or safety or is causing significant environmental harm, the agency can order a cessation of mining or undertake administrative or judicial enforcement proceedings.[16] Violations can result in civil penalties of up to $10,000 a day, and knowing or willful violations can bring criminal penalties. [17]

2. Financial Assurance

Financial assurance is an integral, indeed, inseparable part of New Mexico's regulation of hard rock mining and attendant reclamation requirements. Before a permit can be issued under the Mining Act, financial assurance must be filed with the agency. "The amount of the financial assurance shall be sufficient to assure the completion of the performance requirements of the permit, including closure and reclamation, if the work has to be performed by the director or a third-party contractor".[18] The financial assurance amount is based on a detailed engineering cost estimate to complete the approved reclamation plan and must be based on what it would cost the State, or the State's contractor, to complete the reclamation plan. Financial assurance must include costs for: contract administration; mobilization; demobilization; engineering redesign;

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[12] NMSA 1978, § 69-36-3(H) ("mining" includes exploration and has no size minimum)
[13] "existing mining operations" were producing minerals prior to June 18, 1993, and "new mining operations" began producing minerals after that date. §69-36-3(E) and (I).
[14] 82 FR 3461, fn. 171
[15] NMSA 1978, § 69-36-7(S)(1)
[16] NMSA 1978, § 69-36-7(S)
[17] NMSA 1978, § 69-36-17, 69-36-18
[18] NMSA 1978, § 69-36-7(Q)

profit and overhead; procurement costs; reclamation or closeout plan management; and contingencies.[19] New Mexico allows net present value calculations for long term closures.

The forms of financial assurance accepted under the Mining Act are similar to those accepted by EPA (e.g., surety bonds, letters of credit, insurance, collateral bonds, trust funds, cash accounts). But the Mining Act restricts some forms accepted by EPA. No forms of self-guarantee or self-insurance are allowed[20] and when "third party guarantees" are allowed, they can only cover a maximum of 75 per cent of the total financial assurance.[21]

B. The New Mexico Water Quality Act

NMED regulates mining operations under the New Mexico Water Quality Act ("Water Quality Act").[22] Enacted in 1967, the Water Quality Act requires the New Mexico Water Quality Control Commission ("WQCC" or "Commission") to adopt regulations to protect surface water and groundwater quality. Among other things, the Commission must "adopt water quality standards for surface and ground waters of the state."[23] The Commission must also adopt regulations requiring a permit for "the discharge of any water contaminant,"[24] and authorizes NMED to place conditions on discharge permits to protect groundwater. NMED must deny a discharge permit if the discharge would cause or contribute to contaminant levels in excess of water quality standards at any place of present or potential future use.[25] The WQCC must adopt procedures for providing notice to interested persons and the opportunity for a public hearing. The WQCC must also adopt regulations "for the operation and maintenance of the permitted facility, including requirements, as may be necessary or desirable, that relate to the continuity of operation, personnel training and *financial responsibility*."[26] Finally, and significantly with respect to the instant matter, the Water Quality Act was amended in 2009 to direct the WQCC to adopt regulations for the copper industry, resulting in the most comprehensive and prescriptive set of copper mine regulations in the country.[27]

In accordance with the directives of the Water Quality Act, the Commission has adopted a body of implementing regulations codified in Title 20, Chapter 6 of the New Mexico Administrative Code, the relevant portions of which are discussed below.

1. General Permitting Regulations

The stated purpose of the Ground and Surface Water Protection Regulations is "to protect all ground water of the state of New Mexico which has an existing concentration of 10,000 [milligrams per liter] or less [total dissolved solids], for present and potential future use as

[19] 19.10.12.1205 NMAC.
[20] *Id.*
[21] 19.10.12.1208.G(1)(a) NMAC.
[22] NMSA 1978, §§ 74-6-1 to -17.
[23] NMSA 1978, § 74-6-4(C).
[24] NMSA 1978, § 74-6-5(A).
[25] NMSA 1978, § 74-6-5(E)(3).
[26] NMSA 1978, § 74-6-5(G) (emphasis added).
[27] NMSA 1978, § 74-6-4(K).

domestic and agricultural water supply."[28] The regulations include three categories of groundwater quality standards: (1) maximum numerical standards for thirty-three contaminants for protection of human health; (2) maximum numerical standards for nine contaminants and a range for pH for protection of domestic water supplies; and (3) maximum numerical standards for five contaminants for protection of water for irrigation use.[29]

The Regulations also address discharge permits,[30] prohibiting any person from causing or allowing a water contaminant to "discharge so that it may move directly or indirectly into groundwater" unless that person is discharging pursuant to a discharge permit issued by NMED.[31] The regulations provide for notice to the public of a proposed discharge permit, and the opportunity to request a public hearing on the permit.[32] The regulations further provide that a discharge permit may include a closure plan to protect ground water after the cessation of the operations causing the discharge. The closure plan must include "a description of closure measures, maintenance and monitoring plans, post-closure maintenance and monitoring plans, financial assurance, and other measures necessary to prevent and/or abate…contamination."[33]

Under these regulations, any hard rock mine that has the potential to impact groundwater must obtain a permit from NMED. The Water Quality Act provides numerous enforcement mechanisms for violations of the provisions of the Act, the regulations, a water quality standard adopted pursuant to the Act, or a condition of a permit issued pursuant to the Act.[34] These include injunctive relief ordered by a district court; suspension or termination of a permit allegedly violated;[35] civil penalties of up to $15,000 per day of noncompliance for a violation of the Water Quality Act permit provisions at NMSA 1978, Section 74-6-5, including regulations adopted or a permit issued pursuant to that section;[36] up to $10,000 per day for each violation of the Water Quality Act or regulations other than Section 74-6-5;[37] up to $25,000 per day for each day of continued noncompliance with a compliance order;[38] and criminal penalties.[39]

2. The Copper Mine Rule

The Copper Mine Rule,[40] a copy of which is included with this letter as Attachment B, was promulgated in 2013, and is the most prescriptive rule governing copper mining operations in the United States. The Copper Mine Rule establishes specific operational, monitoring, contingency, closure, and post-closure requirements for copper mines to insure protection of water quality and prevent the release of contaminants into the environment during operations and

[28] 20.6.2.3101.A NMAC.
[29] 20.6.2.3103 NMAC.
[30] 20.6.2.3101 to 3114 NMAC.
[31] 20.6.2.3104 NMAC.
[32] 20.6.2.3108 NMAC.
[33] 20.6.2.3107.A(11) NMAC.
[34] NMSA 1978, § 74-6-10(A).
[35] NMSA 1978, § 74-6-10(B).
[36] NMSA 1978, § 74-6-10(C)(1).
[37] NMSA 1978, § 74-6-10(C)(2).
[38] NMSA 1978, § 74-6-10(F)(1).
[39] NMSA 1978, § 74-6-10.2.
[40] 20.6.7 NMAC

following closure. The Copper Mine Rule is supplemental to the general discharge permit regulations, and is implemented through the issuance of ground water discharge permits.

The Copper Mine Rule covers all aspects of mine operation and closure. The permit application requirements for copper mine facilities result in a comprehensive document that identifies all mine units at the facility including: impoundments; pipelines; tanks; leach stockpiles; waste rock stockpiles; crushing, milling, concentrating, smelting and tailing impoundments; open pits; underground mines; and, truck and equipment washing units.[41] Each of these respective mine units is subject to prescriptive engineering design criteria to control and prevent the release of contaminants.[42]

Existing mine units in operation prior to promulgation of the Copper Mine Rule have extensive groundwater monitoring to determine their effectiveness in preventing the release of contaminants to the environment.[43] Discharge permit requirements for existing mine units include operation of groundwater interceptor systems, as well as seepage and surface runoff capture systems to ensure impacts are contained as close as is practicable.[44] The Copper Mine Rule requires development and implementation of a site-wide water management plan describing in detail how impacted storm water and groundwater at the site is contained and managed.[45] Construction and operation of new mine units or expansion of existing mine units is subject to detailed engineering design requirements that include lined leach stockpiles, double lined process water impoundments, leak detection systems, flow metering, and extensive groundwater monitoring.[46]

Proposals for new mine units such as waste rock stockpiles and tailing impoundments are required to include an aquifer evaluation to determine the nature and extent of any impacts to groundwater that may occur if these mine units are proposed to be unlined.[47] Based on the aquifer evaluation, the Copper Mine Rule requires a design report for proposed interceptor systems to ensure containment of groundwater impacted by the stockpile or tailing impoundment such that applicable standards will not be exceeded at monitoring well locations.[48] As previously stated, monitoring wells must be located as close as practicable to the various mine units being monitored.[49] Impacted water collected at a mine site typically is used in the process water system, offsetting use of potable water uses. Any impacted water in excess of process water requirements must be treated prior to release.[50] In the event a demonstration of containment cannot be made to the Department's satisfaction, the Department may require that a liner system be placed beneath waste rock or tailing impoundments.[51]

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[41] *See* 20.6.7.11 NMAC.
[42] *See* 20.6.7.20 NMAC through 20.6.7.26 NMAC.
[43] *See* 20.6.7.28 NMAC.
[44] *See, e.g.*, 20.6.7.21 NMAC.
[45] *See* 20.6.7.17.C(4) NMAC; 20.6.7.24 NMAC.
[46] *See, e.g.*, 20.6.7.17 NMAC.
[47] *See* 20.6.7.21.B NMAC.
[48] *See id.*
[49] *See* 20.6.7.28 NMAC.
[50] *See* 20.6.7.17.C(3) NMAC.
[51] *See, e.g.*, 20.6.7.21.B(1)(e).

The Copper Mine Rule also contains prescriptive requirements for closure of mine units that have the potential to impact water quality[52] including requirements for process solution reduction plans[53] and closure water management and water treatment plans.[54] There are prescriptive engineering design requirements for surface re-grading and cover design to ensure storm water is routed off and away from encapsulated mine waste, and that infiltration into mine waste is minimized.[55] It should be noted that the prescriptive closure design criteria are based on designs that have been implemented successfully not only at copper mines in New Mexico, but mimic successful closure design that has been consistently required and applied at other mine sites in New Mexico.

Financial assurance is required to ensure implementation of the closure plan in the event of forfeiture by a responsible party. Financial assurance amounts are based on the costs for a third party to implement the closure plan in the event of forfeiture. With respect to water treatment, NMED requires financial assurance for long-term water treatment for a time period of 100 years. Both 20.6.2 and 20.6.7 NMAC include a general requirement for financial assurance. NMED works closely with the Mining and Minerals Division (MMD) in review and approval of closure plans and financial assurance cost estimates. Financial assurance proposals are subject to rigorous requirements pursuant to the New Mexico Mining Act.[56] Prior to MMD approval of a closeout plan, NMED must provide a determination that the proposed closure activities are expected to achieve compliance with all applicable air, water quality, and other environmental standards if carried out as described in the closeout plan.[57] As discussed below, the high level of coordination between the agencies and the two complimentary rules ensures that there is no outstanding long term liability.

3. Abatement Regulations

In the event that impacts to groundwater from mines in New Mexico do occur, WQCC regulations requiring abatement of ground and surface water ensure attainment of water quality standards.[58] The abatement regulations require determination of the nature and extent of ground and surface water impacts in the form of a site investigation that is designed to provide the data necessary to select and design an effective abatement option. Following site characterization, a responsible person is required to select and design an abatement option that will result in attainment of applicable standards. An abatement plan can be part of a discharge permit, if a discharge permit already exists, or can be an independent document if no discharge permit exists. The abatement regulations also allow for financial assurance associated with abatement plans.

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[52] *See* 20.6.7.33 NMAC.
[53] *See* 20.6.7.33.G NMAC.
[54] *See* 20.6.7.33.H NMAC.
[55] *See* 20.6.7.33.C NMAC, 20.6.7.33.F NMAC.
[56] 19.10.12 NMAC.
[57] NMSA 1978, §§ 69-36-7(P)(2) and 69-36-11(B)(4)
[58] 20.6.2.4000-4115 NMAC

C. New Mexico's Integrated Regulatory Programs

The Agencies work closely together pursuant to a Joint Powers Agreement in drafting and issuing permits for hardrock mining facilities to ensure that financial assurance and other permit requirements are consistent, integrated, and complimentary. The Agencies allow permitted facilities to submit a single financial assurance instrument, or set of instruments, that are jointly held by the Agencies, meeting the financial assurance requirements of both statutes. The Agencies also have Memorandums of Understanding with the Bureau of Land Management and the U.S. Forest Service to avoid duplication where federal land is involved. Through mining permits issued under the Mining Act, and groundwater discharge permits issued under the Water Quality Act, the Agencies have jointly required permittees to establish financial assurance for all operating hardrock mines in New Mexico, as well as many that are no longer operating. Thus, for example, Freeport-McMoRan Inc. has established financial assurance in the amount of $179,504,992 for the Tyrone Mine, an open-pit copper mine in Grant County near Silver City; Freeport McMoRan Chino Mines Company has established financial assurance in the amount of $185,178,505 for the Chino Mine, another open-pit copper mine in Grant County near Hurley; Freeport McMoRan Cobre Mining Company has established financial assurance in the amount of $27,987,884 for the Continental Mine, an open-pit copper, gold, silver, and molybdenum in Grant County near Hurley; and LAC Minerals USA LLC has established financial assurance in the amount of $5,194,099 for the Cunningham Hill Mine, a gold leach mine in Santa Fe County near Cerrillos.

The State also holds over $260 million of financial assurance for Chevron Mining Inc.'s Questa Mine, an open pit molybdenum mine in Taos County, near Questa. The Questa Mine, which closed in 2014, is currently undergoing implementation of a selected remedy under CERCLA as set forth in a Record of Decision dated December 20, 2010. Examination of the selected remedy for the Questa Mine reveals that the main components were pulled directly from the State-issued permits. This includes requirements for regrading and placement of cover on the waste rock stockpiles and tailing impoundments as source control measures, design and construction of various groundwater interceptor systems, and treatment of collected impacted water in a mine site water treatment plant. State permit requirements and State rules are the applicable, relevant and appropriate requirements (ARAR's) or "to be considered" requirements that make up the bulk of the remedy at the site. Thus, the Questa Mine provides an apt illustration of the duplicative nature of the Proposed Rules, and indicates that New Mexico has in place appropriate mechanisms to address potential releases of hazardous substances from mine sites.

It should also be noted that as oversight is transferred from State permits to legally enforceable implementing agreements pursuant to CERCLA, there are instances where the State requirements were more protective. These include financial assurance for water treatment where the amount of State-held financial assurance was for a time period of 127 years, while under the Partial Consent Decree the time frame for financial assurance for long term water treatment has been established at 30 years. Also, under State permits and the Mining Act a responsible party is limited to use a corporate guarantee as a financial assurance mechanism covering up to 75% of the total cost of reclamation. State rules require the remaining financial assurance be in some other form, such as a cash trust or letter of credit. Also, under state permits and the Mining Act a

third party guarantee can only cover up to 75% of the total financial assurance obligation, while under CERCLA, the responsible person may place 100% of the financial assurance for implementation of the remedy in the form of a corporate guarantee.

III. The Proposed Rules Pose a Significant Risk to New Mexico's Mining Regulatory Programs

If New Mexico's financial assurance requirements for hard rock mines were preempted by the Proposed Rules under the provisions of CERCLA 114, the results would be devastating for the state's hard rock mining regulatory programs. As earlier stated, financial assurance is an essential component of the Mining Act and Water Quality Act permits for hard rock mines and ensures that the regulatory and reclamation requirements are met. Having regulatory and permitting requirements results in mining facilities that are operated and closed in a manner that will avoid the risks of a CERCLA cleanup.

We agree with EPA that the financial responsibility requirements of CERCLA 108 should not trigger preemption of State reclamation bonding requirements under CERCLA 114. There is a dramatic difference between the goals of financial responsibility under CERCLA 108 and financial assurance under New Mexico law. Financial assurance under the Mining Act is designed to ensure the implementation of the closeout or reclamation plans. The goal of a closeout plan for an existing mining operation is to "reclaim the physical environment of the permit area to a condition that allows for the reestablishment of a self-sustaining ecosystem on the permit area following closure, appropriate for the life zone of the surrounding areas".[59] Nothing in this goal refers to "liability for the release of a hazardous substance" as CERCLA 114 provides. The Mining Act would require a closeout plan and financial assurance at a hard rock mine even if there were no hazardous substances present or the threat of a release.

Financial responsibility under CERCLA 108 is designed to "protect against the level of risk" posed by a particular facility. That is, the risk that the facility will have releases of hazardous substances which will land the facility on the National Priorities List or otherwise cause the federal taxpayer to foot the bill for the remediation of such releases. This type of financial responsibility for a potential catastrophic event is more akin to property insurance for tornadoes, floods, hurricanes, etc. By contrast, the financial assurance required by New Mexico is directly linked to the estimated cost of reclaiming the land disturbed by mining which reclamation the permittee is obligated to perform. The financial assurance amount is based on an engineering cost estimate for each facility which is documented by detailed estimates of earth moving, equipment, fuel and labor costs, etc. This type of financial assurance is more akin to a performance bond.

However, as EPA admits in a footnote, "[i]t is the courts that would make any final determination about the preemptive effect of CERCLA 108(b) regulations at any particular facility. These determinations would necessarily be based on case-by-case evaluations".[60] While the result of a preemption lawsuit may be difficult to predict, the initiation of one will not

[59] NMSA 1978, § 69-36-11(B)(3).
[60] 82 FR 3403 fn 46.

be. For any mines with substantial state financial assurance (for instance, New Mexico has 3 mines with over $150 million in financial assurance), the imposition of CERCLA 108 financial responsibility requirements will almost certainly trigger a preemption action against the State.

Financial assurance has had enormous benefits for mine reclamation and the reduction of risk at New Mexico mines. Existing mining operations do not have a requirement for contemporaneous reclamation, but the opportunity to reduce financial assurance provides an incentive to conduct early reclamation. For instance, at the Freeport McMoRan Tyrone Mine in New Mexico, the company has conducted extensive early reclamation of thousands of acres at inactive areas. While the mine has remained active and even expanded, the financial assurance for Tyrone has been reduced from over $270 million in 2005 to $179 million today.

This reduction is largely based on the years of reclamation projects at the Tyrone Mine. Freeport McMoRan Tyrone reclaimed some 4,500 acres of tailings ponds and waste rock piles, during the time frame between 2004 and 2011. Tyrone shut down its milling facilities in 2004, which resulted in the extensive reclamation of tailings ponds and demolition of the milling facilities. The tailings and waste rock facilities were reclaimed to meet stringent groundwater and reclamation requirements under the NMWQA and NMMA. Designed store and release covers were placed over tailings and waste materials to encapsulate, stabilize and reduce infiltration into the deleterious materials.

IV. EPA's Cost/Benefit Analysis is Fatally Flawed Because It Ignores Both the Benefits of Existing State Regulation and the Risks of Preempting State Financial Assurance

In EPA's assessment of the cost and benefits of the Proposed Rule, both the existence of current regulation by the states and others along with the potential preemptive effect of the Proposed Rule were ignored. As a result, the cost/benefit analysis is fatally flawed because it significantly overstates the benefits and understates the costs of the Proposed Rule.

EPA's cost/benefit analysis assumes that the facilities are currently unregulated and that any default by the owner or operator will pass all the cleanup costs to the federal government. "In the baseline, the Government is burdened with the CERCLA cost if an owner or operator default, as no third-party instruments will be in place."[61] This assumption is false. First, the class of facilities subject to the Proposed Rule – currently operating hard rock mines – are subject to regulation by State governments (and possibly other governmental entities, such as federal land managers). Regulation by State government results in a permit which establishes operational and closure requirements. Compliance with the requirements during operation and closure will significantly reduce any risk of CERCLA costs. The failure to comply with the permit, and the State's laws, subjects the mine operator to compliance and enforcement actions. Finally, the closure plans are backed by financial assurance held by the State government. So, if there is a default by the mine operator, the State will assume the cleanup costs using the funds provided by the operator's financial assurance.

[61] 82 FR 3394.

EPA's assumption that "[t]he primary effect of this Proposed Rule is to transfer the risk associated with CERCLA liabilities from the taxpayer to the private sector" is incorrect. Such transfer has already occurred. The presence of state mine regulatory programs reduces the CERCLA risk and therefore reduces any possible benefits from applying CERCLA 108(b) financial responsibility to this class of facilities.

On the other hand, the imposition of CERCLA 108(b) financial responsibility on hard rock mining facilities creates a risk, and therefore a huge potential cost, for the preemption of these state mine regulatory programs. While EPA admits, in a footnote[62], that such risk exists, EPA fails to even mention that risk in its cost/benefit analysis. The preemption of state financial assurance at hard rock mines would result in an immediate shifting of risk from the private sector to the taxpayer.

Replacing state financial assurance with CERCLA 108(b) financial responsibility is wholly inadequate. State financial assurance is based on engineering cost estimates to implement detailed plans to close and reclaim the mining facility. EPA's financial responsibility amounts for any particular facility are based on a formula that "is designed to reflect the relative risk to human health and the environment, of facility practices."[63]

> "The formula is not intended to establish any CERCLA liability or define a particular remedy for a unit or facility. Rather, the purpose of the formula is simply to establish an amount of financial responsibility that reflects the costs that might be expected to result, if a Superfund action should ultimately be required at the site..."[64]

In other words, EPA is just guessing.

Therefore, if the cost/benefit analysis had been conducted correctly and measured the true potential impacts of the Proposed Rule, the analysis would have concluded that the public would suffer a loss rather than experience a cost savings from the Proposed Rule.

V. EPA's Proposed Rule Violates the Executive Order on Federalism

EPA's relationship with New Mexico and other states that regulate hard rock mining is governed in part by the Executive Order 13132 on Federalism ("EO 13132")[65]. The Proposed Rule, and the process to develop the Proposed Rule, repeatedly violate EO 13132.

EPA, in the Federal Register notice, reaches the astounding conclusion that the Proposed Rule "will not have federalism implications".[66] This despite the fact, which EPA admits, that EPA had earlier concluded that the Proposed Rules would have federalism implications under EO 13132. EPA has decided after doing some outreach and evaluating information, that there

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[62] 82 FR 3403 fn. 46.
[63] 82 FR 3400.
[64] 82 FR 3401.
[65] Executive Order 13132 of August 4, 1999 ("EO 13132")
[66] 82 FR 3484.

really are no federalism implications for the Proposed Rule.[67] EPA provides no support for this assertion.

EO 13132 provides a specific definition for federalism implications:

"Policies that have federalism implications" refers to regulations, legislative comments or proposed legislation, and other policy statements or actions that have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.[68] [1(a)]

The substantial direct effects of the Proposed Rule on the hard rock mining regulatory programs of New Mexico and other states has been detailed in this comment and those submitted by other states. The Proposed Rule places EPA into the arena of regulating hard rock mining facilities, an arena that has been the province of state regulatory programs for decades. New Mexico, when it adopted the Mining Act in 1993, became one of the last mining states to adopt a comprehensive mine regulatory program. The potential preemption of state financial assurance requirements would have a huge effect on the States and would substantially shift the distribution of power between the federal government and the states.

The amounts at stake are significant. New Mexico alone holds almost $700 million in financial assurance for hard rock mining facilities. The overwhelming majority of that amount is held by several large mining operations. The loss of this financial assurance would place New Mexico's regulatory program at risk and greatly increase the possibility that New Mexico's taxpayers would be responsible for reclaiming lands disturbed by mining. EPA claims that their financial responsibility requirements will result in a shift in burden from the federal taxpayer to the private sector and save the federal government over $500 million.[69] If state financial assurance requirements are preempted, however, an even greater burden and cost will then shift from the private sector to the States. Even if the States are successful at defending against the preemption lawsuits, the costs of litigation will be significant.

The failure of the Proposed Rule to recognize and support state regulation of hard rock mining facilities contravenes several principles in the Federalism EO. EO 13132 mandates deference to state policies and standards: "The national government should be deferential to the States when taking action that affects the policymaking discretion of the States".[70] The order further provides:

> (d) When undertaking to formulate and implement policies that have federalism implications, agencies shall:
>
> (1) encourage States to develop their own policies to achieve program objectives and to work with appropriate officials in other States;

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[67] *Id.*
[68] EO 13132 section 1(a)
[69] 82 FR 3395-3396.
[70] EO 13132 section 2(i)

(2) where possible, defer to the States to establish standards;[71]

Rather than deferring to the existing state regulatory programs, the Proposed Rule simply ignores them and develops federal standards instead.

EO 13132 provides "special requirements" for agency actions that preempt State law.[72] The goal is to avoid preemption unless necessary. "Any regulatory preemption of State law shall be restricted to the minimum level necessary to achieve the objectives of the statute pursuant to which the regulations are promulgated".[73] Any preemption of state financial assurance due to the CERCLA 108(b) rule will undermine rather than achieve the objectives of CERCLA. If state financial assurance is preempted, the risk of injury to the environment and to the federal taxpayer will be increased.

Finally, as mentioned earlier, EPA's approach in the Proposed Rule to mandate specific standards for state regulation of hard rock mines under the deferral option is beyond the authority of EPA under CERCLA. It is also in conflict with EO 13132. "[T]he national government shall grant the States the maximum administrative discretion possible. Intrusive Federal oversight of State administration is neither necessary nor desirable."[74]

VI. Conclusion

An extremely accelerated rulemaking schedule occasioned by a settlement negotiated by EPA and environmental groups without the input of industry or affected states has resulted in an ill-conceived and fundamentally flawed Proposed Rule that has potentially dire implications for New Mexico's regulatory programs – programs that have been in place for decades and that already address the full spectrum of risk posed by hardrock mining operations in the State on a site-specific basis, including hundreds of millions of dollars in existing financial assurance. However, EPA is not under any statutory obligation to continue down this problematic path. As the D.C. Circuit Court of Appeals explained in its order approving the consent order, EPA retains the discretion under CERCLA 108(b) to decline to adopt a rule for the hardrock mining industry.[75] New Mexico strongly urges EPA to exercise its discretion in that manner, and decline to adopt CERCLA 108(b) financial assurance regulations for active hardrock mines. Such regulatory initiatives should remain where they have developed and evolved over the decades since the passage of CERCLA 108(b): with the States.

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[71] EO 13132 section 3(d)
[72] EO 13132 section 4
[73] EO 13132 section 4(c)
[74] EO 13132 section 3(c)
[75] *See In re Idaho Conservation League, et al.*, 811 F.3d 502, 514 (D.C. Cir. 2016).

