STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION

In the Matter of:

PROPOSED AMENDMENTS TO *GROUND AND SURFACE WATER PROTECTION* REGULATIONS, 20.6.2 NMAC

No. WQCC 17-03 (R)

NEW MEXICO ENVIRONMENT DEPARTMENT'S
NOTICE OF INTENT TO PRESENT REBUTTAL TECHNICAL TESTIMONY

Pursuant to 20.1.6.202 NMAC and the Revised Procedural Order issued June 2, 2017, the New Mexico Environment Department ("Department") submits this Notice of Intent to Present Rebuttal Technical Testimony for the hearing in this matter currently scheduled for November 14, 2017.

1. Entity for whom the witnesses will testify

The Ground Water Quality Bureau of the Water Protection Division of the Department.

2. Identity of witnesses

The Department will call the following witnesses to present rebuttal technical testimony at the hearing:

Michelle Hunter is the Chief of the Department's Ground Water Quality Bureau. Her resume describing her educational and professional background is attached as NMED Exhibit 1. A copy of Ms. Hunter's written rebuttal testimony is attached as NMED Exhibit 26.

Dennis McQuillan is the Chief Scientist of the Department. His resume detailing his background and qualifications is attached as NMED Exhibit 4. A copy of Mr. McQuillan's written rebuttal testimony is attached as NMED Exhibit 28.

Kurt Vollbrecht is the Program Manager of the Mining Environmental Compliance Section of the Department's Ground Water Quality Bureau. His resume is attached as NMED

Exhibit 7. A copy of Mr. Vollbrecht's written rebuttal testimony is attached as NMED Exhibit 30.

3. List of exhibits to be offered by the Department at the hearing

A complete list of exhibits that the Department intends to offer into evidence in this matter is attached to this Notice. The Department reserves the right to introduce and move for admission of any other exhibit in support of sur-rebuttal testimony at the hearing.

Respectfully submitted,

NEW MEXICO ENVIRONMENT DEPARTMENT
OFFICE OF GENERAL COUNSEL

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing *The New Mexico Environment Department's Notice of Intent to Present Rebuttal Technical Testimony* was filed with the WQCC Administrator and served on the following via electronic mail on October 27, 2017:

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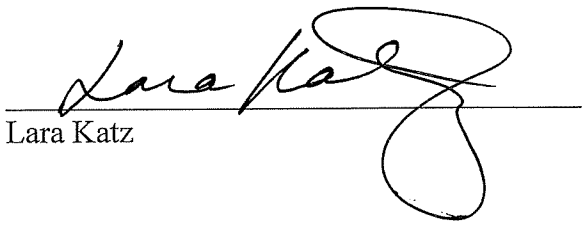

Lara Katz

WQCC 17-03 (R) Exhibit List

NMED Exhibit 1	Resume – Michelle Hunter
NMED Exhibit 2	Written Direct Testimony – Michelle Hunter
NMED Exhibit 3	EPA Final Guidance on Vapor Intrusion (2015)
NMED Exhibit 4	Resume – Dennis McQuillan
NMED Exhibit 5	Written Direct Testimony – Dennis McQuillan
NMED Exhibit 6	History of Ground Water Protection in New Mexico
NMED Exhibit 7	Comparison chart of existing and proposed groundwater standards
NMED Exhibit 8	Summary of pesticide detections in New Mexico
NMED Exhibit 9	Transcript of WQCC 1985 Rulemaking Proceedings – Testimony of Victor Zalma, M.D.
NMED Exhibit 10	Resume of Blayne Hartman, Ph.D.
NMED Exhibit 11	Written Direct Testimony – Blayne Hartman, Ph.D.
NMED Exhibit 12	Resume of Kurt Vollbrecht
NMED Exhibit 13	Written Direct Testimony of Kurt Vollbrecht
NMED Exhibit 14	WQCC 1967 Regulations
NMED Exhibit 15	WQCC 1977 Regulations
NMED Exhibit 16	WQCC 1991 Regulations - Fees
NMED Exhibit 17	Transcript of April 1991 rulemaking hearing – Testimony of Ernest Rebuck
NMED Exhibit 18	WQCC 2001 Regulations – Definitions Section
NMED Exhibit 19	NMSA 1978, Section 74-6-4 (2004)
NMED Exhibit 20	NMSA 1978, Section 74-6-4 (2005)
NMED Exhibit 21	Discharge Permit Amendment, DP-1055, Chevron Questa Mine (February 23, 2015)
NMED Exhibit 22	Discharge Permit Amendment 06-12, DP-526, Chino Mine (June 8, 2016)

NMED Exhibit 23	Discharge Permit Amendment, Ghost Ranch Conference Center, DP-869 (December 30, 2009)
NMED Exhibit 24	Discharge Permit Amendment Rio Algom Mining, DP-71 (December 12, 2013)
NMED Exhibit 25	Discharge Permit Amendment Delta Person GP, DP-1260 (August 1, 2000)
NMED Exhibit 26	Written Rebuttal Testimony – Michelle Hunter
NMED Exhibit 27	NMED's Revised Proposed Changes to 20.6.2 NMAC (October 27, 2017)
NMED Exhibit 28	Written Rebuttal Testimony – Dennis McQuillan
NMED Exhibit 29	CDC photo showing harmful effects of dental fluorosis caused by high fluoride in drinking water
NMED Exhibit 30	Written Rebuttal Testimony – Kurt Vollbrecht
NMED Exhibit 31	Map of Chino North Mine Permitted Areas
NMED Exhibit 32	Map of Chino South Mine Permitted Areas
NMED Exhibit 33	Map of Tyrone Mine Permitted Areas
NMED Exhibit 34	July 18, 2012 and September 5, 2012 emails with attached comments of AB/GRIP and NMELC on proposed regulations for copper mines
NMED Exhibit 35	Discharge Permit DP-526 for Chino Mine Whitewater Leach System

STATE OF NEW MEXICO
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In the Matter of:

PROPOSED AMENDMENTS TO *GROUND AND SURFACE WATER PROTECTION* REGULATIONS, 20.6.2 NMAC

No. WQCC 17-03 (R)

WRITTEN REBUTTAL TESTIMONY OF MICHELLE HUNTER

During the period between the submission of the New Mexico Environment Department's ("NMED" or "the Department") last iteration of the Proposed Amendments to the New Mexico Ground and Surface Water Protection Regulations – 20.6.2 NMAC (filed August 7, 2017) and this rebuttal testimony, NMED engaged with the majority of the parties in this proceeding in an effort to reach compromise regarding disputed language. In certain cases, the parties were able to meet and discuss the disputed language and come to an agreement. These compromises are reflected in the Department's revised proposed changes to 20.6.2 NMAC, attached as NMED Exhibit 27. This latest version of NMED's proposed changes includes a new "Limitations" section at 20.6.2.10 and revisions to 20.6.2.3108 and 3109 NMAC as a result of discussions with Los Alamos National Security ("LANS"), NMED's revisions throughout as a result of discussions with William C. Olson, the corrected direct testimony filed by the United States Air Force/Department of Defense ("USAF/DoD"), and the amended direct testimony filed by the City of Roswell.

I. Dairies – Dispute Resolution (20.6.2.4113 and 4114 NMAC)

Dairy Producers of New Mexico & Dairy Industry Group for a Clean Environment ("Dairies") propose adding language to clarify aspects of the dispute resolution process. The Department takes no position on the Dairies' proposed language.

NMED EXHIBIT 26

II. EMNRD – Corrections for Statutory Updates (20.6.2.3105 L, M, & N NMAC)

The New Mexico Energy Minerals and Natural Resources Department ("EMNRD") proposed adding language to provide the correct statutory and agency references. The Department supports EMNRD's proposed language.

III. EMNRD – Corrections for Statutory Updates (20.6.2.5101.D(1)-(3) NMAC)

EMNRD proposes adding language to provide the correct statutory and agency references. The Department supports EMNRD's proposed language.

IV. New Mexico Municipal League – Exemptions (20.6.2.3105.A NMAC)

The New Mexico Municipal League Environmental Quality Association ("NMML") asserts that the Department's proposal to add clarification to the permitting exemption at 20.6.2.3105.A NMAC would make it likely that no scenarios would qualify for the exemption. The Department disagrees. The Department's proposal would not change what does and does not qualify for this exemption; rather, it would make the purpose of the exemption more clear. On more than one occasion a prospective discharger has challenged the Department's authority to regulate, for example, the discharge of reclaimed domestic wastewater for irrigation purposes. Such reclaimed water meets the ground water standards in 20.6.2.3103 NMAC, but only by virtue of being treated by an effective wastewater treatment system. As noted in the Direct Testimony of Dennis McQuillan (NMED Exhibit 5, p. 36), wastewater treatment facilities are subject to failure. The operation, maintenance, and monitoring of wastewater treatment is, and should be, subject to regulatory oversight in order to protect water quality and public health. Regulation is necessary for the cases where the treatment system fails for some reason. Where the exemption in 20.6.2.3105.A does apply is when ***untreated*** effluent is shown to meet all standards, for example, the rinse water from hydrostatic testing of clean pipe, or the outflow from an aquaculture operation.

NMML proposes adding language to this exemption in order to exempt recharge projects "where the source water meets all drinking water standards and the source water chemistry is shown to be compatible with the chemistry of the ground water." NMML Comments at 174 – 177. Testimony by Mr. Puglisi and Mr. Stomp cites concerns about the financial cost of permitting and monitoring requirements, and asserts that water meeting drinking water standards is already tightly regulated by the Safe Drinking Water Act. NMED understands that there are substantial costs associated with permitting and monitoring an aquifer storage and recovery ("ASR") project. The Office of the State Engineer ("OSE") issues a permit to address the water quantity issues and potential impacts on other water rights; NMED issues a discharge permit to protect ground water quality in the aquifer for present or reasonably foreseeable future use.

While NMED agrees that it is important that permitting and monitoring requirements are not unnecessarily burdensome, NMED does not agree that ASR projects, which may inject millions of gallons directly or indirectly into an aquifer, should be exempt from the requirement to obtain a discharge permit even when the recharge water is the same drinking water that is served to utility customers. The monitoring requirements for drinking water pursuant to the federal Safe Drinking Water Act do not include monitoring the ground water itself, and they do not contemplate aquifer conditions or potential geochemical interactions that could occur. For example, the disinfection process can produce strongly oxidized water. If that water is then injected into groundwater with less oxidizing conditions, redox reactions occur that could mobilize trace elements like arsenic, chromium, selenium, and uranium, if they are present in the aquifer material. Drinking water with a high concentration of carbonate alkalinity – not a water quality problem in and of itself – can have the same result in the receiving groundwater due to a different sequence of chemical reactions. The siting considerations relevant to the OSE permit do not consider

existing ground water quality or contamination plumes that could be affected by the injection, and the public notice requirements of the OSE permit do not address water quality. No other statute requires ground water monitoring, and no other permitting program monitors potential impacts in the aquifer itself. Therefore, it is important for NMED to retain its regulatory authority over ASR projects.

An important aspect of ASR projects is that they rely an Underground Injection Control ("UIC") well, whether the water reaches the aquifer through infiltration or direct injection into the aquifer. The UIC aspect of these projects is discussed in Section IX below.

V. LANS - Adding exemption for activities covered by CERCLA – 20.6.2.3105 NMAC

LANS has proposed to add a new "Limitations" section at 20.6.2.10 NMAC that would address the limitations set forth in Subsections 74-6-12(B) and (C) of the Water Quality Act, along with corresponding revisions in Section 20.6.2.3105 NMAC. The Department generally agrees with this approach and has included its proposed language in the new version of the proposed changes at NMED Exhibit 27. The Department's language mirrors the statutory language.

LANS also proposes to add exemption language for activities covered under the federal Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), known also as "Superfund." Section 112(e)(1) of CERCLA already contains an express exemption, providing that "[n]o Federal, State, or local permit shall be required for the portion of any removal or remedial action conducted entirely onsite, where such remedial action is selected and carried out in compliance with [Section 112]." 42 U.S.C. § 9621(e)(1). Thus, if a regulated entity believes that NMED is attempting to regulate in violation of Section 112(e)(1) of CERCLA, it has recourse under CERCLA itself. NMED further notes that in some cases the United States Environmental Protection Agency ("EPA") includes state-issued permits (e.g. the Questa Mine Discharge Permit,

DP-132) in its Record of Decision ("ROD") for a particular site. The exemption as proposed by LANS would undermine the ability of EPA to include a necessary permit in a ROD. NMED opposes this language because it is both unnecessary and confusing.

VI. LANS – Adding a time frame for the determination that a Discharge Permit is required (20.6.2.3106 NMAC)

NMED does not oppose this language change, to 20.6.2.3106.B NMAC, but would request the change be 45 days instead of 30. The NMED Ground Water Quality Bureau ("GWQB") reviewed the 2017 record of data regarding the length of time that it takes staff to respond to Notices of Intent to Discharge; nearly half receive a determination within 30 days and 80% receive a determination within 45 days.

VII. LANS – Revisions to 20.6.2.3108.H NMAC

LANS has proposed revising this section to require draft discharge permits to include additional documents, drafted specifically to explain the basis of specific conditions in the permit and an explanatory Fact Sheet. NMED supports the reasoning behind LANS' proposal and has proposed its own language in order to specify what types of permits should require these additional documents, as these will require significant additional staff time to complete (NMED Exhibit 27). Specifically, NMED proposes that fact sheets be required for permits at federal facilities. This subset of discharge permits includes LANS' permits, as well as many other technically complex sites, such as those at Kirtland Air Force Base, Sandia National Laboratory, and the White Sands Missle Range. The language NMED proposes, however, will allow the GWQB to issue permits for domestic discharges, such as municipal wastewater treatment plants and septic tank/leachfield systems at federal facilities, without the cumbersome and time-consuming requirements of an additional statement of basis or fact sheet.

VIII. Roswell – Revisions to 4108.(B)(4) NMAC

The City of Roswell ("Roswell") proposes to change the public notice radius for Abatement Plans from 1 mile to 1/3 of a mile. Roswell cites consistency with the public notice requirements for discharge permits in 20.6.2.3108 NMAC, and claims that additional notice is "ineffective, unnecessary, and overly expensive," without providing evidence to support this claim. NMED understands that in dense urban areas, this public notice requirement can mean that the Responsible Party must notify a large number of people regarding abatement activities. Nonetheless, most of New Mexico is sparsely populated such that the requirement to send public notices to all homes and businesses within a 1/3 of a mile of a site is not burdensome or unreasonable. NMED notes that abatement plans address contamination that has already occurred, and it is reasonable to impose a higher burden in that situation than in the case of a discharge permit, the purpose of which is to *prevent* contamination. NMED prefers to err on the side of providing broad public notice, and therefore does not support the proposed language reducing the radius of notice.

IX. NMML – Proposed revisions to 20.6.2.5006 NMAC

The intent of the Department's proposal to amend 20.6.2.5006 NMAC was to clarify that Class V UICs that are part of an ASR project are not exempt from the requirement to obtain a discharge permit. The Department is proposing revised and simplified language to achieve this purpose (NMED Exhibit 27).

NMML proposes language in Section 20.6.2.5006 referencing their proposal for Section 20.6.2.3105.A NMAC to exempt ASR projects that are using drinking water from the requirement to obtain a discharge permit. For those ASR projects not relying on drinking water, NMML proposes that monitoring under the discharge permit be limited to only those contaminants shown to be present in the source water, or which have the potential to be mobilized during injection.

NMML also proposes that the permittee should have an opportunity to petition the Department to eliminate or reduce sampling requirement after two years or four rounds of sampling.

As explained in NMED's direct testimony regarding 20.6.2.3105.A NMAC, NMED opposes exempting any ASR projects from the requirement to obtain a discharge permit. In addition to the arguments previously presented, it is important to note that UICs are regulated not only under the New Mexico Water Quality Act, but also under the federal Safe Drinking Water Act. The State of New Mexico has had primacy to administer the Safe Drinking Water Act program since 1983. Under this program, NMED is required to ensure that UICs do not endanger underground sources of drinking water. Every freshwater aquifer in the state is considered an underground source of drinking water – New Mexico has no exempt aquifers as some other states do. NMED believes it is important to be proactive in protecting New Mexico's groundwater resources, including careful consideration of where these UIC wells are placed, and verification via monitoring that unintended impacts are not occurring.

The Department agrees with NMML's intent regarding unnecessary monitoring, but opposes putting a specific restriction on the type of monitoring that may be considered. The Commission's regulations are intentionally flexible, and should remain so in this case, in order to accommodate site-specific and project-specific issues that may arise. The second part of the proposal regarding the ability to petition for reduced monitoring is not necessary because permittees already have this ability. The direct injection permit for Rio Rancho, for example, expressly notes this option for optimizing or cutting back on some of the monitoring requirements for that injection.

TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 6 WATER QUALITY
PART 2 GROUND AND SURFACE WATER PROTECTION

20.6.2.1 ISSUING AGENCY: Water Quality Control Commission
[12-1-95; 20.6.2.1 NMAC - Rn, 20 NMAC 6.2.I.1000, 1-15-01]

20.6.2.2 SCOPE: All persons subject to the Water Quality Act, NMSA 1978, Sections 74-6-1 et seq.
[12-1-95; 20.6.2.2 NMAC - Rn, 20 NMAC 6.2.I.1001, 1-15-01]

20.6.2.3 STATUTORY AUTHORITY: Standards and Regulations are adopted by the commission under the authority of the Water Quality Act, NMSA 1978, Sections 74-6-1 through 74-6-17.
[2-18-77, 9-20-82, 12-1-95; 20.6.2.3 NMAC - Rn, 20 NMAC 6.2.I.1002, 1-15-01]

20.6.2.4 DURATION: Permanent.
[12-1-95; 20.6.2.4 NMAC - Rn, 20 NMAC 6.2.I.1003, 1-15-01]

20.6.2.5 EFFECTIVE DATE: December 1, 1995 unless a later date is cited at the end of a section.
[12-1-95, 11-15-96; 20.6.2.5 NMAC - Rn, 20 NMAC 6.2.I.1004, 1-15-01; A, 1-15-01]

20.6.2.6 OBJECTIVE: The objective of this Part is to implement the Water Quality Act, NMSA 1978, Sections 74-6-1 et seq.
[12-1-95; 20.6.2.6 NMAC - Rn, 20 NMAC 6.2.I.1005, 1-15-01]

20.6.2.7 DEFINITIONS: [~~Terms~~] The following terms, as used in this part shall have the following meanings; terms defined in the Water Quality Act, but not defined in this part, will have the meaning given in the act. [~~As used in this part:~~]

A. Definitions that begin with the letter "A."

(1) **"abandoned well"** means a well whose use has been permanently discontinued or which is in a state of disrepair such that it cannot be rehabilitated for its intended purpose or other purposes including monitoring and observation;

[~~B.~~] (2) **"abate" or "abatement"** means the investigation, containment, removal or other mitigation of water pollution;

[~~C.~~] (3) **"abatement plan"** means a description of any operational, monitoring, contingency and closure requirements and conditions for the prevention, investigation and abatement of water pollution, and includes Stage 1, Stage 2, or Stage 1 and 2 of the abatement plan, as approved by the secretary;

[~~D.~~] (4) **"adjacent properties"** means properties that are contiguous to the discharge site or property that would be contiguous to the discharge site but for being separated by a public or private right of way, including roads and highways.

[~~E.~~]**B.** Definitions that begin with the letter "B."

(1) **"background"** means, for purposes of ground water abatement plans only and for no other purposes in this part or any other regulations including but not limited to surface water standards, the amount of ground water contaminants naturally occurring from undisturbed geologic sources or water contaminants which the responsible person establishes are occurring from a source other than the responsible person's facility; this definition shall not prevent the secretary from requiring abatement of commingled plumes of pollution, shall not prevent responsible persons from seeking contribution or other legal or equitable relief from other persons, and shall not preclude the secretary from exercising enforcement authority under any applicable statute, regulation or common law;

[~~F.~~]**C.** Definitions that begin with the letter "C."

(1) **"casing"** means pipe or tubing of appropriate material, diameter and weight used to support the sides of a well hole and thus prevent the walls from caving, to prevent loss of drilling mud into porous ground, or to prevent fluid from entering or leaving the well other than to or from the injection zone;

[~~G.~~] (2) **"cementing"** means the operation whereby a cementing slurry is pumped into a drilled hole and/or forced behind the casing;

[~~H.~~] (3) **"cesspool"** means a **"drywell"** that receives untreated domestic liquid waste containing human excreta, and which sometimes has an open bottom and/or perforated sides; a large capacity cesspool means a cesspool that receives liquid waste greater than that regulated by 20.7.3 NMAC;

[~~I.~~] (4) **"collapse"** means the structural failure of overlying materials caused by removal of underlying materials;

[~~J.~~] (5) **"commission"** means:

[~~(1)~~] (a) the New Mexico water quality control commission or

[~~(2)~~] (b) the department, when used in connection with any administrative and enforcement activity;

[~~K.~~] (6) **"confining zone"** means a geological formation, group of formations, or part of a formation that is capable of limiting fluid movement from an injection zone;

[~~L.~~] (7) **"conventional mining"** means the production of minerals from an open pit or underground excavation; underground excavations include mine shafts, workings and air vents, but does not include excavations primarily caused by in situ extraction activities;

[~~M.~~]**D.** Definitions that begin with the letter "D."