Sincerely,

Butch Tongate, Secretary
New Mexico Environment Department

Ken McQueen, Secretary
Energy, Minerals, and Natural Resources Department

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Attachments:

Attachment A – Table Comparing New Mexico Regulatory Provisions Applicable to the Chino Mine with CERCLA 108(b) Proposed Rule "Response Categories"

Attachment B – Copper Mine Rule

Table Comparing New Mexico Regulatory Provisions Applicable to the Chino Mine with CERCLA 108)b) Proposed Rule "Response Categories"

Open Pit Performance Criteria:	Applicable New Mexico Regulation and/or Permit Condition:
• Ponding is not anticipated to occur in any significant manner outside of the open pit. The Chino Mine pit is not accessible to the public and will not be accessible at closure. Public access will continue to be restricted as described in the CCP. • The Mining Act requires that closure results in long-term stability. Highwalls will be 1H:1V or less steep. The Chino Mine pit has areas that are partially backfilled as in-pit leach stockpiles contributing to stability. Seismic induced liquefaction is not a concern due to the tectonic stability of the area. • The Chino Mine CCP includes permanent stormwater conveyances, ditches, channels, diversions, etc. The Mining Act requires design to a 24-hour period by a 100-year interval storm event. • The formation of a pit lake will not result in the discharge of water above water quality standards. The CCP accounts for the treatment of pit lakes and discharges based on site-specific hydrology, water quality characterization studies, and pit lake predictive modelling. The treatment is designed to prevent groundwater contamination exceeding applicable water quality standards.	**MMD Regulations:** Existing Mining Operations: • 19.10.5.506 – Closeout Plans • 19.10.5.507 – Performance and Reclamation Standards & Requirements • 19.10.5.508 – New Units Other Applicable MMD Regulations: • 19.10.12 – Financial Assurance Requirements New Mining Operations • 19.10.6.602.D.15 – Mining Operation and Reclamation Plan • 19.10.6.603 – Performance and Reclamation Standards & Requirements Chino Mine Permit GR009RE Requirements: • Specific permit conditions apply to the open pit in Section 8.F of Chino Mine Permit No. GR009RE including attainment of environmental standards, commitment to ensure public health and safety, and measures to minimize adverse effects to wildlife. **NMED Regulations:** • 20.6.7.11 – Application Requirements • 20.6.7.17.C (4) - Impacted stormwater management plans and specifications • 20.6.7.18 – General Operational Requirements • 20.6.7.21.A – Material Characterization and Material Handling Plan • 20.6.7.24 – Requirements for Open Pits • 20.6.7.28 – Water Quality Monitoring Requirements for All Copper Mine Facilities

ATTACHMENT A

• The Chino mining operation regularly encounters geochemically active materials, however several material handling plans and confirmatory analytical testing procedures are in-place and are followed by the operator. Avoidance of geochemically active material is impossible in this copper porphyry deposit, but the material is actively managed and segregated based on geochemical analysis. This material will be closed through construction of an evapotranspiration cover system as described in the Chino Mine CCP.	• 20.6.7.29 – General Monitoring Requirements for All Copper Mine Facilities • 20.6.7.33.D – Closure Requirements for Copper Mine Facilities, Open Pits • 20.6.7.34 – Implementation of Closure • 20.6.7.35 – Post-Closure Requirements • Site-specific Discharge Permit conditions apply pursuant to 9 operational Discharge Permits issued for the Chino Mine to ensure protection of water quality • The Chino Mine will be closed in accordance with the Supplemental Discharge Permit for Closure and the Copper Mine Rule

Underground Mine Performance Criteria:	**Applicable New Mexico Regulation and/or Permit Condition:**
• The Chino Mine is an open-pit surface mining operation, however statues and regulations are in place to address underground mines in New Mexico.	**MMD Regulations:** Existing Mining Operations: • 19.10.5.506 – Closeout Plans • 19.10.5.508 – New Units New Mining Operations: • 19.10.6.602.D.15 – Mining Operation and Reclamation Plan • 19.10.6.603 – Performance and Reclamation Standards & Requirements Other Applicable MMD Regulations: • 19.10.12 – Financial Assurance Requirements **NMED Regulations:** • 20.6.7.11 – Application Requirements20.6.7.18 – General Operational Requirements • 20.6.7.25 – Requirements for Underground Copper Mine Facilities • 20.6.7.28 – Water Quality Monitoring Requirements for All Copper Mine Facilities

	• 20.6.7.29 – General Monitoring Requirements for All Copper Mine Facilities • 20.6.7.33 – Closure Requirements for Copper Mine Facilities • 20.6.7.34 – Implementation of Closure • 20.6.7.35 – Post-Closure Requirements

Waste Rock Performance Criteria:	**Applicable New Mexico Regulation and/or Permit Condition:**
• The CCP describes the restriction of public access to all waste rock piles through fencing, security personnel, warning signs, and berms. • Several of the Chino Mine waste rock piles are geochemically active, however several material handling plans and confirmatory analytical testing procedures are in-place and are followed by the operator to segregate waste based on geochemical characteristics. • The CCP describes concurrent reclamation of mined areas as available. Chino has completed reclamation of several thousand acres of inactive facilities at the mine. • The Chino Mine CCP proposes to regrade waste rock surfaces to no steeper than 2.5H:1V along drainages and other areas will limited space for push-down. In most areas, waste rock slopes will be 3H:1V and in some cases 3.5H:1V at closure. This has been determined to meet the long-term static factors of safety and stability requirements set forth in 20.6.7.33.B of the Water Quality Act, based on slope stability studies conducted at the site. • Top surfaces will be closed with a minimum 1% grade to prevent ponding and promote positive drainage of surface water off the unit • The facility conducted a stability analysis as required by the rules and regulations, and Permit GR009RE Condition 8.L.2.	**MMD Regulations:** Existing Mining Operations: • 19.10.5.506 – Closeout Plans • 19.10.5.508 – New Units Other Applicable MMD Regulations: • 19.10.12 – Financial Assurance Requirements New Mining Operations: • 19.10.6.602.D.15 – Mining Operation and Reclamation Plan • 19.10.6.603 – Performance and Reclamation Standards & Requirements Chino Mine Permit GR009RE Requirements: • Specific permit conditions apply to waste rock in Section 8.E of Chino Mine Permit No. GR009RE including surface shaping and stormwater management; reduction of slope lengths; cover placement plan; erosion controls; revegetation plan; and post-mining land use. • Permit condition 8.L.2 required a slope stability study and schedule for implementation for tailings ponds and stockpiles. **NMED Regulations:** • 20.6.7.11 – Application Requirements

• The CCP describes the management of all stormwater and sediment generated during operations and following closure. This includes construction of permanent stormwater conveyances, ditches, channels, diversions, etc. to the design criteria of a 24-hour, 100-year storm event. • The CCP plans for the minimization, prevention, collection and/or treatment of discharge based on site-specific hydrology and water quality studies and provides for the construction and implementation of an engineered evapotranspiration cover system over all geochemically active waste rock piles. The store and release cover system is required to be a minimum of 36" thick. The engineered evapotranspiration cover is designed to result in a minimum of 95% reduction in annual net-percolation base on material characteristics and site specific precipitation patterns. • The CCP plans for the immobilization of hazardous substances through the use of the store and release cover system which is expected to result in a 95% reduction in annual net-percolation. Containment systems and treatment systems are currently in place, and will be maintained following closure as necessary to meet applicable water quality standards.	• 20.6.7.17.C (4) - Impacted stormwater management plans and specifications • 20.6.7.18 – General Operational Requirements • 20.6.7.19.E – Setback Requirements, Waste Rock Stockpile20.6.7.21 – Requirements for Copper Mine Waste Rock Stockpiles (Includes Material Characterization and Material Handling Plan; Engineering design requirements for new waste rock stockpiles; Construction; and Operational Requirements) • 20.6.7.28 – Water Quality Monitoring Requirements for All Copper Mine Facilities • 20.6.7.29 – General Monitoring Requirements for All Copper Mine Facilities • 20.6.7.33 – Closure Requirements for Copper Mine Facilities • 20.6.7.34 – Implementation of Closure • 20.6.7.35 – Post-Closure Requirements • Site-specific Discharge Permit conditions apply pursuant 9 operational Discharge Permits issued for the Chino Mine to ensure protection of water quality • The Chino Mine will be closed in accordance with the Supplemental Discharge Permit for Closure and the Copper Mine Rule

Heap/Dump Leach Performance Criteria:	**Applicable New Mexico Regulation and/or Permit Condition:**
• The CCP describes the restriction of public access to all heap leach facilities through fencing, security personnel, warning signs and berms. • The CCP describes the regrading of all heap/dump facilities to a stable configuration of 3H:1V on the side slopes and 1% grade on the top surfaces to prevent ponding and promote positive drainage of surface water off the unit.	**MMD Regulations:** Existing Mining Operations: • 19.10.5.506 – Closeout Plans • 19.10.5.508 – New Units Other Applicable MMD Regulations: • 19.10.12 – Financial Assurance Requirements New Mining Operations:

Static safety factors are adequately addressed through the CCP based on slope stability studies conducted at the facility. • The facility has conducted stability analyses as required by the rules, regulations, and permit conditions. Seismic induced liquefaction is not a concern due to the tectonic stability of the area. • The CCP describes the management of all stormwater and sediment generated during operations and following closure. This includes construction of permanent stormwater conveyances, ditches, channels, diversions, etc. to the design criteria of a 24-hour, 100-year storm event. • The CCP plans for the minimization, prevention, collection and/or treatment of discharge based on site-specific hydrology and water quality studies and provides for the construction and implementation of an engineered evapotranspiration cover system over all geochemically active heap leach piles at closure. • The CCP plans for the immobilization of hazardous substances through the use of the store and release cover system which is expected to result in a 95% reduction in annual net-percolation. Containment systems and treatment systems will be in place to meet applicable water quality standards. The store and release cover system is required to be a minimum of 36" thick. The engineered evapotranspiration cover is anticipated to result in a minimum of 95% reduction in annual net-percolation. • New heap leach facilities are required under NMED rules to have an engineered liner system for the minimization/elimination of releases from the unit based on site-specific studies and conditions. Existing heap leach facilities have been upgraded to ensure containment of hazardous substances associated with heap leach operations.	• 19.10.6.602.D.15 – Mining Operation and Reclamation Plan • 19.10.6.603 – Performance and Reclamation Standards & Requirements <u>Chino Mine Permit GR009RE Requirements:</u> • Permit condition 8.L.2 required a slope stability study and schedule for implementation for tailings ponds, heap leach and waste rock stockpiles. **<u>NMED Regulations:</u>** • 20.6.7.11 – Application Requirements • 20.6.7.17 – General Engineering and Surveying Requirements • 20.6.7.18 – General Operational Requirements • 20.6.7.18.D – General Operational Requirements, Stormwater Management • 20.6.7.19.E – Leach Stockpile Setback Requirements • 20.6.7.20 – Requirements for Leach Stockpiles and SX/EW Plants • 20.6.7.28 – Water Quality Monitoring Requirements for All Copper Mine Facilities • 20.6.7.29 – General Monitoring Requirements for All Copper Mine Facilities • 20.6.7.33 – Closure Requirements for Copper Mine Facilities • 20.6.7.34 – Implementation of Closure • 20.6.7.35 – Post-Closure Requirements • Site-specific Discharge Permit conditions apply pursuant to 9 operational Discharge Permits issued for the Chino Mine to ensure protection of water quality • The Chino Mine will be closed in accordance with the Supplemental Discharge Permit for Closure and the requirements of the Copper Mine Rule

• Geologic material at several of the Chino Mine heap leach facilities are geochemically active, however material handling plans and confirmatory analytical testing procedures are in-place and are followed by the operator.	

Tailings Performance Criteria:	Applicable New Mexico Regulation and/or Permit Condition:
• The CCP describes the restriction of public access to all heap leach facilities through fencing, security personnel, warning signs and berms. Public safety is addressed. • The CCP describes the regrading of all tailings facilities to a stable configuration of 3H:1V on the side slopes, maximum of 100 foot slope lengths, and minimum 0.5% grade on the top surfaces to prevent ponding and promote positive drainage of surface water off the unit. Static safety factors are adequately addressed through the CCP and through stability analysis conducted by the operator. • The facility conducted a stability analysis as required by the rules and regulations, and Permit GR009RE Condition 8.L.2. In addition, the New Mexico Office of the State Engineer, Dam Safety Bureau oversees construction and operation of tailing dams to ensure dam stability in New Mexico pursuant to 19.25.12 NMAC. Seismic induced liquefaction is not a concern due to the tectonic stability of the area. • The CCP describes the management of all stormwater and sediment generated during operations and following closure of tailings facilities. This includes construction of permanent stormwater conveyances, ditches, channels, diversions, etc. to the design criteria of a 24-hour, 100-year storm event. • The CCP plans for the minimization, prevention, collection and/or treatment of discharge based on site-specific hydrology and water quality studies and provides for the construction and implementation of an engineered	**MMD Regulations:** Existing Mining Operations: • 19.10.5.506 – Closeout Plans • 19.10.5.508 – New Units Other Applicable MMD Regulations: • 19.10.12 – Financial Assurance Requirements New Mining Operations: • 19.10.6.602.D.15 – Mining Operation and Reclamation Plan • 19.10.6.603 – Performance and Reclamation Standards & Requirements Chino Mine Permit GR009RE Requirements: • Specific permit conditions apply to tailings ponds in Section 8.D of Chino Mine Permit No. GR009RE including surface shaping and stormwater management; cover placement plan, revegetation plan, and post-mining land use. • Permit condition 8.L.2 required a slope stability study and schedule for implementation for tailings ponds and stockpiles. **NMED Regulations:** • 20.6.7.11 – Application Requirements • 20.6.7.18 – General Operational Requirements • 20.6.7.19.E – Setback Requirements, tailing impoundment

evapotranspiration cover system over all geochemically active tailings facilities. • The CCP plans for the immobilization of hazardous substances through the use of the store and release cover system which is expected to result in a 95% reduction in annual net-percolation. Containment systems and treatment systems will be in place to meet applicable water quality standards. The store and release cover system is required to be a minimum of 24" thick over tailings. The engineered evapotranspiration cover is anticipated to result in a minimum of 95% reduction in annual net-percolation. • Design and construction of new tailings facilities are required under NMED rules to have an engineered liner for the minimization/elimination of releases from the unit based on site-specific studies and conditions. • Geologic material at the Chino Mine tailings facilities are geochemically active, however several material handling plans and confirmatory analytical testing procedures are in-place and are followed by the operator. • The CCP describes a rigorous operations and maintenance plan for all active and closed tailings facilities including the inspection of evapotranspiration cover systems, erosion, stabilization techniques and stormwater controls. • The CCP describes in the design and inspection of tailings ponds by a qualified engineer or scientist.	• 20.6.7.22.A(4) – New Tailings Impoundments (design) • 20.6.7.22.B – New Tailings Impoundments (construction) • 20.6.7.22.C – New Tailings Impoundments (operational requirements) • 20.6.7.28 – Water Quality Monitoring Requirements for All Copper Mine Facilities • 20.6.7.29 – General Monitoring Requirements for All Copper Mine Facilities • 20.6.7.33 – Closure Requirements for Copper Mine Facilities • 20.6.7.34 – Implementation of Closure • 20.6.7.35 – Post-Closure Requirements • Site-specific Discharge Permit conditions apply pursuant to 9 Discharge Permits issued for the Chino Mine to ensure protection of water quality • The Chino Mine will be closed in accordance with the Supplemental Discharge Permit for Closure and the requirements of the Copper Mine Rule

Process Pond/Reservoir Performance Criteria:	**Applicable New Mexico Regulation and/or Permit Condition:**
• Public safety is addressed in the Chino CCP as required by MMD and NMED rules and regulations. Public access is restricted, and will continue to be restricted through fencing, security personnel, warning signs and berm construction.	**MMD Regulations:** Existing Mining Operations: • 19.10.5.506 – Closeout Plans • 19.10.5.508.B(6) – New Units, Impoundments

• MMD and NMED regulations require adequate freeboard on all ponds and reservoirs and are designed in the CCP to prevent discharges of hazardous substances. • NMED regulations require new ponds and reservoirs to be designed and constructed with an engineered liner system that is based on site-specific hydrologic conditions. • The CCP accounts for the generation, removal and proper disposal of waste sludge from all ponds and reservoirs. Permit condition 8.L.4 required identification of areas to be used for sludge disposal and details for reclaiming sludge disposal areas.	Other Applicable MMD Regulations: • 19.10.12 – Financial Assurance Requirements New Mining Operations: • 19.10.6.603.C(6) – Impoundments Chino Mine Permit GR009RE Requirements: • Permit condition 8.L.4 required identification and reclamation details of all sludge disposal areas. **NMED Regulations:** • 20.6.7.11 – Application Requirements • 20.6.7.17.C(4) – Impacted Stormwater Management Plans and Specifications • 20.6.7.17.D – New Impoundment Engineering Design Requirements • 20.6.7.18 – General Operational Requirements • 20.6.7.19.E – Setback Requirements, process water or impacted stormwater impoundments20.6.7.28 – Water Quality Monitoring Requirements for All Copper Mine Facilities • 20.6.7.29 – General Monitoring Requirements for All Copper Mine Facilities • 20.6.7.33.I – Impoundment Closure Requirements • 20.6.7.34 – Implementation of Closure • 20.6.7.35 – Post-Closure Requirements • Site-specific Discharge Permit conditions apply pursuant to 9 operational Discharge Permits issued for the Chino Mine to ensure protection of water quality • The Chino Mine will be closed in accordance with the Supplemental Discharge Permit for Closure and the requirements of the Copper Mine Rule

Slag Pile Performance Criteria:	**Applicable New Mexico Regulation and/or Permit Condition:**

• The Hurley Smelter, which was previously associated with the Chino Mine, had slag piles that were regraded to achieve long-term stability and were covered with a minimum 36" thick engineered store and release cover system . Slag piles are reclaimed to the same standards as waste rock piles. • The Hurley Smelter has been closed, demolished and reclaimed for a number of years. No new slag piles are anticipated to be created in association with the Chino Mine. • Existing NMED regulations would oversee any new smelter operations and slag piles that might be created in the future.	**MMD Regulations:** • Smelting is exempt from the New Mexico Mining Act and Rules in accordance with 19.10.1.7.M(3) NMAC. **NMED Regulations:** • 20.6.7.11 – Application Requirements • 20.6.7.18 – General Operational Requirements • 20.6.7.22 – Requirements for Copper Crushing, Milling, Concentrator, Smelting and Tailings Impoundment Units • 20.6.7.22.A(3) – Engineering Design Requirements, New Smelting Units • 20.6.7.22.C(2) – Operational Requirements, Smelting Units • 20.6.7.29 – General Monitoring Requirements for All Copper Mine Facilities • 20.6.7.33 – Closure Requirements for Copper Mine Facilities • 20.6.7.34 – Implementation of Closure • 20.6.7.35 – Post-Closure Requirements

Solid & Hazardous Waste Disposal Performance Criteria:	**Applicable New Mexico Regulation and/or Permit Condition:**
• The Chino CCP includes plans for the proper disposal of all solid and hazardous wastes in a manner that is protective of human health and the environment. • The Chino CCP includes plans for disposal of contaminated soil in a manner that is protective of human health and the environment and that is compliant with all federal, state and local requirements. Permit conditions specific to Chino Mine also describe soil remediation. • The CCP includes plans for the decontamination of buildings and structures that may contain hazardous substances.	Chino Mine Permit GR009RE Requirements: • Specific permit conditions apply to ancillary facilities in Section 8.H of Chino Mine Permit No. GR009RE including building inspection by a professional engineer, general erosion control plan, remediation of soil contamination, stability of structures near filled slopes or mine features, revegetation of industrial post-mining land use areas, demolition and burial of footings, slabs, walls, etc., removal of debris, tailings infrastructure, electrical distribution systems, explosives and reagent storage areas, miscellaneous

	pipelines, reservoirs, mine shafts, exploration holes, etc. **NMED Regulations:** • 20.6.7.11 – Application Requirements • 20.6.7.17 – General Engineering and Surveying Requirements • New Mexico Hazardous Waste Act [Chapter 74, Article 4 NMSA 1978] • New Mexico Solid Waste Act [Section 74-9-1 through 74-9-43] • New Mexico Hazardous Waste Management Regulations [Title 20, Chapter 4 NMAC] • New Mexico Solid Waste Management Regulations [Title 20, Chapter 9, Part 2 NMAC] • 20.6.7.33 – Closure Requirements for Copper Mine Facilities • Site-specific Discharge Permit conditions also apply **Federal Regulations:** • Solid Waste Disposal Act of 1965 [42 U.S.C. Section 6901 et seq.] • Resource Recovery Act of 1970 • Resource Conservation and Recovery Act 1976 ("RCRA") • Federal Facility Compliance Act 1992 • Land Disposal Program Flexibility Act of 1996

Drainage Performance Criteria:	**Applicable New Mexico Regulation and/or Permit Condition:**
• The Chino CCP is based on numerous site specific surface and groundwater studies including aquifer pump tests, aquifer response tests, delineation of capture zones, watershed analysis, and HEC-RESSIM evaluations as well as numerous geology and geochemical leaching studies and groundwater contaminant transport studies. The CCP adequately addresses anticipated seasonal process water fluctuations and water balance changes based on these and other studies.	**MMD Regulations:** Existing Mining Operations: • 19.10.5.506 – Closeout Plans • 19.10.5.508.B(4) – New Units, Hydrologic Balance • 19.10.5.508.B(5) – New Units, Stream Diversions • 19.10.5.508.B(6) – New Units, Impoundments • 19.10.5.508.C – New Units, Site Stabilization & Surface Configuration

• Under the Copper Mine Rule Chino Mine is required to implement a sitewide Mater Management system. there are also specific requirements associated with type of mine unit constructed and operated at the Chino Mine to ensure containment of impacted ground and surface water at the site, and to ensure clean stormwater is routed away from impacted mine units.	New Mining Operations: • 19.10.6.602.D.15 – Mining Operation and Reclamation Plan • 19.10.6.603.C(4) – Hydrologic Balance • 19.10.6.603.C(5) – Stream Diversions • 19.10.6.603.C(6) – Impoundments • 19.10.6.603.D – Site Stabilization & Surface Configuration • 19.10.6.603.H – Design without Perpetual Care Other Applicable MMD Regulations: • 19.10.12 – Financial Assurance Requirements **NMED Regulations:** • 20.6.7.11 – Application Requirements • 20.6.7.17 – General Engineering and Surveying Requirements • 20.6.7.18 – General Operational Requirements • 20.6.7.18.D – General Operational Requirements, Stormwater Management • Mine Unit specific Copper Rule requirements • Site-specific Discharge Permit conditions apply pursuant to 9 operational Discharge Permits issued for the Chino Mine to ensure protection of water quality • The Chino Mine will be closed in accordance with the Supplemental Discharge Permit for Closure and the requirements of the Copper Mine Rule

Short-Term O&M Performance Criteria:	**Applicable New Mexico Regulation and/or Permit Condition:**
• The Chino CCP and the NMED Abatement Plan requirements for the Chino Mine contains a rigorous plan for surface and groundwater monitoring for to detect and abate exceedances of applicable standards. Chino has several	**MMD Regulations:** • 19.10.1.7.S(2) – Self-sustaining Ecosystem • 19.10.11 – Inspection, Enforcement and Penalties

hundred groundwater monitoring wells and numerous surface water monitoring stations that are sampled frequently. The requirements for surface and groundwater monitoring are adequately addressed by New Mexico. • The Chino CCP plans for the regular inspection and monitoring of erosion and revegetation success to ensure reclamation of the site to a self-sustaining ecosystem. • The Chino CCP accounts for routine maintenance and repairs to roads, stormwater conveyances, collection devices and revegetation failure areas.	• 19.10.12 – Financial Assurance Requirements **NMED Regulations:** • 20.6.7.28 – Water Quality Monitoring Requirements for All Copper Mine Facilities • 20.6.7.29 – General Monitoring Requirements for All Copper Mine Facilities • 20.6.7.30 – Contingency Requirements for Copper Mine Facilities • 20.6.7.35 – Post-Closure Requirements • The Chino Mine will be closed in accordance with the Supplemental Discharge Permit for Closure and the requirements of the Copper Mine Rule

Interim O&M Performance Criteria:	**Applicable New Mexico Regulation and/or Permit Condition:**
• Interim O&M at Chino is addressed through the Interim Emergency Water Management plan. The purpose of the interim emergency water management plan is to provide information to NMED on how process water systems, interceptor wells, seepage collection systems and storm water management systems are operated and maintained to prevent discharges in the event the department assumes management of the copper mine facility. The permittee must include in the plan process water flow charts showing electrical system requirements, pump operations, seepage collection and interceptor well operations and applicable operation and maintenance requirements. The interim process water management plan is required to be updated as major process water system changes occur that would affect the interim emergency water management plan. • NMED requires a Process Solution Reduction Plan, an engineering document that describes the processes and methods that are expected to be	**MMD Regulations:** • Water management is regulated by NMED. **NMED Regulations:** • 20.6.7.30.K – Interim Emergency Water Management • 20.6.7.33.G – Process Solution Reduction Plans • 20.6.7.34 – Implementation of Closure • The Chino Mine will be closed in accordance with the Supplemental Discharge Permit for Closure and the requirements of the Copper Mine Rule

used at a copper mine facility to reduce the quantities of process water in storage and circulation inventory at the end of copper production in preparation for long-term water management or treatment. The plan describes and lists the current or proposed process water management units and inventories of process water. The plan describes the modifications to the process water management system required to create an efficient process water reduction system and the operation and maintenance requirements for the system with material take-offs of sufficient detail to prepare an engineering-level cost estimate equivalent to the cost estimate to be provided with the closure plan. The plan provides an estimate of the required water reduction period based on the water reduction calculations provided in the plan to be used for planning and operation and maintenance cost calculations.	