(1) **"daily composite sample"** means a sample collected over any twenty-four hour period at intervals not to exceed one hour and obtained by combining equal volumes of the effluent collected, or means a sample collected in accordance with federal permit conditions where a permit has been issued under the national pollutant discharge elimination system or for those facilities which include a waste stabilization pond in the treatment process where the retention time is greater than twenty (20) days, means a sample obtained by compositing equal volumes of at least two grab samples collected within a period of not more than twenty-four (24) hours;

[~~N.~~] (2) **"department", "agency",** or **"division"** means the New Mexico environment department or a constituent agency designated by the commission;

[~~O.~~] (3) **"discharge permit"** means a discharge plan approved by the department;

[~~P.~~] (4) **"discharge permit amendment"** means a minor change to the requirements of a discharge permit that meets the requirements of 20.6.2.3109.I NMAC, and does not result in:

(a) a change in the location of a discharge that would affect groundwater beyond that impacted by the existing discharge location,

(b) an increase in daily discharge volume of greater than ten percent of the daily discharge volume approved in the most recent discharge permit approval, renewal or modification for an individual discharge location, and where the sum of any volume increases via amendments during a permit term is greater than ten percent of the approved, renewed or modified discharge permit volume, or greater than 50,000 gallons/day, whichever is less,

(c) any increase in discharge volume for a facility that is conducting abatement of water pollution;

(d) an increase in an effluent limit set forth in the most recent discharge permit approval, renewal or modification for an individual discharge location, or

(e) introduction of a new water contaminant;

(f) a reduction of existing monitoring, reporting, or recordkeeping requirements; or

(g) submission of multiple amendment applications that, taken together, would not be eligible as an amendment. The secretary may, at his discretion, require that multiple related amendments be treated as a discharge permit modification.

(5) **"discharge permit modification"** means a change to the requirements of a discharge permit that result from a change in the location of the discharge, [~~a significant increase in~~] the quantity of the discharge, or a [~~significant~~] change in the quality of the discharge[~~;~~] that does not qualify as a discharge permit amendment, or as required by the secretary;

[~~Q.~~] (6) **"discharge permit renewal"** means the re-issuance of a discharge permit for the same, previously permitted discharge;

[~~R.~~] (7) **"discharge plan"** means a description of any operational, monitoring , contingency, and closure requirements and conditions for any discharge of effluent or leachate which may move directly or indirectly into ground water;

[~~S.~~] (8) **"discharge site"** means the entire site where the discharge and associated activities will take place;

[~~T.~~] (9) **"disposal"** means to abandon, deposit, inter or otherwise discard a fluid as a final action after its use has been achieved;

[~~U.~~] (10) **"domestic liquid waste"** means human excreta and water-carried waste from typical residential plumbing fixtures and activities, including but not limited to waste from toilets, sinks, bath fixtures, clothes or dishwashing machines and floor drains;

[~~V.~~] (11) **"domestic liquid waste treatment unit"** means a watertight unit designed, constructed and installed to stabilize only domestic liquid waste and to retain solids contained in such domestic liquid waste, including but not limited to aerobic treatment units and septic tanks;

[~~W.~~] (12) **"drywell"** means a well, other than an improved sinkhole or subsurface fluid distribution system, completed above the water table so that its bottom and sides are typically dry except when receiving fluids;

[~~X.~~]**E.** Definitions that begin with the letter "E."

"experimental technology" means a technology which has not been proven feasible under the conditions in which it is being tested;

[~~Y.~~]**F.** Definitions that begin with the letter "F."

"fluid" means material or substance which flows or moves whether in a semisolid, liquid, sludge, gas, or any other form or state;

[~~Z.~~]**G.** Definitions that begin with the letter "G."

"ground water" means interstitial water which occurs in saturated earth material and which is capable of entering a well in sufficient amounts to be utilized as a water supply;

[~~AA.~~]**H.** Definitions that begin with the letter "H."

"hazard to public health" exists when water which is used or is reasonably expected to be used in the future as a human drinking water supply exceeds at the time and place of such use, one or more of the [~~numerical~~] standards of Subsection A of 20.6.2.3103 NMAC, or the naturally occurring concentrations, whichever is higher[~~, or if any toxic pollutant affecting human health is present in the water;~~] in determining whether a discharge would cause a hazard to public health to exist, the secretary shall investigate and consider the purification and dilution reasonably expected to occur from the time and place of discharge to the time and place of withdrawal for use as human drinking water;

[~~BB.~~]**I.** Definitions that begin with the letter "I."

(1) **"improved sinkhole"** means a naturally occurring karst depression or other natural crevice found in volcanic terrain and other geologic settings which have been modified by man for the purpose of directing and emplacing fluids into the subsurface;

[~~CC.~~] (2) **"injection"** means the subsurface emplacement of fluids through a well;

[~~DD.~~] (3) **"injection zone"** means a geological formation, group of formations, or part of a formation receiving fluids through a well;

[~~EE.~~]**J** Definitions that begin with the letter "J." [RESERVED]

K. Definitions that begin with the letter "K." [RESERVED]

L. Definitions that begin with the letter "L." [RESERVED]

M. Definitions that begin with the letter "M."

"motor vehicle waste disposal well" means a well which receives or has received fluids from vehicular repair or maintenance activities;

[~~FF.~~]**N.** Definitions that begin with the letter "N."

"non-aqueous phase liquid" means an interstitial body of liquid oil, petroleum product, petrochemical, or organic solvent, including an emulsion containing such material;

[~~GG.~~]**O.** Definitions that begin with the letter "O."

(1) **"operational area"** means a geographic area defined in a project discharge permit where a group of wells or well fields in close proximity comprise a single class III well operation;

[~~HH.~~] (2) **"owner of record"** means an owner of property according to the property records of the tax assessor in the county in which the discharge site is located at the time the application was deemed administratively complete;

[~~II.~~]**P.** Definitions that begin with the letter "P."

(1) **"packer"** means a device lowered into a well to produce a fluid-tight seal within the casing;

[~~JJ.~~] (2) **"person"** means an individual or any other entity including partnerships, corporation, associations, responsible business or association agents or officers, the state or a political subdivision of the state or any agency, department or instrumentality of the United States and any of its officers, agents or employees;

[~~KK.~~] (3) **"petitioner"** means a person seeking a variance from a regulation of the commission pursuant to Section 74-6-4[~~(G)~~] H NMSA 1978;

[~~LL.~~] (4) **"plugging"** means the act or process of stopping the flow of water, oil or gas into or out of a geological formation, group of formations or part of a formation through a borehole or well penetrating these geologic units;

[~~MM.~~] (5) **"project discharge permit"** means a discharge permit which describes the operation of similar class III wells or well fields within one or more individual operational areas;

[~~NN.~~]**Q.** Definitions that begin with the letter "Q." [RESERVED]

R. Definitions that begin with the letter "R."

(1) **"refuse"** includes food, swill, carrion, slops and all substances from the preparation, cooking and consumption of food and from the handling, storage and sale of food products, the carcasses of animals, junked parts of automobiles and other machinery, paper, paper cartons, tree branches, yard trimmings, discarded furniture, cans, oil, ashes, bottles, and all unwholesome material;

[~~OO.~~] (2) **"responsible person"** means a person who is required to submit an abatement plan or who submits an abatement plan pursuant to this part;

[~~PP.~~]**S.** Definitions that begin with the letter "S."

(1) **"secretary"** or **"director"** means the secretary of the New Mexico department of environment or the director of a constituent agency designated by the commission;

[~~QQ.~~] (2) **"sewer system"** means pipelines, conduits, pumping stations, force mains, or other structures, devices, appurtenances or facilities used for collecting or conducting wastes to an ultimate point for treatment or disposal;

[~~RR.~~] (3) **"sewerage system"** means a system for disposing of wastes, either by surface or underground methods, and includes sewer systems, treatment works, disposal wells and other systems;

[~~SS.~~] (4) **"significant modification of Stage 2 of the abatement plan"** means a change in the abatement technology used excluding design and operational parameters, or re-location of 25 percent or more of the compliance sampling stations, for any single medium, as designated pursuant to Paragraph (4) of Subsection E of 20.6.2.4106 NMAC;

[~~TT.~~] (5) **"subsurface fluid distribution system"** means an assemblage of perforated pipes, drain tiles, or other mechanisms intended to distribute fluids below the surface of the ground;

[~~UU.~~] (6) **"subsurface water"** means ground water and water in the vadose zone that may become ground water or surface water in the reasonably foreseeable future or may be utilized by vegetation;

[~~VV.~~]**T.** Definitions that begin with the letter "T."

(1) **"TDS"** means total dissolved solids as determined by the "calculation method" (sum of constituents), by the "residue on evaporation method at 180 degrees" of the "*U.S. geological survey techniques of water resource investigations*," or by conductivity, as the secretary may determine;

[~~WW.~~] (2) **"toxic pollutant"** means [~~a water contaminant or combination of water contaminants in concentration(s) which, upon exposure, ingestion, or assimilation either directly from the environment or indirectly by ingestion through food chains, will unreasonably threaten to injure human health, or the health of animals or plants which are commonly hatched, bred, cultivated or protected for use by man for food or economic benefit; as used in this definition injuries to health include death, histopathologic change, clinical symptoms of disease, behavioral abnormalities, genetic mutation, physiological malfunctions or physical deformations in such organisms or their offspring; in order to be considered a toxic pollutant a contaminant must be one or a combination of the potential toxic pollutants listed below and be at a concentration shown by scientific information currently available to the public to have potential for causing one or more of the effects listed above;~~] any water contaminant or combination of the water contaminants in the list below [~~creating a lifetime risk of more than one cancer per 100,000 exposed persons is a toxic pollutant:~~

~~(1) acrolein~~
~~(2) acrylonitrile~~
~~(3) aldrin~~
~~(4) benzene~~
~~(5) benzidine~~
~~(6) carbon tetrachloride~~
~~(7) chlordane~~
~~(8) chlorinated benzenes~~
~~(a) monochlorobenzene~~
~~(b) hexachlorobenzene~~
~~(c) pentachlorobenzene~~
~~(9) 1,2,4,5-tetrachlorobenzene~~

~~(10) chlorinated ethanes~~
~~(a) 1,2-dichloroethane~~
~~(b) hexachloroethane~~
~~(c) 1,1,2,2-tetrachloroethane~~
~~(d) 1,1,1-trichloroethane~~
~~(e) 1,1,2-trichloroethane~~
~~(11) chlorinated phenols~~
~~(a) 2,4-dichlorophenol~~
~~(b) 2,4,5-trichlorophenol~~
~~(c) 2,4,6-trichlorophenol~~
~~(12) chloroalkyl ethers~~
~~(a) bis (2-chloroethyl) ether~~
~~(b) bis (2-chloroisopropyl) ether~~
~~(c) bis (chloromethyl) ether~~
~~(13) chloroform~~
~~(14) DDT~~
~~(15) dichlorobenzene~~
~~(16) dichlorobenzidine~~
~~(17) 1,1-dichloroethylene~~
~~(18) dichloropropenes~~
~~(19) dieldrin~~
~~(20) diphenylhydrazine~~
~~(21) endosulfan~~
~~(22) endrin~~
~~(23) ethylbenzene~~
~~(24) halomethanes~~
~~(a) bromodichloromethane~~
~~(b) bromomethane~~
~~(c) chloromethane~~
~~(d) dichlorodifluoromethane~~
~~(e) dichloromethane~~
~~(f) tribromomethane~~
~~(g) trichlorofluoromethane~~
~~(25) heptachlor~~
~~(26) hexachlorobutadiene~~
~~(27) hexachlorocyclohexane (HCH)~~
~~(a) alpha-HCH~~
~~(b) beta-HCH~~
~~(c) gamma-HCH~~
~~(d) technical HCH~~
~~(28) hexachlorocyclopentadiene~~
~~(29) high explosives (HE)~~
~~(a) 2,4-dinitrotoluene (2,4,DNT)~~
~~(b) 2,6-dinitrotoluene (2,6,DNT)~~
~~(c) octrahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)~~
~~(d) hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)~~
~~(e) 2,4,6-trinitrotoluene (TNT)~~
~~(30) isophorone~~
~~(31) methyl tertiary butyl ether~~
~~(32) nitrobenzene~~
~~(33) nitrophenols~~
~~(a) 2,4-dinitro-o-cresol~~
~~(b) dinitrophenols~~
~~(34) nitrosamines~~
~~(a) N-nitrosodiethylamine~~
~~(b) N-nitrosodimethylamine~~

~~(c) N-nitrosodibutylamine~~
~~(d) N-nitrosodiphenylamine~~
~~(e) N-nitrosopyrrolidine~~
~~(35) pentachlorophenol~~
~~(36) perchlorate~~
~~(37) phenol~~
~~(38) phthalate esters~~
~~(a) dibutyl phthalate~~
~~(b) di-2-ethylhexyl phthalate~~
~~(c) diethyl phthalate~~
~~(d) dimethyl phthalate~~
~~(39) polychlorinated biphenyls (PCB's)~~
~~(40) polynuclear aromatic hydrocarbons (PAH)~~
~~(a) anthracene~~
~~(b) 3,4-benzofluoranthene~~
~~(c) benzo (k) fluoranthene~~
~~(d) fluoranthene~~
~~(e) fluorene~~
~~(f) phenanthrene~~
~~(g) pyrene~~
~~(41) tetrachloroethylene~~
~~(42) toluene~~
~~(43) toxaphene~~
~~(44) trichloroethylene~~
~~(45) vinyl chloride~~
~~(46) xylenes~~
~~(a) o-xylene~~
~~(b) m-xylene~~
~~(c) p-xylene~~
~~(47) 1,1-dichloroethane~~
~~(48) ethylene dibromide (EDB)~~
~~(49) cis-1,2-dichloroethylene~~
~~(50) trans-1,2-dichloroethylene~~
~~(51) naphthalene~~
~~(52) 1-methylnaphthalene~~
~~(53) 2-methylnaphthalene~~
~~(54) benzo-a-pyrene~~]
(a) acrolein
(b) acrylonitrile
(c) benzene and alkylbenzenes
(i) benzene
(ii) toluene (methylbenzene)
(iii) ethylbenzene
(iv) xylenes (dimethyl benzene isomers)
(A) o-xylene
(B) m-xylene
(C) p-xylene
(v) styrene (ethenylbenzene)
(d) chlorinated benzenes
(i) monochlorobenzene
(ii) 1,2-dichlorobenzene (ortho-dichlorobenzene)
(iii) 1,4-dichlorobenzene (para-dichlorobenzene)
(iv) 1,2,4-trichlorobenzene
(v) 1,2,4,5-tetrachlorobenzene
(vi) pentachlorobenzene
(vii) hexachlorobenzene

(e) chlorinated phenols
(i) 2,4-dichlorophenol
(ii) 2,4,5-trichlorophenol
(iii) 2,4,6-trichlorophenol
(iv) pentachlorophenol (PCP)
(f) chloroalkyl ethers
(i) bis (2-chloroethyl) ether
(ii) bis (2-chloroisopropyl) ether
(iii) bis (chloromethyl) ether
(g) 1,2-dichloropropane (propylene dichloride, PDC)
(h) dichloropropenes
(i) 1,4-dioxane
(j) halogenated ethanes
(i) 1,2-dibromoethane (ethylene dibromide, EDB)
(ii) 1,1-dichloroethane (1,1-DCA)
(iii) 1,2-dichloroethane (ethylene dibromide, EDB)
(iv) 1,1,1-trichloroethane (TCA)
(v) 1,1,2-trichloroethane (1,1,2-TCA)
(vi) 1,1,2,2-tetrachloroethane
(vii) hexachloroethane
(k) halogenated ethenes
(i) chlorothene (vinyl chloride)
(ii) 1,1-dichloroethene (1,1-DCE)
(iii) cis-1,2-dichloroethene (cis-1,2-DCE)
(iv) trans-1,2-dichloroethene (trans-1,2-DCE)
(v) trichloroethene (trichloroethylene, TCE)
(vi) tetrachloroethene (perchloroethylene, PCE)
(l) halogenated methanes
(i) bromodichloromethane
(ii) bromomethane
(iii) chloromethane
(iv) dichlorodifluoromethane (fluorocarbon-12)
(v) dichloromethane (methylene chloride)
(vi) tribromomethane (bromoform)
(vii) trichloromethane (chloroform)
(viii) tetrachloromethane (carbon tetrachloride)
(ix) trichlorofluoromethane (fluorocarbon-11)
(m) hexachlorobutadiene
(n) isophorone
(o) methyl tertiary-butyl-ether (MTBE)
(p) nitroaromatics and high explosives (HE)
(i) nitrobenzene
(ii) 2,4-dinitrotoluene (2,4-DNT)
(iii) 2,6-dinitrotoluene (2,6-DNT)
(iv) octrahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)
(v) hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)
(vi) 2,4,6-trinitrotoluene (TNT)
(vii) 2,4-dinitro-o-cresol
(viii) dinitrophenols
(q) nitrosamines
(i) N-nitrosodiethylamine
(ii) N-nitrosodimethylamine
(iii) N-nitrosodibutylamine
(iv) N-nitrosodiphenylamine
(v) N-nitrosopyrrolidine
(r) perchlorate

(s) perfluorinated-chemicals (PFCs)
(i) perfluorohexane sulfonic acid (PHHxS)
(ii) perfluorooctane sulfonate (PFOS)
(iii) perfluorooctanoic acid (PFOA)
(t) pesticides
(i) Aldrin
(ii) atrazine
(iii) chlordane
(iv) DDT
(v) dieldrin
(vi) endosulfan
(vii) endrin
(viii) heptachlor
(ix) hexachlorocyclohexane (HCH, lindane)
(A) alpha-HCH
(B) beta-HCH
(C) gamma-HCH
(D) technical-HCH
(x) hexachlorocyclopentadiene
(xi) prometon
(xii) toxaphene
(u) phenol
(v) phthalate esters
(i) dibutyl phthalate
(ii) di-2-ethylhexyl phthalate (DEHP)
(iii) diethyl phthalate (DEP)
(iv) dimethyl phthalate (DMP)
(w) polycyclic compounds
(i) benzidine
(ii) dichlorobenzidine
(iii) diphenylhydrazine
(iv) polychlorinated biphenyls (PCBs)
(x) polynuclear aromatic hydrocarbons (PAHs)
(i) anthracne
(ii) benzo(a)pyrene
(iii) 3,4-benzofluoranthene
(iv) benzo(k)fluoranthene
(v) fluoranthene
(vi) fluorene
(vii) naphthalene
(viii) 1-methylnaphthalene
(ix) 2-methylnaphthalene
(x) phenanthrene
(xi) pyrene
(y) thiolane 1,1 dioxide (sulfolane)

U. Definitions that begin with the letter "U." [RESERVED]

V. Definitions that begin with the letter "V."

[~~XX.~~] (1) **"vadose zone"** means earth material below the land surface and above ground water, or in between bodies of ground water

[~~YY.~~]**W.** Definitions that begin with the letter "W."

(1) **"wastes"** means sewage, industrial wastes, or any other liquid, gaseous or solid substance which will pollute any waters of the state;

[~~ZZ.~~] (2) **"water"** means all water including water situated wholly or partly within or bordering upon the state, whether surface or subsurface, public or private, except private waters that do not combine with other surface or subsurface water;

[~~AAA.~~] (3) **"water contaminant"** means any substance that could alter if discharged or spilled the physical, chemical, biological or radiological qualities of water; "water contaminant" does not mean source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954;

[~~BBB.~~] (4) **"watercourse"** means any river, creek, arroyo, canyon, draw, or wash, or any other channel having definite banks and beds with visible evidence of the occasional flow of water;

[~~CCC.~~] (5) **"water pollution"** means introducing or permitting the introduction into water, either directly or indirectly, of one or more water contaminants in such quantity and of such duration as may with reasonable probability injure human health, animal or plant life or property, or to unreasonably interfere with the public welfare or the use of property;

[~~DDD.~~] (6) **"well"** means: (1) A bored, drilled, or driven shaft; (2) A dug hole whose depth is greater than the largest surface dimension; (3) An improved sinkhole; or (4) A subsurface fluid distribution system;

[~~EEE.~~] (7) **"well stimulation"** means a process used to clean the well, enlarge channels, and increase pore space in the interval to be injected, thus making it possible for fluids to move more readily into the injection zone; well stimulation includes, but is not limited to, (1) surging, (2) jetting, (3) blasting, (4) acidizing, (5) hydraulic fracturing.

X. Definitions that begin with the letter "X." [RESERVED]

Y. Definitions that begin with the letter "Y." [RESERVED]

Z. Definitions that begin with the letter "Z." [RESERVED]

[1-4-68, 4-20-68, 11-27-70, 9-3-72, 4-11-74, 8-13-76, 2-18-77, 6-26-80, 7-2-81, 1-29-82, 9-20-82, 11-17-84, 3-3-86, 8-17-91, 8-19-93, 12-1-95; 20.6.2.7 NMAC - Rn, 20 NMAC 6.2.I.1101, 1-15-01; A, 1-15-01; A, 12-1-01; A, 9-15-02; A, 9-26-04; A, 7-16-06; A, 8-1-14]

20.6.2.8 SEVERABILITY: If any section, subsection, individual standard or application of these standards or regulations is held invalid, the remainder shall not be affected.
[2-18-77, 12-1-95; 20.6.2.8 NMAC - Rn, 20 NMAC 6.2.I.1007, 1-15-01]

20.6.2.9 DOCUMENTS: Documents referenced in the part may be viewed at the New Mexico environment department, ground water quality bureau, Harold Runnels building, 1190 St. Francis Drive, Santa Fe, New Mexico 87503.
[12-1-95; 20.6.2.9 NMAC - Rn, 20 NMAC 6.2.I.1006, 1-15-01; A, 12-1-01]

20.6.2.10 LIMITATIONS: These regulations do not apply to the following:

A. Any activity or condition subject to the authority of the environmental improvement board pursuant to the Hazardous Waste Act, NMSA 1978, Sections 74-4-1 to -14, the Ground Water Protection Act, NMSA 1978, Sections 74-6B-1 to -14, the Solid Waste Act, NMSA 1978, Sections 74-9-1 to -25, except to abate water pollution or to control the disposal or use of septage and sludge; or

B. Any activity or condition subject to the authority of the oil conservation commission pursuant to the provisions of the Oil and Gas Act, NMSA 1978, Section 70-2-12 and other laws conferring power on the oil conservation commission and the oil conservation division of the energy, minerals and natural resources department to prevent or abate water pollution.