Long-Term O&M Performance Criteria:	**Applicable New Mexico Regulation and/or Permit Condition:**
• The Chino CCP and financial assurance cost estimate plans for the monitoring of surface and groundwater for at least 100-years to detect exceedance of applicable standards and evaluate the extent of contamination and evaluate potential remedies. • The Chino CCP accounts for the inspection and monitoring of mass stability, erosion and revegetation by a qualified engineer or scientist. • The Chino CCP plans for the routine maintenance and repairs to roads, stormwater conveyances, collection systems, groundwater and surface water monitoring wells/systems, engineered liners, engineered cover systems and revegetation maintenance. • NMED requires a closure water management and water treatment plan under the Supplemental Discharge Permit for Closure, and the Copper Mine Rule. The closure water management and water treatment plan for the	**MMD Regulations:** • 19.10.1.7.S(2) – Self-sustaining Ecosystem • 19.10.11 – Inspection, Enforcement and Penalties • 19.10.12 – Financial Assurance Requirements Chino Mine Permit GR009RE Requirements: • Permit GR009RE condition 8.N requires post-closure monitoring and maintenance including erosion monitoring, vegetation monitoring, and wildlife monitoring **NMED Regulations:** • 20.6.7.17.D – New Impoundment Engineering Design Requirements • 20.6.7.18.D – Stormwater Management • 20.6.7.18.F - Impoundments

Chino Mine consists of a conceptual engineering document that describes the processes and methods that are expected to be used for long-term management or treatment of process water. The plan includes an analysis of the expected operational life of each long-term water management or water treatment system, including interceptor systems, until each system is no longer needed to protect ground water quality and applicable standards are met. The plan describes the long-term water management and water treatment systems with sufficient detail, including locations of key components, expected operational life, material take-offs, and capital, operational and maintenance costs to prepare an engineering-level cost estimate. The plan provides sufficient detail to estimate capital and operating costs to provide the basis for financial assurance for these activities.	• 20.6.7.28 – Water Quality Monitoring Requirements for All Copper Mine Facilities • 20.6.7.29 – General Monitoring Requirements for All Copper Mine Facilities • 20.6.7.30 – Contingency Requirements for Copper Mine Facilities • 20.6.7.33.H – Closure Water Management and Water Treatment Plan • 20.6.7.34 – Implementation of Closure • 20.6.7.35 – Post-Closure Requirements • The Chino Mine will be closed in accordance with the Supplemental Discharge Permit for Closure and the requirements of the Copper Mine Rule

Water Treatment Category:	**Applicable New Mexico Regulation and/or Permit Condition:**
• The Chino CCP includes plans and costs for long-term water treatment. The facility has a conceptual engineering document that describes the processes and methods anticipated for long-term containment and treatment of impacted water for 100-years. Chino is required to provide to NMED a closure water management and water treatment plan. The closure water management and water treatment plan consists of a conceptual engineering document that describes the processes and methods that are expected to be used at a copper mine facility for long-term management or treatment of process water. The plan includes an analysis of the expected operational life of each long-term water management or water treatment system, including interceptor systems, until each system is no longer needed to protect ground water quality and applicable standards are met. The plan describes the long-term water management and water treatment systems with sufficient detail, including locations of key components, expected operational life, material take-offs, and	**MMD Regulations:** • Water treatment is regulated by NMED. Chino Mine Permit GR009RE Requirements: • Water treatment facilities are addressed in Permit Conditions 8.G and 8.H **NMED Regulations:** • 20.6.7.17.C(3) – Process Water or Impacted Stormwater Treatment System Plans and Specifications • 20.6.7.23 – Requirements for New Pipelines and Tanks • 20.6.7.30.J – Water Management and Water Treatment System Failure • 20.6.7.33.H – Closure Water Management and Water Treatment Plan • 20.6.7.34 – Implementation of Closure

capital, operational and maintenance costs to prepare an engineering-level cost estimate. The plan provides sufficient detail to estimate capital and operating costs to provide the basis for financial assurance for these activities. • The water treatment plan includes an analysis of the water treatment system including all collection and interceptor systems. • The plan includes proper disposal of waste produced from water treatment that is protective of human health and the environment and also meets all applicable federal, state and local requirements.	• 20.6.7.35 – Post-Closure Requirements • Site-specific Discharge Permit conditions apply pursuant to 9 operational Discharge Permits issued for the Chino Mine to ensure protection of water quality • The Chino Mine will be closed in accordance with the Supplemental Discharge Permit for Closure and the requirements of the Copper Mine Rule

TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 6 WATER QUALITY
PART 7 GROUND WATER PROTECTION - SUPPLEMENTAL PERMITTING REQUIREMENTS FOR COPPER MINE FACILITIES

20.6.7.1 ISSUING AGENCY: Water Quality Control Commission.
[20.6.7.1 NMAC - N, 12/1/13]

20.6.7.2 SCOPE: All persons subject to the Water Quality Act, Sections 74-6-1 NMSA 1978 et seq. and specifically copper mine facilities and their operations.
[20.6.7.2 NMAC - N, 12/1/13]

20.6.7.3 STATUTORY AUTHORITY: Standards and regulations are adopted by the commission under the authority of the Water Quality Act, Sections 74-6-1 through 74-6-17 NMSA 1978.
[20.6.7.3 NMAC - N, 12/1/13]

20.6.7.4 DURATION: Permanent.
[20.6.7.4 NMAC - N, 12/1/13]

20.6.7.5 EFFECTIVE DATE: 12/1/13, unless a later date is cited at the end of a section.
[20.6.7.5 NMAC - N, 12/1/13]

20.6.7.6 OBJECTIVE: The purpose of 20.6.7 NMAC is to supplement the general permitting requirements of 20.6.2.3000 through 20.6.2.3114 NMAC to control discharges of water contaminants specific to copper mine facilities and their operations to prevent water pollution. Compliance with these rules does not relieve an applicant or permittee of a copper mine facility from complying with the Mining Act rules in Title 19, Chapter 10 NMAC under the authority of the mining and minerals division.
[20.6.7.6 NMAC - N, 12/1/13]

20.6.7.7 DEFINITIONS:

A. Terms defined in the Water Quality Act and 20.6.2.7 NMAC shall have the meanings as given in such.

B. A term defined in this part shall have the following meaning.

(1) "Acid mine drainage" means water that is discharged from an area affected by mining exploration, mining, or reclamation, with a pH of less than 5.5 and in which total acidity exceeds total alkalinity as defined by the latest edition of *standard methods for the examination of water and wastewater*.

(2) "Additional conditions" means conditions and requirements included in a discharge permit pursuant to Subsection D of Section 74-6-5 NMSA 1978 that are based on site specific circumstances and that are in addition to those imposed in the rules of the commission.

(3) "Applicable standards" means the standards set forth in 20.6.2.3103 NMAC; the background concentration approved by the department; or, any alternative abatement standard approved by the commission pursuant to Subsection F of 20.6.2.4103 NMAC.

(4) "Applicant" means the person applying for a new, renewed, modified, or amended discharge permit.

(5) "Area of open pit hydrologic containment" means, for an open pit that intercepts the water table, the area where ground water drains to the open pit and is removed by evaporation or pumping, and is interior to the department approved monitoring well network installed around the perimeter of an open pit pursuant to Paragraph (4) of Subsection B of 20.6.7.28 NMAC and also limited to the area of disturbance authorized by a discharge permit.

(6) "As-built drawings" means engineering drawings which portray units as constructed.

(7) "Background" means the concentration of water contaminants naturally occurring from undisturbed geologic sources of water contaminants.

(8) "Below-grade tank" means a tank including sumps where a portion of the tank's side walls is below the surrounding ground surface elevation. A below-grade tank does not include an above ground tank that is located at or above the surrounding ground surface elevation and is surrounded by berms.

(9) "Closure" means all activities that are required pursuant to 20.6.7.33 NMAC through 20.6.7.35 NMAC and an approved discharge permit to monitor, minimize, control, mitigate, prevent or abate water pollution

ATTACHMENT B

associated with a copper mine facility after operations at the copper mine facility, or at an individual unit within the copper mine facility, have ceased.

(10) "Construction quality assurance" or "CQA" means a planned system of activities necessary to ensure that standards and procedures are adhered to and that construction and installation meet design criteria, plans and specifications. A CQA includes inspections, verifications, audits, evaluations of material and workmanship necessary to determine and document the quality of the constructed impoundment or structure, and corrective actions when necessary.

(11) "Construction quality control" or "CQC" means a planned system of operational techniques and activities used to preserve the quality of materials and ensure construction to specifications. Elements of a CQC include inspections, testing, data collection, data analysis and appropriate corrective actions.

(12) "CQA/CQC report" means a report that summarizes all inspection, testing, data collection, data analysis and any corrective actions completed as part of CQA or CQC for a project.

(13) "Copper mine facility" means all areas within which copper mining and its related activities that may discharge water contaminants occurs and where the discharge will or does take place including, but not limited to open pits; waste rock piles; ore stockpiles; leaching operations; solution extraction and electrowinning plants; ore crushing, ore milling, ore concentrators; tailings impoundments; smelters; pipeline systems, tanks or impoundments used to convey or store process water, tailings or impacted stormwater; and truck or equipment washing units.

(14) "Copper mine rule" means 20.6.7 NMAC, as amended.

(15) "Cover system" means any engineered or constructed system designed as a source control measure to minimize to the maximum extent practicable the ingress of water or oxygen into a waste rock pile, leach stockpile or tailing material. A cover system may be comprised of a monolithic layer of, or any combination of, earthen materials, synthetic materials, vegetation, and amendments.

(16) "Critical structure" means earthen or rock structures or embankments (such as an outslope of a rock stockpile), that are likely to cause an exceedance of applicable groundwater standards or undue risk to property in the event of a significant unexpected slope movement.

(17) "Date of postal notice" means the date when the United States postal service first makes notice to the applicant or permittee of its possession of certified mail addressed to the applicant or permittee.

(18) "Discharge" means spilling, leaking, pumping, pouring, emitting, or dumping of a water contaminant in a location and manner where there is a reasonable probability that the water contaminant may reach ground water.

(19) "Discharge permit amendment" means a minor modification of a discharge permit that does not result in a significant change in the location of a discharge, an increase in daily discharge volume of greater than 10% of the original daily discharge volume approved in an existing discharge permit for an individual discharge location, a significant increase in the concentration of water contaminants discharged, or introduction of a new water contaminant discharged.

(20) "Discharge volume" means the volume of discharged process water, impacted stormwater or tailings measured at a specific point at the copper mine facility over a specified period of time.

(21) "Existing copper mine facility" means a copper mine facility operating under an approved discharge permit as of the effective date of the copper mine rule. Existing copper mine facility includes a copper mine covered under an approved discharge permit as of the effective date of the copper mine rule that is on standby status in accordance with mining and minerals division rules.

(22) "Existing impoundment" means an impoundment that is currently receiving or has ever received process water or collected impacted stormwater and that has not been closed pursuant to a discharge permit.

(23) "Expiration" means the date upon which the term of a discharge permit ends.

(24) "Factor of safety" means, for slope stability purposes, the ratio of the resisting forces to the driving forces.

(25) "Final CQA report" means a report prepared by the CQA officer that includes as-built drawings and a detailed description of the installation methods and procedures that document that the work was conducted as designed.

(26) "Flow meter" means a measuring device or structure used to measure the volume of water, process water, tailings or stormwater that passes a particular reference section in a unit of time.

(27) "Freeboard" means the vertical distance between the elevation at the lowest point of the top inside edge of the impoundment and the design high water elevation of the water level in the impoundment.

(28) "Highway" means any public road operated and maintained by the local, county, state or federal government.

(29) "Impacted stormwater" means direct precipitation and runoff that comes into contact with water contaminants within a copper mine facility which causes the stormwater to exceed one or more of the standards of 20.6.2.3103 NMAC and includes overflow from a primary process solution impoundment or other collection system resulting from a precipitation event.

(30) "Impoundment" means any structure designed and used for storage or containment of mine process water, or impacted stormwater, or used for solids settling, excluding a tailings impoundment. A process water or stormwater transfer sump or a tank, below-grade tank, drum or pit bottom is not an impoundment.

(31) "Interbench slope" means the outslope surface between terrace benches or between a terrace bench and any engineered conveyance system (i.e., a system to divert runoff).

(32) "Large copper mine facility" means a copper mine facility that has disturbed or is proposing to disturb an area of 1500 acres or greater.

(33) "Leach stockpile" means stockpiles of ore and all other rock piles associated with mining disturbances that have been leached, are currently being leached or have been placed in a pile for the purpose of being leached.

(34) "Liner system" means an engineered system required by the copper mine rule for the containment, management or storage of process water, leach stockpile material, waste rock, tailings or other materials that have the potential to generate water contaminants including all constructed elements of the system and may include the subgrade, liner bedding, leak detection systems, synthetic liners, earthen liners, overliners, solution collection systems, anchor trenches, and berms, or other system elements, as applicable.

(35) "Maximum daily discharge volume" means the total daily volume of process water (expressed in gallons per day) or tailings (expressed in tons per day) authorized for discharge by a discharge permit.

(36) "Medium copper mine facility" means a copper mine facility that has disturbed or is proposing to disturb an area of a minimum of 500 acres but less than 1500 acres.

(37) "Mining and minerals division" means the mining and minerals division of the New Mexico energy, minerals, and natural resources department.

(38) "Mining Act" means the New Mexico Mining Act, Sections 69-36-1 through 69-36-20, NMSA 1978.

(39) "New copper mine facility" means a copper mine facility that is not operating under an approved discharge permit as of the effective date of the copper mine rule.

(40) "Non-impacted stormwater" means stormwater run-off generated as a result of direct precipitation at a copper mine facility that does not exceed the standards of 20.6.2.3103 NMAC.

(41) "Open pit" means the area within which ore and waste rock are exposed and removed by surface mining.

(42) "Open pit surface drainage area" means the area in which storm water drains into an open pit and cannot feasibly be diverted by gravity outside the pit perimeter, and the underlying ground water is hydrologically contained by pumping or evaporation of water from the open pit.

(43) "Operator" means the person or persons responsible for the overall operations of a copper mine facility.

(44) "Outslope" means the sloped perimeter of waste rock piles, leach stockpiles and tailings impoundments.

(45) "Owner" means the person or persons who own all or part of a copper mine facility.

(46) "Permittee" means a person who is issued or receives by transfer a discharge permit for a copper mine facility, the holder of an expired discharge permit, or, in the absence of a discharge permit, a person who makes or controls a discharge at a copper mine facility.

(47) "Pipeline corridor" means a constructed pathway that contains concentrate, tailing or process water pipelines, associated spill containment structures, the pipeline subgrade and access roads.

(48) "Pipeline system" means one or more pipelines and associated structures used to transport process water, concentrate, slurry, tailing or impacted stormwater.

(49) "PLS" means pregnant leach solution that is generated from leaching ore or rock stockpiles.

(50) "Process water" means any water containing water contaminants in excess of the standards of 20.6.2.3103 NMAC that is generated, managed or used within a copper mine facility including raffinate; PLS; leachate collected from waste rock stockpiles, leach stockpiles, and tailings impoundments; tailings decant water; pit dewatering water; intercepted ground water, laboratory or other waste discharges containing water contaminants; and domestic wastes mixed with process water.

(51) "Seepage" means leachate that is discharged from a waste rock stockpile or tailing impoundment and emerges above or at the ground surface or that is present in the vadose zone and may be captured prior to entering ground water.

(52) "Slag" means a partially vitreous by-product of the process of smelting ore.

(53) "Slope angle" means the horizontal run distance divided by the vertical rise, measured along the steepest gradient of the interbench slope's physical surface (for example, a 2.5:1 slope refers to 2.5 horizontal and 1 vertical).

(54) "Small copper mine facility" means a copper mine facility that has disturbed or is proposing to disturb less than 500 acres and that does not contain tailings impoundments or leach stockpiles.

(55) "Spillway" means a structure used for controlled releases from a stormwater or process water impoundment, in a manner that protects the structural integrity of the impoundment.

(56) "Stormwater" means all direct precipitation and runoff generated within a copper mine facility from a storm event.

(57) "Surface water(s) of the state" means all surface waters as defined in 20.6.4.7 NMAC.

(58) "SX/EW" means solution extraction and electrowinning.

(59) "Tailings" means finely crushed and ground rock residue and associated fluids discharged from an ore milling, flotation beneficiation and concentrating process.

(60) "Tailings impoundment" means an impoundment that is the final repository of tailings.

(61) "Unauthorized discharge" means a release of process water, tailings, leachate or seepage from individual copper mine facility components, impacted stormwater or other substances containing water contaminants not approved by a discharge permit.

(62) "Underground mine" means the below-surface mine workings within which ore and waste rock are removed.

(63) "Unit" means a component of a mining operation including but not limited to processing, leaching, excavation, storage, stockpile or waste units.

(64) "Variance" means a commission order establishing requirements for a copper mine facility or a portion of a copper mine facility that are different than the requirements in the copper mine rule.

(65) "Waste rock" means all material excavated from a copper mine facility that is not ore or clean top soil.

[20.6.7.7 NMAC - N, 12/1/13]

20.6.7.8 REQUIREMENTS FOR DISCHARGING FROM COPPER MINE FACILITIES:

A. No person shall discharge effluent or leachate from a copper mine facility so that it may move directly or indirectly into ground water without a discharge permit approved by the department. A person intending to discharge from a copper mine facility shall submit an application for a discharge permit pursuant to 20.6.7.10 NMAC and remit fees pursuant to 20.6.7.9 NMAC.

B. Permittees, owners of a copper mine facility and holders of an expired permit are responsible for complying with the copper mine rule.

C. Unless otherwise noted in 20.6.7 NMAC, the requirements of 20.6.2.3101 through 20.6.2.3114 NMAC apply to a copper mine facility.

D. Compliance with commission rules including the requirements of 20.6.7 NMAC does not relieve a copper mine facility owner, operator or permittee from complying with the requirements of other applicable local, state and federal regulations or laws.

[20.6.7.8 NMAC - N, 12/1/13]

20.6.7.9 FEES: An applicant or permittee shall pay fees to the department's water quality management fund pursuant to this section in lieu of 20.6.2.3114 NMAC.

A. The permittee of a copper mine shall remit an annual permit fee as follows: large copper mines, one hundred and twenty-five thousand dollars ($125,000); medium copper mines, sixty-two thousand and five hundred dollars ($62,500); and small copper mines, twelve thousand and five hundred dollars ($12,500). Annual permit fees shall be due each August 1 after the effective date of the discharge permit until the discharge permit is terminated.

B. An applicant for a discharge permit, a discharge permit renewal, discharge permit renewal and modification, or discharge permit modification for a copper mine facility shall remit an application fee of one thousand dollars ($1,000). The application fee is not refundable and may not be applied toward future discharge permit applications.

C. A permittee requesting a discharge permit amendment separate from a discharge permit renewal or modification shall remit with the request a discharge permit amendment fee of five hundred dollars ($500). The permit amendment fee is not refundable and may not be applied toward future discharge permit applications or amendments.

D. A permittee requesting temporary permission to discharge pursuant to Subsection B of 20.6.2.3106 NMAC shall remit with the request a temporary permission fee of one thousand dollars ($1,000). The temporary permission fee is not refundable and may not be applied toward future discharge permit applications or requests for temporary permission to discharge.

[20.6.7.9 NMAC - N, 12/1/13]

20.6.7.10 GENERAL APPLICATION REQUIREMENTS FOR ALL COPPER MINE FACILITIES: This section specifies the general requirements for discharge permit applications for all types of copper mine facilities.

A. Before submitting an initial application for a new copper mine facility, a prospective applicant shall schedule a pre-application meeting with the department to discuss the proposed location of the copper mine facility and individual units, the operating plans for the proposed process units, the physical characteristics of the copper mine facility's proposed site and other information that is required to be submitted in an application for a discharge permit. The pre-application meeting shall be held in Santa Fe, unless otherwise agreed to by the department. The pre-application meeting should occur no less than 60 days before the submission of the application except as approved by the department.

B. Instead of the information required by Subsection C of 20.6.2.3106 NMAC, an applicant shall provide information and supporting technical documentation pursuant to this section and 20.6.7.11 NMAC.

C. Notwithstanding Subsection F of 20.6.2.3106 NMAC, a permittee shall submit an application for renewal of a discharge permit for a copper mine facility or a unit of the copper mine facility to the department at least 270 days before the discharge permit expiration date, unless closure of the copper mine facility is approved by the department before that date.

D. For a copper mine facility that has been issued a discharge permit but has not been constructed or operated, a permittee shall submit to the department at least 270 days before the discharge permit expiration date an application for renewal pursuant to Subsection B of this section or a statement certifying that the copper mine facility has not been and will not be constructed and that no discharges have occurred or will occur. Upon the department's verification of the certification, the department shall terminate the discharge permit, if necessary, and retire the discharge permit number from use.

E. An application for a new, renewed, or modified discharge permit for a copper mine facility shall include the information and supporting documentation required by this section except that previously submitted materials may be included by reference in discharge permit renewal or modification applications provided that the materials are current, readily available to the secretary and sufficiently identified to be retrieved. The applicant shall attest to the truth of the information and supporting documentation in the application. The applicant shall provide to the department a hard copy (paper format) of the original signed completed application and all supporting documentation. The applicant shall also provide an electronic copy of the original signed application and all supporting documentation in portable document format (PDF) on a compact disc (CD) or digital versatile disc (DVD) or other format approved by the department.

F. Within 90 days of the department notifying the applicant in writing that the application is deemed administratively complete pursuant to Subsection A of 20.6.2.3108 NMAC, the department shall review the application for technical completeness and shall issue a written notice by certified mail to the applicant indicating whether the application is technically complete or is deemed to be deficient. An application must include the information required by Subsection B of this section to be deemed technically complete.

G. If the department determines that an application is technically deficient, the applicant shall have 60 days from the date of postal notice of the technical deficiency notification to provide the information required by this section. Upon request by the applicant and for good cause shown, the department may grant one or more extensions of time for the applicant to provide the information required by the technical deficiency notification.

(1) If an applicant for a new discharge permit does not provide all information required by this section to the department within 60 days of the date of postal notice of the technical deficiency, or within any extension granted by the department, the department may deny the application. The department shall provide notice of denial to the applicant by certified mail.

(2) If an applicant for a renewed or modified discharge permit does not provide all information required by this section to the department within 60 days of the date of postal notice of the technical deficiency, or

within any extension granted by the department, the department may deny the application or may propose a discharge permit for approval consistent with the requirements of the copper mine rule. If the department denies the application, the department shall provide notice of denial to the applicant by certified mail.

(3) An applicant may supplement an application at any time during the technical review period. The department shall review the information for technical completeness within 90 days of receipt.

H. Within 90 days after an application is deemed technically complete or all information has been submitted to the department pursuant to a technical deficiency notification, the department shall make available a proposed approval of a discharge permit and a draft discharge permit or a notice of denial of a discharge permit application pursuant to Subsection H of 20.6.2.3108 NMAC and provide a copy to the mining and minerals division. The draft discharge permit shall contain applicable conditions specified in the copper mine rule, any conditions based on a variance issued for the copper mine facility pursuant to 20.6.2.1210 NMAC, and any additional conditions imposed under Subsection I of this section. Requests for a hearing on the proposed approval of a discharge permit or denial of a discharge permit shall be submitted to the department pursuant to Subsection K of 20.6.2.3108 NMAC.

I. The department may impose additional conditions on a discharge permit in accordance with Section 74-6-5 NMSA 1978. If the department proposes an additional condition in a discharge permit that is not included in the copper mine rule, the department shall include a written explanation of the reason for the additional condition with the copy of the draft permit and proposed approval sent to the applicant pursuant to Subsection H of 20.6.2.3108 NMAC. Pursuant to subsection K of 20.6.2.3108 NMAC, written comments regarding the additional condition may be submitted to the department during the comment period and a hearing may be requested regarding the additional conditions.

J. The secretary shall approve a discharge permit provided that it poses neither a hazard to public health nor undue risk to property, and:

(1) the requirements of the copper mine rule are met;

(2) the provisions of 20.6.2.3109 NMAC are met, with the exception of Subsection C of 20.6.2.3109 NMAC; and

(3) the denial of an application for a discharge permit is not required pursuant to Subsection E of Section 74-6-5 NMSA 1978.

[20.6.7.10 NMAC - N, 12/1/13]

20.6.7.11 APPLICATION REQUIREMENTS FOR DISCHARGE PERMITS FOR A COPPER MINE FACILITY:

A. An application for a new discharge permit or a renewal of an existing discharge permit shall include the applicable information in this section. An application for a modification of an existing discharge permit shall include the information in this section relevant to the proposed modification but need not include information listed in this section if the information was submitted to the department in the prior discharge permit application and the information has not changed since the discharge permit was issued. The department may require separate operational and closure discharge permits, or may combine operational and closure requirements in the same permit.

B. Contact information. An application shall include:

(1) applicant's name, title and affiliation with the copper mine facility, mailing address, and telephone number;

(2) the name, mailing address and telephone number of each owner and operator of the copper mine facility;

(3) if different than the applicant, the application preparer's name, title and affiliation with the copper mine facility, mailing address, telephone number and signature;

(4) the mailing address and telephone number of any independent contractor authorized to assist the copper mine facility with compliance with the Water Quality Act and 20.6.2 NMAC and 20.6.7 NMAC; and

(5) if the person submitting the application is not the owner or operator of the copper mine facility, a certification that the person is duly authorized to submit the application on behalf of the owner or operator.

C. Ownership and real property agreements.

(1) An application shall include the copper mine facility owner's name, title, mailing address and phone number.

(a) If more than one person has an ownership interest in the copper mine facility or a partnership exists, then the applicant shall list all persons having an ownership interest in the copper mine facility, including their names, titles, mailing addresses and telephone numbers.

(b) If any corporate entity holds an ownership interest in the copper mine facility, the applicant shall also list the name(s), as filed with the New Mexico public regulation commission, of the corporate entity, and the corporate entity's registered agent's name and address.

(2) If the applicant is not the owner of the real property upon which the copper mine facility is or will be situated, or upon which the discharge will occur, the applicant shall submit the name, address and telephone number of the owner(s), and a notarized statement from the owner which authorizes the use of the real property for the duration of the term of the requested permit. In the event the property is under federal or state ownership the applicant shall provide other evidence of authorization to enter public lands for mining.

D. Setbacks. An application for a new copper mine facility shall include a scaled map of the proposed copper mine facility layout demonstrating that the copper mine facility meets the setback requirements of 20.6.7.19 NMAC.

E. Copper mine facility information and location. An application shall include:

(1) the copper mine facility name, physical address and county;

(2) the township, range and section for the entire copper mine facility; and

(3) the total acreage of the copper mine facility.

F. Public notice preparation.

(1) An application for a new, modified or renewed and modified discharge permit shall include the name of a newspaper of general circulation in the location of the copper mine facility for the display advertisement publication, the proposed public location(s) for posting of the 2-foot by 3-foot sign, and the proposed off-site public location for posting of the additional notice, as required by Subsection B of 20.6.2.3108 NMAC.

(2) An application for a renewed discharge permit that does not seek a discharge permit modification shall include the name of a newspaper of general circulation in the location of the copper mine facility for the future display advertisement publication as required by Subsection C of 20.6.2.3108 NMAC.

G. Pre-discharge total dissolved solids concentration in ground water. An application shall include the pre-discharge total dissolved solids concentration, or range of concentration, from analytical results of ground water obtained from on-site test data from the aquifer(s) that may be affected by discharges from the copper mine facility. A copy of the laboratory analysis stating the pre-discharge total dissolved solids concentration shall be submitted with the application.

H. Determination of maximum daily discharge volume. An application shall include the following information.

(1) The proposed maximum daily discharge volume of process water and tailings for each discharge location and a description of the discharge locations and the methods and calculations used to determine that volume.