20.6.2.11[~~0~~] - 20.6.2.1199: [RESERVED]
[12-1-95; 20.6.2.10 - 20.6.2.1199 NMAC - Rn, 20 NMAC 6.2.I.1008-1100, 1102-1199, 1-15-01]

20.6.2.1200 PROCEDURES:
[12-1-95; 20.6.2.1200 NMAC - Rn, 20 NMAC 6.2.I.1200, 1-15-01]

20.6.2.1201 NOTICE OF INTENT TO DISCHARGE:

A. [~~Any~~] Except for the notices specified in paragraphs (1) and (2) of this subsection, any person intending to make a new water contaminant discharge or to alter the character or location of an existing water contaminant discharge, unless the discharge is being made or will be made into a community sewer system or subject to the Liquid Waste Disposal Regulations adopted by the New Mexico environmental improvement board, shall file a notice with the ground water quality bureau of the department for discharges that may affect ground water, and/ or the surface water quality bureau of the department for discharges that may affect surface water. [~~However, notice regarding discharges from facilities for the production, refinement, pipeline transmission of oil and~~

~~gas or products thereof, the oil field service industry, oil field brine production wells, geothermal installations and carbon dioxide facilities shall be filed instead with the oil conservation division.~~]

(1) Notices regarding discharges from facilities for the production, refinement, pipeline transmission of oil and gas or products thereof, the oil field service industry as related to oil and gas production conservation division of the energy, minerals and natural resources department,

(2) Notices regarding discharges related to geothermal resources, as defined in Section 71-9-3 of the Geothermal Resources Development Act, NMSA 1978, Sections 71-9-1 to -11 (2016) shall be filed with the energy conservation and management division of the energy, minerals and natural resources department.

B. [~~A~~]Except for the notices specified in paragraphs (1) and (2) of this subsection any person intending to inject fluids into a well, including a subsurface distribution system, unless the injection is being made subject to the Liquid Waste Disposal Regulations adopted by the New Mexico environmental improvement board, shall file a notice with the ground water quality bureau of the department. [~~However notice regarding injection to wells associated with oil and gas facilities as described in Subsection A of Section 20.6.2.1201 NMAC shall be filed instead with the oil conservation division.~~]

(1) Notices regarding injections to wells associated with oil and gas facilities as described in subsection A.(1) of 20.6.2.1201 NMAC shall be filed with the oil conservation division.

(2) Notices regarding injections to wells associated with exploration, development or production of geothermal resources, as described in subsection A.(2) of 20.6.2.1201 NMAC, shall be filed with the energy conservation and management division of the energy, minerals and natural resources department pursuant to the Geothermal Resources Development Act, NMSA 1978, Sections 71-9-1 to -11 (2016).

C. Notices shall state:

(1) the name of the person making the discharge;

(2) the address of the person making the discharge;

(3) the location of the discharge;

(4) an estimate of the concentration of water contaminants in the discharge; and

(5) the quantity of the discharge.

D. Based on information provided in the notice of intent, the department will notify the person proposing the discharge as to which of the following apply:

(1) a discharge permit is required;

(2) a discharge permit is not required;

(3) the proposed injection well will be added to the department's underground injection well inventory;

(4) the proposed injection activity or injection well is prohibited pursuant to 20.6.2.5004 NMAC.

[1-4-68, 9-5-69, 9-3-72, 2-17-74, 2-20-81, 12-1-95; 20.6.2.1201 NMAC - Rn, 20 NMAC 6.2.I.1201, 1-15-01; A, 12-1-01; A,XX/XX/17]

20.6.2.1202 FILING OF PLANS AND SPECIFICATIONS--SEWERAGE SYSTEMS:

A. Any person proposing to construct a sewerage system or proposing to modify any sewerage system in a manner that will change substantially the quantity or quality of the discharge from the system shall file plans and specifications of the construction or modification with ground water quality bureau of the department for discharges that may affect ground water, and/or the surface water quality bureau of the department for discharges that may affect surface water. Modifications having a minor effect on the character of the discharge from sewerage systems shall be reported as of January 1 and June 30 of each year to the ground water quality bureau of the department for discharges that may affect ground water, or the surface water quality bureau of the department for discharges that may affect surface water.

B. Plans, specifications and reports required by this section, if related to facilities for the production, refinement and pipeline transmission of oil and gas, or products thereof, shall be filed instead with the oil conservation division.

C. Plans and specifications required to be filed under this section must be filed prior to the commencement of construction.

[1-4-68, 9-3-72, 2-20-81, 12-1-95; 20.6.2.1202 NMAC - Rn, 20 NMAC 6.2.I.1202, 1-15-01; A, 12-1-01]

20.6.2.1203 NOTIFICATION OF DISCHARGE-REMOVAL:

A. With respect to any discharge from any facility of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or

unreasonably interfere with the public welfare or the use of property, the following notifications and corrective actions are required:

(1) As soon as possible after learning of such a discharge, but in no event more than twenty-four (24) hours thereafter, any person in charge of the facility shall orally notify the chief of the ground water quality bureau of the department, or [~~his~~]the appropriate counterpart in any constituent agency delegated responsibility for enforcement of these rules as to any facility subject to such delegation. To the best of that person's knowledge, the following items of information shall be provided:

(a) the name, address, and telephone number of the person or persons in charge of the facility, as well as of the owner and/or operator of the facility;

(b) the name and address of the facility;

(c) the date, time, location, and duration of the discharge;

(d) the source and cause of discharge;

(e) a description of the discharge, including its chemical composition;

(f) the estimated volume of the discharge; and

(g) any actions taken to mitigate immediate damage from the discharge.

(2) When in doubt as to which agency to notify, the person in charge of the facility shall notify the chief of the ground water quality bureau of the department. If that department does not have authority pursuant to commission delegation, the department shall notify the appropriate constituent agency.

(3) Within one week after the discharger has learned of the discharge, the facility owner and/or operator shall send written notification to the same department official, verifying the prior oral notification as to each of the foregoing items and providing any appropriate additions or corrections to the information contained in the prior oral notification.

(4) The oral and written notification and reporting requirements contained in this Subsection A are not intended to be duplicative of discharge notification and reporting requirements promulgated by the oil conservation commission (OCC) or by the oil conservation division (OCD); therefore, any facility which is subject to OCC or OCD discharge notification and reporting requirements need not additionally comply with the notification and reporting requirements herein.

(5) As soon as possible after learning of such a discharge, the owner/operator of the facility shall take such corrective actions as are necessary or appropriate to contain and remove or mitigate the damage caused by the discharge.

(6) If it is possible to do so without unduly delaying needed corrective actions, the facility owner/operator shall endeavor to contact and consult with the chief of the ground water quality bureau of the department or appropriate counterpart in a delegated agency, in an effort to determine the department's views as to what further corrective actions may be necessary or appropriate to the discharge in question. In any event, no later than fifteen (15) days after the discharger learns of the discharge, the facility owner/operator shall send to said Bureau Chief a written report describing any corrective actions taken and/or to be taken relative to the discharge. Upon a written request and for good cause shown, the bureau chief may extend the time limit beyond fifteen (15) days.

(7) The bureau chief shall approve or disapprove in writing the foregoing corrective action report within thirty (30) days of its receipt by the department. In the event that the report is not satisfactory to the department, the bureau chief shall specify in writing to the facility owner/operator any shortcomings in the report or in the corrective actions already taken or proposed to be taken relative to the discharge, and shall give the facility owner/operator a reasonable and clearly specified time within which to submit a modified corrective action report. The bureau chief shall approve or disapprove in writing the modified corrective action report within fifteen (15) days of its receipt by the department.

(8) In the event that the modified corrective action report also is unsatisfactory to the department, the facility owner/operator has five (5) days from the notification by the bureau chief that it is unsatisfactory to appeal to the department secretary. The department secretary shall approve or disapprove the modified corrective action report within five (5) days of receipt of the appeal from the bureau chief's decision. In the absence of either corrective action consistent with the approved corrective action report or with the decision of the secretary concerning the shortcomings of the modified corrective action report, the department may take whatever enforcement or legal action it deems necessary or appropriate.

(9) If the secretary determines that the discharge causes or may with reasonable probability cause water pollution in excess of the standards and requirements of Section 20.6.2.4103 NMAC, and the water pollution will not be abated within one hundred and eighty (180) days after notice is required to be given pursuant to Paragraph (1) of Subsection A of Section 20.6.2.1203 NMAC, the secretary may notify the facility owner/operator

that he is a responsible person and that an abatement plan may be required pursuant to Section 20.6.2.4104 and Subsection A of Section 20.6.2.4106 NMAC.

B. Exempt from the requirements of this section are continuous or periodic discharges which are made:

(1) in conformance with regulations of the commission and rules, regulations or orders of other state or federal agencies; or

(2) in violation of regulations of the commission, but pursuant to an assurance of discontinuance or schedule of compliance approved by the commission or one of its duly authorized constituent agencies.

C. As used in this section and in Sections 20.6.2.4100 through 20.6.2.4115 NMAC, but not in other sections of this part:

(1) "discharge" means spilling, leaking, pumping, pouring, emitting, emptying, or dumping into water or in a location and manner where there is a reasonable probability that the discharged substance will reach surface or subsurface water;

(2) "facility" means any structure, installation, operation, storage tank, transmission line, motor vehicle, rolling stock, or activity of any kind, whether stationary or mobile;

(3) "oil" means oil of any kind or in any form including petroleum, fuel oil, sludge, oil refuse and oil mixed with wastes;

(4) "operator" means the person or persons responsible for the overall operations of a facility; and

(5) "owner' means the person or persons who own a facility, or part of a facility.

D. Notification of discharge received pursuant to this part or information obtained by the exploitation of such notification shall not be used against any such person in any criminal case, except for perjury or for giving a false statement.

E. Any person who has any information relating to any discharge from any facility of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property, is urged to notify the chief of the ground water quality bureau of the department. Upon such notification, the secretary may require an owner/operator or a responsible person to perform corrective actions pursuant to Paragraphs (5) and (9) of Subsection A of Section 20.6.2.1203 NMAC.

[2-17-74, 2-20-81, 12-24-87, 12-1-95; 20.6.2.1203 NMAC - Rn, 20 NMAC 6.2.I.1203, 1-15-01; A, 12-1-01; A, XX/XX/17]

20.6.2.1204 - 20.6.2.1209 [RESERVED]

[12-1-95; 20.6.2.1204 - 20.6.2.1209 NMAC - Rn, 20 NMAC 6.2.I.1204-1209, 1-15-01]

20.6.2.1210 VARIANCE PETITIONS:

A. Any person seeking a variance pursuant to Section 74-6-4(H)[~~(G)~~] NMSA 1978, shall do so by filing a written petition with the commission. The petitioner may submit with his petition any relevant documents or material which the petitioner believes would support his petition. Petitions shall:

(1) state the petitioner's name and address;

(2) state the date of the petition;

(3) describe the facility or activity for which the variance is sought;

(4) state the address or description of the property upon which the facility is located;

(5) describe the water body or watercourse affected by the discharge for which the variance is sought and provide information on uses of water that may be affected;

(6) identify the regulation of the commission from which the variance is sought;

(7) state in detail the extent to which the petitioner wishes to vary from the regulation;

(8) state why the petitioner believes that compliance with the regulation will impose an unreasonable burden upon his activity; and

(9) [~~state the period of time for which the variance is desired.~~]state in detail how any water pollution above standards will be abated; and

(10) state the period of time for which the variance is desired including all reasons, data, reports and any other information demonstrating that such time period is justified and reasonable.

B. The variance petition shall be reviewed in accordance with the adjudicatory procedures of 20 NMAC 1.3.

C. The commission may grant the requested variance, in whole or in part, may grant the variance subject to conditions, or may deny the variance. [~~The~~]If the variance is granted in whole or in part, or subject to conditions, the commission shall [~~not grant a~~]specify the length of time that the variance [~~for a period of time in excess of five years.~~] shall be in place.

D. For variances associated with a discharge permit or abatement plan, the existence and nature of the variance shall be disclosed in all public notices applicable to the discharge permit or abatement plan.

E. For variances granted for a period in excess of five years, the petitioner shall provide to the department for review a variance compliance report at five year intervals to demonstrate that the conditions of the variance are being met, including notification of any changed circumstances or newly-discovered facts. At such time as the department determines the report is administratively complete, the department shall post the report on its website, and mail or e-mail notice of its availability to those persons on a general and facility-specific list maintained by the department who have requested notice of discharge permit applications, and any person who participated in the variance process. If such conditions are not being met, or there is evidence indicating changed circumstances or newly-discovered facts or conditions that were unknown at the time the variance was initially granted, any person, including the department, may request a hearing before the commission to revoke, modify, or otherwise reconsider the variance within 90 days of the issuance of the notice of availability of the report.

F. An order of the commission is final and bars the petitioner from petitioning for the same variance without special permission from the commission. The commission may consider, among other things, the development of new information and techniques to be sufficient justification for a second petition. If the petitioner, or his authorized representative, fails to appear at the public hearing on the variance petition, the commission shall proceed with the hearing on the basis of the petition. A variance may not be extended or renewed unless a new petition is filed and processed in accordance with the procedures established by this section.

[7-19-68, 11-27-70, 9-3-72, 2-20-81, 11-15-96; 20.6.2.1210 NMAC - Rn, 20 NMAC 6.2.I.1210, 1-15-01; A, XX/XX/17]

20.6.2.1211 - 20.6.2.1219: [RESERVED]

[12-1-95; 20.6.2.1211 - 20.6.2.1219 NMAC - Rn, 20 NMAC 6.2.I.1211-1219, 1-15-01]

20.6.2.1220 PENALTIES ENFORCEMENT, COMPLIANCE ORDERS, PENALTIES, ASSURANCE OF DISCONTINUANCE.: Failure to comply with the Water Quality Act, or any regulation or standard promulgated pursuant to the Water Quality Act is a prohibited act. If the secretary determines that a person has violated or is violating a requirement of the Water Quality Act or any regulation promulgated thereunder or is exceeding any water quality standard or ground water standard contained in commission regulations, or is not complying with a condition or provision of an approved or modified abatement plan, discharge plan, or permit issued pursuant to the Water Quality Act, the secretary may issue a compliance order, assess a penalty, commence a civil action in district court, or accept an assurance of discontinuance in accordance with NMSA 1978, Section 74-6-10 of the Water Quality Act.

[12-1-95; 20.6.2.1220 NMAC - Rn, 20 NMAC 6.2.I.1220, 1-15-01]

20.6.2.1221 - 20.6.2.1999: [RESERVED]

[12-1-95; 20.6.2.1221 - 20.6.2.1999 NMAC - Rn, 20 NMAC 6.2.I.1221-2099, 1-15-01]

20.6.2.2000 SURFACE WATER PROTECTION:

[12-1-95; 20.6.2.2000 NMAC - Rn, 20 NMAC 6.2.II, 1-15-01]

20.6.2.2001 PROCEDURES FOR CERTIFICATION OF FEDERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITS:

A. This section applies to the state certification of draft national pollutant discharge elimination system (NPDES) permits under Section 401 of the federal Clean Water Act. The purpose of such certification is to reasonably ensure that the permitted activities will be conducted in a manner that will comply with applicable water quality standards, including the antidegradation policy, and the statewide water quality management plan.

B. After review of a draft permit, the department will either: (1) certify that the discharge will comply with the applicable provisions of Sections 208(e), 301, 302, 303, 306 and 307 of the federal Clean Water Act and with appropriate requirements of state law; (2) certify that the discharge will comply with the applicable provisions of Sections 208(e), 301, 302, 303, 306 and 307 of the Clean Water Act and with appropriate requirements of state law upon inclusion of specified conditions in the permit and include the justification for the conditions; or (3) deny

certification and include reasons for the denial. If the department does not act on the certification within the time prescribed by the federal permitting agency for such action, the authority to do so shall be waived.

C. Pursuant to federal regulations at 40 CFR 124.10(c), the U.S. environmental protection agency provides notice of draft NPDES permits to the applicant (except for general permits); various local, state, federal, tribal and pueblo government agencies; and other interested parties, and it allows at least 30 days of public comment. To the extent practicable, the department will provide public notice that the department is reviewing a draft NPDES permit for the purpose of preparing a state certification or denial pursuant to Section 401 of the federal Clean Water Act jointly with the notice provided by the U.S. environmental protection agency. The department will also post notice on its website.

D. When joint notice is impractical, the department shall provide notice that the department is reviewing a draft NPDES permit for purpose of preparing a state certification or denial pursuant to Section 401 of the federal Clean Water Act as follows:

(1) for general permits by:

(a) posting notice on the department's website;

(b) publishing notice in at least one newspaper of general circulation;

(c) mailing or e-mailing notice to those persons on the general mailing list maintained by the department who have requested such notice; and

(d) mailing or e-mailing notice to any affected local, state, federal, tribal, or pueblo government agency, as identified by the department; or

(2) for individual permits by:

(a) posting notice on the department's website;

(b) publishing notice in a newspaper of general circulation in the location of the discharge;

(c) mailing notice to the applicant;

(d) mailing or e-mailing notice to those persons on the general and facility-specific mailing list maintained by the department who have requested such notice; and

(e) mailing notice to any affected local, state, federal, tribal, or pueblo government agency, as identified by the department.

E. Public notices may describe more than one permit or permit action. The notice provided under Subsections C and D of 20.6.2.2001 NMAC shall include:

(1) for general permits:

(a) a statement that the department will accept written comments on the draft permit during the comment period including the address where comments may be submitted;

(b) a brief description of the activities that produce the discharge; and

(c) a description of the geographic area to be covered by the permit; or

(2) for individual permits:

(a) a statement that the department will accept written comments on the draft permit during the comment period including the address where comments may be submitted;

(b) the name and address of the permittee or permit applicant and, if different, of the facility or activity regulated by the permit;

(c) a brief description of the activities that produce the discharge; and

(d) a general description of the location of the discharge and the name of the receiving water.

F. Following the public notice provided under Subsections C or D of 20.6.2.2001 NMAC, there shall be a period of at least 30 days during which interested persons may submit written comments to the department. The 30-day comment period shall begin on the date of the public notice provided under Subsections C or D of 20.6.2.2001 NMAC. The department shall consider all pertinent comments.

G. Following the public comment period provided under Subsection F of 20.6.2.2001 NMAC, the department shall issue a final permit certification including any conditions that the department places on the certification, or issue a statement of denial including the reasons for the denial. The final certification will generally be issued within 45 days from the date a request to grant, deny or waive certification is received by the department, unless the department in consultation with the U.S. environmental protection agency regional administrator finds that unusual circumstances require a longer time. The department shall send a copy of the final permit certification or denial to the U.S. environmental protection agency, the applicant (except for general permits), and those members of the public who submitted comments to the department.

(1) The permit certification shall be in writing and shall include:

(a) the name of the applicant (except for general permits) and the NPDES permit number;

(b) a statement that the department has examined the application or other relevant information and bases its certification upon an evaluation of the information contained in such application or other information which is relevant to water quality considerations;

(c) a statement that there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards;

(d) a statement of any conditions which the department deems necessary or desirable with respect to the discharge of the activity;

(e) identification of any condition more stringent than that in the draft permit required to assure compliance with the applicable provisions of Sections 208(e), 301, 302, 303, 306 and 307 of the Clean Water Act and with appropriate requirements of state law citing the Clean Water Act or state law upon which the condition is based;

(f) a statement of the extent to which each condition of the draft permit can be made less stringent without violating the requirements of state law, including water quality standards; and

(g) such other information as the department may determine to be appropriate.

(2) With justification, including any of the reasons listed in the New Mexico Water Quality Act, NMSA 1978, Section 74-6-5(E), the department may deny permit certification. Denial of permit certification shall be in writing and shall include:

(a) the name of the applicant (except for general permits) and the NPDES permit number;

(b) a statement that the department has examined the application or other relevant information and bases its denial upon an evaluation of the information contained in such application or other information which is relevant to water quality considerations;

(c) a statement of denial including the reasons for the denial; and

(d) such other information as the department may determine to be appropriate.

H. Any person who is adversely affected by the certification or denial of a specific permit may appeal such certification or denial by filing a petition for review with the secretary within 30 days after the department issues the final permit certification or statement of denial. Such petition shall be in writing and shall include a concise statement of the reasons for the appeal and the relief requested. The secretary may hold a hearing on the appeal. In any such appeal hearing, the procedures of 20.1.4 NMAC shall not apply. The department shall give notice of the appeal hearing at least 30 days prior to the hearing. The notice shall state the date, time, and location of the appeal hearing and shall include the pertinent information listed in Subparagraphs (b), (c), and (d) of Paragraph (2) of Subsection E of 20.6.2.2001 NMAC. The secretary shall appoint a hearing officer to preside over the appeal hearing. Any person may present oral or written statements, data, technical information, legal arguments, or other information on the permit certification or denial during the appeal hearing. Any person may present oral or written statements, data, technical information, legal arguments, or other information in rebuttal of that presented by another person. Reasonable time limits may be placed on oral statements, and the submission of written statements may be required. The hearing officer may question persons presenting oral testimony. Cross examination of persons presenting oral statements shall not otherwise be allowed. Within 30 days after the completion of the hearing, or such other time as the secretary may order given the complexities of the case, the hearing officer shall submit recommendations to the secretary. The secretary shall issue a final decision on the appeal within 30 days after receiving the recommendation, or such other time as the secretary may order given the complexities of the case.

I. Pursuant to the New Mexico Water Quality Act, NMSA 1978, Section 74-6-5(O), any person who is adversely affected by the secretary's final decision may file with the commission a petition for review of that decision based on the administrative record.