(2) The identification of all sources of process water and tailings.

(3) The estimated daily volume of process water and tailings generated.

(4) Information regarding other waste discharges (i.e., domestic or industrial) at the copper mine facility. Permit identification numbers shall be submitted for those discharges that are already permitted.

I. Process water and tailings quality. An application shall include estimated concentrations of process water and tailings slurry quality for the constituents identified in 20.6.2.3103 NMAC including the basis for these estimations.

J. Identification and physical description of the copper mine facility. An application shall include the following information;

(1) a scaled map of the entire existing or proposed copper mine facility showing the location of all features identified in Paragraphs (2) through (11) of this subsection; the map shall be clear and legible, and drawn to a scale such that all necessary information is plainly shown and identified; the map shall show the scale in feet or metric measure, a graphical scale, a north arrow, and the effective date of the map; multiple maps showing different portions of the copper mine facility may be provided using different scales as appropriate; documentation identifying the means used to locate the mapped objects (i.e., global positioning system (GPS), land survey, digital map interpolation, etc.) and the relative accuracy of the data (i.e., within a specified distance expressed in feet or meters) shall be included with the map; any object that cannot be directly shown due to its location inside of existing structures, or because it is buried without surface identification, shall be identified on the map in a schematic format and identified as such;

(2) a description of each existing or proposed tailing impoundment, leach stockpile, process water and impacted stormwater impoundment, waste rock stockpile, and slag including information about its location, purpose, liner material, storage or disposal capacity, and the methods proposed or used to prevent pollution of ground water;

(3) a description of each existing or proposed open pit and underground mine within the proposed copper mine facility and information about its location, depth, size, and acreage;

(4) a description of each existing or proposed material handling and processing unit including crushing, milling, concentrating, smelting and SX/EW units within the copper mine facility, and information about its location and proposed methods of process water handling and disposal;

(5) a description of existing or proposed sumps, tanks, pipelines and truck and equipment wash units, including information for each unit regarding its location, purpose, construction material, dimensions and capacity; for portable tanks or pipelines or those subject to periodic relocation, identify the areas within which they may be used;

(6) a description of the proposed method(s) to manage stormwater runoff and run-on to minimize leachate that may be discharged;

(7) a description of water wells and monitoring wells, including information for each well regarding its location, construction material, dimensions and capacity;

(8) a description of flow meters required pursuant to the copper mine rule or a discharge permit and fixed pumps for discharge of process water, tailings and impacted stormwater;

(9) a description of any surface water(s) of the state and any other springs, seeps, ditch irrigation systems, acequias, and irrigation canals and drains located within the boundary of the copper mine facility;

(10) a description of proposed sampling locations; and

(11) a description of all septic tanks and leachfields used for the disposal of domestic wastes.

K. Surface soil survey, geology and hydrology. An application shall include:

(1) the most recent regional soil survey map and associated descriptions identifying surface soil type(s);

(2) a geologic map covering the area within a one-mile radius of the copper mine facility and geologic and lithological information which provides a geologic profile of the subsurface conditions beneath the copper mine site, including the thickness of each geologic unit, identification of which geologic units are water bearing, cross sectional diagrams and sources of all such information; and

(3) hydrologic information on any surface waters of the state within one-half mile of the boundary of the copper mine facility, and of subsurface conditions for all water bearing zones beneath the copper mine facility including maximum and minimum depths to ground water, direction of ground water flow, hydrologic gradients shown by potentiometric maps, transmissivity and storativity, and ground water quality; the sources of all such information shall be provided with the application.

L. Location map. An application shall include a location map with topographic surface contours identifying all of the following features located within a one-mile radius of the copper mine facility:

(1) watercourses, lakebeds, sinkholes, playa lakes, seeps and springs (springs used to provide water for human consumption shall be so denoted);

(2) wells supplying water for a public water system and private domestic water wells;

(3) irrigation and other water supply wells; and

(4) ditch irrigations systems, acequias, irrigation canals and drains.

M. Flood zone map. An application shall include, if available, the most recent 100-year flood zone map developed by the federal emergency management administration (FEMA), flood insurance rate map or other flood boundary and floodway map with the copper mine clearly identified along with all 100-year frequency flood zones for the copper mine facility, and a description of any engineered measures used for flood protection.

N. Engineering design, construction and surveying. Pursuant to 20.6.7.17, 20.6.7.18, 20.6.7.20, 20.6.7.21, 20.6.7.22, 20.6.7.23 and 20.6.7.26 NMAC an application shall include:

(1) plans and specifications for proposed new or modified tailings impoundments, leach stockpiles, waste rock stockpiles, and process water and impacted stormwater impoundments and associated liners;

(2) plans and specifications for proposed new or modified tanks, pipelines, truck and equipment wash units and other containment systems; and

(3) a stormwater management plan.

O. Material characterization plan and material handling plan. An application shall include a material characterization plan and, if applicable, a material handling plan for all waste rock excavated at the copper mine facility pursuant to Subsection A of 20.6.7.21 NMAC.

P. Hydrologic conceptual model. An application for a discharge permit for a new copper mine facility shall include a site hydrologic conceptual model providing:

(1) a description of the hydrogeologic setting at the copper mine facility including ground water potentiometric maps, surface water drainages and flows, types of ground water and surface water recharge and its distribution, and hydrologic boundary conditions and divides;

(2) the site hydrogeologic setting relative to both local and regional hydrology and geology including appropriate cross-sectional diagrams depicting major geologic formations and structures, aquifers, and ground water depths;

(3) potential sources of water contaminants including discharge types and their locations;

(4) potential pathways for migration of water contaminants to ground water and surface water; and

(5) any surface waters of the state that are gaining because of inflow of ground water that may be affected by water contaminants discharged from the copper mine facility.

Q. Waste minimization plan. An application shall include a waste minimization plan to implement, as practicable, best management practices for minimization and recycling of process water and wastes generated at the copper mine facility to reduce the potential for impacts to ground water.

R. Monitoring wells. An application shall include the location of all existing and proposed ground water monitoring wells pursuant to 20.6.7.28 NMAC.

S. Flow metering. An application shall describe a copper mine facility's flow metering system pursuant to Paragraph (5) of Subsection C of 20.6.7.17 NMAC, Subsection E of 20.6.7.18 NMAC, and Subsections C and E of 20.6.7.29 NMAC, including:

(1) the method(s) (i.e., pumped versus gravity flow) of process water discharge and stormwater transfer and handling;

(2) the proposed flow measurement devices for each flow method and information about its type and capacity; and

(3) the location of all existing and proposed flow meters required pursuant to the copper mine rule or a discharge permit.

T. Closure plan. An application shall include a closure plan for all portions of a copper mine facility pursuant to Subsection A of 20.6.7.18 NMAC, 20.6.7.33 NMAC, 20.6.7.34 NMAC and 20.6.7.35 NMAC unless closure of the copper mine facility is covered, or will be covered, by a separate closure discharge permit.

U. Financial assurance. An application shall include a proposal for financial assurance for those portions of a copper mine facility to be reclaimed in accordance with a closure plan submitted pursuant to Subsection A of 20.6.7.18 NMAC, 20.6.7.33 NMAC, 20.6.7.34 NMAC and 20.6.7.35 NMAC.

V. Variances. An application shall identify any issued or proposed variances for the copper mine facility pursuant to 20.6.2.1210 NMAC and the sections of the copper mine rule affected by the variance(s).

W. Meteorological data. An application shall include a plan to measure meteorological data at sites throughout the copper mine facility including precipitation, temperature, relative humidity, solar radiation, wind speed and wind direction.

[20.6.7.11 NMAC - N, 12/1/13]

20.6.7.12 [RESERVED]

20.6.7.13 [RESERVED]

20.6.7.14 REQUIREMENTS FOR A DISCHARGE PERMIT AMENDMENT:

A. A permittee may submit a request for a discharge permit amendment to the department at any time during the term of an approved discharge permit.

B. A permittee shall remit a fee pursuant to Subsection C of 20.6.7.9 NMAC with the request for a discharge permit amendment.

C. A discharge permit amendment shall be administratively reviewed and evaluated by the department and is not subject to public notice or a public hearing.

D. The department shall approve, disapprove or request additional information necessary for a determination regarding a discharge permit amendment within 30 days of receipt of a request.

E. The department shall provide notice of all discharge permit amendment approvals or denials to those persons on the copper mine facility-specific list maintained by the department who have requested notice of discharge permit applications.

[20.6.7.14 NMAC - N, 12/1/13]

20.6.7.15 [RESERVED]

20.6.7.16 [RESERVED]

20.6.7.17 GENERAL ENGINEERING AND SURVEYING REQUIREMENTS:

A. Practice of engineering. All plans, designs, drawings, reports and specifications required by the copper mine rule that require the practice of engineering shall bear the seal and signature of a licensed New Mexico professional engineer pursuant to the New Mexico Engineering and Surveying Practice Act, Sections 61-23-1 through 61-23-33, NMSA 1978, and the rules promulgated under that authority.

B. Practice of surveying. All plans, drawings and reports required by the copper mine rule that require the practice of surveying shall bear the seal and signature of a licensed New Mexico professional surveyor pursuant to the New Mexico Engineering and Surveying Practice Act, Sections 61-23-1 through 61-23-33, NMSA 1978, and the rules promulgated under that authority.

C. Engineering plans and specifications requirements. The following engineering plans and specifications and associated requirements shall be submitted to the department for approval with an application for a new, renewed or modified discharge permit, as applicable.

(1) **Liner system plans and specifications.** An applicant or permittee proposing or required to construct a new or improve an existing liner system required by the copper mine rule or an existing discharge permit, including the repair, modification or replacement of a liner system, shall include the following elements in all liner system plans and specifications submitted to the department.

(a) **Construction plans and specifications.** Detailed and complete construction plans and specifications and supporting design calculations developed pursuant to this section and 20.6.7.18 and 20.6.7. 20 through 20.6.7.26 NMAC shall be submitted to the department.

(b) **Liner system CQA/CQC.** The construction and installation of all liner systems and the repair, modification or replacement of a liner system shall be conducted in accordance with a construction quality assurance/construction quality control (CQA/CQC) plan. A CQA/CQC plan shall be included as part of the design plans and specifications. The CQA/CQC plan shall specify the observations and tests to be used to ensure that construction of the liner system meets all design criteria, plans and specifications. All liner system testing and evaluation reports for liner construction and installation, including modifications and replacements shall be signed and sealed by a licensed New Mexico professional engineer with experience in liner system construction and installation. The CQA/CQC plan shall include the following elements.

(i) the identity of persons responsible for overseeing the CQA/CQC program. The person responsible for overseeing the CQA/CQC plan shall be a licensed New Mexico professional engineer with experience in liner system construction and installation;

(ii) an inspection protocol;

(iii) identification of field and laboratory testing equipment and facilities proposed to be used, and calibration methods;

(iv) the procedures for observing and testing the liner, subgrade, liner bedding, and other liner system construction material;

(v) a protocol for verification of any manufacturers' quality control testing and procedures;

(vi) the procedures for reviewing inspection test results and laboratory and field sampling test results;

(vii) the actions to be taken to replace or repair liner material, subgrade, liner bedding, or other liner system construction materials should deficiencies be identified;

(viii) the procedures for seaming synthetic liners;

(ix) the reporting procedures for all inspections and test data; and

(x) the submission of a CQA/CQC report.

(c) **Management of process water, solids and sludge or impacted stormwater during liner system improvement.** An applicant or permittee proposing or required to improve copper mine facility operational units that requires the use of a liner system, including re-lining or replacement of an existing liner system, shall submit a plan for managing process water, solids and sludges, or impacted stormwater during preparation and construction of the improvement. The plan shall be submitted as part of the design plans and specifications. The plan shall include the following minimum elements.

(i) a plan for handling and disposal of process water, solids and sludges and impacted stormwater discharges during improvement to the impoundment;

(ii) a plan for removal and disposal of process water, solids and sludges or impacted stormwater within the liner system prior to beginning improvement to the liner system;

(iii) a plan and schedule for implementation of the project; and

(iv) if the plan proposes a temporary location for the discharge of process water, solids and sludge, or impacted stormwater not authorized by the effective discharge permit, the applicant or permittee shall request temporary permission to discharge from the department pursuant to Subsection B of Section 20.6.2.3106 NMAC.

(d) **Dam safety.** An applicant or permittee proposing or required to construct a tailings impoundment shall submit documentation of compliance with the requirements of the dam safety bureau of the state engineer pursuant to Section 72-5-32 NMSA 1978, and rules promulgated under that authority, unless exempt by law from such requirements.

(2) **Tank, pipeline, sump or other containment system plans and specifications.** An applicant or permittee proposing or required to construct a new tank, pipeline, sump or other containment system for the management of tailings, process water or other water contaminants shall submit detailed and complete construction plans and specifications and supporting design calculations developed pursuant to this section and 20.6.7.23 NMAC. The construction plans and specifications for an improvement(s) or replacement of an existing tank, pipeline, sump or other containment systems shall address the management of solids, waste, process water or other water contaminants generated during preparation and construction of the improvements or replacement. This requirement does not apply to portable or temporary tanks, pipelines, sumps, or other containment systems that are subject to periodic relocation during mining operations.

(3) **Process water or impacted stormwater treatment system plans and specifications.** An applicant or permittee proposing or required to construct a treatment system during mine operations for process water or impacted stormwater to be treated prior to discharge shall submit detailed and complete construction plans and specifications and supporting design calculations developed pursuant to this section and 20.6.7.18 NMAC.

(4) **Impacted stormwater management plans and specifications.** An applicant shall submit stormwater management plans and specifications to limit run-on of stormwater and manage impacted stormwater in a manner which prevents water pollution that may cause an exceedance of the applicable standards. The plans and specifications shall be submitted with an application for a new or renewed discharge permit, or as applicable with an application for a modified discharge permit, and shall include the following information.

(a) A scaled map of the copper mine facility showing:

(i) the property boundaries of the copper mine facility and the mining areas;

(ii) all existing and proposed structures;

(iii) existing and proposed final ground surface contours outside of the open pit surface drainage area at appropriate vertical intervals; and

(iv) existing and proposed stormwater containment and conveyance structures, including construction materials, size, type, slope, capacity and inlet and invert elevation (or minimum and maximum slopes) of the structures, as applicable.

(b) A description of existing surface water drainage conditions.

(c) A description of the proposed post-development surface water drainage conditions.

(d) Supplemental information supporting the stormwater management plan including the following information:

(i) hydrologic and hydraulic calculations for design storm events;

(ii) hydraulic calculations demonstrating the capacity of existing and proposed stormwater impoundments;

(iii) hydraulic calculations demonstrating the capacity of existing and proposed conveyance channels to divert stormwater or contain and transport runoff to stormwater impoundment(s); and

(iv) a list of tools and references used to develop the hydrologic and hydraulic calculations such as computer software, documents, circulars, and manuals.

(e) A plan to manage impacted stormwater, and to divert run-on of non-impacted stormwater where practicable. The plan shall include, as necessary, design, construction, and installation of stormwater run-on and run-off diversion structures, collection of impacted stormwater, and a description of existing surface water drainage conditions. The plan shall consider:

(i) the amount, intensity, duration and frequency of precipitation;

(ii) watershed characteristics including the size, topography, soils and vegetation of the watershed; and

(iii) runoff characteristics including the peak rate, volumes and time distribution of runoff events.

(5) **Flow metering plans.** An applicant or permittee proposing or required to install a flow meter(s) pursuant to the copper mine rule shall submit a flow metering plan to support the selection of the proposed device along with information or construction plans and specifications, as appropriate, detailing the installation or construction of each device. This information or construction plans and specifications proposed by the applicant or permittee shall be submitted to the department with the application for a new discharge permit or a renewed or modified discharge permit if a new flow meter is proposed.

D. New impoundment engineering design requirements. At a minimum, construction of a new impoundment or replacement of an existing impoundment shall be in accordance with the applicable liner, design, and construction requirements of this subsection. These requirements do not apply to tailing impoundments that are subject to the specific engineering design requirements of Paragraph (4) of Subsection A of 20.6.7.22 NMAC.

(1) **General design and construction requirements.**

(a) The outside slopes of an impoundment shall be a maximum of two (horizontal) to one (vertical) and shall meet a minimum static factor of safety of 1.3 with water impounded to the maximum capacity design level, except where an impoundment is bounded by rock walls or is below the surrounding surface grade.

(b) The dikes of an impoundment shall be designed to allow for access for maintenance unless otherwise approved by the department.

(c) Liners shall be installed with sufficient slack in the liner material to accommodate expansion and contraction due to temperature changes. Folds in the liner material shall not be present in the completed liner except to the extent necessary to provide slack.

(d) Liners shall be anchored in an anchor trench. The trench shall be of a size and setback distance sufficient for the size of the impoundment.

(e) Liner panels shall be oriented such that all sidewall seams are vertical.

(f) Any opening in the liner through which a pipe or other fixture protrudes shall be sealed in accordance with the liner manufacturer's requirements. Liner penetrations shall be detailed in the construction plans and as-built drawings.

(g) All liners shall be installed by an individual that has the necessary training and experience as required by the liner manufacturer.

(h) Liner manufacturer's installation and field seaming guidelines shall be followed.

(i) All liner seams shall be field tested by the installer and verification of the adequacy of the seams shall be submitted to the department along with the as-built drawings.

(j) Concrete slabs installed on top of a liner for operational purposes shall be completed in accordance with manufacturer and installer recommendations to ensure liner integrity.

(2) **Impoundment capacity.** Impoundments shall meet the following design capacities. Capacity requirements may be satisfied by a single impoundment or by the collective capacity of multiple interconnected impoundments and any interconnected tanks.

(a) **Capacity requirements for impoundments that contain leach solutions.** Process water systems that impound leach solutions shall be designed for adequate overflow capacity for upset conditions such as power outages, pump or conveyance disruptions and significant precipitation events. Any impoundment that collects leach solutions and is routinely at capacity shall be designed to maintain a minimum of two feet of freeboard during normal operating conditions while conveying the maximum design process flows. The appropriate overflow capacity design shall consider system redundancies such as backup power systems and pumps. The overflow capacity shall be designed to contain the maximum design flows for the collection system for the maximum period of time that is required for maintenance activities or restoration to normal operating conditions while maintaining two feet of freeboard. If the collection system receives direct precipitation run-off with little or no flow attenuation in the upgradient leach stockpile collection system, the overflow capacity shall be sized to contain the runoff from a 100 year, 24 hour storm event in addition to the upset condition capacity. For process water impoundments located within the open pit surface drainage area, the open pit bottom may be utilized for a portion of the permitted impoundment capacity. Impoundments constructed on a leach stockpile such that any overflow would discharge to and be contained by the approved leach stockpile system are not subject to this capacity requirement.

(b) **Other process water impoundment capacity requirements.** Process water impoundments intended to manage or dispose of process water, other than leach solutions, shall be designed for adequate overflow capacity for upset conditions such as power outages, pump or conveyance disruptions and significant precipitation events. Any impoundment that collects such process water and is routinely at capacity shall be designed to maintain a minimum of two feet of freeboard during normal operating conditions while conveying

the maximum design process flows. The appropriate overflow capacity design shall consider system redundancies such as backup power systems and pumps. The overflow capacity shall be designed to contain the maximum design flows for the collection system for the maximum period of time that is required for maintenance activities or restoration to normal operating conditions while maintaining two feet of freeboard. For process water impoundments located within the open pit surface drainage area, the open pit bottom may be utilized for a portion of the permitted impoundment capacity. Impoundments constructed on a leach stockpile such that any overflow would discharge to and be contained by the approved leach stockpile system are not subject to this capacity requirement.

(c) **Combination process water/impacted stormwater impoundment capacity requirements.** Impoundments, other than impoundments for the containment of leach solutions, intended to dispose of a combination of process water and impacted stormwater shall be designed to contain, at a minimum, the volume described in Subparagraph (b) of Paragraph 2 of this subsection and the volume of stormwater runoff and direct precipitation generated from the receiving surface area resulting from a 100 year return interval storm event while preserving two feet of freeboard. For combination process water/impacted stormwater impoundments located within the open pit surface drainage area, the open pit bottom may be utilized for a portion of the impoundment capacity.

(d) **Evaporative impacted stormwater impoundment design requirements.** Impoundments intended to manage or dispose of impacted stormwater by evaporation shall be designed to contain, at a minimum, the volume of stormwater runoff and direct precipitation generated from the receiving surface area resulting from a 100 year return interval storm event while preserving two feet of freeboard. For impoundments located within the open pit surface drainage area, the open pit bottom may be utilized for a portion of the impoundment capacity.

(e) **Other impacted stormwater impoundment design requirements.** Other impacted stormwater impoundment systems shall be designed to prevent overflow resulting from a 100 year return interval storm event while maintaining two feet of freeboard and may use interconnected impoundments, gravity flow conveyances and pumping systems designed to remove water from individual impoundments at rates to prevent overflow during the design storm event. The appropriate overflow capacity design shall consider system redundancies such as backup power systems and pumps. For impacted stormwater impoundments located within the open pit surface drainage area, the open pit bottom may be utilized for a portion of the permitted impoundment capacity.

(f) **Conveyance design requirement.** Open channel conveyance structures intended to transport stormwater to an impoundment shall be designed to convey, at a minimum, the peak flow from a 100 year return interval storm event while preserving adequate freeboard, but not less than six inches of freeboard. Conveyances shall be designed to minimize ponding and infiltration of stormwater.

(g) **Solids settling.** An impoundment designed and used for solids settling shall not be used to satisfy the impoundment capacity requirements of this paragraph.

(3) **Process water and impacted stormwater long-term storage impoundments.** Process water, and impacted stormwater impoundments that store impacted stormwater for longer than thirty days shall meet the following design and construction requirements, except that process water and impacted stormwater long-term impoundments located within an open pit surface drainage area of an existing copper mine facility may be designed and constructed in accordance with the requirements of Paragraph (4) of this subsection.

(a) **Liner system.** At a minimum, impoundments subject to this paragraph shall be designed and constructed as an engineered liner system consisting of a suitable subgrade and liner bedding overlain by a secondary synthetic liner which is overlain by a leak collection system overlain by a primary synthetic liner, unless an alternate design is approved by the department pursuant to Subparagraph (e) of this paragraph. The liner system shall be installed in accordance with a department approved CQA/CQC plan pursuant to Paragraph (2) of Subsection C of 20.6.7.17 NMAC

(b) **Liner system sub-grade and bedding.** The liner system shall be placed upon a stable sub-grade. The sub-grade shall be free of sharp rocks, vegetation and stubble to a depth of at least six inches below the liner. Liners shall be placed on a liner bedding of sand or fine soil. The surface in contact with the liner shall be smooth to allow for good contact between liner bedding. The liner bedding surface shall be sufficiently dry during liner installation such that free or excess water will not hinder the welding of seams. The liner installer shall provide the owner or permittee with a sub-grade and liner bedding acceptance certificate prior to installing the liner indicating acceptance of the earthwork.

(c) **Liner type.** The primary and secondary synthetic liners for the impoundment shall provide the same or greater level of containment, including permeability, as a 60 mil HDPE geomembrane liner system. The liner system's tensile strength, tear and puncture resistance and resistance to degradation by ultraviolet light shall be compatible with design loads, exposure and conditions.

(d) **Leak collection system.** A leak collection system shall be constructed between the primary and secondary synthetic liners for the purpose of collecting and rapidly removing fluids from leaks that may occur in the primary liner so that minimal hydraulic head is maintained on the secondary liner. The leak collection system shall consist of a drainage layer, fluid collection pipes and a fluid removal system to prevent hydraulic head transference from the primary liner to the secondary liner and shall meet the following requirements.

(i) The drainage layer shall be constructed of granular soil materials or geosynthetic drainage net (geonet) with a design slope of at least two percent. Drainage material shall have a coefficient of permeability of $1x10^{-2}$ centimeters/second or greater.

(ii) Perforated fluid collection pipes shall be installed to transmit fluid from the drainage layer to a fluid collection sump(s). Collection pipe material, diameter, wall thickness, and slot size and distribution shall be sufficient to prevent deflection, buckling, collapse or other failure. Collection pipes shall be installed with slopes equivalent to the slope of the drainage layer. Collection pipe systems shall be designed to allow for cleaning of all collection pipes with standard pipe cleaning equipment.

(iii) A fluid removal system shall be installed to remove fluid from the leak collection system. The fluid removal system shall consist of a sump(s), a dedicated pump(s), an automated pump activation system that activates the pump(s) when a specific fluid level is reached in a sump(s), a totalizing flow meter to measure to measure the volume of leachate pumped from the system, and an automated alarm system that provides warning of pump failure. Alternately a gravity drain system may be utilized where practicable and approved by the department.

(e) An applicant or permittee may propose for department approval an alternative design for process water and impacted stormwater long-term storage impoundments that provides the same or greater level of containment as a double synthetically lined system with leak collection.

(4) **Impacted stormwater impoundments.** Impacted stormwater impoundments that store impacted stormwater for less than 30 days shall meet the following design and construction requirements; except that any such impoundments located within an open pit surface drainage area may not require a liner.

(a) **Liner system.** At a minimum, an impacted stormwater impoundment subject to this paragraph shall be constructed as an engineered liner system consisting of a compacted subbase overlain by a synthetic liner. The liner system shall be installed in accordance with a department approved CQA/CQC plan pursuant to Paragraph (2) of Subsection C of 20.6.7.17 NMAC.

(b) **Liner system subgrade and liner bedding.** The liner system shall be prepared and placed upon a stable subgrade. The top surface of the subgrade shall be smooth and free of sharp rocks or any other material that could penetrate the overlying liner bedding or synthetic liner. Liner bedding shall be placed atop the subgrade and shall consist of a minimum of six inches of sand or fine soil to allow for good contact between liner and liner bedding. The liner bedding surface shall be sufficiently dry during liner installation such that free or excess water will not hinder the welding of seams. The liner installer shall provide the owner or permittee with a sub-grade and liner bedding acceptance certificate prior to installing the liner indicating acceptance of the earthwork.

(c) **Liner type.** Synthetic liners for an impacted stormwater impoundment shall provide the same or greater level of containment, including permeability, as a 60 mil HDPE geomembrane liner system. The liner system's tensile strength, tear and puncture resistance and resistance to degradation by ultraviolet light shall be compatible with design loads, exposure and conditions.

(d) **Wind protection.** Liner systems for impacted stormwater impoundments shall be designed and constructed with a weighting system to secure the liner and limit liner damage during periods of extreme wind events when the impoundment is empty.

(e) **Alternate design.** An applicant or permittee may propose for department approval an alternative design for an impacted stormwater impoundment that provides the same or greater level of containment as the liner system described in Subparagraphs (a) through (d) of this paragraph.

(5) **Non-impacted stormwater impoundments.** Non-impacted stormwater impoundments located outside the open pit surface drainage area over contaminated areas where the water has the potential to infiltrate and produce a leachate that may cause an exceedance of the applicable standards require a liner system designed and installed in accordance with Paragraph (4) this subsection.

(6) **Separation between impoundments and ground water.** Impoundments that require a liner pursuant to this subsection shall not be constructed in a location where the vertical distance between the seasonal high ground water level and the finished grade of the floor of the impoundment is less than or equal to four feet unless the applicant or permittee submits an engineering evaluation from a licensed New Mexico professional engineer that demonstrates that the impoundment design will not be affected by shallow ground water conditions.

(7) **Spillways.** Impacted stormwater impoundments shall have spillways to safely discharge the peak runoff of a 25-year, 24-hour precipitation event, or an event with a 90-percent chance of not being exceeded for the design life of the impoundment. Impoundments intended as primary containment for process water shall not be designed with a spillway that empties onto the ground surface.
[20.6.7.17 NMAC - N, 12/1/13]

20.6.7.18 GENERAL OPERATIONAL REQUIREMENTS:

A. Planning for closure. To the extent practicable, copper mine facility units shall be designed and operated in a manner that considers implementation of the copper mine facility closure plan submitted pursuant to 20.6.7.33 NMAC including:

(1) identifying material that is suitable for use to construct covers and, when feasible, segregating that material from other mined materials to preserve it for use to construct covers; and

(2) consideration of closure grading and drainage plans in the design and construction of leach stockpiles, tailings impoundments, waste rock stockpiles, and other copper mine facilities.

B. Construction requirements. A permittee shall meet the following requirements for construction of a liner system for the containment of water contaminants, including repair or relining of a liner system.

(1) A permittee shall notify the department at least five working days before starting construction or repair or relining to allow for an inspection by the department, except in the case of an emergency repair. If an emergency repair is necessary, the permittee shall notify the department within 24 hours of starting the repair.

(2) A permittee shall submit to the department a construction certification report bearing the seal and signature of a licensed New Mexico professional engineer, when required by the New Mexico Engineering and Surveying Practice Act, Sections 61-23-1 through 61-23-33 NMSA 1978, and the rules promulgated under that authority, verifying that installation and construction was completed pursuant to Subsections C and D of 20.6.7.17 NMAC. The construction certification report shall include as-built drawings, final specifications, final capacity calculations and the CQA/CQC report.

(3) The construction certification report shall be submitted to the department before discharging or placing ore or wastes in a liner system.

C. Notice of mining operations and discharge. A permittee shall provide written notice to the department of the commencement, or recommencement of operations as follows.

(1) **For new copper mine facilities.**

(a) **Commencement of construction.** A permittee shall provide written notice to the department a minimum of 30 days before commencing construction of units covered by a permit issued pursuant to the copper mine rule.

(b) **Commencement of discharge.** A minimum of 30 days prior to discharging or emplacement of ore or waste rock in a constructed impoundment, stockpile, or tailings impoundment a permittee shall provide written notice to the department of the anticipated date that discharge or emplacement of ore or waste rock will commence. A permittee shall provide written verification to the department of the actual date of commencement within 30 days of commencement.

(2) **For existing copper mine facilities.**

(a) **Commencement of a new discharge.** A minimum of 30 days prior to discharging or emplacement of ore or waste in a newly constructed impoundment, stockpile, or tailings impoundment the permittee shall provide written notice to the department of the anticipated date that discharge or emplacement of ore or waste will commence. A permittee shall provide written verification to the department of the actual date of commencement within 30 days of commencement.

(b) **Recommencement of mining.** If a permittee is on standby pursuant to the Mining Act, a permittee shall provide written notice to the department indicating the planned date of recommencement of operations at a copper mine facility that include operation of units covered by a permit issued pursuant to the copper mine rule. Written notification shall be submitted to the department a minimum of 30 days prior to the date mining is to recommence.

D. Stormwater management. A permittee shall divert and manage stormwater from the open pit, leach stockpiles, waste rock and tailings impoundments and other copper mine facility areas containing material that could generate or release water contaminants in accordance with a stormwater management plan as required by Paragraph (4) of Subsection C of 20.6.7.17 NMAC.

E. Flow meters. A permittee shall employ a flow metering system that uses flow measurement devices (flow meters, weirs or other department approved method) to measure the volume of process water and tailings discharged at a copper mine facility as follows.

(1) **Flow meter installation.** Flow meters shall be installed in accordance with the flow meter plans submitted with the application for a new, renewed or modified discharge permit pursuant to Paragraph (5) of Subsection C of 20.6.7.17 NMAC, and this section. Flow meters shall be permanently labeled with meter identification nomenclature, and the month and year of meter installation.

(2) **Flow meter inspection and maintenance.** A permittee shall visually inspect flow meters on a monthly basis for evidence of malfunction. If a visual inspection indicates a flow meter is not functioning to measure flow, the permittee shall repair or replace the meter within 30 days of or as soon as practicable following discovery. The repaired or replaced flow meter shall be installed and calibrated pursuant to this subsection. The permittee shall submit a report of repaired or replaced meters to the department in the subsequent monitoring report which shall include:

(a) information on repairs including a description of the malfunction; a statement verifying the repair, and a description of calibration of the flow meter pursuant to Paragraph (3) of this subsection.

(b) for replacement meters, information demonstrating that the device is in accordance with the plan for flow metering devices submitted pursuant to Paragraph (5) of Subsection C of 20.6.7.17 NMAC, and that the device has been calibrated pursuant to Paragraph (3) of this subsection.

(3) **Flow meter calibration.** All flow meters required under the copper mine rule shall be calibrated to have their accuracy ascertained according to the flow metering plan submitted pursuant to Paragraph (5) of Subsection C of 20.6.7.17 NMAC and the approved discharge permit. Flow meters shall be calibrated to within plus or minus ten percent of actual flow.

(4) **Excluded flow meters.** A permittee may utilize additional flow meters not required by the copper mine rule and those flow meters are not subject to the copper mine rule requirements.

F. Impoundments.

(1) **New impoundments.** Construction of an impoundment pursuant to a discharge permit issued after the effective date of the copper mine rule shall be performed in accordance with the liner, design, and construction requirements of Subsection D of 20.6.7.17 NMAC.

(2) **Existing impoundments.** An impoundment authorized by a discharge permit issued prior to the effective date of the copper mine rule and in existence on the effective date of the copper mine rule that does not meet the requirements of Paragraph (3) of Subsection D of 20.6.7.17 NMAC may continue to receive process water or impacted stormwater provided the requirements of Subparagraphs (a) and (b) or (c) of this paragraph are met or the impoundment is located within the open pit surface drainage area. If the requirements of Subparagraphs (a) and (b) or (c) of this paragraph are not met, the impoundment shall be replaced or improved in accordance with the liner, design, and construction requirements of Subsection D of 20.6.7.17 NMAC.

(a) Ground water monitoring data from monitoring wells downgradient of the impoundment indicates that the impoundment is functioning as designed.

(b) The impoundment has integrity and is capable of maintaining integrity for its operational life.

(c) The impoundment is covered by a variance granted pursuant to 20.6.2.1210 NMAC.

(3) **Impoundment inspection and maintenance.** A permittee shall maintain impoundments to prevent conditions which could affect the structural integrity of the impoundments and associated liners during active operations. Such conditions include, but are not limited to, erosion damage; animal burrows or other animal damage; the presence of vegetation including aquatic plants, weeds, woody shrubs or trees growing within five feet of the top inside edge of a sub-grade impoundment, within five feet of the toe of the outside berm of an above-grade impoundment, or within the impoundment itself; evidence of seepage; evidence of berm subsidence; and the presence of large debris or large quantities of debris in the impoundments. A permittee shall inspect impoundments and surrounding berms on a quarterly basis to ensure proper condition and control vegetation growing in and around the impoundments in a manner that is protective of the liners. Within 24 hours of discovery, a permittee shall report to the department any evidence of damage that threatens the structural integrity of a berm or liner of an impoundment or that may result in an unauthorized discharge. A permittee is not required to report routine berm maintenance to the department.

(4) **Freeboard.** The fluid level elevation in an impoundment shall be maintained such that a minimum of two feet of freeboard is preserved within the impoundment at all times.

(5) **Leak collection system inspection and maintenance:** A permittee shall inspect and maintain impoundments utilizing primary and secondary liners and equipped with leak collection systems as follows:

(a) liquid accumulation within the sump of the leak collection system shall be returned to the respective impoundment or the process water system utilizing an automatically activated pump or other engineered

design approved by the department to minimize hydraulic head on the secondary liner by insuring the interstitial space between the liners does not become saturated; and

(b) the permittee shall inspect the sump(s), dedicated pump(s), any automated pump activation system, any automated alarm system and totalizing flow meter associated with the leak detection and collection system on a monthly basis for evidence of malfunction; if an inspection indicates malfunction of any of these components, the permittee shall repair the component(s) within 30 days of discovery or shall retain a record of why the repair took longer; the permittee shall notify the department of component malfunctions and repairs made in the subsequent quarterly report.

[20.6.7.18 NMAC - N, 12/1/13]

20.6.7.19 SETBACK REQUIREMENTS FOR A COPPER MINE FACILITY APPLYING FOR A DISCHARGE PERMIT:

A. The setback requirements of this section apply to a new copper mine facility for which an application for a discharge permit is received by the department after the effective date of the copper mine rule.

B. The setback requirements shall be measured as horizontal map distances.

C. The required setback distances shall be met as certified by the applicant as of the receipt date of the application.

D. If the setback requirements apply to a copper mine facility, an applicant or permittee shall not propose or construct a leach stockpile, waste rock stockpile, tailing impoundment, or process water and impacted stormwater impoundment that does not meet the setback as determined as of the receipt date of the application for a new discharge permit by the department.

E. Leach stockpile, waste rock stockpile, tailing impoundment, process water impoundment or impacted stormwater impoundment setback requirements.

(1) Leach stockpiles, waste rock stockpiles, tailing impoundments, process water impoundments or impacted stormwater impoundments shall be located:

(a) greater than 500 feet from a private domestic water well or spring that supplies water for human consumption; and

(b) greater than 1000 feet from any water well or spring that supplies water for a public water system as defined by 20.7.10 NMAC, unless a wellhead protection program established by the public water system requires a greater distance.

(2) The requirements of Subparagraph (a) of Paragraph (1) of this subsection shall not apply to wells or springs that supply water to the copper mine facility for human consumption and are located within the property boundary of the copper mine facility.

(3) The requirements of Paragraph (1) of this subsection shall not apply to wells that are constructed after a copper mine facility received a discharge permit for a leach stockpile, waste rock stockpile, tailing impoundment, process water impoundment or impacted stormwater impoundment.

(4) Setback distances shall be measured from the toe of the outer edge of a leach stockpile, waste rock stockpile, tailing impoundment, process water impoundment or impacted stormwater impoundment at its final design build out.

[20.6.7.19 NMAC - N, 12/1/13]

20.6.7.20 REQUIREMENTS FOR LEACH STOCKPILES AND SX/EW PLANTS:

A. Engineering design requirements. At a minimum, the following requirements shall be met in designing leach stockpiles at copper mine facilities unless the applicant or permittee can demonstrate that an alternate design will provide an equal or greater level of containment.

(1) **New leach stockpiles.** New leach stockpiles shall meet the following requirements.

(a) **Liner system.** A new leach stockpile shall be placed on an engineered liner system consisting of a subgrade and compacted earthen liner overlain by a synthetic liner which is overlain by a solution collection system designed to transmit process fluids out of the leach stockpile. The liner system shall be approved by the department prior to installation and shall be installed in accordance with a department approved CQA/CQC plan pursuant to Paragraph (1) of Subsection C of 20.6.7.17 NMAC.

(b) **Liner system subgrade and earthen liner.** A liner system earthen liner shall be prepared and placed upon a stable subgrade. The prepared earthen liner shall consist of a minimum of 12 inches of soil that has a minimum re-compacted in-place coefficient of permeability of $1x10^{-6}$ cm/sec. The top surface of the earthen liner shall be smooth and free of sharp rocks or any other material that could penetrate the overlying synthetic liner.

(c) **Liner type.** A synthetic liner for a leach stockpile shall provide the same or greater level of containment, including permeability, as a 60 mil HDPE geomembrane liner system. The liner system's tensile strength, tear and puncture resistance and resistance to degradation by ultraviolet light shall be compatible with design loads, exposures and conditions. A licensed New Mexico professional engineer with experience in liner system construction and installation shall identify the basis for the geomembrane composition and specific liner based upon:

(i) the type, slope and stability of the subgrade;

(ii) the overliner protection and provisions for hydraulic relief within the liner system;

(iii) the load and the means of applying the load on the liner system;

(iv) the compatibility of the liner material with process solutions applied to the leach stockpile and temperature extremes of the location at which it will be installed; and

(v) the liner's ability to remain functional for five years after the implementation of closure of the leach stockpile.

(d) **Solution collection system.** A solution collection system shall be constructed in an overliner protection and drainage system. The solution collection system shall be designed to remain functional for five years after the operational life of the leach stockpile. The overliner protection shall be designed and constructed to protect the synthetic liner from damage during loading and minimize the potential for penetration of the synthetic liner. A sloped collection system shall be designed that will transmit fluids out of the drainage layer of the leach stockpile. The collection system shall be designed to maintain a hydraulic head of less than the thickness of the drainage layer but the drainage layer shall not exceed five feet in thickness. Any penetration of the liner by the collection system through which a pipe or other fixture protrudes shall be constructed in accordance with the liner manufacturer's requirements. Liner penetrations shall be detailed in the construction plans and as-built drawings.

(e) **Solution containment systems.** PLS flows exiting the leach stockpile shall be collected, contained and conveyed to a process water impoundment(s) or tank(s) using pipelines or lined conveyance systems.

(f) **Alternate design.** An applicant may propose and the department may approve an alternative design for a leach stockpile located within an open pit surface drainage area provided that the stockpile and solution capture systems are designed to maximize leach solution capture considering the site-specific conditions of the open pit, underlying geology and hydrology, and leach solutions will not migrate outside of the open pit surface drainage area.

(2) **Solution extraction/electrowinning (SX/EW) plants.** All SX/EW plants shall be designed to contain all associated process fluids within impermeable vessels with secondary containment or process water impoundments meeting the requirements of Subsection D of 20.6.7.17 NMAC. All pipeline and tank systems associated with SX/EW plants shall be designed and operated pursuant to 20.6.7.23 NMAC.

B. Construction.

(1) **New leach stockpile and SX/EW plants.** Construction of a new leach stockpile or SX/EW plant, including expansion of an existing leach stockpile beyond its ground surface footprint on the effective date of the copper mine rule, shall be performed in accordance with the applicable engineering requirements of Subsection A of 20.6.7.20 and 20.6.7.17 NMAC.

(2) **Existing leach stockpiles.** A leach stockpile system, including its associated solution collection or containment system, at a copper mine facility in existence on the effective date of the copper mine rule is not required to meet the design and construction requirements of Subsection A of 20.6.7.20 NMAC and may continue to operate as previously permitted under a discharge permit subject to compliance with the contingency requirements of 20.6.30 NMAC. A permit issued for such an existing leach stockpile system after the effective date of the copper mine rule may include the conditions of the existing discharge permit, which shall not be considered to be "additional conditions" under Subsection I of 20.6.7 NMAC.

C. Operational requirements.

(1) **Leach stockpile operating requirements.** A permittee operating a leach stockpile shall operate the stockpile pursuant to the following requirements.

(a) The stockpile shall remain within the area identified in the discharge permit.

(b) The perimeter of the stockpile and the solution collection system shall be inspected monthly.

(c) Any evidence of instability in the stockpile that could potentially result in a slope failure or an unauthorized discharge shall be reported to the department as soon as possible, but not later than 24 hours after discovery and corrected pursuant to Subsection H of Section 20.6.7.30 NMAC.

(d) Any leaks or spills of PLS or leach solutions outside the leach stockpile or containment system shall be recorded and reported pursuant to 20.6.2.1203 NMAC.

(e) If seeps occur they shall be monitored on a monthly basis and an estimate of the seep flow rate shall be made. Monthly records of the seep inspections and flow rates shall be maintained and included in the site monitoring reports.

(f) Leach solution application rates shall not exceed the maximum rates approved in the discharge permit.

(g) The daily leach solution application and PLS collection rate shall be determined using flow meters installed in accordance with this section and Paragraph (5) of Subsection C of 20.6.7.17 NMAC.

(h) The daily rate and monthly volume of leach solution applied and PLS collected shall be recorded, maintained, and included in the site monitoring reports.

(2) **Solution extraction/electrowinning (SX/EW) plants.** A permittee operating a SX/EW plant shall operate the SX/EW plant pursuant to the following requirements.

(a) All solution management and extraction operations shall be contained within pipeline and tank systems designed and operated pursuant to 20.6.7.23 NMAC or process water impoundments meeting the requirements of Subsection D of 20.6.7.17 NMAC.

(b) Sludge and spent electrolyte from the SX/EW plant shall be either placed upon the leach stockpile for leaching or disposed of at an approved location.

[20.6.7.20 NMAC - N, 12/1/13]

20.6.7.21 REQUIREMENTS FOR COPPER MINE WASTE ROCK STOCKPILES:

A. Material characterization requirements:

(1) **Material characterization and acid mine drainage prediction.** All waste rock stored, deposited or disposed of at a copper mine facility shall be evaluated for its potential to generate acid and to release water contaminants at levels in excess of the standards of 20.6.2.3103 NMAC. A plan for determining the potential of the material to release water contaminants, and the method for such evaluations shall be submitted to the department for approval in a material characterization plan that includes the following.

(a) The geologic, mineralogical, physical, and geochemical characteristics of the material stored, deposited or disposed of at the copper mine facility.

(b) A sampling and analysis plan to provide representative samples of the entire range of material stored, deposited or disposed of at the copper mine facility. The plan shall include quality assurance/quality control procedures to be implemented to ensure the validity of the sample results. The plan shall consider the following factors in collecting and establishing representative samples.

(i) lithological variations;
(ii) particle size distribution of each lithology;
(iii) hydraulic conductivity, water content and matric suction relationship for each lithology;
(iv) mineralogical and textural variations;
(v) the nature and extent of sulfide mineralization;
(vi) color variation;
(vii) degree and nature of fracturing;
(viii) variations in oxidation and reducing conditions; and
(ix) the nature and extent of secondary mineralization.

(c) A static testing program using, at a minimum, acid/base accounting, or a department approved equivalent testing method, to evaluate the acid generation and neutralization potential of the material; and meteoric water mobility procedure or other department approved method for whole rock testing to determine water contaminant leaching potential.

(d) If the results of static testing indicate that a material may be acid generating or may generate a leachate containing water contaminants, a kinetic testing program shall be proposed to evaluate reaction rates, provide data to estimate drainage quality, the lag time to acidification of the material, and primary weathering and secondary mineral precipitation/dissolution as it may affect acidification, neutralization and drainage quality. The length of and means of determining when kinetic tests will be discontinued shall be approved by the department prior to implementation of the kinetic testing program.

(e) If the results of the static testing or kinetic testing indicate that the material will be acid generating or generate water contaminants, and the materials will be placed outside of an open pit surface drainage area, a plan shall be submitted to the department to evaluate whether discharges of leachate from the stockpile may cause an exceedance of applicable standards, including an evaluation of the geology and hydrology of the area

where the material is to be placed. The plan may include either a department approved model or other department approved demonstration.

(f) If an interceptor system pursuant to Subparagraph (d) of Paragraph (1) of Subsection B of this section or a liner system is proposed for storage or disposal of waste rock, the kinetic testing program is not required.

(2) **Material handling plan.** A permittee shall manage waste rock that may generate or release water contaminants according to a material handling plan approved by the department. The material handling plan shall address:

(a) segregation of acid generating materials and materials that may generate or release water contaminants and the method for handling, storage or disposal of the materials in a manner designed to prevent an exceedance of applicable standards;

(b) stockpiling of non-acid generating materials for potential use in neutralizing acid generating materials or in reclamation;

(c) blending or layering of material types to maximize the benefit of acid neutralizing material;

(d) any chemical amendments of the waste rock;

(e) a description of any proposed containment system(s) proposed in accordance with Subsection B of 20.6.7.21 NMAC.

B. Engineering design requirements for new waste rock stockpiles. At a minimum, the following requirements shall be met in designing engineered structures for waste rock stockpiles at copper mine facilities unless the applicant or permittee can demonstrate that an alternate design will provide an equal or greater level of containment.

(1) **New waste rock stockpiles located outside an open pit surface drainage area.** New waste rock stockpiles located outside an open pit surface drainage area shall meet the following requirements unless the applicant or permittee demonstrates through material characterization or implementation of a material handling plan pursuant to Subsection A of this section that the waste rock pile will not cause an exceedence of applicable standards.

(a) Stormwater run-on shall be diverted or contained to minimize contact between stormwater run-on and the stockpiled material.

(b) Seepage from the sides of a waste rock stockpile shall be captured and contained through the construction of headwalls, impoundments and diversion structures as applicable.

(c) Ground water impacted by waste rock stockpiles in excess of applicable standards shall be captured and contained through the construction of interceptor systems as applicable.

(d) The applicant shall submit design plans signed and sealed by a qualified licensed New Mexico professional engineer along with a design report that includes the following.

(i) The proposed areal extent and configuration of the waste rock stockpile.

(ii) The topography of the site where the waste rock stockpile will be located.

(iii) The geology of the site.

(iv) The design of waste rock stockpile seepage collection systems, to be proposed based on consideration of site-specific conditions.

(v) The design of stormwater diversion structures to minimize contact between stormwater run-on and the waste rock material. The design shall consider the amount, intensity, duration and frequency of precipitation; watershed characteristics including the area, topography, geomorphology, soils and vegetation of the watershed; and run-off characteristics of the watershed including the peak rate, volumes and time distribution of run-off events.

(vi) An aquifer evaluation to determine the potential nature and extent of impacts to ground water from the waste rock stockpile based on the proposed waste rock stockpile design and geochemical characteristics. The aquifer evaluation shall include a complete description of aquifer characteristics and hydrogeologic controls on the movement of leachate from the waste rock stockpile and ground water impacted by the waste rock stockpile based on actual field data.

(vii) A design report for a proposed interceptor system for containment and capture of ground water impacted by the waste rock stockpile based on the aquifer evaluation required in Subparagraph (d) of Paragraph (1) of Subsection B of this section. The design report shall include, at a minimum construction drawings and interceptor system performance information, recommended equipment including pumps and meters, recommended pump settings and pumping rates, methods for data collection, and a demonstration that the permittee has adequate water rights to operate the system as designed. The design report shall include a demonstration that the interceptor system design will capture ground water impacted by the waste rock stockpile such that applicable

standards will not be exceeded at monitor well locations specified by 20.6.7.28 NMAC. The interceptor system shall be designed to maximize capture of impacted ground water and minimize the extent of ground water impacted by the waste rock stockpile.

(viii) within 120 days of completion of seepage collection and interceptor system construction, or liner system installation a final report shall be submitted to the department that includes complete as-built drawings and a summary of how the items in Subparagraph (a) of Paragraph (1) of Subsection B of 20.6.7.21 thru Subparagraph (d) of Paragraph (1) of Subsection B of 20.6.7.21 NMAC were incorporated into the design.

(e) If the department determines that the proposed waste rock stockpile, seepage collection and interceptor systems when operated in accordance with the design plan specified in this paragraph would cause ground water to exceed applicable standards at monitoring well locations specified by 20.6.7.28 NMAC, the department shall require additional controls which may include but are not limited to a liner system as additional conditions in accordance with Subsection H of 20.6.7.10 NMAC.

(2) **New waste rock stockpiles located inside an open pit surface drainage area.** Stormwater run-on shall be diverted or contained to minimize contact between stormwater run-on and the stockpiled material.

C. Construction.

(1) **New waste rock stockpiles.** Construction of a new waste rock stockpile shall be performed in accordance with the applicable engineering requirements of Subsection B of 20.6.7.21 NMAC and 20.6.7.17 NMAC.

(2) **Existing waste rock stockpiles.** A waste rock stockpile in existence on the effective date of the copper mine rule is not required to meet the design and construction requirements of Subsection B of 20.6.7.21 NMAC and may continue to operate as previously authorized under a discharge permit unless ground water monitoring of the stockpile pursuant to 20.6.7.28 NMAC requires implementation of corrective action under Subsection A of 20.6.7.30 NMAC. A permit issued for such an existing waste rock stockpile after the effective date of the copper mine rule may include the conditions of the existing discharge permit, which shall not be considered to be "additional conditions" under Subsection I of 20.6.7 NMAC.

D. Operational requirements. A permittee operating a waste rock stockpile shall operate the stockpile pursuant to the following requirements.

(1) The stockpile shall remain within the area identified in the approved design plan required in Paragraph (1) of Subsection B of 20.6.7.21 NMAC.

(2) The perimeter of the stockpile and the solution collection systems shall be inspected monthly.

(3) Any evidence of mass instability in the stockpile that could potentially result in a slope failure that may result in an unauthorized discharge shall be reported to the department as soon as possible, but not later than 24 hours after discovery and corrected pursuant to Subsection H of Section 20.6.7.30 NMAC.

(4) Any leaks or spills of leachate outside the waste rock stockpile and any associated containment system shall be recorded and reported pursuant to 20.6.2.1203 NMAC.

(5) If seeps occur, they shall be monitored on a monthly basis and an estimate of the seep flow rate shall be made. Monthly records of the seep inspections and flow rates shall be maintained and included in the site monitoring reports.

(6) Interceptor system collection rates shall be determined using flow meters installed in accordance with Paragraph (5) of Subsection C of 20.6.7.17 NMAC.

(7) The placement of waste rock shall be in accordance with an operating plan that describes the sequencing of waste rock deposition on an annual basis, operation of seepage collection systems, operation of interceptor systems, operation of systems to return water to the concentrator or other locations as appropriate, and any other water management features.

(8) If an interceptor system to maintain capture of ground water impacted by a waste rock stockpile exists, the permittee shall submit an interceptor system monitoring and evaluation report pursuant to 20.6.7.29 NMAC.

[20.6.7.21 NMAC - N, 12/1/13]

20.6.7.22 REQUIREMENTS FOR COPPER CRUSHING, MILLING, CONCENTRATOR, SMELTING AND TAILINGS IMPOUNDMENT UNITS:

A. Engineering design requirements. At a minimum, the following requirements shall be met in designing crushing, milling, concentrating, smelting and tailings impoundment units at copper mine facilities unless the applicant or permittee can demonstrate that an alternate design will provide an equal or greater level of containment.