[20.6.2.2001 NMAC - N, 5-18-11;XX/XX/17]

20.6.2.2002 PROCEDURES FOR CERTIFICATION OF FEDERAL PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL:

A. This section applies to the state certification of draft permits or permit applications for the discharge of dredged or fill material under Section 401 of the federal Clean Water Act. The purpose of such certification is to reasonably ensure that the permitted activities will be conducted in a manner that will comply with applicable water quality standards, including the antidegradation policy, and the statewide water quality management plan.

B. After review of a draft permit or permit application, the department will either: (1) certify that the discharge will comply with the applicable provisions of Sections 301, 302, 303, 306 and 307 of the federal Clean Water Act and with appropriate requirements of state law; (2) certify that the discharge will comply with the applicable provisions of Sections 301, 302, 303, 306 and 307 of the Clean Water Act and with appropriate requirements of state law upon inclusion of specified conditions in the permit and include the justification for the conditions; or (3) deny certification and include reasons for the denial. If the department does not act on the certification within the time prescribed by the federal permitting agency for such action, the authority to do so shall be waived.

C. Pursuant to federal regulations at 33 CFR 325.3 and 33 CFR 330.5, the U.S. army corps of engineers provides notice of draft dredged or fill permits and permit applications to the applicant (except for general or nationwide permits); various local, state, federal, tribal and pueblo government agencies; and other interested parties, and it allows at least 15 days of public comment. To the extent practicable, the department will provide public notice that the department is reviewing a draft permit or permit application for the purpose of preparing a state certification or denial pursuant to Section 401 of the federal Clean Water Act jointly with the notice provided by the U.S. army corps of engineers. The department will also post notice on its website.

D. When joint notice is impractical, the department shall provide notice that the department is reviewing a draft dredged or fill permit or permit application for purpose of preparing a state certification or denial pursuant to Section 401 of the federal Clean Water Act as follows:

(1) for general permits by:

(a) posting notice on the department's website;

(b) publishing notice in at least one newspaper of general circulation;

(c) mailing or e-mailing notice to those persons on the general mailing list maintained by the department who have requested such notice; and

(d) mailing or e-mailing notice to any affected local, state, federal, tribal, or pueblo government agency, as identified by the department; or

(2) for individual permit applications by:

(a) posting notice on the department's website;

(b) publishing notice in a newspaper of general circulation in the location of the discharge;

(c) mailing notice to the applicant;

(d) mailing or e-mailing notice to those persons on the general and facility-specific mailing list maintained by the department who have requested such notice; and

(e) mailing notice to any affected local, state, federal, tribal, or pueblo government agency, as identified by the department.

E. Public notices may describe more than one permit or permit action. The notice provided under Subsections C and D of 20.6.2.2002 NMAC shall include:

(1) for general permits:

(a) a statement that the department will accept written comments on the draft permit during the comment period including the address where comments may be submitted;

(b) a brief description of the activities that produce the discharge; and

(c) a description of the geographic area to be covered by the permit; or

(2) for individual permit applications:

(a) a statement that the department will accept written comments on the permit application during the comment period including the address where comments may be submitted;

(b) the name and address of the permittee or permit applicant and, if different, of the facility or activity regulated by the permit;

(c) a brief description of the activities that produce the discharge; and

(d) a general description of the location of the discharge and the name of the receiving water.

F. Following the public notice provided under Subsections C or D of 20.6.2.2002 NMAC, there shall be a period of at least 30 days during which interested persons may submit written comments to the department. The 30-day comment period shall begin on the date of the public notice provided under Subsections C or D of 20.6.2.2002 NMAC. The department shall consider all pertinent comments.

G. The public notice provisions in Subsection C and D of Section 20.6.2.2002 NMAC and the public comment provisions in Subsection F of Section 20.6.2.2002 NMAC shall not apply to permits issued using

emergency procedures under 33 CFR 325.2(e)(4). However, even in emergency situations, reasonable efforts shall be made to receive comments from interested state and local agencies and the affected public.

H. Following the public comment period provided under Subsection F of 20.6.2.2002 NMAC, the department shall issue a final permit certification including any conditions that the department places on the certification, or issue a statement of denial including the reasons for the denial. The final certification will generally be issued within 60 days from the date a request to grant, deny or waive certification is received by the department, unless the department in consultation with the U.S. army corps of engineers district engineer finds that unusual circumstances require a longer time. The department shall send a copy of the final permit certification or denial to the army corps of engineers, the applicant (except for general or nationwide permits), and those members of the public who submitted comments to the department.

(1) The permit certification or denial shall be in writing and shall include:

(a) the name of the applicant (except for general permits) and the permit number;

(b) a statement that the department has examined the application or other relevant information and bases its certification upon an evaluation of the information contained in such application or other information which is relevant to water quality considerations;

(c) a statement that there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards;

(d) a statement of any conditions which the department deems necessary or desirable with respect to the discharge of the activity; and

(e) such other information as the department may determine to be appropriate.

(2) With justification, including any of the reasons listed in the New Mexico Water Quality Act, NMSA 1978, Section 74-6-5(E), the department may deny permit certification. Denial of permit certification shall be in writing and shall include:

(a) the name of the applicant (except for general permits) and the permit number;

(b) a statement that the department has examined the application or other relevant information and bases its denial upon an evaluation of the information contained in such application or other information which is relevant to water quality considerations;

(c) a statement of denial including the reasons for the denial; and

(d) such other information as the department may determine to be appropriate.

I. Any person who is adversely affected by the certification or denial of a specific permit may appeal such certification or denial by filing a petition for review with the secretary within 30 days after the department issues the final permit certification or statement of denial. Such petition shall be in writing and shall include a concise statement of the reasons for the appeal and the relief requested. The secretary may hold a hearing on the appeal. In any such appeal hearing, the procedures of 20.1.4 NMAC shall not apply. The department shall give notice of the appeal hearing at least 30 days prior to the hearing. The notice shall state the date, time, and location of the appeal hearing and shall include the pertinent information listed in Subparagraphs (b), (c), and (d) of Paragraph (2) of Subsection E of 20.6.2.2002 NMAC. The secretary shall appoint a hearing officer to preside over the appeal hearing. Any person may present oral or written statements, data, technical information, legal arguments, or other information on the permit certification or denial during the appeal hearing. Any person may present oral or written statements, data, technical information, legal arguments, or other information in rebuttal of that presented by another person. Reasonable time limits may be placed on oral statements, and the submission of written statements may be required. The hearing officer may question persons presenting oral testimony. Cross examination of persons presenting oral statements shall not otherwise be allowed. Within 30 days after the completion of the hearing, or such other time as the secretary may order given the complexities of the case, the hearing officer shall submit recommendations to the secretary. The secretary shall issue a final decision on the appeal within 30 days after receiving the recommendation, or such other time as the secretary may order given the complexities of the case.

J. Pursuant to the New Mexico Water Quality Act, NMSA 1978, Section 74-6-5(O), any person who is adversely affected by the secretary's final decision may file with the commission a petition for review of that decision based on the administrative record.

[20.6.2.2002 NMAC - N, 5-18-11]

20.6.2.2003 PROCEDURES FOR CERTIFICATION OF OTHER FEDERAL PERMITS:

A. This section applies to the state certification of draft federal permits, permit applications or licenses under Section 401 of the federal Clean Water Act, except for NPDES permits or permits for the discharge of dredged or fill material. For example, this section applies to certification of permits or licenses issued by the

federal energy regulatory commission (FERC) and to permits or licenses issued under the Rivers and Harbors Act of 1899. The purpose of such certification is to reasonably ensure that the permitted activities will be conducted in a manner that will comply with applicable water quality standards, including the antidegradation policy, and the statewide water quality management plan.

B. After review of a draft permit, permit application or license, the department will either: (1) certify that the activity will comply with the applicable provisions of Sections 301, 302, 303, 306 and 307 of the federal Clean Water Act and with appropriate requirements of state law; (2) certify that the activity will comply with the applicable provisions of Sections 301, 302, 303, 306 and 307 of the Clean Water Act and with appropriate requirements of state law upon inclusion of specified conditions in the permit and include the justification for the conditions; or (3) deny certification and include reasons for the denial. If the department does not act on the certification within the time prescribed by the federal permitting agency for such action, the authority to do so shall be waived.

C. To the extent practicable, the department will provide public notice that the department is reviewing a draft federal permit, permit application or license for the purpose of preparing a state certification or denial jointly with the notice provided by the federal permitting or licensing agency. The department will also post notice on its website.

D. When joint notice is impractical, the department shall provide notice that the department is reviewing a draft federal permit, permit application or license for purpose of preparing a state certification or denial pursuant to Section 401 of the federal Clean Water Act as follows:

(1) for general permits or licenses by:

(a) posting notice on the department's website;

(b) publishing notice in at least one newspaper of general circulation;

(c) mailing or e-mailing notice to those persons on the general mailing list maintained by the department who have requested such notice; and

(d) mailing or e-mailing notice to any affected local, state, federal, tribal, or pueblo government agency, as identified by the department; or

(2) for individual permits or licenses by:

(a) posting notice on the department's website;

(b) publishing notice in a newspaper of general circulation in the location of the permitted or licensed activity;

(c) mailing notice to the applicant;

(d) mailing or e-mailing notice to those persons on the general and facility-specific mailing list maintained by the department who have requested such notice; and

(e) mailing notice to any affected local, state, federal, tribal, or pueblo government agency, as identified by the department.

E. Public notices may describe more than one license, permit or permit action. The notice provided under Subsections C and D of 20.6.2.2003 NMAC shall include:

(1) for general permits or licenses:

(a) a statement that the department will accept written comments on the permit or license during the comment period including the address where comments may be submitted; and

(b) a brief description of the permitted or licensed activities; and

(c) a description of the geographic area to be covered by the permit; or

(2) for individual permits or licenses:

(a) a statement that the department will accept written comments on the permit or license during the comment period including the address where comments may be submitted;

(b) the name and address of the licensee, permittee or permit or license applicant and, if different, of the facility or activity regulated by the permit or license;

(c) a brief description of the permitted or licensed activities; and

(d) a general description of the location of the permitted or licensed activities and the name of the receiving water.

F. Following the public notice provided under Subsections C or D of 20.6.2.2003 NMAC, there shall be a period of at least 30 days during which interested persons may submit written comments to the department. The 30-day comment period shall begin on the date of the public notice provided under Subsections C or D of 20.6.2.2003 NMAC. The department shall consider all pertinent comments.

G. Following the public comment period provided under Subsection F of 20.6.2.2003 NMAC, the department shall issue a final certification including any conditions that the department places on the certification, or

issue a statement of denial including the reasons for the denial. The final certification will generally be issued within 60 days from the date a request to grant or deny certification is received by the department, unless the department in consultation with the federal permitting or licensing agency finds that unusual circumstances require a longer time. The department shall send a copy of the final certification or denial to the federal permitting or licensing agency, the applicant (except for general permits), and those members of the public who submitted comments to the department.

(1) The certification or denial shall be in writing and shall include:

(a) the name of the applicant (except for general permits) and the permit or license number;

(b) a statement that the department has examined the application or other relevant information and bases its certification upon an evaluation of the information contained in such application or other information which is relevant to water quality considerations;

(c) a statement that there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards;

(d) a statement of any conditions which the department deems necessary or desirable with respect to the discharge of the activity;

(e) identification of any condition more stringent than that in the draft permit or license required to assure compliance with the applicable provisions of Sections 301, 302, 303, 306 and 307 of the Clean Water Act and with appropriate requirements of state law citing the Clean Water Act or state law upon which the condition is based;

(f) a statement of the extent to which each condition of the draft permit or license can be made less stringent without violating the requirements of state law, including water quality standards; and

(g) Such other information as the department may determine to be appropriate.

(2) With justification, including any of the reasons listed in the New Mexico Water Quality Act, NMSA 1978, Section 74-6-5(E), the department may deny certification. Denial of certification shall be in writing and shall include:

(a) the name of the applicant (except for general permits) and the permit or license number;

(b) a statement that the department has examined the application or other relevant information and bases its denial upon an evaluation of the information contained in such application or other information which is relevant to water quality considerations;

(c) a statement of denial including the reasons for the denial; and

(d) such other information as the department may determine to be appropriate.

H. Any person who is adversely affected by the certification or denial of a specific permit or license may appeal such certification or denial by filing a petition for review with the secretary within 30 days after the department issues the final certification or statement of denial. Such petition shall be in writing and shall include a concise statement of the reasons for the appeal and the relief requested. The secretary may hold a hearing on the appeal. In any such appeal hearing, the procedures of 20.1.4 NMAC shall not apply. The department shall give notice of the appeal hearing at least 30 days prior to the hearing. The notice shall state the date, time, and location of the appeal hearing and shall include the pertinent information listed in Subparagraphs (b), (c), and (d) of Paragraph (2) of Subsection E of 20.6.2.2003 NMAC. The secretary shall appoint a hearing officer to preside over the appeal hearing. Any person may present oral or written statements, data, technical information, legal arguments, or other information on the certification or denial during the appeal hearing. Any person may present oral or written statements, data, technical information, legal arguments, or other information in rebuttal of that presented by another person. Reasonable time limits may be placed on oral statements, and the submission of written statements may be required. The hearing officer may question persons presenting oral testimony. Cross examination of persons presenting oral statements shall not otherwise be allowed. Within 30 days after the completion of the hearing, or such other time as the secretary may order given the complexities of the case, the hearing officer shall submit recommendations to the secretary. The secretary shall issue a final decision on the appeal within 30 days after receiving the recommendation, or such other time as the secretary may order given the complexities of the case.

I. Pursuant to the New Mexico Water Quality Act, NMSA 1978, Section 74-6-5(O), any person who is adversely affected by the secretary's final decision may file with the commission a petition for review of that decision based on the administrative record.

[20.6.2.2003 NMAC - N, 5-18-11]

20.6.2.2004 - 20.6.2.2099: [RESERVED]

[12-1-95; 20.6.2.2001 - 20.6.2.2099 NMAC - Rn, 20 NMAC 6.2.I.1221-2099, 1-15-01; A, 5-18-11]

20.6.2.2100 APPLICABILITY: The requirements of Section 20.6.2.2101 and 20.6.2.2102 NMAC shall not apply to any discharge which is subject to a permit under the National Pollutant Discharge Elimination System of P. L. 92-500; provided that any discharger who is given written notice of National Pollutant Discharge Elimination System permit violation from the Administrator of the Environmental Protection Agency and who has not corrected the violation within thirty days of receipt of said notice shall be subject to Section 20.6.2.2101 and 20.6.2.2102 NMAC until in compliance with the National Pollution Discharge Elimination System permit conditions; provided further that nothing in this Part shall be construed as a deterrent to action under Section 74-6-11 NMSA, 1978.
[8-13-76; 20.6.2.2100 NMAC - Rn, 20 NMAC 6.2.II.2100, 1-15-01]

20.6.2.2101 GENERAL REQUIREMENTS:

A. Except as otherwise provided in Sections 20.6.2.2000 through 20.6.2.2201 NMAC, no person shall cause or allow effluent to discharge to a watercourse if the effluent as indicated by:

(1) any two consecutive daily composite samples;

(2) more than one daily composite sample in any thirty-day period (in which less than ten (10) daily composite samples are examined);

(3) more than ten percent (10%) of the daily composite samples in any thirty-day period (in which ten (10) or more daily composite samples are examined); or

(4) a grab sample collected during flow from an intermittent or infrequent discharge does not conform to the following:

(a)	Bio-chemical Oxygen Demand (BOD)	Less than 30 mg/l
(b)	Chemical Oxygen Demand (COD)	Less than 125 mg/l
(c)	Settleable Solids	Less than 0.5 mg/l
(d)	Fecal Coliform Bacteria	Less than 500 organisms per 100 ml
(e)	pH	Between 6.6 and 8.6

B. Upon application, the secretary may eliminate the pH requirement for any effluent source that the secretary determines does not unreasonably degrade the water into which the effluent is discharged.

C. Subsection A of this Section does not apply to the weight of constituents in the water diverted.

D. Samples shall be examined in accordance with the most current edition of Standard Methods for the Examination of Water and Wastewater published by the American Public Health Association or the most current edition of Methods for Chemical Analysis of Water and Wastes published by the Environmental Protection Agency, where applicable.
[4-20-68, 3-14-71, 10-8-71, 8-13-76, 2-20-81, 12-1-95; 20.6.2.2101 NMAC - Rn, 20 NMAC 6.2.II.2101, 1-15-01]

20.6.2.2102 RIO GRANDE BASIN--COMMUNITY SEWERAGE SYSTEMS:

A. No person shall cause or allow effluent from a community sewerage system to discharge to a watercourse in the Rio Grande Basin between the headwaters of Elephant Butte Reservoir and Angostura Diversion Dam as described in Subsection E of this Section if the effluent, as indicated by:

(1) any two consecutive daily composite samples;

(2) more than one daily composite sample in any thirty-day period (in which less than ten (10) daily composite samples are examined);

(3) more than ten percent (10%) of the daily composite samples in any thirty-day period (in which ten (10) or more daily composite samples are examined); or

(4) a grab sample collected during flow from an intermittent or infrequent discharge does not conform to the following:

(a)	Bio-chemical Oxygen Demand (BOD)	Less than 30 mg/l
(b)	Chemical Oxygen Demand (COD)	Less than 80 mg/l
(c)	Settleable Solids	Less than 0.1 mg/l
(d)	Fecal Coliform Bacteria	Less than 500 organisms per 100 ml
(e)	pH	Between 6.6 and 8.6

B. Upon application, the secretary may eliminate the pH requirement for any effluent source that the secretary determines does not unreasonably degrade the water into which the effluent is discharged.

C. Subsection A of this Section does not apply to the weight of constituents in the water diverted.

D. Samples shall be examined in accordance with the most current edition of Standard Methods for the Analysis of Water and Wastewater published by the American Public Health Association or the most current edition of Methods for Chemical Analysis of Water and Wastes published by the Environmental Protection Agency, where applicable.

E. The following is a description of the Rio Grande Basin from the headwaters of Elephant Butte Reservoir to Angostura Diversion Dam as used in this Section. Begin at San Marcial USGS gauging station, which is the headwaters of Elephant Butte Reservoir Irrigation Project, thence northwest to U.S. Highway 60, nine miles + west of Magdalena; thence west along the northeast edge of the San Agustin Plains closed basin; thence north along the east side of the north plains closed basin to the Continental Divide; thence northly along the Continental Divide to the community of Regina on State Highway 96; thence southeasterly along the crest of the San Pedro Mountains to Cerro Toledo Peak; thence southwesterly along the Sierra de Los Valles ridge and the Borrego Mesa to Bodega Butte; thence southerly to Angostura Diversion Dam which is the upper reach of the Rio Grande in this basin; thence southeast to the crest and the crest of the Manzano Mountains and the Los Pinos Mountains; thence southerly along the divide that contributes to the Rio Grande to San Marcial gauging station to the point and place of beginning; excluding all waters upstream of Jemez Pueblo which flow into the Jemez River drainage and the Bluewater Lake. Counties included in the basin are:

(1) north portion of Socorro County;
(2) northeast corner of Catron County;
(3) east portion of Valencia County;
(4) west portion of Bernalillo County;
(5) east portion of McKinley County; and
(6) most of Sandoval County.

[3-14-71, 9-3-72, 8-13-76, 2-20-81, 12-1-95; 20.6.2.2102 NMAC - Rn, 20 NMAC 6.2.II.2102, 1-15-01]

20.6.2.2103 - 20.6.2.2199: [RESERVED]
[12-1-95; 20.6.2.2103 - 20.6.2.2199 NMAC - Rn, 20 NMAC 6.2.II.2103-2199, 1-15-01]

20.6.2.2200 WATERCOURSE PROTECTION:
[12-1-95; 20.6.2.2200 NMAC - Rn, 20 NMAC 6.2.II.2200, 1-15-01]

20.6.2.2201 DISPOSAL OF REFUSE: No person shall dispose of any refuse in a natural watercourse or in a location and manner where there is a reasonable probability that the refuse will be moved into a natural watercourse by leaching or otherwise. Solids diverted from the stream and returned thereto are not subject to abatement under this Section.
[4-20-68, 9-3-72; 20.6.2.2201 NMAC - Rn, 20 NMAC 6.2.II.2201, 1-15-01]

20.6.2.2202 - 20.6.2.2999: [RESERVED]
[12-1-95; 20.6.2.2202 - 20.6.2.2999 NMAC - Rn, 20 NMAC 6.2.II.2202-3100, 1-15-01]

20.6.2.3000 PERMITTING AND GROUND WATER STANDARDS:
[12-1-95; 20.6.2.3000 NMAC - Rn, 20 NMAC 6.2.III, 1-15-01]

20.6.2.3001 - 20.6.2.3100: [RESERVED]
[12-1-95; 20.6.2.3001 - 20.6.2.3100 NMAC - Rn, 20 NMAC 6.2.II.2202-3100, 1-15-01]

20.6.2.3101 PURPOSE:

A. The purpose of Sections 20.6.2.3000 through 20.6.2.3114 NMAC controlling discharges onto or below the surface of the ground is to protect all ground water of the state of New Mexico which has an existing concentration of 10,000 mg/l or less TDS, for present and potential future use as domestic and agricultural water supply, and to protect those segments of surface waters which are gaining because of ground water inflow, for uses designated in the New Mexico Water Quality Standards. Sections 20.6.2.3000 through 20.6.2.3114 NMAC are written so that in general:

(1) if the existing concentration of any water contaminant in ground water is in conformance with the standard of 20.6.2.3103 NMAC, degradation of the ground water up to the limit of the standard will be allowed; and

(2) if the existing concentration of any water contaminant in ground water exceeds the standard of Section 20.6.2.3103 NMAC, no degradation of the ground water beyond the existing concentration will be allowed.

B. Ground water standards are numbers that represent the pH range and maximum concentrations of water contaminants in the ground water which still allow for the present and future use of ground water resources.