(1) **New crushing and milling units.** New crushing and milling units, including associated ore storage, except when located within the open pit surface drainage area, shall be designed to contain and manage all materials containing water contaminants that have the potential to migrate to ground water and cause an exceedance of applicable standards on concrete or low permeability surfaces approved by the department.

(2) **New concentrator units.** New concentrator units shall be designed to contain and manage in tank and pipeline systems designed and operated pursuant to 20.6.7.23 NMAC all materials containing water contaminants that have the potential to migrate to ground water and cause an exceedance of applicable standards. Tailing and concentrate thickener tanks may be constructed with concrete or low permeability bottoms consisting of a minimum of 12 inches of soil that has a minimum re-compacted in-place coefficient of permeability of $1x10^{-6}$ cm/sec. The tank designs shall be based on plans and specifications signed and sealed by a licensed New Mexico professional engineer. For low permeability bottoms, such plans and specifications shall describe how process rates, material density and settling rates were considered in the design to minimize infiltration such that water contaminants in the tank will not migrate to ground water and cause an exceedance of applicable standards.

(3) **New smelting units.** New smelting units shall be designed to contain and manage on impermeable surfaces all materials, including associated slag and flue dust, containing water contaminants that have the potential to migrate to ground water and cause an exceedance of applicable standards.

(4) **New tailings impoundments.** Tailings impoundments shall be designed according to the following requirements.

(a) Stormwater run-on shall be diverted and/or contained to minimize contact between stormwater run-on and the tailing material.

(b) Seepage from the sides of a tailing impoundment shall be captured and contained through the construction of headwalls, impoundments and diversion structures as applicable.

(c) Ground water impacted by the tailing impoundment in excess of applicable standards shall be captured and contained through the construction of interceptor systems designed in accordance with Subparagraph (d) of Paragraph (4) of Subsection A of 20.6.7.22 NMAC.

(d) The applicant shall submit design plans signed and sealed by a licensed New Mexico professional engineer along with a design report that includes the following.

(i) The annual volumes and daily maximum design rates of tailings or other discharge approved by the department to be deposited in the impoundment.

(ii) The topography of the site where the impoundment will be located.

(iii) The geology of the site.

(iv) The design footprint of the tailing impoundment.

(v) The design of tailing seepage collection systems, to be proposed based on consideration of site-specific conditions.

(vi) The design of stormwater diversion structures to minimize contact between stormwater run-on and the tailing material. The design shall consider the amount, intensity, duration and frequency of precipitation; watershed characteristics including the area, topography, geomorphology, soils and vegetation of the watershed; and run-off characteristics of the watershed including the peak rate, volumes and time distribution of run-off events.

(vii) An aquifer evaluation to determine the potential nature and extent of impacts on ground water from the tailings impoundment based on the proposed tailings impoundment design. The aquifer evaluation shall include a complete description of aquifer characteristics and hydrogeologic controls on movement of tailing drainage and ground water impacted by the tailings impoundment.

(viii) A design report for a proposed interceptor system for containment and capture of ground water impacted by the tailings impoundment based on the aquifer evaluation required in Subparagraph (d) of Paragraph (4) of Subsection A of this section. The design report shall include, at a minimum construction drawings and interceptor system performance information, recommended equipment including pumps and meters, recommended pump settings and pumping rates, methods for data collection, and a demonstration that the permittee has adequate water rights to operate the system as designed. The design report shall include a demonstration that interceptor system design will capture ground water impacted by the tailings impoundment such that applicable standards will not be exceeded at monitoring well locations specified by 20.6.7.28 NMAC. The interceptor system shall be designed to maximize capture of impacted ground water and minimize the extent of ground water impacted by the tailings impoundment.

(ix) Within 120 days of seepage collection and interceptor well system construction, or liner system installation a final report shall be submitted to the department that includes complete as-built drawings

and a summary of how the items in Subparagraph (a) thru Subparagraph (d) of Paragraph (4) of Subsection A of 20.6.7.22 NMAC were incorporated into the design.

(e) If the department determines that the proposed tailings impoundment, seepage collection and interceptor systems when constructed and operated in accordance with the design plan specified in this paragraph would cause ground water to exceed applicable standards at monitoring well locations specified by 20.6.7.28 NMAC, the department shall require additional controls, which may include but are not limited to, a liner system as additional conditions in accordance with Subsection I of 20.6.7.10 NMAC.

(5) **New dry stack tailing piles.** New dry stack tailings piles shall comply with the material characterization, engineering design, construction, and operational requirements of 20.6.7.21 NMAC, as applicable.

B. Construction.

(1) **New crushing, milling, concentrating, smelting, or tailings impoundment.** Construction of a new crushing, milling, concentrating, smelting, or tailings impoundment shall be performed in accordance with the applicable engineering requirements of Subsection A of 20.6.7.22 and 20.6.7.17 NMAC.

(2) **Existing crushing, milling, concentrating, smelting or tailings impoundments.** Crushing, milling, concentrating, smelting and tailings impoundments at an existing copper mine facility in existence on the effective date of the copper mine rule are not required to meet the liner, design, and construction requirements of Subsection A of 20.6.7.22 NMAC and may continue to operate as previously authorized under a discharge permit subject to compliance with the contingency requirements of 20.6.7.30 NMAC so long as they are maintained within the existing footprint. A permit issued for such an existing crushing, milling, concentrating, smelting or tailings impoundment after the effective date of the copper mine rule may include the conditions of the existing discharge permit, which shall not be considered to be "additional conditions" under Subsection I of 20.6.7 NMAC.

C. Operational Requirements.

(1) **Tailings impoundment operating requirements.** A permittee operating a tailings impoundment shall operate the impoundment pursuant to the following requirements.

(a) The tailings impoundment shall remain within the area identified in the approved design.

(b) The perimeter of the tailings impoundment and any associated solution collection systems shall be inspected monthly.

(c) Any evidence of instability in the tailings impoundment that could potentially result in a dam failure and an unauthorized discharge shall be reported to the department as soon as possible, but not later than 24 hours after discovery.

(d) Any leaks or spills outside the tailings impoundment and any associated containment system shall be recorded and reported pursuant to 20.6.2.1203 NMAC.

(e) If seeps occur, they shall be monitored on a monthly basis and an estimate of the seep flow rate shall be made. Monthly records of the seep inspections and flow rates shall be maintained and included in the site monitoring reports.

(f) The monthly volume of tailings placed in the impoundment shall be recorded, maintained, and included in the site monitoring reports.

(g) Tailings deposition rates shall not exceed the maximum rates approved in the discharge permit.

(h) The daily tailings deposition and associated solution system collection rate shall be determined using flow meters installed in accordance with Paragraph (5) of Subsection C of 20.6.7.17 NMAC.

(i) The average daily rate and monthly volume of tailings deposited and solution collected shall be recorded, maintained, and included in the site monitoring reports.

(j) The placement of tailings and effluent shall be in accordance with an operating plan that describes the following:

(i) the sequencing of tailings deposition on an annual basis;

(ii) measures to manage the surface impoundment area to maintain adequate freeboard;

(iii) operation of seepage collection systems;

(iv) operation of interceptor systems;

(v) operation of systems to return water to the concentrator or other locations as appropriate; and

(vi) any other water management features.

(k) If an interceptor system to maintain capture of ground water impacted by a tailings impoundment exists on the effective date of the Copper Rule, the permittee shall submit an interceptor system monitoring and evaluation report pursuant to 20.6.7.29 NMAC.

(2) **Smelting units.** A permittee operating a smelting unit shall operate pursuant to the following requirements.

(a) The smelting unit shall remain within the area identified in the discharge permit.

(b) Slag and flue dust generated as a result of smelting activities shall be characterized, managed, and properly stored and disposed of.

(c) Any leaks or spills outside the containment systems of the smelter unit shall be recorded and reported pursuant to 20.6.2.1203 NMAC.

(3) **Crushing, milling and concentrating unit operating requirements.** A permittee operating a crushing, milling, or concentrating unit shall operate pursuant to the following requirements.

(a) The crushing, milling and concentrating operations shall remain within the area identified in the discharge permit.

(b) All containment system structures shall be inspected monthly.

(c) Any leaks or spills of process water outside the containment system shall be recorded and reported pursuant to 20.6.2.1203 NMAC.

[20.6.7.22 NMAC - N, 12/1/13]

20.6.7.23 REQUIREMENTS FOR NEW PIPELINES AND TANKS:

A. Engineering design requirements. At a minimum, the following requirements shall be met in designing new pipeline or tank systems at copper mine facilities that contain process water or impacted stormwater unless the applicant or permittee can demonstrate that an alternate design will provide an equal or greater level of containment.

(1) **New Pipelines.** New pipelines shall:

(a) be constructed of impermeable materials that are compatible with the particular contents that are contained and carried in the pipeline and are resistant to degradation by ultraviolet light if they will be exposed to sunlight;

(b) for pipelines located outside of the open pit surface drainage area and outside an area authorized for discharge of process water, impacted stormwater or tailings, incorporate a mechanism for monitoring the integrity of the pipeline system including visual inspections, pressure change sensors, or other appropriate means; and

(c) for pipelines located outside of the open pit surface drainage area and outside an area authorized for discharge of process water, impacted stormwater or tailings, incorporate a mechanism of secondary containment to contain and control leaks and spills including berms, placement within or drainage toward areas authorized for discharge of the conveyed fluids, and impoundments that are constructed consistent with the requirements of Subsection D of 20.6.7.17.D NMAC.

(2) **Tanks.** New tank systems shall meet the following requirements.

(a) Tanks shall be designed and constructed of steel, concrete or impermeable materials that are compatible with the particular contents that are contained within the tank and resistant to degradation by ultraviolet light where exposed to sunlight.

(b) A tank system shall have a constructed foundation consisting of a stable, level base free of rocks, debris, sharp edges or irregularities that could puncture, crack or indent the tank materials.

(c) A tank system shall be designed to prevent overflow and the collection of surface water run-on.

(d) An above-ground tank system shall be bermed to contain 110 percent of the volume of the largest tank within the system or the largest interconnected tanks.

(e) A below-grade tank system shall either be placed in such a manner that the side walls are open for visual inspection or the tank shall be designed with a secondary containment and leak detection system.

B. Construction.

(1) **New pipeline and tank units.** Construction of a new pipeline or tank system shall be performed in accordance with the applicable requirements of Subsection A of 20.6.7.23 NMAC and 20.6.7.17 NMAC.

(2) **Existing pipeline and tank units.** A pipeline or tank system in existence on the effective date of the copper mine rule is not required to meet the design requirements of Subsection A of 20.6.7.23 NMAC and may continue to operate as previously permitted under a discharge permit provided that, for a tank in contact with the ground surface and located outside an open pit surface drainage area, it is inspected and tested at least once every ten years for integrity pursuant to Subsection C of 20.6.7.23 NMAC. If an existing tank or pipeline system cannot maintain integrity it shall be replaced in accordance with the engineering requirements of Subsection A of 20.6.7.23 NMAC and 20.6.7.17 NMAC as applicable. A permit issued for such an existing tank or pipeline system after the

effective date of the copper mine rule may include the conditions of the existing discharge permit, which shall not be considered to be "additional conditions" under Subsection I of 20.6.7 NMAC.

C. Operational requirements. A permittee operating a pipeline or tank system shall operate the system pursuant to the following requirements, as applicable.

(1) Pipelines and tanks shall remain within the area identified in the discharge permit.

(2) Pipelines, tanks and secondary containment systems shall be inspected on a monthly basis.

(3) The permittee shall maintain and operate a below-grade tank(s) to prevent overtopping of the tank(s).

(4) Any evidence of leaks or spills of fluids, process water or tailings from a pipeline or tank system outside of permitted secondary containment systems or outside an area permitted for discharge shall be recorded, reported and corrected pursuant to Subsection G of 20.6.7.30 NMAC.

(5) Any evidence of leaks or spills of fluids, process water or tailings from a pipeline or tank system inside of permitted secondary containment systems or inside an area permitted for discharge shall be recorded and reported to the department in the semiannual reports submitted pursuant to Subsection A of 20.6.7.29 NMAC.

(6) Existing pipelines that do not meet the engineering requirements of Subsection A of 20.6.7.23 NMAC shall be evaluated for integrity at least once every five years. A pipeline evaluation plan for such pipelines shall be included in an application for renewal of a discharge permit for a copper mine facility.

(7) Existing below-grade tanks that do not meet the engineering requirements of Subsection A of 20.6.7.23 NMAC shall be emptied and visually inspected for integrity at least once every five years.

(8) A written record of all pipeline and tank system inspections and integrity testing shall be maintained by the permittee for a period of at least five years.

(9) Any wastes generated from the cleaning of pipeline or tank systems shall be disposed of offsite in accordance with applicable laws or onsite in a manner approved by the department.

[20.6.7.23 NMAC - N, 12/1/13]

20.6.7.24 REQUIREMENTS FOR OPEN PITS: Operational requirements. A permittee operating an open pit shall operate the open pit pursuant to the following requirements, as applicable.

A. The open pit shall remain within the area identified in the discharge permit.

B. Stormwater shall be diverted outward and away from the perimeter of the open pit and, to the extent practicable, shall not be directed into the open pit.

C. Water generated from within the perimeter of the open pit and pit dewatering activities shall be managed according to a mine operation water management plan. The water management plan shall be submitted to the department for approval in a discharge permit application for a new copper mine facility or in an application for a discharge permit renewal.

D. During operation of an open pit, the standards of 20.6.2.3103 NMAC do not apply within the area of open pit hydrologic containment.

E. Leach stockpiles, waste rock piles, and other regulated mine units in and surrounding an open pit surface drainage area shall be designed and located to minimize the size of the open pit surface drainage area to the extent practicable.

[20.6.7.24 NMAC - N, 12/1/13]

20.6.7.25 REQUIREMENTS FOR UNDERGROUND COPPER MINE FACILITIES:

A. Material characterization requirements: All waste rock removed from an underground mine and taken to the surface shall be characterized and managed pursuant to the copper mine rule. Any waste rock removed from an underground copper mine facility, any tailings or any other waste that is intended to be deposited in the mine shall be evaluated for its potential to generate acid or to release water contaminants that would cause an exceedance of applicable standards following placement in the underground mine. A plan for determining the potential of the material to release water contaminants, and the method for such evaluations, shall be submitted to the department for approval in a material characterization plan pursuant to Paragraph (1) of Section A of 20.6.7.21 NMAC.

B. Deposition of material in an underground copper mine. A permittee of an underground copper mine facility shall not:

(1) deposit any waste rock or tailings in an underground mine that may generate a leachate that may cause an exceedance of applicable standards as determined by Subsection A of this section;

(2) deposit any other wastes in an underground mine unless deposition of the waste is expressly authorized by a discharge permit approved by the department.

C. **Operational requirements.** A permittee authorized to deposit waste rock, tailings or other waste in an underground copper mine shall maintain records of the monthly volume of waste rock, tailings or waste placed in the mine, and include this information in the site monitoring reports submitted pursuant to 20.6.7.29 NMAC.
[20.6.7.25 NMAC - N, 12/1/13]

20.6.7.26 REQUIREMENTS FOR TRUCK AND EQUIPMENT WASHING UNITS:

A. **Engineering design requirements.** At a minimum, the following requirements shall be met in designing new truck and equipment washing units at copper mine facilities unless the applicant or permittee can demonstrate that an alternate design will provide an equal or greater level of containment.

(1) Truck and equipment washing shall be conducted on a concrete pad or a pad constructed of materials of equivalent or lower permeability designed to capture all wash water.

(2) Captured wash water shall freely drain from the containment pad and when necessary be conveyed to an oil water separator to remove oil and grease from the wash water.

(3) Wash water from the oil water separator shall be conveyed to a tank system designed and constructed pursuant to 20.6.7.23 NMAC, an impoundment meeting the requirements of Subsection D of 20.6.2.7.17 NMAC, or may be directed to the mine process water circuit for use.

B. **Construction.**

(1) **New wash units for trucks or equipment.** Construction of new truck or equipment wash shall be performed in accordance with the applicable engineering requirements of Subsection A of 20.6.7.26 and 20.6.7.17 NMAC.

(2) **Existing wash units for trucks and equipment.** A truck or equipment wash unit in existence on the effective date of the copper mine rule and located outside of the open pit surface drainage area shall meet the design requirements of Subsection A of 20.6.7.26 NMAC within one year of the approval of a discharge permit renewal pursuant to the copper mine rule.

C. **Operational requirements.** A permittee operating a truck or equipment wash unit at a copper mine facility shall operate pursuant to the following requirements.

(1) The truck or equipment wash unit shall remain within the area identified in the discharge permit.

(2) Wash water generated at the unit shall be contained within the designed containment pad, separator and tank system, or impoundment until treated to meet applicable standards for discharge or conveyed to the process water circuit.

(3) The tank systems associated with the unit shall meet the operational requirements of 20.6.7.26 NMAC.

(4) Any leaks or spills of wash water from the containment pad, separator, tank system or impoundment shall be shall be recorded, reported and corrected pursuant to Subsection G of 20.6.7.30 NMAC.

(5) Any wastes generated from the oil water separator or the tank system shall be disposed of offsite in accordance with applicable laws or onsite in a manner approved by the department.
[20.6.7.26 NMAC - N, 12/1/13]

20.6.7.27 [RESERVED]

20.6.7.28 WATER QUALITY MONITORING REQUIREMENTS FOR ALL COPPER MINE FACILITIES: The following water quality monitoring requirements apply to all copper mine facilities unless otherwise specified.

A. **Monitoring wells - location proposals.** An applicant for a new, renewed or modified discharge permit or permittee shall submit a plan for department approval identifying the proposed location of monitoring wells required pursuant to Subsection B of this section, and shall include the following information.

(1) The location of each monitoring well relative to the unit of the copper mine facility it is intended to monitor shall be indicated on the scaled map required by Subsection J of 20.6.7.11 NMAC.

(2) The ground water flow direction beneath the copper mine facility used to determine the monitoring well location(s), including supporting documentation used to determine ground water flow direction.

B. **Monitoring wells – required locations.** A permittee shall monitor ground water quality as close as practicable around the perimeter and downgradient of each open pit, leach stockpile, waste rock stockpile, tailings impoundment, process water impoundment, and impacted stormwater impoundment The department may require additional wells around the perimeter of mine units that are underlain by areas where ground water flow directions are uncertain, including fracture flow systems, and around copper mine units that have the potential to cause ground water mounding. The department may require additional monitoring wells at any other unit of a copper mine facility

that has the potential to cause an exceedance of applicable standards as additional permit conditions in accordance with Subsection I of 20.6.7.10 NMAC. Monitoring wells shall be located pursuant to this section to detect an exceedance(s) or a trend towards exceedance(s) of the applicable standards at the earliest possible occurrence, so that investigation of the extent of contamination and actions to address the source of contamination may be implemented as soon as possible.

(1) **Use of existing monitoring wells.** A monitoring well in existence before the effective date of the copper mine rule shall be deemed to be in an approved location for ground water monitoring purposes provided the following requirements are met:

(a) the monitoring well location was previously approved by the department; and

(b) the monitoring well is constructed as previously approved by the department; or

(c) if the monitoring well and construction was not previously approved by the department, the applicant or permittee can demonstrate that the well meets the location and construction requirements of this section.

(2) **Ground water monitoring – leach stockpiles, waste rock stockpiles, tailings impoundments.** A permittee shall install monitoring wells around the perimeter and downgradient of each new leach stockpile, waste rock stockpile and tailings impoundment located outside of the open pit surface drainage area, including its leachate and solution capture and containment systems, to adequately monitor ground water that may be impacted by water contaminants from those units. Each monitoring well shall be installed as close as practicable to the proposed leach stockpile, waste rock stockpile or tailings impoundment, including its leachate and solution capture and containment systems, taking into account surface topography, hydrogeologic conditions, geologic controls, infrastructure, engineering design plans, depth to ground water, working distance and safety.

(a) For a new copper mine facility, the monitoring well networks shall be installed at least 180 days before emplacement of ore, waste rock or discharge of tailings at an individual leach stockpile, waste rock stockpile or tailings impoundment to allow sampling prior to discharge.

(b) A permittee constructing a new leach stockpile, waste rock stockpile or tailings impoundment at an existing copper mine facility, or expanding the footprint of an existing leach stockpile, waste rock stockpile, or tailings impoundment, shall install the monitoring well networks required to monitor ground water around and downgradient of the leach stockpile, waste rock stockpile or tailings impoundment before emplacement of ore, waste rock or discharge of tailings unless an existing monitor well network adequately monitors water quality in the area of the new leach stockpile, waste rock stockpile or tailings impoundment.

(3) **Ground water monitoring – process water and impacted stormwater impoundments.** A minimum of one monitoring well shall be located downgradient and within 75 feet (measured as horizontal map distance) or as close as practicable taking into account surface topography, hydrogeologic conditions, infrastructure, working distance and safety of each new process water or impacted stormwater impoundment located outside of an open pit surface drainage area.

(a) For a new copper mine facility, monitoring wells shall be installed at least 90 days before discharging to an individual process water or impacted stormwater impoundment at the copper mine facility to allow for sampling prior to discharge.

(b) A permittee constructing a new process water or impacted stormwater impoundment at an existing copper mine facility shall install the monitoring well(s) required to monitor ground water downgradient of the impoundment before discharging process water to the impoundment, before collecting impacted stormwater in the impoundment unless an existing monitor well network adequately monitors water quality in the area of the new impoundment.

(4) **Ground water monitoring – open pit.** A permittee shall install a sufficient number of monitoring wells around the perimeter of an open pit to monitor ground water quality and the hydrologic gradient around the pit. For a new open pit, an applicant or permittee shall submit a monitor well network installation plan to the department for approval. The plan shall include proposed locations of monitoring wells, a statement of the reasons for selection of the monitoring well locations, and a schedule for installation.

(5) **Ground water monitoring – upgradient of each potential contaminant source.** A minimum of one monitoring well shall be located upgradient of each new leach stockpile, waste rock stockpile, tailings impoundment, and process water and impacted stormwater impoundment at a copper mine facility to establish upgradient ground water quality conditions not likely to be affected by each contamination source that is being monitored. If an applicant or permittee has existing monitoring wells located appropriately to obtain sufficient background data at a copper mine facility and establish and monitor upgradient conditions, the department may waive the requirement for additional upgradient wells.

(a) For a new copper mine facility, upgradient source monitoring wells shall be installed a minimum of 180 days before emplacement of ore, waste rock or discharge of tailings or other water contaminants at an individual leach stockpile, waste rock stockpile, tailings impoundment or other impoundment.

(b) A permittee constructing a new leach stockpile, waste rock stockpile, tailings impoundment or other impoundment at an existing copper mine facility shall install the monitoring well(s) required to monitor ground water quality upgradient of a leach stockpile, waste rock stockpile, tailings impoundment or other impoundment before emplacement of ore, waste rock or discharging of tailings or water contaminants into the individual source required to be monitored.

(6) **Ground water monitoring – upgradient of the copper mine facility.** A sufficient number of monitoring wells shall be located upgradient of all potential ground water contamination sources at a copper mine facility to establish upgradient ground water quality conditions that are not affected by any potential contamination sources at the copper mine facility. For a new copper mine facility, upgradient monitoring wells shall be installed at least 180 days before emplacement of ore, waste rock or discharge of tailings or other water contaminants at an individual leach stockpile, waste rock stockpile, tailings impoundment or other impoundment.

C. Monitoring wells – identification tags. A permittee shall clearly identify all monitoring wells required by the copper mine rule with a permanent well identification tag that contains well identification nomenclature included on the scaled map required by Subsection J of 20.6.7.11 NMAC.

D. Monitoring wells – construction and completion. A permittee shall construct monitoring wells pursuant to 19.27.4 NMAC and the following requirements unless the department approves of an alternate monitoring well construction and completion design based upon site-specific hydrogeologic conditions.

(1) All well drilling activities shall be performed by an individual with a current and valid well driller license issued by the state of New Mexico pursuant to 19.27.4 NMAC.

(2) The well driller shall employ drilling methods that allow for accurate determinations of water table locations unless otherwise approved by the department in advance of drilling. All drill bits, drill rods, and down-hole tools shall be thoroughly cleaned immediately before drilling. The borehole diameter shall allow a minimum annular space of two inches between the outer circumference of the well materials (casing or screen) and the borehole wall to allow for the emplacement of sand and sealant.

(3) The well shall be developed so that formation water flows freely through the screen and is not turbid, and sediment and drilling disturbances are removed from the well to the maximum extent practicable.

(4) Unless otherwise approved by the department, schedule 40 (or heavier) polyvinyl chloride (PVC) pipe, stainless steel pipe, or carbon steel pipe shall be used as casing. The casing shall have an inside diameter not less than two inches. The casing material selected for use shall be compatible with, and chemically inert with respect to the anticipated chemistry of the ground water and appropriate for the contaminants of interest at the copper mine facility. The casing material and thickness selected for use shall have sufficient collapse strength to withstand the pressure exerted by grouts used as annular seals and thermal properties sufficient to withstand the heat generated by the hydration of cement-based grouts.

(5) Casing sections shall be joined using welded, threaded, or mechanically locking joints. The method selected shall provide sufficient joint strength for the specific well installation.

(6) The casing shall extend from the top of the screen to at least 18 inches above ground surface. The top of the casing shall be fitted with a removable cap, and the exposed casing shall be protected by a locking steel well shroud. The shroud shall be large enough in diameter to allow easy access for removal of the cap. Alternatively, monitoring wells may be completed below grade. In this case, the casing shall extend from the top of the screen to between six and twelve inches below the ground surface; the monitoring wells shall be sealed with locking, expandable well plugs; a flush-mount, watertight well vault that is rated to withstand traffic loads shall be emplaced around the wellhead; and the cover shall be secured with at least one bolt. The vault cover shall indicate that the wellhead of a monitoring well is contained within the vault.

(7) **Well Screen.**

(a) **For water table monitoring wells.** A maximum 20-foot section of continuous well screen shall be installed across the water table with at least five feet of well screen placed above the water table interface to allow for seasonal fluctuations. The department may approve a greater screen length based on the hydraulic properties of the aquifer, the hydrogeologic setting, predictable water level decline rates, or the depth of the well. Screen shall consist of continuous-slot, machine slotted, or other manufactured schedule 40 (or heavier) PVC or stainless steel. Screens created by cutting slots into solid casing with saws or other tools, other than as performed by the manufacturer, shall not be used. The screen material selected for use shall be compatible with the anticipated chemistry of the ground water and appropriate for the contaminants of interest at the copper mine facility. The screen slot size shall be selected to retain 90 percent of the filter pack.