C. The standards are not intended as maximum ranges and concentrations for use, and nothing herein contained shall be construed as limiting the use of waters containing higher ranges and concentrations.

[2-18-77; 20.6.2.3101 NMAC - Rn, 20 NMAC 6.2.III.3101, 1-15-01]

20.6.2.3102: [RESERVED]

[12-1-95; 20.6.2.3102 NMAC - Rn, 20 NMAC 6.2.III.3102, 1-15-01]

20.6.2.3103 STANDARDS FOR GROUND WATER OF 10,000 mg/l TDS CONCENTRATION OR LESS: The following standards are the allowable pH range and the maximum allowable concentration in ground water for the contaminants specified unless the existing condition exceeds the standard or unless otherwise provided in Subsection [~~D~~]E of Section 20.6.2.3109 NMAC. Regardless of whether there is one contaminant or more than one contaminant present in ground water, when an existing pH or concentration of any water contaminant exceeds the standard specified in Subsection A, B, or C of this section, the existing pH or concentration shall be the allowable limit, provided that the discharge at such concentrations will not result in concentrations at any place of withdrawal for present or reasonably foreseeable future use in excess of the standards of this section. These standards shall apply to the dissolved portion of the contaminants specified with a definition of dissolved being that given in the publication "*methods for chemical analysis of water and waste of the U.S. environmental protection agency*," with the exception that standards for mercury, organic compounds and non-aqueous phase liquids shall apply to the total [~~unfiltered~~] nonfiltered concentrations of the contaminants. If the secretary determines that there is a reasonable probability of facilitated contaminant transport by colloids or organic macromolecules, or that proper filtration procedures are not being followed, the discharger may be required to test for both filtered and nonfiltered portions of inorganic contaminants to develop appropriate protocol for monitoring contaminants that have the potential to migrate through the aquifer.

A. Human Health Standards[~~ Ground water shall meet the standards of Subsection A and B of this section unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the combination of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.~~]

(1) Numerical Standards

	(a)	Antimony (Sb)	0.006 mg/1
[~~(1)~~]	**(b)**	Arsenic (As)	[~~0.1~~]0.01 mg/l
[~~(2)~~]	**(c)**	Barium (Ba)	[~~1.0~~]2 mg/l
	(d)	Beryllium (be)	0.004 mg/l
[~~(3)~~]	**(e)**	Cadmium (Cd)	[~~0.01~~]0.005 mg/l
[~~(4)~~]	**(f)**	Chromium (Cr)	0.05 mg/l
[~~(5)~~]	**(g)**	Cyanide (CN)	0.2 mg/l
[~~(6)~~]	**(h)**	Fluoride (F)	1.6 mg/l
[~~(7)~~]	**(i)**	Lead (Pb)	[~~0.05~~]0.015 mg/l
[~~(8)~~]	**(j)**	Total Mercury (Hg)	0.002 mg/l
[~~(9)~~]	**(k)**	Nitrate (NO_3 as N)	10.0 mg/l
	(l)	Nitrite (NO_2 as N)	1.0 mg/l
[~~(10)~~]	**(m)**	Selenium (Se)	0.05 mg/l
[~~(11)~~]	**(n)**	Silver (Ag)	0.05 mg/l
	(o)	Thallium (Tl)	0.002 mg/l
	(p)	Uranium (U)	0.03 mg/l
[~~(13)~~]	**(q)**	Radioactivity: Combined Radium-226 & Radium-228	[~~30~~]5 pCi/l
[~~(14)~~]	**(r)**	Benzene	[~~0.01~~]0.005 mg/l
[~~(15)~~]	**(s)**	Polychlorinated biphenyls (PCB's)	[~~0.001~~]0.0005 mg/l
[~~(16)~~]	**(t)**	Toluene	[~~0.75~~]1 mg/l
[~~(17)~~]	**(u)**	Carbon Tetrachloride	[~~0.01~~]0.005 mg/l

[~~(18)~~] (v) 1,2-dichloroethane (EDC) .....[~~0.01~~]0.005 mg/l
[~~(19)~~] (w) 1,1-dichloroethylene (1,1-DCE) .....[~~0.005~~]0.007 mg/l
[~~(20)~~] (x) ~~1,1,2,2-~~tetrachloroethylene (PCE) .....[~~0.02~~]0.005 mg/l
[~~(21)~~] (y) ~~1,1,2-~~trichloroethylene (TCE) .....[~~0.1~~]0.005 mg/l
[~~(22)~~] (z) ethylbenzene.....[~~0.75~~]0.7 mg/l
[~~(23)~~] (aa) total xylenes.....0.62 mg/l
[~~(24)~~] (bb) methylene chloride.....[~~0.1~~]0.005 mg/l
[~~(25)~~] (cc) chloroform.....0.1 mg/l
[~~(26)~~] (dd) 1,1-dichloroethane.....0.025 mg/l
[~~(27)~~] (ee) ethylene dibromide (EDB) .....[~~0.0001~~]0.00005 mg/l
[~~(28)~~] (ff) 1,1,1-trichloroethane.....[~~0.06~~]0.2 mg/l
[~~(29)~~] (gg) 1,1,2-trichloroethane.....[~~0.01~~]0.005 mg/l
[~~(30)~~] (hh) 1,1,2,2-tetrachloroethane.....0.01 mg/l
[~~(31)~~] (ii) vinyl chloride.....[~~0.001~~]0.002 mg/l
[~~(32)~~] (jj) PAHs: total naphthalene plus monomethylnaphthalenes.....0.03 mg/l
[~~(33)~~] (kk) benzo-a-pyrene.....[~~0.0007~~]0.0002 mg/l
(ll) cis-1,2-dichloroethene.....0.07 mg/l
(mm) trans-1,2-dichloroethene.....0.1 mg/l
(nn) 1,2-dichloropropane (PDC).....0.005 mg/l
(oo) styrene.....0.1 mg/l
(pp) 1,2-dichlorobenzene.....0.6 mg/l
(qq) 1,4-dichlorobenzene.....0.075 mg/l
(rr) 1,2,4-trichlorobenzene.....0.07 mg/l
(ss) pentachlorophenol.....0.001 mg/l
(tt) atrazine.....0.003 mg/l

(2) **Standards for Toxic Pollutants.** A toxic pollutant shall not be present at a concentration shown by scientific information currently available to the public to have potential for causing one or more of the following effects upon exposure, ingestion, or assimilation either directly from the environment or indirectly by ingestion through food chains: (1) unreasonably threatens to injure human health, or the health of animals or plants which are commonly hatched, bred, cultivated or protected for use by man for food or economic benefit; as used in this definition injuries to health include death, histopathologic change, clinical symptoms of disease, behavioral abnormalities, genetic mutation, physiological malfunctions or physical deformations in such organisms or their offspring; or (2) creates a lifetime risk of more than one cancer per 100,000 exposed persons.

(3) **Standards for Non-Aqueous Phase Liquids.** Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

B. Other Standards for Domestic Water Supply

(1) Chloride (Cl) .....250.0 mg/l
(2) Copper (Cu) .....1.0 mg/l
(3) Iron (Fe) .....1.0 mg/l
(4) Manganese (Mn) .....0.2 mg/l
[~~(6)~~](5) Phenols.....0.005 mg/l
[~~(7)~~](6) Sulfate (SO_4) .....600.0 mg/l
[~~(8)~~](7) Total Dissolved Solids (TDS) .....1000.0 mg/l
[~~(9)~~](8) Zinc (Zn) .....10.0 mg/l
[~~(10)~~](9) pH.....between 6 and 9
(10) Methyl tertiary-butyl ether (MTBE).....0.1 mg/l

C. Standards for Irrigation Use - Ground water shall meet the standards of Subsection A, B, and C of this section unless otherwise provided.

(1) Aluminum (Al).....5.0 mg/l
(2) Boron (B) .....0.75 mg/l
(3) Cobalt (Co) .....0.05 mg/l
(4) Molybdenum (Mo) .....1.0 mg/l
(5) Nickel (Ni) .....0.2 mg/l

[2-18-77, 1-29-82, 11-17-83, 3-3-86, 12-1-95; 20.6.2.3103 NMAC - Rn, 20 NMAC 6.2.III.3103, 1-15-01; A, 9-26-04; A XX/XX/17]

[Note: For purposes of application of the amended numeric uranium standard to past and current water discharges (as of 9-26-04), the new standard will not become effective until June 1, 2007. [~~For any new water discharges, the uranium standard is effective 9-26-04.~~]] For purposes of application of the amended numeric standards for arsenic, cadmium, lead, combined radium-226 & radium-228; benzene, PCBs, carbon tetrachloride, EDC, PCE, TCE, methylene chloride, EDB, 1,1,2-trichloroethane and benzo-a-pyrene, to past and current water discharges (as of July 1, 2017), the new standards will not become effective until July 1, 2020. With regard to sites for which the secretary has approved an abatement completion report as of the effective date of this rule pursuant to 20.6.2.4112 NMAC, the amended numeric standards for arsenic, cadmium, lead, combined radium-226 & radium-228; benzene, PCBs, carbon tetrachloride, EDC, PCE, TCE, methylene chloride, EDB, 1,1,2-trichloroethane and benzo-a-pyrene shall not apply unless the secretary notifies the responsible person that the site is a source of these contaminants in ground water at a place of withdrawal for present or reasonably foreseeable future use at concentrations in excess of the standards of this section.]

20.6.2.3104 DISCHARGE PERMIT REQUIRED: Unless otherwise provided by this Part, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into ground water unless he is discharging pursuant to a discharge permit issued by the secretary. When a permit has been issued, discharges must be consistent with the terms and conditions of the permit. In the event of a transfer of the ownership, control, or possession of a facility for which a discharge permit is in effect, the transferee shall have authority to discharge under such permit, provided that the transferee has complied with Section 20.6.2.3111 NMAC, regarding transfers. [2-18-77, 12-24-87, 12-1-95; Rn & A, 20.6.2.3104 NMAC - 20 NMAC 6.2.III.3104, 1-15-01; A, 12-1-01]

20.6.2.3105 EXEMPTIONS FROM DISCHARGE PERMIT REQUIREMENT: Sections 20.6.2.3104 and 20.6.2.3106 NMAC do not apply to the following:

A. Effluent or leachate which conforms to all the [~~listed numerical~~] standards in Subsections A, B, and C of Section 20.6.2.3103 NMAC and has a total nitrogen concentration of 10 mg/l or less[~~, and does not contain any toxic pollutant~~]. If treatment or blending is required to achieve these standards this exemption does not apply. To determine conformance, samples may be taken by the agency before the effluent or leachate is discharged so that it may move directly or indirectly into ground water; provided that if the discharge is by seepage through non-natural or altered natural materials, the agency may take samples of the solution before or after seepage. If for any reason the agency does not have access to obtain the appropriate samples, this exemption shall not apply;

B. Effluent which is regulated pursuant to 20.7.3 NMAC, "Liquid Waste Disposal and Treatment" regulations;

C. Water used for irrigated agriculture, for watering of lawns, trees, gardens or shrubs, or for irrigation for a period not to exceed five years for the revegetation of any disturbed land area, unless that water is received directly from any sewerage system;

D. Discharges resulting from the transport or storage of water diverted, provided that the water diverted has not had added to it after the point of diversion any effluent received from a sewerage system, that the source of the water diverted was not mine workings, and that the secretary has not determined that a hazard to public health may result;

E. Effluent which is discharged to a watercourse which is naturally perennial; discharges to dry arroyos and ephemeral streams are not exempt from the discharge permit requirement, except as otherwise provided in this section;

F. Those constituents which are subject to effective and enforceable effluent limitations in a National Pollutant Discharge Elimination System (NPDES) permit, where discharge onto or below the surface of the ground so that water contaminants may move directly or indirectly into ground water occurs downstream from the outfall where NPDES effluent limitations are imposed, unless the secretary determines that a hazard to public health may result. For purposes of this subsection, monitoring requirements alone do not constitute effluent limitations;

G. Discharges resulting from flood control systems;

H. Leachate which results from the direct natural infiltration of precipitation through disturbed materials, unless the secretary determines that a hazard to public health may result;

I. Leachate which results entirely from the direct natural infiltration of precipitation through undisturbed materials;

J. Leachate from materials disposed of in accordance with the Solid Waste Management Regulations (20 NMAC 9.1) adopted by the New Mexico Environmental Improvement Board;

K. Natural ground water seeping or flowing into conventional mine workings which re-enters the ground by natural gravity flow prior to pumping or transporting out of the mine and without being used in any mining process; this exemption does not apply to solution mining;

L. Effluent or leachate discharges resulting from activities regulated by [~~a mining plan approved and~~] permit issued by the [~~New Mexico Coal~~] mining and minerals division of the energy, minerals and natural resources department pursuant to the Surface Mining [~~Commission,~~]Act, NMSA 1978, Section 69-25A-1 to 36, provided that this exemption shall not be construed as limiting the application of appropriate ground water protection requirements by the mining and minerals division and the New Mexico Coal Surface Mining Commission; or

M. [~~Effluent or leachate discharges which are regulated by the Oil Conservation Commission and the regulation of which by the Water Quality Control Commission would interfere with the exclusive authority granted under Section 70-2-12 NMSA 1978, or under other laws, to the Oil Conservation Commission~~] Discharges resulting from activities regulated by the energy conservation and management division of the energy, minerals and natural resources department under the authority of the Geothermal Resources Development Act, NMSA 1978, Sections 71-9-1 to -11 (2016).

[2-18-77, 6-26-80, 7-2-81, 12-24-87, 12-1-95; 20.6.2.3105 NMAC - Rn, 20 NMAC 6.2.III.3105, 1-15-01; A, 12-1-01; A, 8-1-14; A, XX/XX/17]

20.6.2.3106 APPLICATION FOR DISCHARGE PERMITS [~~AND~~] RENEWALS, MODIFICATIONS, AND AMENDMENTS:

A. Any person who, before or on June 18, 1977, is discharging any of the water contaminants listed in 20.6.2.3103 NMAC or any toxic pollutant so that they may move directly or indirectly into ground water shall, within 120 days of receipt of written notice from the secretary that a discharge permit is required, or such longer time as the secretary shall for good cause allow, submit a discharge plan to the secretary for approval; such person may discharge without a discharge permit until 240 days after written notification by the secretary that a discharge permit is required or such longer time as the secretary shall for good cause allow.

B. Any person who intends to begin, after June 18, 1977, discharging any of the water contaminants listed in 20.6.2.3103 NMAC or any toxic pollutant so that they may move directly or indirectly into ground water shall notify the secretary giving the information enumerated in Subsection B of 20.6.2.1201 NMAC; the secretary shall, within 60 days, notify such person if a discharge permit is required; upon submission of a discharge plan, the secretary shall review the discharge plan pursuant to 20.6.2.3108 and 20.6.2.3109 NMAC. For good cause shown the secretary may allow such person to discharge without a discharge permit for a period not to exceed 120 days.

C. Any person who intends to modify the discharge of any of the water contaminants listed in 20.6.2.3103 NMAC or any toxic pollutant in a manner that is a discharge permit modification as defined in this part shall submit a discharge plan for modification that contains the information required in Subsection D of 20.6.2.3106 NMAC; upon submission of a discharge plan for modification, the secretary shall review the discharge plan for modification pursuant to 20.6.2.3108 and 20.6.2.3109 NMAC.

[~~C.~~]**D.** A proposed discharge plan shall set forth in detail the methods or techniques the discharger proposes to use or processes expected to naturally occur which will ensure compliance with this part. At least the following information shall be included in the plan:

(1) quantity, quality and flow characteristics of the discharge;

(2) location of the discharge and of any bodies of water, watercourses and ground water discharge sites within one mile of the outside perimeter of the discharge site, and existing or proposed wells to be used for monitoring;

(3) depth to and TDS concentration of the ground water most likely to be affected by the discharge;

(4) flooding potential of the site;

(5) location and design of site(s) and method(s) to be available for sampling, and for measurement or calculation of flow;

(6) depth to and lithological description of rock at base of alluvium below the discharge site if such information is available;

(7) any additional information that may be necessary to demonstrate that the discharge permit will not result in concentrations in excess of the standards of 20.6.2.3103 NMAC [~~or the presence of any toxic pollutant~~] at any place of withdrawal of water for present or reasonably foreseeable future use; detailed information on site geologic and hydrologic conditions may be required for a technical evaluation of the applicant's proposed discharge plan; and

(8) additional detailed information required for a technical evaluation of underground injection control wells as provided in 20.6.2.5000 through 20.6.2.5399 NMAC.

[~~D.~~]E. An applicant for a discharge permit shall pay fees as specified in 20.6.2.3114 and 20.6.2.5302 NMAC.

[~~E.~~]F. An applicant for a permit to dispose of or use septage or sludge, or within a source category designated by the commission, may be required by the secretary to file a disclosure statement as specified in 74-6-5.1 of the Water Quality Act.

[~~F.~~]G. If the holder of a discharge permit submits an application for discharge permit renewal at least 120 days before the discharge permit expires, and the discharger is not in violation of the discharge permit on the date of its expiration, then the existing discharge permit for the same activity shall not expire until the application for renewal has been approved or disapproved. A discharge permit continued under this provision remains fully effective and enforceable. An application for discharge permit renewal must include and adequately address all of the information necessary for evaluation of a new discharge permit. Previously submitted materials may be included by reference provided they are current, readily available to the secretary and sufficiently identified to be retrieved.

H. 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.

[2-18-77, 6-26-80, 7-2-81, 9-20-82, 8-17-91, 12-1-95; 20.6.2.3106 NMAC - Rn, 20 NMAC 6.2.III.3106, 1-15-01; A, 12-1-01; A, 9-15-02; A, 8-31-15; A, XX/XX/17]

20.6.2.3107 MONITORING, REPORTING, AND OTHER REQUIREMENTS:

A. Each discharge plan shall provide for the following as the secretary may require:

(1) the installation, use, and maintenance of effluent monitoring devices;

(2) the installation, use, and maintenance of monitoring devices for the ground water most likely to be affected by the discharge;

(3) monitoring in the vadose zone;

(4) continuation of monitoring after cessation of operations;

(5) periodic submission to the secretary of results obtained pursuant to any monitoring requirements in the discharge permit and the methods used to obtain these results;

(6) periodic reporting to the secretary of any other information that may be required as set forth in the discharge permit;

(7) the discharger to retain for a period of at least five years any monitoring data required in the discharge permit;

(8) a system of monitoring and reporting to verify that the permit is achieving the expected results;

(9) procedures for detecting failure of the discharge system;

(10) contingency plans to cope with failure of the discharge permit or system;

(11) a closure plan to prevent the exceedance of standards of 20.6.2.3103 NMAC [~~or the presence of a toxic pollutant~~] in ground water after the cessation of operation which includes: a description of closure measures, maintenance and monitoring plans, post-closure maintenance and monitoring plans, financial assurance, and other measures necessary to prevent or abate such contamination; the obligation to implement the closure plan as well as the requirements of the closure plan, if any is required, survives the termination or expiration of the permit; a closure plan for any underground injection control well must also incorporate the applicable requirements of 20.6.2.5005, 20.6.2.5209, and 20.6.2.5361 NMAC.

B. Sampling and analytical techniques shall conform with the following references unless otherwise specified by the secretary:

(1) standard methods for the examination of water and wastewater, latest edition, American public health association; or

(2) methods for chemical analysis of water and waste, and other publications of the analytical quality laboratory, EPA; or

(3) techniques of water resource investigations of the U.S. geological survey; or

(4) annual book of ASTM standards; Part 31; water, latest edition, American society for testing and materials; or

(5) federal register, latest methods published for monitoring pursuant to Resource Conservation and Recovery Act regulations; or

(6) national handbook of recommended methods for water-data acquisition, latest edition, prepared cooperatively by agencies of the United States government under the sponsorship of the U.S. geological survey.

C. The discharger shall notify the secretary of any facility expansion, production increase or process modification that would result in any significant modification in the discharge of water contaminants.

D. Any discharger of effluent or leachate shall allow any authorized representative of the secretary to:

(1) inspect and copy records required by a discharge permit;

(2) inspect any treatment works, monitoring and analytical equipment;

(3) sample any effluent before or after discharge;

(4) use monitoring systems and wells installed pursuant to a discharge permit requirement in order to collect samples from ground water or the vadose zone.

E. Each discharge permit for an underground injection control well shall incorporate the applicable requirements of 20.6.2.5000 through 20.6.2.5399 NMAC.

[2-18-77, 9-20-82, 11-17-83, 12-1-95; 20.6.2.3107 NMAC - Rn, 20 NMAC 6.2.III.3107, 1-15-01; A, 12-1-01; A, 8-31-15]

20.6.2.3108 PUBLIC NOTICE AND PARTICIPATION:

A. Within 15 days of receipt of an application for a discharge permit, modification or renewal, the department shall review the application for administrative completeness. To be deemed administratively complete, an application shall provide all of the information required by Paragraphs (1) through (5) of Subsection F of 20.6.2.3108 NMAC and shall indicate, for department approval, the proposed locations and newspaper for providing notice required by Paragraphs (1) and (4) of Subsection B or Paragraph (2) of Subsection C of 20.6.2.3108 NMAC. The department shall notify the applicant in writing when the application is deemed administratively complete. If the department determines that the application is not administratively complete, the department shall notify the applicant of the deficiencies in writing within [~~15~~]30 days of receipt of the application and state what additional information is necessary.

B. Within 30 days of the department deeming an application for discharge permit or discharge permit modification administratively complete, the applicant shall provide notice, in accordance with the requirements of Subsection F of 20.6.2.3108 NMAC, to the general public in the locale of the proposed discharge in a form provided by the department by each of the methods listed below:

(1) for each 640 contiguous acres or less of a discharge site, prominently posting a synopsis of the public notice at least 2 feet by 3 feet in size, in English and in Spanish, at a place conspicuous to the public, approved by the department, at or near the proposed facility for 30 days; one additional notice, in a form approved by and may be provided by the department, shall be posted at a place located off the discharge site, at a place conspicuous to the public and approved by the department; the department may require a second posting location for more than 640 contiguous acres or when the discharge site is not located on contiguous properties;

(2) providing written notice of the discharge by mail or electronic mail, to owners of record of all properties within a 1/3 mile distance from the boundary of the property where the discharge site is located; if there are no properties other than properties owned by the discharger within a 1/3 mile distance from the boundary of property where the discharge site is located, the applicant shall provide notice to owners of record of the next nearest adjacent properties not owned by the discharger;

(3) providing notice by certified mail, return receipt requested, to the owner of the discharge site if the applicant is not the owner; and

(4) publishing a synopsis of the notice in English and in Spanish, in a display ad at least three inches by four inches not in the classified or legal advertisements section, in a newspaper of general circulation in the location of the proposed discharge.

C. Within 30 days of the department deeming an application for discharge permit renewal administratively complete, the applicant shall provide notice, in accordance with the requirements of Subsection F of 20.6.2.3108 NMAC, to the general public in the locale of the proposed discharge in a form provided by the department by each of the methods listed below:

(1) providing notice by certified mail to the owner of the discharge site if the applicant is not the owner; and

(2) publishing a synopsis of the notice, in English and in Spanish, in a display ad at least two inches by three inches, not in the classified or legal advertisements section, in a newspaper of general circulation in the location of the discharge.

D. Within 15 days of completion of the public notice requirements in Subsections B or C of 20.6.2.3108 NMAC, the applicant shall submit to the department proof of notice, including an affidavit of mailing(s) and the list of property owner(s), proof of publication, and an affidavit of posting, as appropriate.

E. Within 30 days of determining an application for a discharge permit, modification or renewal is administratively complete, the department shall post a notice on its website and shall mail notice to any affected local, state, federal, tribal or pueblo governmental agency, political subdivisions, ditch associations and land grants, as identified by the department. The department shall also mail or e-mail notice to those persons on a general and facility-specific list maintained by the department who have requested notice of discharge permit applications. The notice shall include the information listed in Subsection F of 20.6.2.3108 NMAC.

F. The notice provided under Subsection B, C and E of 20.6.2.3108 NMAC shall include:

(1) the name and address of the proposed discharger;

(2) the location of the discharge, including a street address, if available, and sufficient information to locate the facility with respect to surrounding landmarks;

(3) a brief description of the activities that produce the discharge described in the application;

(4) a brief description of the expected quality and volume of the discharge;

(5) the depth to and total dissolved solids concentration of the ground water most likely to be affected by the discharge;

(6) the address and phone number within the department by which interested persons may obtain information, submit comments, and request to be placed on a facility-specific mailing list for future notices; and

(7) a statement that the department will accept comments and statements of interest regarding the application and will create a facility-specific mailing list for persons who wish to receive future notices.

G. All persons who submit comments or statements of interest to the department or previously participated in a public hearing and who provide a mail or e-mail address shall be placed on a facility-specific mailing list and the department shall send those persons the public notice issued pursuant to Subsection H of 20.6.2.3108 NMAC, and notice of any public meeting or hearing scheduled on the application. All persons who contact the department to inquire about a specific facility shall be informed of the opportunity to be placed on the facility-specific mailing list.

H. Within 60 days after the department makes its administrative completeness determination and all required technical information is available, the department shall make available a ~~proposed approval or disapproval of the~~ draft permit or a notice of intent to deny an application for a discharge permit, modification or renewal~~, including conditions for approval proposed by the department or the reasons for disapproval~~. A draft permit for a permit modification shall only include those permit conditions proposed to be modified.

(1) The department shall prepare a fact sheet for every draft permit for a discharge at a federal facility, except for domestic liquid waste discharges, and for other draft permits as determined by the Secretary. The fact sheet shall include:

(a) the information in Paragraphs 1 - 4 of Subsection F of 20.6.2.3108 NMAC;

(b) the information in Subsection I of 20.6.2.3108 NMAC; and

(c) a brief summary of the basis for the draft permit conditions, including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record.

(2) The department shall mail by certified mail a copy of the ~~proposed approval~~ draft permit and fact sheet or notice of intent to deny ~~or notice of proposed disapproval~~ to the applicant and shall provide notice of the draft permit or the notice of intent to deny ~~proposed approval or disapproval of the application for a discharge permit, modification or renewal~~ by:

(1) posting on the department's website;

(2) publishing notice in a newspaper of general circulation in this state and a newspaper of general circulation in the location of the facility;

(3) mailing or e-mailing to those persons on a facility-specific mailing list;

(4) mailing to any affected local, state, or federal governmental agency, ditch associations and land grants, as identified by the department; and

(5) mailing to the governor, chairperson, or president of each Indian tribe, pueblo or nation within the state of New Mexico, as identified by the department.

I. The public notice issued under Subsection H shall include the information in Subsection F of 20.6.2.3108 NMAC and the following information:

(1) a brief description of the procedures to be followed by the secretary in making a final determination;

(2) a statement of the comment period and description of the procedures for a person to request a hearing on the application; and

(3) the address, ~~and~~ telephone number, and email address at which interested persons may obtain a copy of the draft permit and fact sheet or the notice of intent to deny ~~proposed approval or disapproval of an application for a discharge permit, modification or renewal~~.

J. In the event that the draft permit or notice of intent to deny ~~proposed approval or disapproval of an application for a discharge permit, modification or renewal~~ is available for review within 30 days of deeming the application administratively complete, the department may combine the public notice procedures of Subsections E and H of 20.6.2.3108 NMAC.

K. Following the public notice of the draft permit or notice of intent to deny ~~proposed approval or disapproval of an application for a discharge permit, modification or renewal~~, and prior to a final decision by the secretary, there shall be a period of at least 30 days during which written comments may be submitted to the department and/or a public hearing may be requested in writing. The 30-day comment period shall begin on the date of publication of notice in the newspaper. All comments will be considered by the department. Requests for a hearing shall be in writing and shall set forth the reasons why a hearing should be held. A public hearing shall be held if the secretary determines there is substantial public interest. The department shall notify the applicant and any person requesting a hearing of the decision whether to hold a hearing and the reasons therefore in writing.

L. If a hearing is held, pursuant to Subsection K of 20.6.2.3108 NMAC, notice of the hearing shall be given by the department at least 30 days prior to the hearing in accordance with Subsection H of 20.6.2.3108 NMAC. The notice shall include the information identified in Subsection F of 20.6.2.3108 NMAC in addition to the time and place of the hearing and a brief description of the hearing procedures. The hearing shall be held pursuant to 20.6.2.3110 NMAC.

[2-18-77, 12-24-87, 12-1-95, 11-15-96; 20.6.2.3108 NMAC - Rn, 20 NMAC 6.2.III.3108, 1-15-01; A, 12-1-01; A, 9-15-02; A, 7-16-06]

20.6.2.3109 SECRETARY APPROVAL, DISAPPROVAL, MODIFICATION, AMENDMENT OR TERMINATION OF DISCHARGE PERMITS, AND REQUIREMENT FOR ABATEMENT PLANS:

A. The department shall evaluate the application for a discharge permit, modification or renewal based on information contained in the department's administrative record. The department may request from the discharger, either before or after the issuance of any public notice, additional information necessary for the evaluation of the application. The administrative record shall consist of the application, any additional information required by the department, any information submitted by the discharger or the general public, other information considered by the department, the proposed approval or disapproval of an application for a discharge permit, modification or renewal prepared pursuant to Subsection G of 20.6.2.3108 NMAC, and, if a public hearing is held, all of the documents filed with the hearing clerk, all exhibits offered into evidence at the hearing, the written transcript or tape recording of the hearing, any hearing officer report, and any post hearing submissions.

B. A discharge permit amendment shall be administratively reviewed and evaluated by the department.

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

(2) The department shall provide notice of all discharge permit amendment approvals or denials to those persons on the facility specific list maintained by the department.

[~~B.~~]**C.** The secretary shall, within 30 days after the administrative record is complete and all required information is available, approve, approve with conditions or disapprove the proposed discharge permit, modification or renewal based on the administrative record. The Secretary shall issue a response to comments which shall specify which provisions, if any, in the draft permit were changed and the reasons for the change, and shall briefly describe and respond to all significant comments on the draft permit raised during the public comment period or at any hearing. The secretary shall notify ~~give written notice of the action taken to~~ the applicant or permittee by certified mail of the action taken and the reasons for such action and shall include a copy of the response to comments. ~~and any other person~~ Notice shall also be given by mail or email to persons who participated in the permitting action ~~who requests a copy in writing~~.

[~~C.~~]**D.** Provided that the other requirements of this part are met and the proposed discharge plan, amendment, modification or renewal demonstrates that neither a hazard to public health nor undue risk to property

will result, the secretary shall approve the proposed discharge plan, amendment, modification or renewal if the following requirements are met:

(1) ground water that has a TDS concentration of 10,000 mg/l or less will not be affected by the discharge; or

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

(3) the proposed discharge plan conforms to either Subparagraph (a) or (b) below and Subparagraph (c) below:

(a) municipal, other domestic discharges, and discharges from sewerage systems handling only animal wastes: the effluent is entirely domestic, is entirely from a sewerage system handling only animal wastes or is from a municipality and conforms to the following:

(i) the discharge is from an impoundment or a leach field existing on February 18, 1977 which receives less than 10,000 gallons per day and the secretary has not found that the discharge may cause a hazard to public health; or

(ii) the discharger has demonstrated that the total nitrogen in effluent that enters the subsurface from a leach field or surface impoundment will not exceed 200 pounds per acre per year and that the effluent will meet the standards of 20.6.2.3103 NMAC except for nitrates and except for contaminants in the water diverted as provided in Subsection [~~D~~]E of 20.6.2.3109 NMAC; or

(iii) the total nitrogen in effluent that is applied to a crop which is harvested shall not exceed by more than 25 percent the maximum amount of nitrogen reasonably expected to be taken up by the crop and the effluent shall meet the standards of 20.6.2.3103 NMAC except for nitrates and except for contaminants in the water diverted as provided in Subsection [~~D~~]E of 20.6.2.3109 NMAC;

(b) discharges from industrial, mining or manufacturing operations:

(i) the discharger has demonstrated that the amount of effluent that enters the subsurface from a surface impoundment will not exceed 0.5 acre-feet per acre per year; or

(ii) the discharger has demonstrated that the total nitrogen in effluent that enters the subsurface from a leach field or surface impoundment shall not exceed 200 pounds per acre per year and the effluent shall meet the standards of 20.6.2.3103 NMAC except for nitrate and contaminants in the water diverted as provided in Subsection [~~D~~]E of 20.6.2.3109 NMAC; or

(iii) the total nitrogen in effluent that is applied to a crop that is harvested shall not exceed by more than 25 percent the maximum amount of nitrogen reasonably expected to be taken up by the crop and the effluent shall meet the standards of 20.6.2.3103 NMAC except for nitrate and contaminants in the water diverted as provided in Subsection [~~D~~]E of 20.6.2.3109 NMAC;

(c) all discharges:

(i) the monitoring system proposed in the discharge plan includes adequate provision for sampling of effluent and adequate flow monitoring so that the amount being discharged onto or below the surface of the ground can be determined;

(ii) the monitoring data is reported to the secretary at a frequency determined by the secretary.

[~~D~~]E. The secretary shall allow the following unless he determines that a hazard to public health may result:

(1) the weight of water contaminants in water diverted from any source may be discharged provided that the discharge is to the aquifer from which the water was diverted or to an aquifer containing a greater concentration of the contaminants than contained in the water diverted; and provided further that contaminants added as a result of the means of diversion shall not be considered to be part of the weight of water contaminants in the water diverted;

(2) the water contaminants leached from undisturbed natural materials may be discharged provided that:

(a) the contaminants were not leached as a product or incidentally pursuant to a solution mining operation; and

(b) the contaminants were not leached as a result of direct discharge into the vadose zone from municipal or industrial facilities used for the storage, disposal, or treatment of effluent;

(3) the water contaminants leached from undisturbed natural materials as a result of discharge into ground water from lakes used as a source of cooling water.

[~~E.~~]F. If data submitted pursuant to any monitoring requirements specified in the discharge permit or other information available to the secretary indicates that this part is being or may be violated or that the standards of 20.6.2.3103 NMAC are being or will be exceeded[~~, or a toxic pollutant as defined in 20.6.2.7 NMAC is present,~~] in ground water at any place of withdrawal for present or reasonably foreseeable future use, or that the water quality standards for interstate and intrastate streams in New Mexico are being or may be violated in surface water, due to the discharge, except as provided in Subsection D of 20.6.2.3109 NMAC.

(1) The secretary may require a discharge permit modification within the shortest reasonable time so as to achieve compliance with this part and to provide that any exceeding of standards in ground water at any place of withdrawal for present or reasonably foreseeable future use, or in surface water, due to the discharge except as provided in Subsection [~~D~~]E of 20.6.2.3109 NMAC will be abated or prevented. If the secretary requires a discharge permit modification to abate water pollution:

(a) the abatement shall be consistent with the requirements and provisions of 20.6.2.4101, 20.6.2.4103, Subsections C and E of 20.6.2.4106, 20.6.2.4107, 20.6.2.4108 and 20.6.2.4112 NMAC; and

(b) the discharger may request of the secretary approval to carry out the abatement under 20.6.2.4000 through 20.6.2.4115 NMAC, in lieu of modifying the discharge permit; the discharger shall make the request in writing and shall include the reasons for the request.

(2) The secretary may terminate a discharge permit when a discharger fails to modify the permit in accordance with Paragraph (1) of Subsection [~~E~~]F of 20.6.2.3109 NMAC.

(3) The secretary may require modification, or may terminate a discharge permit for a Class I well, a Class III well or other type of well specified in Subsection A of 20.6.2.5101 NMAC, pursuant to the requirements of Subsection I of 20.6.2.5101 NMAC.

(4) If a discharge permit is terminated, the secretary shall notify the permittee by certified mail of the action taken and the reasons for that action. Notice of the termination shall also be given by mail or electronic mail to persons who participated in the permitting action and to those persons on the facility-specific list maintained by the department.

[~~F.~~]G. If a discharge permit expires or is terminated for any reason and the standards of 20.6.2.3103 NMAC are being or will be exceeded[~~, or a toxic pollutant as defined in 20.6.2.7 NMAC is present~~] in ground water, or that the water quality standards for interstate and intrastate streams in New Mexico are being or may be violated, the secretary may require the discharger to submit an abatement plan pursuant to 20.6.2.4104 and Subsection A of 20.6.2.4106 NMAC.

[~~G.~~]H. At the request of the discharger, a discharge permit may be modified in accordance with 20.6.2.3000 through 20.6.2.3114 NMAC.

[~~H.~~]I. The secretary shall not approve a proposed discharge plan, amendment, modification, or renewal for:

(1) any discharge for which the discharger has not provided a site and method for flow measurement and sampling;

(2) any discharge that will cause any stream standard to be violated;

(3) the discharge of any water contaminant which may result in a hazard to public health; or

(4) a period longer than five years, except that for new discharges, the term of the discharge permit approval shall commence on the date the discharge begins, but in no event shall the term of the approval exceed seven years from the date the permit was issued; for those permits expiring more than five years from the date of issuance, the discharger shall give prior written notification to the department of the date the discharge is to commence; the term of the permit shall not exceed five years from that date.

[2-18-77, 6-26-80, 9-20-82, 7-2-81, 3-3-86, 12-1-95, 11-15-96; 20.6.2.3109 NMAC - Rn, 20 NMAC 6.2.III.3109, 1-15-01; A, 12-1-01; A, 9-15-02; A, 7-16-06; A, 8-31-15; A, XX/XX/17]

20.6.2.3110 PUBLIC HEARING PARTICIPATION:

A. The secretary may appoint an impartial hearing officer to preside over the hearing. The hearing officer may be a department employee other than an employee of the bureau evaluating the application.

B. The hearing shall be at a place in the area affected by the facility for which the discharge permit proposal, modification or renewal is sought.

C. Any person who wishes to present technical evidence at the hearing shall, no later than ten (10) days prior to the hearing, file with the department, and if filed by a person who is not the applicant, serve on the

applicant, a statement of intent to present evidence. A person who does not file a statement of intent to present evidence may present a general non-technical statement in support of or in opposition to the proposed discharge plan, modification or renewal. The statement of intent to present technical evidence shall include:

(1) the name of the person filing the statement;

(2) indication of whether the person filing the statement supports or opposes the proposed discharge plan proposal, modification or renewal;

(3) the name of each witness;

(4) an estimate of the length of the direct testimony of each witness;

(5) a list of exhibits, if any, to be offered into evidence at the hearing; and

(6) a summary or outline of the anticipated direct testimony of each witness.

D. At the hearing, the New Mexico Rules of Civil Procedure, SCRA 1986, 1-001 to 1-102 and the New Mexico Rules of Evidence, SCRA 1986, 11-101 to 11-1102 shall not apply. At the discretion of the hearing officer, the rules may be used as guidance. Any reference to the Rules of Civil Procedure and the Rules of Evidence shall not be construed to extend or otherwise modify the authority and jurisdiction of the department under the Act.

E. The hearing officer shall conduct a fair and impartial proceeding, assure that the facts are fully elicited, and avoid delay. The hearing officer shall have authority to take all measures necessary for the maintenance of order and for the efficient, fair and impartial adjudication of issues arising in the proceedings.

F. At the hearing, all persons shall be given a reasonable chance to submit data, views or arguments orally or in writing and to examine witnesses testifying at the hearing.

G. Unless otherwise allowed by the hearing officer, testimony shall be presented in the following order:

(1) testimony by and examination of the applicant or permittee proving the facts relied upon to justify the proposed discharge plan, renewal or modification and meeting the requirements of the regulations;

(2) testimony by and examination of technical witnesses supporting or opposing approval, approval subject to conditions, or disapproval of the proposed discharge plan, renewal or modification, in any reasonable order;

(3) testimony by the general public; and

(4) rebuttal testimony, if appropriate.

H. The secretary may provide translation service at a public hearing conducted in a locale where the Department can reasonably expect to receive testimony from non-English speaking people.

I. If determined useful by the hearing officer, within thirty (30) days after conclusion of the hearing, or within such time as may be fixed by the hearing officer, the hearing officer may allow proposed findings of fact and conclusions of law and closing argument. All such submissions, if allowed, shall be in writing, shall be served upon the applicant or permittee, the department and all persons who request copies in advance in writing, and shall contain adequate references to the record and authorities relied on. No new evidence shall be presented unless specifically allowed by the hearing officer.

J. The department shall make an audio recording of the hearing. If the applicant or permittee, or a participant requests a written transcript or certified copy of the audio recording, the requestor shall pay the cost of the transcription or audio copying.

K. The hearing officer shall issue a report within thirty (30) days after the close of the hearing record. The report may include findings of fact, conclusions regarding all material issues of law or discretion, as well as reasons therefore. The report shall be served on the applicant or permittee, the department, and all persons who request copies in advance in writing. The report will be available for public inspection at the department's office in Santa Fe and at the field office closest to the point of the proposed discharge.

L. The secretary shall issue a decision in the matter no later than thirty (30) days of receipt of the hearing report. The decision shall be served and made available for inspection pursuant to Subsection K of this section.

M. Any person who testifies at the hearing or submits a written statement for the record will be considered a participant for purposes of Subsection 20.6.2.3113 NMAC and NMSA 1978, Section 74-6-5.N.

[2-18-77, 12-1-95, 11-15-96; 20.6.2.3110 NMAC - Rn, 20 NMAC 6.2.III.3110, 1-15-01; A, 12-1-01]

20.6.2.3111 TRANSFER OF DISCHARGE PERMIT: No purported transfer of any discharge permit shall be effective to create, alter or extinguish any right or responsibility of any person subject to this Part, unless the following transfer requirements are met:

A. Prior to any transfer of ownership, control, or possession (whether by lease, conveyance or otherwise) of a facility with a discharge permit, the [~~transferror~~]transferor shall notify the transferee in writing of the

existence of the discharge permit, and shall deliver or send by certified mail to the department a copy of such written notification, together with a certification or other proof that such notification has in fact been received by the transferee.

B. Upon receipt of such notification, the transferee shall have the duty to inquire into all of the provisions and requirements contained in such discharge permit, and the transferee shall be charged with notice of all such provisions and requirements as they appear of record in the department's file or files concerning such discharge permit.

C. Until both ownership and possession of the facility have been transferred to the transferee, the transferor shall continue to be responsible for any discharge from the facility.

D. Upon assuming either ownership or possession of the facility, the transferee shall have the same rights and responsibilities under the discharge permit as were applicable to the transferor.

E. Nothing in this section or in this part shall be construed to relieve any person of responsibility or liability for any act or omission which occurred while that person owned, controlled or was in possession of the facility.

[2-18-77, 12-24-87, 12-1-95, 11-15-96; 20.6.2.3111 NMAC - Rn, 20 NMAC 6.2.III.3111, 1-15-01; A, 12-1-01]

20.6.2.3112 APPEALS OF SECRETARY'S DECISIONS:

A. If the secretary approves, approves subject to conditions, or disapproves a proposed discharge plan, renewal or modification, or modifies, amends or terminates a discharge permit, appeal therefrom shall be in accordance with the provisions of Sections 74-6-5(N), (O) and (P), NMSA 1978. The filing of an appeal does not act as a stay of any provision of the Act, the regulations, or any permit issued pursuant to the Act, unless otherwise ordered by the secretary or the commission.

B. If the secretary determines that a discharger is not exempt from obtaining a discharge permit, or that the material to be discharged contains any toxic pollutant [~~as defined~~]listed in 20.6.2.7 NMAC, which is not included in the numerical standards of Subsection A(1) of 20.6.2.3103 NMAC, then the discharger may appeal such determination by filing with the commission's secretary a notice of appeal to the commission within thirty days after receiving the secretary's written determination, and the appeal therefrom and any action of the commission thereon shall be in accordance with the provisions of Sections 74-6-5(O), (P), (Q), (R) and (S) NMSA 1978.