(b) **For deep or confined aquifer monitoring wells.** Monitoring wells installed in confined aquifers or below the water table elevation of the shallowest aquifer to monitor ground water conditions in different aquifers at depth shall be installed with a maximum ten foot section of continuous well screen. The department may approve a greater screen length based on the hydraulic properties of the aquifer, the hydrogeologic setting, or the depth of the well. The top of the screen shall be placed at the location of the geologic boundary between the top of the aquifer and the bottom of confining aquifers. Screen shall consist of continuous-slot, machine slotted, or other manufactured schedule 40 or heavier PVC or stainless steel. Screens created by cutting slots into solid casing with saws or other tools shall not be used. The screen material selected for use shall be compatible with the anticipated chemistry of the ground water and appropriate for the contaminants of interest at the copper mine facility. The screen slot size shall be selected to retain 90 percent of the filter pack.

(8) Screen sections shall be joined using welded, threaded, or mechanically locking joints. The method selected shall provide sufficient joint strength for the specific well installation and shall not introduce constituents that may reasonably be considered contaminants of interest at the copper mine facility. A cap shall be attached to the bottom of the well screen.

(9) Casing and well screen shall be centered in the borehole by installing centralizers near the top and bottom of the well screen.

(10) A filter pack shall be installed around the screen by filling the annular space from the bottom of the screen to at least two feet above the top of the screen with clean silica sand using methods that prevent bridging. The filter pack shall be properly sized to exclude the entrance of fine sand, silt, and clay from the formation into the monitoring well. All filter pack placed deeper than twenty feet below land surface shall be placed by tremie pipe. The well shall be surged or bailed to settle the filter pack and additional sand added, if necessary, before the bentonite seal is emplaced.

(11) A bentonite seal shall be constructed immediately above the filter pack by emplacing bentonite chips or pellets, three eighths of an inch in size or smaller, in a manner that prevents bridging of the chips/pellets in the annular space. All bentonite seals placed deeper than twenty feet below land surface shall be placed by tremie pipe. The bentonite seal shall be a minimum of three feet in thickness and hydrated with clean water. Adequate time shall be allowed for expansion of the bentonite seal before installation of the annular space seal.

(12) The annular space above the bentonite seal shall be sealed with cement grout or bentonite-based sealing material acceptable to the state engineer in accordance with 19.27.4 NMAC. All annual sealing materials placed deeper than twenty feet below land surface shall be placed by tremie pipe. Annular space seals shall extend from the top of the bentonite seal to the ground surface for wells completed above grade, or to a level three to six inches below the top of casing for wells completed at or below grade.

(13) A concrete pad with a minimum two-foot radius and a minimum four-inch thickness shall be poured around the shroud or well vault and wellhead. The concrete and surrounding soil shall be sloped to direct rainfall and runoff away from the wellhead.

E. Monitoring wells – office of the state engineer requirements. A permittee shall obtain any well permits required by the office of the state engineer prior to well drilling.

F. Ground water sample collection procedure. A permittee shall perform all ground water sample collection, preservation, transport and analysis according to the following procedure.

(1) Depth to ground water shall be measured from the top of well casing at point of survey to the nearest 0.01 feet using an electronic water level indicator consisting of dual conductor wire encased in a cable or tape graduated to 0.01 feet, a probe attached to the end of the conductor wire, and a visual or audible indicator; pneumatically or by using a fiberglass or steel measuring tape using the chalk method, or other method approved by the department.

(2) Monitoring wells shall be purged before sample collection by one of the following methods, unless otherwise approved by the department.

(a) Three well volumes of water shall be purged from the well using conventional methods before sample collection.

(b) The monitoring well shall be purged using low-flow purging methods as approved by the department until measurements of indicator parameters have stabilized. Low-flow purging shall be conducted with a low-flow pump using a low-stress approach, micro-purge method or minimal drawdown method. Indicator parameters shall be measured periodically during purging. A parameter stabilization log shall be kept during each sampling event for each monitoring well and include: date; water quality indicator parameter measurements; time for all measurements; and the purge volume extracted.

(c) For low yield wells, the well shall be purged of all available water.

(3) Following purging and immediately before sample collection the following field parameters shall be measured and recorded: pH, specific conductance, and temperature.

(4) In-line flow-through cells shall be disconnected or by-passed during sample collection, if used during purging.

(5) Samples from the well shall be obtained, prepared, preserved and transported to an analytical laboratory for analysis pursuant to the methods authorized by Subsection B of 20.6.7.29 NMAC.

G. Ground water sampling – existing copper mine facilities. For existing copper mine facilities a permittee shall collect ground water samples from all monitoring wells, seeps and springs for the analytes and at the frequency specified in an existing discharge permit. A permittee shall submit to the department semi-annual monitoring reports containing the information required in Section 20.6.7.29 NMAC.

H. Ground water sampling – reduction of sampling analytes. A permittee may request approval from the department to reduce the sampling frequency of individual water quality analytes. The basis for consideration of reduction of sampling frequency may include a demonstration that the analyte is not present in the impoundment or mine unit being monitored, or could not be generated from the materials present through degradation, oxidation, decay or any other expected process. A permittee may also request approval from the department to reduce sampling frequency of an individual analyte if it has not been detected in a particular monitoring well, is consistently below the applicable standard, or is stable and predictable for eight consecutive quarters. Ground water sampling analyte lists and the frequency of sampling shall be reevaluated upon permit renewal.

I. Ground water sampling – new monitoring wells. A permittee shall submit to the department for approval a proposal for quarterly ground water sampling from each newly installed monitoring required pursuant to this section. Sampling analyte lists shall be based on the geochemical characteristics of the solution or material contained in the impoundment or mine unit intended to be monitored, including constituents that can be generated from the materials present through degradation, oxidation, decay or any other expected process. Proposed analytes shall include field parameters as required in Subsection F of this section, alkalinity-bicarbonate, alkalinity-carbonate, metals, and other analytes from Section 20.6.2.3103 NMAC as applicable.

(1) Samples shall be collected from each newly installed monitoring well required pursuant to this section for a copper mine facility before emplacement of ore, waste rock or discharge of tailings or other water contaminants at an individual leach stockpile, waste rock stockpile, tailings impoundment or other impoundment.

(2) For copper mine facilities installing a new monitoring well during the term of a discharge permit, during construction of a new impoundment, or as a result of required corrective actions, samples shall be collected from the newly installed monitoring wells within 30 days of well completion and prior to commencing operation of the newly constructed unit as applicable.

J. Monitoring well survey and ground water flow determination. The permittee shall survey or otherwise locate monitoring wells and provide location information as required by this section. The coordinate location (northing and easting) shall be provided in the established coordinate system for the copper mine facility with an accuracy (rounded to the nearest foot/tenth meter) and shall also be provided to the department in one of the following coordinate systems: NM state plane (NAD 83) to the nearest foot, UTM (NAD 83) to the nearest tenth of a meter, or latitude/longitude (Lat/Long - WGS84) to the nearest tenth of a second. Elevation of the ground surface at the well location shall be provided to the nearest foot above mean sea level. Elevation of the water level measuring point shall be provided to the nearest hundredth of a foot above mean sea level. The water level measuring point for monitoring wells shall be clearly marked on the casing. Depth to ground water at each monitoring well location shall be measured from the point of survey to the nearest hundredth of a foot in all surveyed wells pursuant to Subsection F of this section, and the data shall be used to develop a map showing the location of all monitoring wells and the direction and gradient of ground water flow at the copper mine facility.

K. Monitoring well completion report. A permittee shall submit to the department a monitoring well completion report for all newly installed monitoring wells. The report shall be submitted within 60 days of completion of installation of the monitoring well. The report shall contain the following information.

(1) Construction and lithologic logs for the new monitoring wells including well record information specified by 19.27.4 NMAC.

(2) Depth to ground water measured in each new monitoring well.

(3) Survey data and a survey map showing the locations of each new monitoring well and a ground water elevation contour map developed pursuant to Subsection L of this section.

(4) Analytical results of ground water samples collected from the new monitoring wells, including laboratory quality assurance and quality control summary reports, and field parameter measurements.

L. Ground water elevation contour maps. A permittee shall develop ground water elevation contour maps on a semi-annual basis using data associated with all monitoring wells installed in the appropriate geologic formation and as required pursuant to this section. Top of casing elevation data, obtained from monitoring well surveys completed pursuant to this section and quarterly depth to ground water measurements in monitoring wells shall be used to calculate ground water elevations at monitoring well locations. Ground water elevations between monitoring well locations shall be estimated using common interpolation methods. Ground water elevations shall be expressed in feet. A contour interval appropriate to the data shall be used. Ground water elevation data used to create potentiometric maps shall be limited to data collected during the quarter being reported. Ground water elevation contour maps shall depict the ground water flow direction, using arrows, based on the orientation of the ground water elevation contours, and the location and identification of each monitoring well and monitored structure or impoundment. A permittee shall submit ground water elevation contour maps to the department in the semi-annual monitoring reports, and submit annually a map showing the extent of the existing open pit surface drainage area as defined in Paragraph (43) of Subsection B of 20.6.7.7 NMAC.

M. Perennial stream sampling and reporting – routine. A permittee shall submit to the department for approval a proposal to collect quarterly surface water samples from each perennial surface waters of the state within a copper mine facility as necessary to monitor potential ground water inflow to the perennial surface water. Analytes to be sampled and analyzed shall be based on the geochemical characteristics of the solution or material contained in the impoundment or mine unit closest to or most likely to effect the perennial stream being sampled. A permittee shall submit to the department in the semi-annual monitoring reports the field parameter measurements, the analytical results (including the laboratory quality assurance and quality control summary report) and a map showing the location of each sampling location in relation to the copper mine facility.

N. Process water, tailings slurry, impacted stormwater, seep, and spring sampling and reporting. An applicant for a new, renewed or modified discharge permit or permittee shall submit for department approval a sampling and analysis plan to monitor quarterly the quality of process water, tailings slurry, impacted stormwater, seeps and springs at a copper mine facility. Proposed analytes shall include field parameters as required in Subsection F of this section, alkalinity-bicarbonate, alkalinity-carbonate, metals, and other analytes from Section 20.6.2.3103 NMAC as applicable.

[20.6.7.28 NMAC - N, 12/1/13]

20.6.7.29 GENERAL MONITORING REQUIREMENTS FOR ALL COPPER MINE FACILITIES:

A. Monitoring reports – schedule of submittal. A permittee shall submit monitoring reports to the department on a semi-annual schedule that shall contain all quarterly monitoring data and information collected pursuant to the copper mine rule. Semi-annual monitoring reports shall be submitted according to the following schedule:

(1) January 1 through June 30 (first and second quarter sample periods) – report due by August 31; and

(2) July 1 through December 31 (third and fourth quarter sample periods) – report due by February 28.

B. Monitoring reports – general requirements. A permittee shall submit monitoring reports to the department that include a summary providing of all activities related to discharges at the copper mine facility during the preceding six months including, but not limited to the following:

(1) operational activities;
(2) minor spills and corrective actions not reportable under Section 20.6.2.1203 NMAC;
(3) major spills and corrective actions reportable under Section 20.6.2.1203 NMAC;
(4) maintenance and repairs of discharge systems or units;
(5) a synopsis of completed studies relevant to the copper mine facility or unit;
(6) monitoring well installation and abandonment;
(7) construction or demolition of structures;
(8) general locations and volumes of leach ore placement;
(9) general locations and volumes of waste rock placement; and
(10) a summary of seep and spring flows, if applicable.

C. Monitoring Reports – analytical requirements. A permittee shall submit monitoring reports to the department that include the following analytical information.

(1) A single table shall be provided semi-annually in a paper and electronic spreadsheet format approved by the department. The table shall include water quality data with those parameters analyzed and water levels measured shown in columns. Single sampling events for each monitoring site shall be shown in rows with the

site name in the far left column, the sampling date in the second column, the water level in the third column, followed by individual analytes in the following columns. Tabulated electrical conductivity shall include the measured field values and corrected values to 25 degrees Celsius. Values exceeding standards shall be bolded. Any constituent not analyzed for a particular site shall be shown as "NA", any site not sampled shall be shown as "NS" with an associated reason, and any site not measured for water levels shall be shown as "NM" with an associated reason.

(2) Semi-annual monitoring reports shall include water quality trends, laboratory CQA/CQC, trends in hydrographs, and potentiometric surface maps. At a minimum, graphs with the previous five years of indicator parameter data shall be presented for TDS, sulfate, and water levels. pH may substituted for water levels at reservoirs or springs.

D. Sampling and analysis methods. A permittee shall sample and analyze water pursuant to Subsection B of 20.6.2.3107 NMAC.

E. Process water, leach solutions, tailings and liner solution collection system volume measurement and reporting. A permittee shall measure the volume of process water, leach solutions applied, and tailings discharges and solution collection system fluids collected using flow meters pursuant to Paragraph (5) of Subsection C of 20.6.7.16 NMAC. Meter readings shall be recorded at intervals no less than once per week. The average daily discharge volume for each recording interval shall be calculated by dividing the difference between the meter readings by the number of days between meter readings. The permittee shall provide the meter readings including the date, time and units of each measurement, and calculations for the average daily volumes discharged and collected in gallons per day, in the semi-annual monitoring reports submitted to the department.

F. Flow meter accuracy. Flow meters shall be monitored for accuracy by comparing flow meter readings with prior readings and noting any significant variations in readings that are not consistent with changes in operating conditions. If a flow meter shows inconsistent readings or otherwise appears to be non-operational, the permittee shall make a record of the inconsistent readings and shall repair or replace a flow meter that does not appear to be operating properly with a flow meter calibrated according to the flow metering plan pursuant to Paragraph (5) of Subsection C of 20.6.7.17 NMAC. The permittee shall submit the results of any inconsistent meter readings and the repair or replacement of any flow meter(s) to the department annually in the monitoring report due by February 1, including information on the location and meter identification nomenclature specified in Paragraph (1) of Subsection E of 20.6.7.18 NMAC.

G. Meteorological data. A permittee shall annually submit to the department meteorological data collected at sites throughout the copper mine facility during each calendar year according to the approved meteorological data plan submitted pursuant to Subsection W of 20.6.7.11 NMAC. The data shall be submitted to the department in the monitoring report due on February 28 of each year.

H. Interceptor system monitoring and evaluation. A permittee operating an interceptor well system for a tailing impoundment or a waste rock stockpile shall provide an annual monitoring and evaluation report of the interceptor system. The report shall be submitted to the department in the monitoring report due by February 28 of each year and shall include the following information obtained from within and surrounding the interceptor system as applicable:

(1) monthly measurements of the volume of impacted ground water pumped by individual wells, interceptor trenches, or other interceptor system components and the total volume pumped within the monitoring period;

(2) the operational status of interceptor system components;

(3) water level measurements of monitoring and interceptor wells or other system components as applicable;

(4) semi-annual ground water elevation contour maps pursuant to the requirements of Subsection L of 20.6.7.28 NMAC;

(5) semi-annual iso-concentration maps of contaminants of concern; and

(6) an annual performance evaluation assessment of the interceptor well system that contains information on:

(a) the performance of individual interceptor wells and/or other interceptor system components over time;

(b) accumulated drawdown maps showing the historical change in water level;

(c) time series hydrographs and graphs of water quality trends for contaminants of concern covering at a minimum data from the past five year time period;

(d) water quality distribution within the system over time;

(e) cross-sectional diagrams depicting the geologic, water level elevation and water quality in vertical profile;

(f) an analysis of the data, maps, graphs and diagrams contained in the assessment; and

(g) recommendations for changes to optimize performance of the system.

[20.6.7.29 NMAC - N, 12/1/13]

20.6.7.30 CONTINGENCY REQUIREMENTS FOR COPPER MINE FACILITIES:

A. Exceedance of ground water standards. If monitoring of a water contaminant source indicates that applicable standards are exceeded, or if the extent or magnitude of existing ground water contamination is significantly increasing, the permittee shall collect a confirmatory sample from the monitoring location(s) within 15 days to confirm the initial sampling results, unless the permittee elects to accept the initial sampling results as an accurate measurement of water quality. Within 30 days of the confirmation of the exceedance of applicable standards or significant increases in existing contamination, the permittee shall take the following actions. The department may approve a longer time period not to exceed 90 days for good cause shown.

(1) A corrective action plan shall be submitted to the department for approval. The corrective action plan shall describe any repairs made or proposed to address the cause of the exceedance or increase and shall propose source control measures and a schedule for implementation. The department shall approve or disapprove the corrective action plan within 60 days of receipt. Following the department's approval of the corrective action plan, the permittee shall initiate implementation of the plan according to the approved schedule. If the department does not approve the corrective action plan, the department shall notify the permittee of the deficiencies by certified mail. The permittee shall submit a revised corrective action plan to the department within 60 days of the date of postal notice of the notice of deficiency. The department shall approve or disapprove the revised corrective action plan within 60 days of receipt.

(2) If the corrective action plan proposes actions to correct deficiencies with a liner, the proposed actions shall include repair or replacement of the existing liner, or construction and lining of a new impoundment. If liner repair is practicable, repairs shall be made pursuant to 20.6.7.17 NMAC or using a material that is equivalent to the existing liner with respect to material thickness and composition. Repairs shall be completed in accordance with the approved schedule. If liner repair is not practicable, the corrective action plan shall propose reconstruction and relining of the impoundment pursuant to 20.6.7.17 NMAC or construction and lining of a new impoundment pursuant to 20.6.7.17 NMAC. Reconstruction or construction plans and specifications for the impoundment shall be completed pursuant to 20.6.7.17 NMAC and submitted with the corrective action plan along with a schedule for implementation. If a new impoundment is constructed the existing impoundment shall be closed pursuant to 20.6.7.33 NMAC.

(3) The permittee may be required to submit to the department for approval an abatement plan, which includes a site investigation to define the source, nature and extent of contamination; a proposed abatement option, and a schedule for its implementation. The site investigation and abatement option shall be consistent with the requirements and provisions of Sections 20.6.2.4101, 20.6.2.4103, 20.6.2.4106, 20.6.2.4107, 20.6.2.4108 and 20.6.2.4112 NMAC.

(4) A corrective action plan or abatement plan approved or submitted prior to the date of the copper mine rule shall satisfy the requirements of this subsection provided that any substantial change in monitoring results after the effective date of the copper mine rule may require additional corrective action under this Subsection or modification of a previously approved or submitted corrective action plan or abatement plan.

B. Monitoring well replacement. If information available to the department indicates that a monitoring well(s) required by 20.6.7.28 NMAC is not located downgradient of or does not adequately monitor the contamination source it is intended to monitor, is not completed pursuant to 20.6.7.28 NMAC, or contains insufficient water to effectively monitor ground water quality, a permittee shall install a replacement monitoring well(s). The replacement monitoring well(s) shall be installed within 120 days of the date of postal notice of notification from the department and a survey of the replacement monitoring well(s) shall be performed within 150 days of the date of postal notice of notification from the department. The replacement monitoring well(s) shall be located, installed, completed, surveyed and sampled pursuant to 20.6.7.28 NMAC. The permittee shall develop a monitoring well completion report pursuant to Subsection K of 20.6.7.28 NMAC and submit it to the department within 180 days of the date of postal notice of notification from the department. The department may approve longer time periods for good cause shown.

C. Exceedance of permitted maximum daily discharge volume. If the maximum daily discharge volume authorized by the discharge permit at a particular permitted location is exceeded by more than 10% for any three average daily discharge volumes within any one year period, the permittee shall submit within 60 days of the

third exceedance a corrective action plan for reducing the discharge volume or an application for a modified or renewed and modified discharge permit pursuant to 20.6.7.10 NMAC. Within 30 days of postal notice of department approval, the permittee shall initiate implementation of the corrective action plan.

D. Insufficient impoundment capacity. If a survey or capacity calculations indicate an existing impoundment or impoundment system is not capable of meeting the capacity requirements in Subsection D of 20.6.7.17 NMAC, within 90 days of the effective date of the discharge permit the permittee shall submit a corrective action plan for department approval. The plan may include, but is not limited to, proposals for constructing an additional impoundment, reducing the discharge volume, removing accumulated solids, or changing process water or impacted stormwater management practices. The corrective action plan shall include a schedule for implementation. The schedule shall propose completion within one year from the submittal date of the initial corrective action plan. Within 30 days of the date of postal notice of the department's approval of the corrective action plan, the permittee shall initiate implementation of the plan. Should the corrective action plan include removal of accumulated solids, solids shall be removed from the impoundment in a manner that is protective of the impoundment liner. The plan shall include the method of removal, and locations and methods for storage and disposal of the solids.

E. Inability to preserve required freeboard. If a minimum of two feet of freeboard cannot be preserved in the process water or impacted stormwater impoundment, the permittee shall submit a corrective action plan to the department for approval. The corrective action plan shall be submitted within 30 days of the date of discovery of the initial exceedance of the freeboard requirement. The plan may include, but is not limited to, proposals for constructing an additional impoundment, reducing the maximum daily discharge volume, or changing process water or impacted stormwater management practices. The corrective action plan shall include actions to be immediately implemented to regain and maintain a minimum of two feet of freeboard until permanent corrective actions have been completed. The corrective action plan shall include a schedule for implementation. The schedule shall propose completion within one year from the submittal date of the initial corrective action plan. Within 30 days of the date of postal notice of the department's approval of the corrective action plan, the permittee shall initiate implementation of the plan.

F. Impoundment – structural integrity compromised. Within 24 hours of discovery, a permittee shall report to the department any damage to the berms or the liner of an impoundment or any condition that may compromise the structural integrity of the impoundment. Within 15 days of discovery, the permittee shall submit to the department a corrective action plan describing any actions taken or proposed to be taken to repair the damage or condition. Within 30 days of receipt, the department shall approve or disapprove the proposed corrective action plan. Repairs to the impoundment liner or berms shall be completed pursuant to 20.6.7.17 NMAC. The corrective action plan shall include a schedule for implementation. Within 30 days of the date of postal notice of the department's approval of the corrective action plan, the permittee shall initiate implementation of the plan.

G. Unauthorized discharge – reporting and correction. In the event of a spill or release that is not authorized by the discharge permit, the permittee shall notify the department and take corrective actions pursuant to 20.6.2.1203 NMAC. Process water or impacted stormwater or other material that is spilled or released that has the potential to impact water quality shall be contained and pumped to a sump, impoundment, or leach stockpile permitted pursuant to the copper mine rule. The permittee shall repair or replace failed components within 48 hours from the time of failure or as soon as practicable.

H. Leach stockpiles, tailings impoundment or waste rock stockpiles – unstable slopes. Within 24 hours of discovery, a permittee shall report to the department any evidence of instability of the slope of a leach stockpile or tailings impoundment or any condition that may compromise the structural integrity of the leach stockpile, tailings impoundment or waste rock stockpile. Within 15 days of discovery, the permittee shall submit to the department a corrective action plan describing any actions taken or proposed to be taken to repair the damage or condition. Within 30 days of receipt, the department shall respond to the proposed corrective action plan. Repairs to the slopes shall be completed consistent with the requirements of 20.6.7.20, 20.6.7.21, 20.6.7.22, and 20.6.7.33 NMAC, as applicable. The corrective action plan shall include a schedule for implementation. Within 30 days of the date of postal notice of the department's approval of the corrective action plan, the permittee shall initiate implementation of the plan.

I. Erosion of cover system or compromised stormwater conveyance structure, ponding of stormwater, or other conditions. Within 24 hours of discovery, a permittee shall report to the department any evidence of significant erosion of a cover system required by 20.6.7.33 NMAC or compromise of a stormwater conveyance structure; any significant ponding of stormwater on the cover system; or any other condition that may significantly compromise the cover system or stormwater conveyance structure. Within 15 days of the reported discovery, the permittee shall submit to the department a corrective action plan describing any actions taken or

proposed to be taken to repair the damage or condition. Within 30 days of receipt, the department shall respond to the proposed corrective action plan. Repairs to the cover system or stormwater conveyance structure shall be completed consistent with the applicable requirements of 20.6.7.33 NMAC. The corrective action plan shall include a schedule for implementation. Within 30 days of the date of postal notice of the department's approval of the corrective action plan, the permittee shall initiate implementation of the plan.

J. Water management and water treatment system failure. Within 24 hours of discovery, a permittee shall report to the department any significant failure of a water management or water treatment system constructed and operated pursuant to 20.6.7.33 NMAC or any condition that may cause a significant failure of the water treatment system. Within 15 days of the reported discovery, the permittee shall submit to the department a corrective action plan describing any actions taken or proposed to be taken to repair the damage or condition. Within 30 days of receipt, the department shall respond to the proposed corrective action plan. Repairs to the water treatment system shall be completed consistent with the applicable requirements of 20.6.7.33 NMAC. The corrective action plan shall include a schedule for implementation. Within 30 days of the date of postal notice of the department's approval of the corrective action plan, the permittee shall initiate implementation of the plan.

K. Interim Emergency Water Management. An applicant or permittee shall develop and submit to the department an interim emergency fluid management plan. The purpose of the interim emergency water management plan is to provide information to the department on how process water systems, interceptor wells, seepage collection systems and storm water management systems are operated and maintained to prevent discharges in the event the department assumes management of the copper mine facility. An applicant or permittee shall include in the plan process water flow charts showing electrical system requirements, pump operations, seepage collection and interceptor well operations and applicable operation and maintenance requirements. The interim process water management plan shall be updated as major process water system changes occur that would affect the interim emergency water management plan. The interim emergency water management plan shall be maintained on site and be available for department review. The plan shall be submitted within 180 days of discharge permit renewal for an existing copper mine facility and no less than 60 days prior to discharge at a new copper mine facility.

[20.6.7.30 NMAC - N, 12/1/13]

20.6.7.31 [RESERVED]

20.6.7.32 [RESERVED]

20.6.7.33 CLOSURE REQUIREMENTS FOR COPPER MINE FACILITIES: An applicant or permittee shall submit a closure plan for all portions of a copper mine facility covered by a discharge permit that addresses the following requirements.

A. Design storm event. Permanent storm water conveyances, ditches, channels and diversions required for closure of a discharging unit at a copper mine facility shall be designed to convey the peak flow generated by the 100 year return interval storm event. The appropriate design storm duration shall be selected based on the maximum peak flow generated using generally accepted flood routing methods. Sediment traps or small basins intended as best management practices may not be subject to this requirement, based on department approval.

B. Slope stability. At closure, tailing impoundment(s) not regulated by the office of the state engineer, leach stockpile(s) or waste rock stockpile(s) shall be constructed to promote the long-term stability of the structure. Closure of all critical structures at a copper mine facility shall be designed for a long-term static factor of safety of 1.5 or greater and non-critical structures shall be designed for a long-term static factor of safety of 1.3 or greater. The units being closed shall also be designed for a factor of safety of 1.1 or greater under pseudostatic analysis. A stability analysis shall be conducted for the unit and shall include evaluation for static and seismic induced liquefaction.