C. Proceedings before the commission shall be conducted in accordance with the commission's adjudicatory procedures, 20 NMAC 1.3.

[2-18-77, 7-2-81, 12-1-95, 11-15-96; 20.6.2.3112 NMAC - Rn, 20 NMAC 6.2.III.3112, 1-15-01; A, 12-1-01; A, 7-16-06]

20.6.2.3113 APPEALS OF COMMISSION DECISIONS: An applicant, permittee or a person who participated in a permitting action and who is adversely affected by such action may appeal the decision of the commission in accordance with the provisions of Section 74-6-7(A), NMSA 1978.

[2-18-77, 12-1-95, 11-15-96; 20.6.2.3113 NMAC - Rn, 20 NMAC 6.2.III.3113, 1-15-01; A, 12-1-01]

20.6.2.3114 FEES:

A. FEE AMOUNT AND SCHEDULE OF PAYMENT - Every facility submitting a discharge permit application for approval or renewal shall pay the permit fees specified in Table 1 of this section and shall pay a filing fee as specified in Table 2 of this section to the Water Quality Management Fund. Every facility submitting a request for temporary permission to discharge pursuant to Subsection B of Section 20.6.2.3106 NMAC, or financial assurance pursuant to Paragraph 11 of Subsection A of Section 20.6.2.3107 NMAC shall pay the fees specified in Table 2 of this section to the Water Quality Management Fund.

B. Facilities applying for discharge permits which are subsequently withdrawn or denied shall pay one-half of the permit fee at the time of denial or withdrawal.

C. Every facility submitting an application for discharge permit modification will be assessed a filing fee plus one-half of the permit fee. Applications for both renewal and modification will pay the filing fee plus the permit fee.

D. If the secretary requires a discharge permit modification as a component of an enforcement action, the facility shall pay the applicable discharge permit modification fee. If the secretary requires a discharge permit modification outside the context of an enforcement action, the facility shall not be assessed a fee.

E. The secretary may waive or reduce fees for discharge permit amendments, modifications or renewals which require little or no cost for investigation or issuance.

F. Facilities shall pay the filing fee at the time of discharge permit application. The filing fee is nonrefundable. The required permit fees may be paid in a single payment at the time of discharge permit approval or in equal installments over the term of the discharge permit. Installment payments shall be remitted yearly, with the first installment due on the date of discharge permit approval. Subsequent installment payments shall be remitted yearly thereafter. The discharge permit or discharge permit application review of any facility shall be suspended or terminated if the facility fails to submit an installment payment by its due date.

G. Every three years beginning in 2004, the department shall review the fees specified in Table 1 and 2 of this section and shall provide a report to the commission. The department shall revise the fees as necessary in accordance with Section 74-6-5(J), NMSA 1978.

20.6.2.3114 TABLE 1 (gpd=gallons per day)	**Permit Fee**
Agriculture <10,000 gpd	$ 1,150
Agriculture 10,000 to 49,999 gpd	$ 2,300
Agriculture 50,000 to 99,999 gpd	$ 3,450
Agriculture 100,000 gpd or greater	$ 4,600
Domestic Waste <10,000 gpd	$ 1,150
Domestic Waste 10,000 to 49,999 gpd	$ 2,300
Domestic Waste 50,000 to 99,999 gpd	$ 3,450
Domestic Waste 100,000 to 999,999 gpd	$ 4,600
Domestic Waste 1,000,000 to 9,999,999 gpd	$ 7,000
Domestic Waste 10,000,000 gpd or greater	$ 9,200
Food Processing <10,000 gpd	$ 1,150
Food Processing 10,000 to 49,999 gpd	$ 2,300
Food Processing 50,000 to 99,999 gpd	$ 3,450
Food Processing 100,000 to 999,999 gpd	$ 4,600
Food Processing 1,000,000 or greater	$ 7,000
Grease/Septage surface disposal <10,000 gpd	$ 1,725
Grease/Septage surface disposal 10,000 gpd or greater	$ 3,450
Industrial <10,000 gpd; or <10,000 yd^3 of contaminated solids	$ 1,725
Industrial 10,000 to 99,999 gpd; or 10,000 to 99,999 yd^3 of contaminated solids	$ 3,450
Industrial 100,000 to 999,999 gpd; or 100,000 to 999,999 yd^3 of contaminated solids or greater	$ 6,900
Industrial 1,000,000 gpd or greater; or 1,000,000 yd^3 of contaminated solids or greater	$10,350
Discharge of remediation system effluent - remediation plan approved under separate regulatory authority	$ 1,600
Mining dewatering	$ 3,250
Mining leach dump	$13,000
Mining tailings	$13,000
Mining waste rock	$13,000
Mining in-situ leach (except salt) and old stope leaching	$13,000
Mining other (mines with minimal environmental impact, post closure operation and maintenance, evaporation lagoons and land application at uranium mines)	$ 4,750
Gas Compressor Stations 0 to 1000 Horsepower	$ 400
Gas Compressor Stations >1001 Horsepower	$ 1,700
Gas Processing Plants	$ 4,000
Injection Wells: Class I (non-hazardous)	$ 4,500
Injection Wells: Class III and Geothermal	$ 1,700

Oil and Gas Service Companies	$ 1,700
Refineries	$ 8,400
Crude Pump Station	$ 1,200
Underground Gas Storage	$ 1,700
Abatement of ground water and vadose zone contamination [~~at oil and gas Sites~~]	$ 2,600
General permit	$ 600

20.6.2.3114 Table 2

	Fee Amount
Filing fee	$100
Temporary permission	$50
Financial assurance: approval of instrument	greater of $250 or .01%
Financial assurance: annual review	greater of $100 or .001%

[8-17-91, 12-1-95; 20.6.2.3114, Rn & A, 20 NMAC 6.2.III.3114, 01-01-01; A, XX/XX/17]

20.6.2.3115 - 20.6.2.3999: [RESERVED]
[12-1-95; 20.6.2.3115 - 20.6.2.3999 NMAC - Rn, 20 NMAC 6.2.III.3115-4100, 1-15-01]

20.6.2.4000 PREVENTION AND ABATEMENT OF WATER POLLUTION:
[12-1-95; 20.6.2.4000 NMAC - Rn, 20 NMAC 6.2.IV, 1-15-01]

20.6.2.4001 - 20.6.2.4100: [RESERVED]
[12-1-95; 20.6.2.4001 - 20.6.2.4100 NMAC - Rn, 20 NMAC 6.2.III.3115-4100, 1-15-01]

20.6.2.4101 PURPOSE:

A. The purposes of Sections 20.6.2.4000 through 20.6.2.4115 NMAC are to:

(1) Abate pollution of subsurface water so that all ground water of the State of New Mexico which has a background concentration of 10,000 mg/L or less TDS, is either remediated or protected for use as domestic and agricultural water supply, and to remediate or protect those segments of surface waters which are gaining because of subsurface water inflow, for uses designated in the Water Quality Standards for Interstate and Intrastate Streams in New Mexico (20.6.4 NMAC); and

(2) Abate surface water pollution so that all surface waters of the State of New Mexico are remediated or protected for designated or attainable uses as defined in the Water Quality Standards for Interstate and Intrastate Streams in New Mexico (20.6.4 NMAC).

B. If the background concentration of any water contaminant exceeds the standard or requirement of Subsections A, [~~B, and~~] C, and D of Section 20.6.2.4103 NMAC, pollution shall be abated by the responsible person to the background concentration.

C. The standards and requirements set forth in Section 20.6.2.4103 NMAC are not intended as maximum ranges and concentrations for use, and nothing herein contained shall be construed as limiting the use of waters containing higher ranges and concentrations.

[12-1-95; 20.6.2.4101 NMAC - Rn, 20 NMAC 6.2.IV.4101, 1-15-01; A,XX/XX/17]

20.6.2.4102: [RESERVED]
[12-1-95; 20.6.2.4102 NMAC - Rn, 20 NMAC 6.2.IV.4102, 1-15-01]

20.6.2.4103 ABATEMENT STANDARDS AND REQUIREMENTS:

A. The vadose zone shall be abated so that water contaminants in the vadose zone shall not be capable of contaminating ground water or surface water, in excess of the standards in Subsections [~~B and~~]C and D below, through leaching, percolation or as the water table elevation fluctuates.

B. Subsurface water contaminants shall be abated to concentrations below those which may with reasonable probability injure human health, animal or plant life or property, or unreasonably interfere with the public welfare or the use of property through percolation, capillary suction, sequestration, phytoextraction, plant uptake, volatilization, advection or diffusion into crops, structures, utility infrastructure, or construction excavations.

[~~B.~~]**C.** Ground water pollution at any place of withdrawal for present or reasonably foreseeable future use, where the TDS concentration is 10,000 mg/L or less, shall be abated to meet the standards of Subsections A, B, and C of Section 20.6.2.3103 NMAC:[~~conform to the following standards:~~

~~(1) toxic pollutant(s) as defined in Section 20.6.2.1101 NMAC shall not be present; and~~

~~(2) the standards of Section 20.6.2.3103 NMAC shall be met.~~]

[~~C.~~]**D.** Surface water pollution shall be abated to conform to the Water Quality Standards for Interstate and Intrastate Streams in New Mexico (20.6.4 NMAC).

[~~D.~~]**E.** Subsurface water and surface water abatement shall not be considered complete until a minimum of eight (8) consecutive quarterly samples from all compliance sampling stations approved by the secretary meet the abatement standards of Subsections A, B, [~~and~~]C, and D of this section. Abatement of water contaminants measured in solid-matrix samples of the vadose zone shall be considered complete after one-time sampling from compliance stations approved by the secretary.

[~~E. Technical Infeasibility.~~

~~(1) If any responsible person is unable to fully meet the abatement standards set forth in Subsections A and B of this section using commercially accepted abatement technology pursuant to an approved abatement plan, he may propose that abatement standards compliance is technically infeasible. Technical infeasibility proposals involving the use of experimental abatement technology shall be considered at the discretion of the secretary. Technical infeasibility may be demonstrated by a statistically valid extrapolation of the decrease in concentration(s) of any water contaminant(s) over the remainder of a twenty (20) year period, such that projected future reductions during that time would be less than 20 percent of the concentration(s) at the time technical infeasibility is proposed. A statistically valid decrease cannot be demonstrated by fewer than eight (8) consecutive quarters. The technical infeasibility proposal shall include a substitute abatement standard(s) for those contaminants that is/are technically feasible. Abatement standards for all other water contaminants not demonstrated to be technically infeasible shall be met.~~

~~(2) In no event shall a proposed technical infeasibility demonstration be approved by the secretary for any water contaminant if its concentration is greater than 200 percent of the abatement standard for that contaminant.~~

~~(3) If the secretary cannot approve any or all portions of a proposed technical infeasibility demonstration because the water contaminant concentration(s) is/are greater than 200 percent of the abatement standard(s) for each contaminant, the responsible person may further pursue the issue of technical infeasibility by filing a petition with the commission seeking:~~

~~(a) approval of alternate abatement standard(s) pursuant to Subsection F of this section; or~~

~~(b) granting of a variance pursuant to Section 20.6.2.1210 NMAC.~~

~~F. Alternative Abatement Standards.~~

~~(1) At any time during or after the submission of a Stage 2 abatement plan, the responsible person may file a petition seeking approval of alternative abatement standard(s) for the standards set forth in Subsections A and B of this section. The commission may approve alternative abatement standard(s) if the petitioner demonstrates that:~~

~~(a) compliance with the abatement standard(s) is/are not feasible, by the maximum use of technology within the economic capability of the responsible person; OR there is no reasonable relationship between the economic and social costs and benefits (including attainment of the standard(s) set forth in Section 20.6.2.4103 NMAC) to be obtained;~~

~~(b) the proposed alternative abatement standard(s) is/are technically achievable and cost-benefit justifiable; and~~

~~(c) compliance with the proposed alternative abatement standard(s) will not create a present or future hazard to public health or undue damage to property.~~

~~(2) The petition shall be in writing, filed with the secretary. The petition shall specify, in addition to the information required by Subsection A of Section 20.6.2.1210 NMAC, the water contaminant(s) for which alternative standard(s) is/are proposed, the alternative standard(s) proposed, the three-dimensional body of water pollution for which approval is sought, and the extent to which the abatement standard(s) set forth in Section 20.6.2.4103 NMAC is/are now, and will in the future be, violated. The petition may include a transport, fate and~~

~~risk assessment in accordance with accepted methods, and other information as the petitioner deems necessary to support the petition.~~

~~(3) The commission shall review a petition for alternative abatement standards in accordance with the procedures for review of a variance petition provided in the commission's adjudicatory procedures, 20.1.3 NMAC.~~]

F. Alternative Abatement Standards: If the person abating water pollution pursuant to an approved abatement plan, or pursuant to the exemptions of 20.6.2.4105 NMAC, is unable to fully meet an abatement standard set forth in Subsections A and C of this section, the person may file a petition with the commission seeking approval of an alternative abatement standard.

(1) A petition for an alternative abatement standard shall demonstrate at least one of the following criteria:

(a) compliance with the standard set forth in Subsections A and C of this section would not be feasible by the maximum use of commercially accepted abatement technology;

(b) compliance with the standard set forth in Subsections A and C of this section would not be feasible by the maximum use of technology within the economic capability of the person;

(c) there is no reasonable relationship between the economic and social costs and benefits of attainment of the standard set forth in Subsections A and C of this section; or

(d) compliance with the standard set forth in Subsections A and C of this section is technically infeasible following the maximum use of commercially accepted abatement technology, as demonstrated by a statistically valid extrapolation of the decrease in concentration of any water contaminant over a twenty (20) year period, such that projected future reductions during that time would be less than 20 percent of the concentration at the time technical infeasibility is proposed. Technical infeasibility proposals that involved the use of experimental abatement technology shall be considered at the discretion of the commission. A statistically valid decrease cannot be demonstrated by fewer than eight (8) consecutive sampling events. Sampling events demonstrating a statistically valid decrease shall be collected with a minimum of ninety (90) days between sampling events, and shall not span a time period greater than four (4) years.

(2) A petition for alternative abatement standards shall specify, in addition to the information required by Subsection A of 20.6.2.1210 NMAC the following:

(a) the water contaminant for which the alternative abatement standard is proposed;

(b) the alternative abatement standard proposed;

(c) the three-dimensional body of water pollution for which approval is sought;

(d) a summary of all actions taken to abate water pollution to standards; and

(e) other information as deemed necessary, which may include a transport, fate and risk assessment in accordance with accepted methods.

(3) The commission may approve an alternative abatement standard if the petitioner demonstrates that:

(a) at least one of the criteria set forth in Paragraph 1 of Subsection F of this Section has been met;

(b) the proposed alternative abatement standard is technically achievable and cost benefit justifiable; and

(c) compliance with the proposed alternative abatement standard will not create a present or future hazard to public health or undue damage to property.

(4) An alternative abatement standard shall only be granted after a public hearing, as required by NMSA 1978, Section 74-6-4(H) of the water Quality Act.

(5) The commission shall review petitions for alternative abatement standards in accordance with the procedures for review of variance petitions provided in the commission's adjudicatory procedures, 20.1.3 NMAC.

G. For a site where abatement activities include post-completion monitoring, maintenance of engineering controls, remediation systems, affirmation of non-residential use, or port-closure care, institutional controls such as well drilling restrictions under 19.27.5 NMAC, deed restrictions, easements or other legal restrictions binding on successors in interest to the site may be required by the secretary.

[12-1-95, 11-15-96; 20.6.2.4103 NMAC - Rn, 20 NMAC 6.2.IV.4103, 1-15-01; A, XX/XX/17]

20.6.2.4104 ABATEMENT PLAN REQUIRED:

A. Unless otherwise provided by this Part, all responsible persons who are abating, or who are required to abate, water pollution in excess of the standards and requirements set forth in Section 20.6.2.4103

NMAC of this Part shall do so pursuant to an abatement plan approved by the secretary. When an abatement plan has been approved, all actions leading to and including abatement shall be consistent with the terms and conditions of the abatement plan.

B. In the event of a transfer of the ownership, control or possession of a facility for which an abatement plan is required or approved, where the transferor is a responsible person, the transferee also shall be considered a responsible person for the duration of the abatement plan, and may jointly share the responsibility to conduct the actions required by this Part with other responsible persons. The transferor shall notify the transferee in writing, at least thirty (30) days prior to the transfer, that an abatement plan has been required or approved for the facility, and shall deliver or send by certified mail to the secretary a copy of such notification together with a certificate or other proof that such notification has in fact been received by the transferee. The transferor and transferee may agree to a designated responsible person who shall assume the responsibility to conduct the actions required by this Part. The responsible persons shall notify the secretary in writing if a designated responsible person is agreed upon. If the secretary determines that the designated responsible person has failed to conduct the actions required by this Part, the secretary shall notify all responsible persons of this failure in writing and allow them thirty (30) days, or longer for good cause shown, to conduct the required actions before issuing a compliance order pursuant to Section 20.6.2.1220 NMAC.

C. [~~If the source of the water pollution to be abated is a facility that operated under a discharge plan, the~~]The secretary may require the responsible person(s) to submit a financial assurance plan which covers the estimated costs to conduct the actions required by the abatement plan. Such a financial assurance plan shall be consistent with any financial assurance requirements adopted by the commission.

D. The Secretary may require an oversight funding agreement with the responsible person for abatement plans which compensates the department for reasonable costs associated with the oversight of activities.

[12-1-95; 20.6.2.4104 NMAC - Rn, 20 NMAC 6.2.IV.4104, 1-15-01]

20.6.2.4105 EXEMPTIONS FROM ABATEMENT PLAN REQUIREMENTS:

A. Except as provided in Subsection B of this Section, Sections 20.6.2.4104 and 20.6.2.4106 NMAC do not apply to a person who is abating water pollution:

(1) from a storage tank, under the authority of the Petroleum Storage Tank Regulations (20.5 NMAC) adopted by the New Mexico Environmental Improvement Board, or in accordance with the New Mexico Ground Water Protection Act;

(2) under the authority of the U.S. Environmental Protection Agency pursuant to either the federal Comprehensive Environmental Response, Compensation and Liability Act, and amendments, or the Resource Conservation and Recovery Act;

(3) under the authority of the secretary pursuant to the Hazardous Waste Management Regulations (20.4.1 NMAC) adopted by the New Mexico Environmental Improvement Board;

(4) under the authority of the U.S. Nuclear Regulatory Commission or the U.S. Department of Energy pursuant to the Atomic Energy Act;

(5) from a solid waste landfill, under the authority of the secretary pursuant to the Solid Waste Management Regulations (20.9.1 NMAC) adopted by the N.M. Environmental Improvement Board;

(6) under the authority of a ground water discharge plan approved by the secretary, provided that such abatement is consistent with the requirements and provisions of Sections 20.6.2.4101, 20.6.2.4103, Subsections C and E of Section 20.6.2.4106, Sections 20.6.2.4107 and 20.6.2.4112 NMAC;

(7) under the authority of a Letter of Understanding, Settlement Agreement or Administrative Order on Consent signed by the secretary prior to December 1, 1995, provided that abatement is being performed in full compliance with the terms of the Letter of Understanding, Settlement Agreement or Administrative Order on Consent; and

(8) on an emergency basis, or while abatement plan approval is pending, or in a manner that will result in compliance with the standards and requirements set forth in Section 20.6.2.4103 NMAC within one hundred and eighty (180) days after notice is required to be given pursuant to Paragraph (1) of Subsection A of Section 20.6.2.1203 NMAC, provided that the delegated agency does not object to the abatement action pursuant to Paragraphs (6) and (7) of Subsection A of Section 20.6.2.1203 NMAC.

B. If the secretary determines that abatement of water or subsurface water pollution subject to Subsection A of this section will not meet the standards of Subsections A, B, [~~and~~]C, and D of Section 20.6.2.4103 NMAC, or that additional action is necessary to protect health, welfare, environment or property, the secretary may notify a responsible person, by certified mail, to submit an abatement plan pursuant to Section 20.6.2.4104 and Subsection A of Section 20.6.2.4106 NMAC. The notification shall state the reasons for the secretary's

determination. In any appeal of the secretary's determination under this Section, the secretary shall have the burden of proof.

C. Sections 20.6.2.4104 and 20.6.2.4106 NMAC do not apply to the following activities:

(1) Discharges subject to an effective and enforceable National Pollutant Discharge Elimination System (NPDES) permit;

(2) Land application of ground water contaminated with nitrogen originating from human or animal waste and not otherwise exceeding the standards of Subsection A of Section 20.6.2.3103 NMAC [~~and not containing a toxic pollutant as defined in Section 20.6.2.1101 NMAC~~], provided that it is done in compliance with a discharge plan approved by the secretary;

(3) Abatement of water pollution resulting from the withdrawal and decontamination or blending of polluted water for use as a public or private drinking-water supply, by any person other than a responsible person, unless the secretary determines that a hazard to public health may result; and

(4) Reasonable operation and maintenance of irrigation and flood control facilities.

[12-1-95; 20.6.2.4105 NMAC - Rn, 20 NMAC 6.2.IV.4105, 1-15-01; A, 10/15/03; A, XX/XX/14]

20.6.2.4106 ABATEMENT PLAN PROPOSAL:

A. Except as provided for in Section 20.6.2.4105 NMAC, a responsible person shall, within sixty (60) days of receipt of written notice from the secretary that an abatement plan is required, submit an abatement plan proposal to the secretary for approval. For good cause shown, the secretary may allow for a total of one hundred and twenty (120) days to prepare and submit the abatement plan proposal.