C. Surface re-grading. During closure of any tailing impoundment, waste rock pile or leach stockpile at a copper mine facility, the surface shall be re-graded to a stable configuration that minimizes ponding and promotes the conveyance of surface water off the unit. The operator may propose for department approval a grading plan that allows ponding as an appropriate part of closure provided additional ground water protection measures, such as synthetic liner systems, are included as part of the design.

(1) The top surfaces of all tailing impoundments at a copper mine facility shall be constructed to a minimum final grade of 0.5% after accounting for the estimated magnitude and location of large-scale settlement due to totaling consolidation or differential settlement. Prior to final re-grading activities, the permittee shall ensure that adequate drainage of the tailing impoundment has occurred to ensure that large-scale settlement following

grading is minimized. The CQC and CQA plan shall provide the methods and procedures to ensure that the design and construction activities will be completed according to the approved final design and specifications, including design aspects related to potential future settlement.

(2) The top surfaces of all waste rock and leach stockpiles at a copper mine facility shall be constructed to a minimum final grade of 1%.

(3) The outslopes of all tailing impoundments, waste rock and leach stockpiles at a copper mine facility shall be constructed to an interbench slope no steeper than three horizontal to one vertical (3H:1V). Alternative slope gradients may be allowed within an open pit surface drainage area, or if the permittee provides information showing that the cover performance objectives in Subsection F of this section are met and the exception is approved by the department.

(a) At existing copper mine facilities, where re-grading of individual outslopes would intersect a highway, cultural resource, physical infrastructure or a surface water of the state, outslopes may be re-graded no steeper than 2.5:1 or as otherwise approved by the department in Paragraph (3) of this subsection.

(b) At existing copper mine facilities, the waste rock and leach stockpile outslopes within an open pit surface drainage area are not required to be graded and covered.

(4) For design purposes, allowable uninterrupted slope lengths shall be calculated using a generally accepted erosion estimation method and shall be based on the final slope angle and cover material characteristics representative of the cover materials proposed for use at the site. The maximum uninterrupted slope lengths shall be no greater than 300 feet for 4.0:1, 200 feet for 3:1 slopes and 175 feet for 2.5:1 slopes. Alternative slope lengths may be allowed if the permittee provides information showing that the cover performance objectives specified in Subsection F of this section will be achieved and the exception is approved by the department.

D. Open pits. The applicant or permittee shall provide detailed information and a closure plan for open pits that demonstrates how the following criteria will be addressed through water management or other activities at open pits to minimize the potential to cause an exceedance of applicable water quality standards:

(1) Open pits in which the evaporation from the surface of an open pit water body is predicted to exceed the water inflow shall be considered to be a hydrologic evaporative sink. If an open pit is determined to be a hydrologic evaporative sink, the standards of 20.6.2.3103 NMAC do not apply within the area of open pit hydrologic containment. This is limited to contaminants associated with standard copper mining practices and found to be present within the open pit, or that can be generated from the natural materials present in the open pit through degradation, oxidation, decay or other expected process.

(2) After closure, if water within an open pit is predicted to flow from the open pit into ground water and the discharge from an open pit may cause an exceedance of applicable standards at monitoring well locations specified by 20.6.7.28 NMAC, then the open pit shall be considered a flow-through pit. In a flow-through pit system the open pit water quality must meet ground water standards of 20.6.2.3103 NMAC or the open pit must be pumped in order to maintain an area of open pit hydrologic containment.

E. Surface water management. The permittee of a copper mine facility shall maintain and implement a plan for the management of all stormwater and sediment generated from the copper mine facility during reclamation and following closure.

F. Cover system. At closure, a permittee shall install a cover system on waste rock piles, leach stockpiles, tailing impoundments and other units that have the potential to generate leachate and cause an exceedance of applicable standards at monitoring well locations specified by 20.6.7.28 NMAC using the following criteria, as appropriate. Any soil cover systems installed before the effective date of the copper mine rule are not subject to the requirements of the copper mine rule unless the department determines that an exceedance of applicable standards has occurred or is likely to occur as a result of the existing installed cover system, and that modification of the cover will prevent further impacts to ground water. Any cover system installed at an existing copper mine facility after the effective date of the copper mine rule shall be a store and release earthen cover system with a thickness of thirty-six inches and shall be constructed in accordance with the applicable requirements of Paragraphs (1) through (3) of this subsection. For leach and waste rock stockpiles inside the open pit surface drainage area, a thirty-six inch cover is only required on the top surfaces.

(1) The cover system shall be constructed of thirty-six inches of earthen materials that are capable of sustaining plant growth without continuous augmentation and have erosion resistant characteristics. Erosion rates shall be equal to or less than stable slopes in the surrounding environment after the vegetation has reached near-equilibrium cover levels. Erosion will be estimated using generally acceptable methods.

(2) Soil cover systems shall be designed to limit net-percolation by having the capacity to store within the fine fraction at least 95 percent of the long-term average winter (December, January and February) precipitation or at least 35% of the long-term average summer (June, July and August) precipitation, whichever is

greater. The water holding capacity of the cover system will be determined by multiplying the thickness of the cover times the incremental water holding capacity of the approved cover materials. Appropriate field or laboratory test results or published estimates of available water capacity shall be provided by the permittee to show that the proposed cover material meets this performance standard.

(3) Cover thickness or other design criteria may be reduced or modified if:

(a) the cover system is installed over a lined unit and the design and function of the liner system will complement the cover system, or the permittee proposes a composite, layered or an alternate cover system with an equal or greater level of ground water protection described in Paragraphs (1) and (2) of this section; or

(b) a demonstration is made that an alternate proposed cover system will ensure that an exceedance of applicable standards will not occur in ground water; such a demonstration shall include:

(i) a comprehensive modeling study to estimate the quantity of net-percolation through a cover system that will not result in an exceedance of applicable standards in ground water;

(ii) a plan for performance monitoring of the cover system, including ground water monitoring; and

(iii) an agreement by the permittee to pay for the cost of a third party review of the modeling study and performance monitoring plan.

(4) A CQA/CQC plan shall be submitted for department review as part of the final cover design. The plan shall identify a licensed New Mexico professional engineer as the designated CQA officer and include his or her supervision of the CQA plan and shall identify the methods proposed to ensure that the closure construction will be completed in accordance with the design and specifications. Following the completion of the work, the CQA officer shall prepare a final CQA report. The final CQA report shall provide a detailed description of the installation methods and procedures and document that the work was conducted as designed.

G. Process solution reduction plans. The closure plan shall include a process solution reduction plan for the copper mine facility. The process solution reduction plan shall be a conceptual engineering document that describes the processes and methods that are expected to be used at a copper mine facility to reduce the quantities of process water in storage and circulation inventory at the end of copper production in preparation for long-term water management or treatment. The plan shall describe and list the current or proposed process water management units and inventories of process water. The plan shall describe the modifications to the process water management system required to create an efficient process water reduction system and the operation and maintenance requirements for the system with material take-offs of sufficient detail to prepare an engineering-level cost estimate equivalent to the cost estimate to be provided with the closure plan. The plan shall provide an estimate of the required water reduction period based on the water reduction calculations provided in the plan to be used for planning and operation and maintenance cost calculations.

H. Closure water management and water treatment plan. The applicant or permittee shall submit a closure water management and water treatment plan. The closure water management and water treatment plan shall consist of a conceptual engineering document that describes the processes and methods that are expected to be used at a copper mine facility for long-term management or treatment of process water. The plan shall include an analysis of the expected operational life of each long-term water management or water treatment system, including interceptor systems, until each system is no longer needed to protect ground water quality and applicable standards are met. The plan shall describe the long-term water management and water treatment systems with sufficient detail, including locations of key components, expected operational life, material take-offs, and capital, operational and maintenance costs to prepare an engineering-level cost estimate. The plans shall provide sufficient detail to estimate capital and operating costs to provide the basis for financial assurance for these activities.

I. Impoundments. The permittee shall close all reservoirs and impoundments in a manner that ensures that the requirements of the Water Quality Act, commission rules and the discharge permit are met. Closure activities shall meet the following requirements:

(1) Fluids from reservoirs and impoundments shall be drained and appropriately disposed of.

(2) Sediments in the reservoir or impoundment shall be characterized and abated or appropriately disposed of in a manner that will not cause an exceedance of applicable standards.

(3) Materials underlying the reservoir or impoundment shall be characterized to determine if releases of water contaminants have occurred.

(4) Where characterization results show materials remaining within or beneath any reservoir or other impoundment that are not naturally occurring to be a source or potential source of ground water contamination outside the open pit surface drainage area, the reservoir or impoundment, shall be covered and re-vegetated pursuant to this section.

(5) Based on the characterization conducted pursuant to Paragraph (4) of this subsection, further characterization of ground water beneath and adjacent to the reservoir or impoundment may be required to determine if abatement is necessary.

(6) Reservoirs and impoundments located outside the open pit surface drainage area shall be closed in a manner that creates positive drainage away from the impoundments, unless needed during closure and post closure for storm water retention or seepage interception, post-closure water management and treatment, or unless otherwise approved by the department. Post-closure reservoirs or impoundments to be used for the collection of non-impacted storm water and located over areas where residual wastes, vadose zone contamination or ground water contamination remains shall be synthetically lined pursuant to the design and construction criteria of Paragraph (4) of Subsection D of 20.6.7.17 NMAC.

(7) The department may approve alternative plans for closure of impoundments based on site-specific conditions when the alternative closure method will provide the same level of ground water protection as the methods specified in Paragraphs (1) through (6) of this subsection.

J. Pipelines, tanks and sumps. The permittee shall remove and properly dispose of the tailing, process water, or other materials contained in pipelines, tanks or sumps as soon as they are no longer needed for site operations, water treatment, or other post-closure water management. Any residual tailing, process water, sediments or contaminated water shall be removed from the pipelines, tanks or sumps prior to closure and dispose of the material in a department approved manner. Pipelines may be removed for appropriate disposal or cleaned and buried in place. Sumps may be removed for disposal or cleaned and broken up and buried in place. During pipeline, tank or sump closure, the permittee shall inspect the entire pipeline, tank or sump area for evidence of past spills and characterize the impacts and potential impacts of such spills. The permittee shall document all areas where there is evidence of spills and propose to the department appropriate corrective actions pursuant to 20.6.2.1203 NMAC. Following pipeline, tank or sump removal, the permittee shall remove for disposal or reclaim in place all acid generating pipeline, tank or sump bedding material that has the potential to impact water quality in excess of the applicable standards.

K. Crushing, milling, concentrating and smelting. The permittee shall close all crushing, milling, concentrating or smelting areas in a manner that ensures that the requirements of the Water Quality Act, commission rules and the discharge permit are met. Any remaining materials containing water contaminants that may cause an exceedance of the applicable standards shall be removed or disposed of in a department approved manner or covered pursuant to this section. The permittee shall characterize the crushing, milling, concentrating or smelting area for the presence of any remaining potential water contaminants. If water contaminants are present that may with reasonable probability move directly or indirectly into ground water and cause an exceedance of the applicable standards, the area shall be covered pursuant to this section.

L. Closure monitoring and maintenance. During closure the permittee shall continue monitoring pursuant to 20.6.7.28 and 20.6.7.29 NMAC. The permittee may propose and the department may approve modifications to the required monitoring to reflect changes in conditions during closure, including abandonment of monitoring wells.

M. Exceptions to design criteria. The closure design criteria of this section may be modified if approved by the department. Design criteria required by the office of the state engineer dam safety bureau for regulated units, such as jurisdictional impoundments (including tailing impoundments), shall supersede the criteria in this section.

[20.6.7.33 NMAC - N, 12/1/13]

20.6.7.34 IMPLEMENTATION OF CLOSURE:

A. Notification of intent to close. A permittee shall notify the department in writing of its intent to implement the closure plan for a copper mine facility or an individual unit of a copper mine facility. Notification shall be given at least 30 days prior to implementation of closure construction activities.

B. Initiation of closure. Upon notice of intent to implement a closure plan, a permittee shall commence closure in accordance with the approved closure plan. Implementation of closure includes preparation and submittal of a final design and CQA/CQC plan. The permittee shall submit the final design and CQA/CQC plan to the department for approval within 180 days of submission of a notice of intent to implement the closure plan. The permittee shall commence final closure construction of the copper mine facility or unit within 180 days of receipt of written approval of the final design and CQA/CQC plan. These timelines may be modified by the department upon request by the permittee for good cause shown, including allowance for time for procurement and mobilization of construction services and materials prior to actual closure construction.

C. Notification of change in operational status. Whenever operation of a copper mine facility subject to closure requirements under the copper mine rule is suspended or resumed, the permittee shall provide the department written notification within 30 days of the date operation is suspended or resumed. Each subsequent semi-annual report submitted during suspension of operation of a copper mine facility shall state whether the permittee intends to resume operations and the anticipated date of resumption of operations or the conditions under which operations will resume.

D. Department notice regarding suspended operations and enforcement action. If leaching operations or milling operations at a copper mine facility are suspended for more than one year, the department may issue a written notice to the permittee requesting that the permittee provide evidence that the permittee is capable of and intends to resume operation of the unit. If the permittee does not respond within 30 days of postal notice of the department's written notice, or if the permittee does not provide evidence that the copper mine facility or unit is capable of resuming operation, that the permittee intends to resume operation of the copper mine facility or unit, and that the copper mine facility or unit does not pose a threat to public health or cause undue damage to property, the department may determine that the permittee is in violation of the copper mine rule for failure to implement closure of the copper mine facility or unit in a timely manner and may take appropriate enforcement action pursuant to Section 74-6-10 NMSA 1978, including requiring implementation of closure in accordance with 20.6.7.33 NMAC and this section.

E. Deferral of closure. A permittee may request deferral of closure of a unit at a copper mine facility that has reached the end of its useful life with no intent by the permittee to resume operations if the proximity of active operations at the copper mine facility could result in ongoing contamination of the unit, closure would require relocation or replacement of infrastructure that supports ongoing operations, or for other good cause shown. The department may approve a deferral of closure if the permittee demonstrates that adequate water management measures are being implemented and maintained to protect ground water quality during the period of deferral.

F. Final design. The permittee shall submit a final design and CQA/CQC plan to the department for approval at least 60 days prior to construction, including commencement of surface shaping activities, of any area subject to a closure plan pursuant to the copper mine rule including, but not limited to, tailing impoundments, waste rock piles, leach stockpiles, and any other area where cover is required under the approved closure plan. The CQA/CQC plan must include detailed engineering designs for storm water management structures and associated conveyance systems, cover design specifications, a cover material suitability assessment, a borrow source location, a rip rap suitability assessment, a rip rap source location, a post reclamation storm water management plan, and a schedule for completion. In addition, the final design and CQA/CQC plan shall include best management practices that will be employed during reclamation to address erosion and storm water management in a manner that meets the requirements of the Water Quality Act and commission regulations. The final design and CQA/CQC plan shall bear the signature and seal of a licensed professional engineer in accordance with Subsection A of 20.6.7.17 NMAC.

G. CQA/CQC report. Within 180 days after project completion, the permittee shall submit a final CQA/CQC report to the department. The CQA/CQC report shall include, at a minimum, as-built drawings of the entire reclaimed area including test pit locations and cover thickness data, a final survey report and topographic map following cover placement, a summary of work conducted, construction photographs, the location of reclaimed borrow areas, soil testing results, and laboratory analytical reports. The contour intervals on topographic maps shall be no greater than two feet for the top surfaces and no greater than 10 feet for the outslopes for closure of tailing impoundments, leach stockpiles or waste rock stockpiles. The CQA/CQC 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 CQA/CQC report shall bear the signature and seal of a licensed professional engineer in accordance with Subsection A of 20.6.7.17 NMAC.

[20.6.7.34 NMAC - N, 12/1/13]

20.6.7.35 POST-CLOSURE REQUIREMENTS: For each unit closed at a copper mine facility, the closure period shall cease, and the post-closure period shall commence, following the permittee's submission and department approval of a final CQA/CQC report that includes as-built drawings and a closure report documenting completion of regrading, covering, seeding, and construction of any other elements required for closure of a unit. The post-closure period for a copper mine facility or unit shall begin when the final CQA report is approved and only monitoring, inspections, maintenance, or operation of a closure water treatment and management plan remain to be conducted. During the post-closure period, a permittee shall conduct post-closure monitoring, inspection, reporting, maintenance, and implementation of contingency actions as specified by this section. The post-closure period shall end for a unit of a copper mine facility upon the completion of post-closure monitoring, inspection and

maintenance for the unit as required by this section. The post-closure period shall cease when all monitoring, inspections, maintenance, and operation of the water management and treatment plan required under this section may cease. For units of a copper mine facility subject to an abatement plan, monitoring, inspection, reporting, and operation of abatement systems shall be conducted in accordance with the approved abatement plan rather than this section.

A. Interceptor system inspections. A permittee shall perform quarterly inspections and annual evaluations of all interceptor systems and perform maintenance as necessary to ensure that the systems are performing as designed and are functioning in a manner that is protective of ground water quality. The inspection results and any maintenance performed by the permittee on interception systems shall be reported pursuant to Subsection D of this section.

B. Water quality monitoring and reporting. A permittee shall perform water quality monitoring and reporting during the post-closure period pursuant to 20.6.7.28 and 20.6.7.29 NMAC, as applicable and modified by this section. Ground water elevation contour maps required pursuant to Subsection L of 20.6.27 NMAC shall be submitted annually during the post-closure period. A permittee may request to reduce the frequency of or cease sampling a water quality monitoring location if the water contaminants in a monitoring well have been below the applicable standards for eight consecutive quarters, provided an adequate monitoring well network remains. If sampling of a monitoring well ceases in accordance with this subsection, the monitoring well shall be abandoned in accordance with applicable requirements unless the permittee requests and the department approves the monitoring well to remain in place for an alternative use or future monitoring.

C. Reclamation monitoring, maintenance, and inspections.

(1) **Vegetation.** To ensure that vegetated covers required by the copper mine rule or the approved discharge permit are protective of water quality, a permittee shall perform post-closure monitoring of vegetation pursuant to schedules and monitoring requirements approved by the mining and minerals division. Any proposed changes to the closure or post-closure vegetation monitoring plan to meet Mining Act requirements shall be submitted to the department to ensure monitoring is protective of water quality. The permittee shall provide the department with a copy of monitoring results for vegetated covers, including photographic documentation as required by the mining and minerals division. At such time as the mining and minerals division vegetation success requirements under the Mining Act have been met, the permittee shall provide a final report to the department and vegetation monitoring may cease.

(2) **Erosion, subsidence, slope instability, ponding, and other features.** The permittee shall visually inspect closed discharge permit areas where a cover was installed for signs of excessive erosion, subsidence features, slope instability, ponding, development of fissures, or any other feature that may compromise the functional integrity of the cover system or drainage channels. Drainage channels, diversion structures, retention ponds, and auxiliary erosion control features shall be inspected in accordance with professionally recognized standards (e.g., U.S. department of agriculture natural resources conservation service standards). The inspections shall be conducted monthly for the first year following submission of the final CQA/CQC report for the unit, and quarterly thereafter until the end of post-closure monitoring, provided the department may approve a schedule allowing less-frequent monitoring. Discharge permit areas where covers were installed shall also be inspected for evidence of excessive erosion within 24 hours, or the next business day, following storm events of one inch or greater as measured at the nearest rain gauge on the copper mine facility. The permittee shall report and take corrective action pursuant to 20.6.2.7.30 NMAC regarding signs of excessive erosion, subsidence features, slope instability, ponding, development of fissures, or any other feature that may compromise the functional integrity of the cover system or drainage channels. Monitoring and inspection results shall be reported as required by Subsection D of this section.

(3) **Entry.** A permittee shall inspect and maintain the fencing or other management systems required by the discharge permit to prevent access by wildlife and unauthorized members of the public to an open pit, reservoir, impoundment or any sump that contains water that may present a hazard to public health or wildlife.

(4) **Cover maintenance.** A permittee shall perform maintenance on all areas where a cover system was installed as required by the copper mine rule, including associated drainage channels and diversion structures if their performance may affect cover system function. Based on monitoring of vegetation and erosion required by Paragraphs (1) and (2) of this subsection, a permittee shall provide recommendations for maintenance work in semiannual monitoring reports described in Subsection D of this section, including a schedule for completion of work.

(5) **Other inspection and maintenance.** A permittee shall routinely inspect and maintain all structures, units, and equipment the failure of which may impact ground water quality. Water collected that exceeds the ground water quality standards in Section 20.6.2.3103 NMAC shall be stored, conveyed, treated and discharged

in a manner that is consistent with the closure water treatment and management plan any other applicable regulatory requirements. The inspection results shall be reported as required in Subsection D of this section. Inspections and maintenance shall include but are not limited to:

(a) storm water retention reservoir(s);
(b) water treatment plant(s);
(c) pumps and pipelines to deliver water to water treatment plant(s); and
(d) seepage collection ponds.

(6) **Implementation of water management and treatment plan.** The permittee shall continue to implement the water management and treatment plan required by Subsection H of 20.6.7.33 NMAC during the post-closure period. The water management and treatment plan may be modified in accordance with its terms or by approval of the department to reflect changes in site conditions.

D. Reporting. A permittee shall submit to department semi-annual reports pursuant to the schedule in Subsection A of 20.6.7.29 NMAC until the post-closure period ends for the copper mine facility. The reports shall contain:

(1) a description and the results of all post-closure monitoring conducted pursuant to this section;
(2) a description of any work completed during the preceding semi-annual period including but not limited to:
(a) the status of post-closure activities for the copper mine facility; and
(b) any maintenance and repair work conducted for any closure unit; and
(3) semi-annual potentiometric maps including data from all monitoring wells, extraction wells, piezometers, seeps and springs appropriate to the water table being mapped.

E. The contingency requirements of 20.6.7.30 NMAC apply to any deficiencies in the implemented closure systems discovered during the post-closure monitoring and inspections required pursuant to this section.
[20.6.7.35 NMAC - N, 12/1/13]

20.6.7.36 [RESERVED]

20.6.7.37 RECORD RETENTION REQUIREMENTS FOR ALL COPPER MINE FACILITIES:

A. A permittee shall retain a written record at the copper mine facility of all data and information related to field measurements, sampling, and analysis conducted pursuant to the copper mine rule and the discharge permit. The following information shall be recorded and shall be made available to the department upon request.

(1) The dates, exact location and times of sampling or field measurements.
(2) The name and title of the individuals who performed each sample collection or field measurement.
(3) The date of the analysis of each sample.
(4) The name and address of the laboratory and the name and title of the person that performed the analysis of each sample.
(5) The analytical technique or method used to analyze each sample or take each field measurement.
(6) The results of each analysis or field measurement, including raw data.
(7) The results of any split, spiked, duplicate or repeat sample.
(8) A description of the quality assurance and quality control procedures used.

B. A permittee shall retain a written record at the copper mine facility of any spills, seeps, or leaks of effluent, and of leachate or process fluids not authorized by the discharge permit. Records shall be made available to the department upon request.

C. A permittee shall retain a written record at the copper mine facility of the operation, maintenance, and repair of all features/equipment used as required by the copper mine rule or the approved discharge permit to treat, store or dispose of process water, tailings, and impacted stormwater, measure flow rates, monitor water quality, or collect other data. Records shall include repair, replacement or calibration of any monitoring equipment and repair or replacement of any equipment used in the process water, tailings or impacted stormwater discharge system required by the copper mine rule or the approved discharge permit. Records shall be made available to the department upon request.

D. A permittee shall retain records of all monitoring information at the copper mine facility required by the copper mine rule, including all sampling results and other monitoring, calibration and maintenance records, copies of all reports, and the application for the discharge permit. Records shall be retained for a period of at least ten years from the date of the sample collection, measurement, report or application.
[20.6.7.37 NMAC - N, 12/1/13]

20.6.7.38 TRANSFER OF COPPER MINE DISCHARGE PERMITS:

A. Transfer of discharge permits for copper mine facilities shall be made pursuant to 20.6.2.3111 NMAC and this section.

B. The transferor(s) shall notify the department, in writing, of the date of transfer of ownership, control or possession and provide contact information for the transferee(s) pursuant to Subsection B of 20.6.7.11 NMAC and Subsection B of 20.6.7.12 NMAC. Notification shall be submitted to the department of the transfer within 30 days of the ownership transfer.

[20.6.7.38 NMAC - N, 12/1/13]

20.6.7.39 CONTINUING EFFECT OF PRIOR ACTIONS DURING TRANSITION:

A. A discharge permit issued pursuant to 20.6.2.3109 NMAC that has not expired on or before the effective date of the copper mine rule shall remain in effect and enforceable pursuant to the conditions of the discharge permit and for its term as designated by the permit. If an effective discharge permit contains a permit condition with a time period for submittal of a renewal application that is different from the time period contained in Subsection C of 20.6.7.10 NMAC that condition will remain in effect for two years following the effective date of the copper mine rule.

B. An application for a new discharge permit or an application for a renewed or modified discharge permit for an existing copper mine facility submitted to the department before the effective date of the copper mine rule and for which a draft permit has not been provided to the applicant shall be processed by the department pursuant to the copper mine rule. The applicant shall submit applicable permit fees to the department pursuant to 20.6.7.9 NMAC within 90 days of the effective date of the copper mine rule.

C. An application for a new discharge permit or an application for a renewed or modified discharge permit for an existing copper mine facility submitted to the department before the effective date of the copper mine rule and for which a draft permit has been provided to the applicant shall be processed by the department pursuant to 20.6.2.3000 through 20.6.2.3113 NMAC. The applicant shall submit applicable permit fees to the department pursuant to 20.6.7.9 NMAC within 90 days of the effective date of the copper mine rule.

D. If a discharge permit for a copper mine facility is expired on the effective date of the copper mine rule and an application for renewal has not been received by the department, the permittee or owner of the copper mine facility:

(1) shall within 90 days of the effective date of the copper mine rule submit to the department an application for a discharge permit renewal, renewal and modification or closure pursuant to 20.6.7.10 NMAC and applicable permit fees pursuant to 20.6.7.9 NMAC; or

(2) if the copper mine facility has not been constructed or operated, the permittee or the owner of record of the copper mine facility may submit a statement to the department instead of an application for renewal certifying that the copper mine facility has not been constructed or operated and that no discharges have occurred. Upon the department's verification of the certification, the department shall retire the discharge permit number from use.

E. The permittee or owner of record of any copper mine facility discharging, capable of recommencing discharging, or that has ceased discharging within the term of its most recent discharge permit shall continue all monitoring and submittal of monitoring reports as prescribed in the most recent discharge permit until the department issues a renewed or renewed and modified discharge permit.

[20.6.7.39 NMAC - N, 12/1/13]