B. **Voluntary Abatement**:

(1) Any person wishing to abate water pollution in excess of the standards and requirements set forth in Section 20.6.2.4103 NMAC may submit a Stage 1 abatement plan proposal to the secretary for approval. Following approval by the secretary of a final site investigation report prepared pursuant to Stage 1 of an abatement plan, any person may submit a Stage 2 abatement plan proposal to the secretary for approval.

(2) Following approval of a Stage 1 or Stage 2 abatement plan proposal under Paragraph (1) of Subsection B of this Section, the person submitting the approved plan shall be a responsible person under Sections 20.6.2.4000 through 20.6.2.4115 NMAC for the purpose of performing the approved Stage 1 or Stage 2 abatement plan. Nothing in this Section shall preclude the secretary from applying Paragraph (9) of Subsection A of Section 20.6.2.1203 NMAC to a responsible person if applicable.

C. **Stage 1 Abatement Plan**: The purpose of Stage 1 of the abatement plan shall be to design and conduct a site investigation that will adequately define site conditions, and provide the data necessary to select and design an effective abatement option. Stage 1 of the abatement plan may include, but not necessarily be limited to, the following information depending on the media affected, and as needed to select and implement an expeditious abatement option:

(1) Descriptions of the site, including a site map, and of site history including the nature of the discharge that caused the water pollution, and a summary of previous investigations;

(2) Site investigation workplan to define:

(a) site geology and hydrogeology, the vertical and horizontal extent and magnitude of vadose-zone and ground water contamination, subsurface hydraulic parameters including hydraulic conductivity, transmissivity, storativity, and rate and direction of contaminant migration, inventory of water wells inside and within one (1) mile from the perimeter of the three-dimensional body where the standards set forth in Subsections B and C of Section 20.6.2.4103 NMAC are exceeded, and location and number of such wells actually or potentially affected by the pollution; and

(b) surface water hydrology, seasonal stream flow characteristics, ground water/surface water relationships, the vertical and horizontal extent and magnitude of contamination and impacts to surface water and stream sediments. The magnitude of contamination and impacts on surface water may be, in part, defined by conducting a biological assessment of fish, benthic macroinvertebrates and other wildlife populations. Seasonal variations should be accounted for when conducting these assessments.

(3) Monitoring program, including sampling stations and frequencies, for the duration of the abatement plan that may be modified, after approval by the secretary, as additional sampling stations are created;

(4) Quality assurance plan, consistent with the sampling and analytical techniques listed in Subsection B of Section 20.6.2.3107 NMAC and with Section 20.6.4.10 NMAC of the Water Quality Standards for Interstate and Intrastate Streams in New Mexico (20.6.4 NMAC), for all work to be conducted pursuant to the abatement plan;

(5) Site health and safety plan for all work to be performed pursuant to the abatement plan;

(6) A schedule for all Stage 1 abatement plan activities, including the submission of summary quarterly progress reports, and the submission, for approval by the secretary, of a detailed final site investigation report; and

(7) Any additional information that may be required to design and perform an adequate site investigation.

D. Stage 2 Abatement Plan: Any responsible person shall submit a Stage 2 abatement plan proposal to the secretary for approval within sixty (60) days[~~, or up to one hundred and twenty (120) days for good cause shown,~~] after approval by the secretary of the final site investigation report prepared pursuant to Stage 1 of the abatement plan. The secretary may grant approval for an extension of time to submit a State 2 abatement plan for good cause shown.

E. The purpose of Stage 2 of the abatement plan shall be to select and design, if necessary, an abatement option that, when implemented, will result in attainment of the abatement standards and requirements set forth in Section 20.6.2.4103 NMAC, including post-closure maintenance activities. Stage 2 of the abatement plan should include, at a minimum, the following information:

(1) Brief description of the current situation at the site;

(2) Development and assessment of abatement options;

(3) Description, justification and design, if necessary, of preferred abatement option;

(4) Modification, if necessary, of the monitoring program approved pursuant to Stage 1 of the abatement plan, including the designation of pre and post abatement-completion sampling stations and sampling frequencies to be used to demonstrate compliance with the standards and requirements set forth in Section 20.6.2.4103 NMAC;

(5) Site maintenance activities, if needed, proposed to be performed after termination of abatement activities;

(6) A schedule for the duration of abatement activities, including the submission of summary quarterly progress reports;

(7) A public notification proposal designed to satisfy the requirements of Subsections B and C of Sections 20.6.2.4108 and 20.6.2.4108 NMAC; and

(8) Any additional information that may be reasonably required to select, describe, justify and design an effective abatement option.

[12-1-95; 20.6.2.4106 NMAC - Rn, 20 NMAC 6.2.IV.4106, 1-15-01; A, XX/XX/17]

20.6.2.4107 OTHER REQUIREMENTS:

A. Any responsible person shall allow any authorized representative of the secretary to:

(1) upon presentation of proper credentials, enter the facility at reasonable times;

(2) inspect and copy records required by an abatement plan;

(3) inspect any treatment works, monitoring and analytical equipment;

(4) sample any wastes, ground water, surface water, stream sediment, plants, animals, or vadose-zone material including vadose-zone vapor;

(5) use monitoring systems and wells under such responsible person's control in order to collect samples of any media listed in Paragraph (4) of Subsection A of this section; and

(6) gain access to off-site property not owned or controlled by such responsible person, but accessible to such responsible person through a third-party access agreement, provided that it is allowed by the agreement.

B. Any responsible person shall provide the secretary, or a representative of the secretary, with at least four (4) working days advance notice of any sampling to be performed pursuant to an abatement plan, or any well plugging, abandonment or destruction at any facility where an abatement plan has been required.

C. Any responsible person wishing to plug, abandon or destroy a monitoring or water supply well within the perimeter of the 3-dimensional body where the standards set forth in Subsection B of Section 20.6.2.4103 NMAC are exceeded, at any facility where an abatement plan has been required, shall propose such action by certified mail to the secretary for approval, unless such approval is required from the State Engineer. The proposed action shall be designed to prevent water pollution that could result from water contaminants migrating through the well or borehole. The proposed action shall not take place without written approval from the secretary, unless written approval or disapproval is not received by the responsible person within thirty (30) days of the date of receipt of the proposal.

[12-1-95; 20.6.2.4107 NMAC - Rn, 20 NMAC 6.2.IV.4107, 1-15-01]

20.6.2.4108 PUBLIC NOTICE AND PARTICIPATION:

A. Within thirty (30) days of filing of a Stage 1 abatement plan proposal, the secretary shall issue a news release summarizing:

(1) the source, extent, magnitude and significance of water pollution, as known at that time;

(2) the proposed Stage 1 abatement plan investigation; and

(3) the name and telephone number of an agency contact who can provide additional information.

B. [~~Within thirty (30) days of filing of~~]Any person proposing a Stage 2 abatement plan [~~proposal, or proposed~~]or a significant modification of a Stage 2 abatement plan, [~~any responsible person~~]shall provide [~~to the secretary proof of public~~]notice of the [~~abatement plan~~]proposal to the following persons:

(1) the public, who shall be notified through publication of a notice in newspapers of general circulation in this state and in the county where the abatement will occur and, in areas with large percentages of non-English speaking people, through the mailing of the public notice in English to a bilingual radio station serving the area where the abatement will occur with a request that it be aired as a public service announcement in the predominant non-English language of the area;

(2) those persons, as identified by the secretary, who have requested notification, who shall be notified by mail or email;

(3) the New Mexico Trustee for Natural Resources, and any other local, state or federal governmental agency affected, as identified by the secretary, which shall be notified by certified mail;

(4) owners and residents of surface property located inside, and within one (1) mile from, the perimeter of the geographic area where the standards and requirements set forth in Section 20.6.2.4103 NMAC are exceeded who shall be notified by a means approved by the secretary; and

(5) the Governor or President of each Indian Tribe, Pueblo or Nation within the state of New Mexico, as identified by the secretary, who shall be notified by mail or email.

C. The public notice proposal shall [~~include, as approved in advance by~~]be submitted to the secretary for approval with a Stage 2 abatement plan proposal, and shall include:

(1) name and address of the responsible person;

(2) location of the proposed abatement;

(3) brief description of the nature of the water pollution and of the proposed abatement action;

(4) brief description of the procedures followed by the secretary in making a final determination;

(5) statement on the comment period;

(6) statement that a copy of the abatement plan can be viewed by the public at the department's main office or at the department field office for the area in which the discharge occurred;

(7) statement that written comments on the abatement plan, and requests for a public meeting or hearing that include the reasons why a meeting or hearing should be held, will be accepted for consideration if sent to the secretary within sixty (60) days after the [~~determination of administrative completeness; and~~]date of public notice; and

(8) address and phone number at which interested persons may obtain further information.

D. Within thirty (30) days of the secretary's approval of a Stage 2 abatement plan public notice proposal, any responsible person shall provide to the secretary proof of public notice to the persons listed in Subsection B of 20.6.2.4108 NMAC.

[~~**D.**~~]**E.** A public meeting or hearing may be held if the secretary determines there is significant public interest. Notice of the time and place of the meeting or hearing shall be given at least thirty (30) days prior to the meeting or hearing pursuant to Subsections A and B above. The secretary may appoint a meeting facilitator or hearing officer. The secretary may require the responsible person to prepare for approval by the secretary a fact sheet, to be distributed at the public meeting or hearing and afterwards upon request, written in English and Spanish, describing site history, the nature and extent of water pollution, and the proposed abatement. The record of the meeting or hearing, requested under this Section, consists of a tape recorded or transcribed session, provided that the cost of a court recorder shall be paid by the person requesting the transcript. If requested by the secretary, the responsible person will provide a translator approved by the secretary at a public meeting or hearing conducted in a locale where testimony from non-English speaking people can reasonably be expected. At the meeting or hearing, all interested persons shall be given a reasonable chance to submit data, views or arguments orally or in writing, and to ask questions of the secretary or the secretary's designee and of the responsible person, or their authorized representatives.

[12-1-95; 20.6.2.4108 NMAC - Rn, 20 NMAC 6.2.IV.4108, 1-15-01;A, XX/XX/17]

20.6.2.4109 SECRETARY APPROVAL OR NOTICE OF DEFICIENCY OF SUBMITTALS:

A. The secretary shall, within sixty (60) days of receiving a Stage 1 abatement plan proposal, a site investigation report, a [~~technical infeasibility demonstration,~~]or an abatement completion report, approve the document, or notify the responsible person of the document's deficiency, based upon the information available.

B. The secretary shall, within thirty (30) days of receiving a fact sheet, or Stage 2 abatement plan public notice proposal, approve or notify the responsible person of the document's deficiency, based upon the information available.

C. If no public meeting or hearing is held pursuant to Subsection D of Section 20.6.2.4108 NMAC, then the secretary shall, within ninety (90) days of receiving a Stage 2 abatement plan proposal, approve the plan, or notify the responsible person of the plan's deficiency, based upon the information available.

D. If a public meeting or hearing is held pursuant to Subsection D of Section 20.6.2.4108, then the secretary shall, within sixty (60) days of receipt of all required information, approve Stage 2 of the abatement plan proposal, or notify the responsible person of the plan's deficiency, based upon the information contained in the plan and information submitted at the meeting or hearing.

E. If the secretary notifies a responsible person of any deficiencies in a site investigation report, or in a Stage 1 or Stage 2 abatement plan proposal, the responsible person shall submit a modified document to cure the deficiencies specified by the secretary within thirty (30) days of receipt of the notice of deficiency. The responsible person shall be in violation of Sections 20.6.2.4000 through 20.6.2.4115 NMAC if he fails to submit a modified document within the required time, or if the modified document does not make a good faith effort to cure the deficiencies specified by the secretary.

F. Provided that the other requirements of this Part are met and provided further that Stage 2 of the abatement plan, if implemented, will result in the standards and requirements set forth in Section 20.6.2.4103 NMAC being met within a schedule that is reasonable given the particular circumstances of the site, the secretary shall approve the plan.

[12-1-95; 20.6.2.4109 NMAC - Rn, 20 NMAC 6.2.IV.4109, 1-15-01; XX/XX/17]

20.6.2.4110 INVESTIGATION AND ABATEMENT: Any responsible person who receives approval for Stage 1 and/or Stage 2 of an abatement plan shall conduct all investigation, abatement, monitoring and reporting activity in full compliance with Sections 20.6.2.4000 through 20.6.2.4115 NMAC and according to the terms and schedules contained in the approved abatement plans.

[12-1-95; 20.6.2.4110 NMAC - Rn, 20 NMAC 6.2.IV.4110, 1-15-01]

20.6.2.4111 ABATEMENT PLAN MODIFICATION:

A. Any approved abatement plan may be modified, at the written request of the responsible person, in accordance with Sections 20.6.2.4000 through 20.6.2.4115 NMAC, and with written approval of the secretary.

B. If data submitted pursuant to any monitoring requirements specified in the approved abatement plan or other information available to the secretary indicates that the abatement action is ineffective, or is creating unreasonable injury to or interference with health, welfare, environment or property, the secretary may require a responsible person to modify an abatement plan within the shortest reasonable time so as to effectively abate water pollution which exceeds the standards and requirements set forth in Section 20.6.2.4103 NMAC, and to abate and prevent unreasonable injury to or interference with health, welfare, environment or property.

[12-1-95; 20.6.2.4111 NMAC - Rn, 20 NMAC 6.2.IV.4111, 1-15-01]

20.6.2.4112 COMPLETION AND TERMINATION:

A. Abatement shall be considered complete when the standards and requirements set forth in Section 20.6.2.4103 NMAC are met. At that time, the responsible person shall submit an abatement completion report, documenting compliance with the standards and requirements set forth in Section 20.6.2.4103 NMAC, to the secretary for approval. The abatement completion report also shall propose any changes to long term monitoring and site maintenance activities, if needed, to be performed after termination of the abatement plan.

B. Provided that the other requirements of this Part are met and provided further that the standards and requirements set forth in Section 20.6.2.4103 NMAC have been met, the secretary shall approve the abatement completion report. When the secretary approves the abatement completion report, he shall also notify the responsible person in writing that the abatement plan is terminated.

[12-1-95; 20.6.2.4112 NMAC - Rn, 20 NMAC 6.2.IV.4112, 1-15-01]

20.6.2.4113 DISPUTE RESOLUTION: In the event of any technical dispute regarding the requirements of Paragraph (9) of Subsection A and Subsection E of Section 20.6.2.1203, Sections 20.6.2.4103, 20.6.2.4105, 20.6.2.4106, 20.6.2.4111 or 20.6.2.4112 NMAC, including notices of deficiency, the responsible person may notify the secretary by certified mail that a dispute has arisen, and desires to invoke the dispute resolution provisions of this Section, provided that such notification must be made within thirty (30) days after receipt by the responsible person of the decision of the secretary that causes the dispute. Upon such notification, all deadlines affected by the technical dispute shall be extended for a thirty (30) day negotiation period, or for a maximum of sixty (60) days if approved by the secretary for good cause shown. During this negotiation period, the secretary or his/her designee and the responsible person shall meet at least once. Such meeting(s) may be facilitated by a mutually agreed upon third party, but the third party shall assume no power or authority granted or delegated to the secretary by the Water Quality Act or by the commission. If the dispute remains unresolved after the negotiation period, the decision of secretary shall be final.
[12-1-95; 20.6.2.4113 NMAC - Rn, 20 NMAC 6.2.IV.4113, 1-15-01]

20.6.2.4114 APPEALS FROM SECRETARY'S DECISIONS:

A. If the secretary determines that an abatement plan is required pursuant to Paragraph (9) of Subsection A of 20.6.2.1203, Paragraph (4) of Subsection [~~E~~]F of 20.6.2.3109, or Subsection B of 20.6.2.4105 NMAC, approves or provides notice of deficiency of a proposed abatement plan, [~~technical infeasibility demonstration~~]or abatement completion report, or modifies or terminates an approved abatement plan, he shall provide written notice of such action by certified mail to the responsible person and any person who participated in the action.

B. Any person who participated in the action before the secretary and who is adversely affected by the action listed in Subsection A of 20.6.2.4114 NMAC may file a petition requesting a review before the commission.

C. The petition shall be made in writing to the commission and shall be filed with the commission's secretary within thirty (30) days after receiving notice of the secretary's action. The petition shall specify the portions of the action to which the petitioner objects, certify that a copy of the petition has been mailed or hand-delivered to the secretary, and to the applicant or permittee if the petitioner is not the applicant or permittee, and attach a copy of the action for which review is sought. Unless a timely petition for hearing is made, the secretary's action is final.

D. The proceedings before the commission shall be conducted as provided in the commission's adjudicatory procedures, 20 NMAC 1.3.

E. The cost of the court reporter for the hearing shall be paid by the petitioner.

F. The appeal provisions do not relieve the owner, operator or responsible person of their obligations to comply with any federal or state laws or regulations.
[12-1-95, 11-15-96; 20.6.2.4114 NMAC - Rn, 20 NMAC 6.2.IV.4114, 1-15-01; A, 7-16-06; A, XX/XX/17]

20.6.2.4115 COURT REVIEW OF COMMISSION DECISIONS: Court review of commission decisions shall be as provided by law.
[12-1-95; 20.6.2.4115 NMAC - Rn, 20 NMAC 6.2.IV.4115, 1-15-01]

20.6.2.4116 - 20.6.2.4999: [RESERVED]
[12-1-95; 20.6.2.4116 - 20.6.2.4999 NMAC - Rn, 20 NMAC 6.2.IV.4116-5100, 1-15-01]

20.6.2.5000 UNDERGROUND INJECTION CONTROL:
[12-1-95; 20.6.2.5000 NMAC - Rn, 20 NMAC 6.2.V, 1-15-01]

20.6.2.5001 PURPOSE: The purpose of 20.6.2.5000 through 20.6.2.5399 NMAC controlling discharges from underground injection control wells is to protect all ground water of the state of New Mexico which has an existing concentration of 10,000 mg/l or less TDS, for present and potential future use as domestic and agricultural water supply, and to protect those segments of surface waters which are gaining because of ground water inflow for uses designated in the New Mexico water quality standards. 20.6.2.5000 through 20.6.2.5399 NMAC include notification requirements, and requirements for discharges directly into the subsurface through underground injection control wells.
[20.6.2.5001 NMAC - N, 12-1-01; A, 8-31-15]

20.6.2.5002 UNDERGROUND INJECTION CONTROL WELL CLASSIFICATIONS:

A. Underground injection control wells include the following.

(1) Any dug hole or well that is deeper than its largest surface dimension, where the principal function of the hole is emplacement of fluids.

(2) Any septic tank or cesspool used by generators of hazardous waste, or by owners or operators of hazardous waste management facilities, to dispose of fluids containing hazardous waste.

(3) Any subsurface distribution system, cesspool or other well which is used for the injection of wastes.

B. Underground injection control wells are classified as follows:

(1) Class I wells inject fluids beneath the lowermost formation that contains 10,000 milligrams per liter or less TDS. Class I hazardous or radioactive waste injection wells inject fluids containing any hazardous or radioactive waste as defined in 74-4-3 and 74-4A-4 NMSA 1978 or 20.4.1.200 NMAC (incorporating 40 C.F.R. Section 261.3), including any combination of these wastes. Class I non-hazardous waste injection wells inject non-hazardous and non-radioactive fluids, and they inject naturally-occurring radioactive material (NORM) as provided by 20.3.1.1407 NMAC.

(2) Class II wells inject fluids associated with oil and gas recovery;

(3) Class III wells inject fluids for extraction of minerals or other natural resources, including sulfur, uranium, metals, salts or potash by in situ extraction. This classification includes only in situ production from ore bodies that have not been conventionally mined. Solution mining of conventional mines such as stopes leaching is included in Class V.

(4) Class IV wells inject fluids containing any radioactive or hazardous waste as defined in 74-4-3 and 74-4A-4 NMSA 1978, including any combination of these wastes, above or into a formation that contains 10,000 mg/l or less TDS.

(5) Class V wells inject a variety of fluids and are those wells not included in Class I, II, III or IV. Types of Class V wells include, but are not limited to, the following:

(a) domestic liquid waste injection wells:

(i) domestic liquid waste disposal wells used to inject liquid waste volumes greater than that regulated by 20.7.3 NMAC through subsurface fluid distribution systems or vertical wells;

(ii) septic system wells used to emplace liquid waste volumes greater than that regulated by 20.7.3 NMAC into the subsurface, which are comprised of a septic tank and subsurface fluid distribution system;

(iii) large capacity cesspools used to inject liquid waste volumes greater than that regulated by 20.7.3 NMAC, including drywells that sometimes have an open bottom or perforated sides;

(b) industrial waste injection wells:

(i) air conditioning return flow wells used to return to the supply aquifer the water used for heating or cooling;

(ii) dry wells used for the injection of wastes into a subsurface formation;

(iii) [~~geothermal energy~~]injection wells associated with the recovery of geothermal energy for heating, aquaculture and production of electrical power;

(iv) stormwater drainage wells used to inject storm runoff from the surface into the subsurface;

(v) motor vehicle waste disposal wells that receive or have received fluids from vehicular repair or maintenance activities;

(vi) car wash waste disposal wells used to inject fluids from motor vehicle washing activities;

(c) mining injection wells:

(i) stopes leaching wells used for solution mining of conventional mines;

(ii) brine injection wells used to inject spent brine into the same formation from which it was withdrawn after extraction of halogens or their salts;

(iii) backfill wells used to inject a mixture of water and sand, mill tailings or other solids into mined out portions of subsurface mines whether water injected is a radioactive waste or not;

(iv) injection wells used for in situ recovery of lignite, coal, tar sands, and oil shale;

(d) ground water management injection wells:

(i) ground water remediation injection wells used to inject contaminated ground water that has been treated to ground water quality standards;

(ii) in situ ground water remediation wells used to inject a fluid that facilitates vadose zone or ground water remediation.

(iii) recharge wells used to replenish the water in an aquifer, including use to reclaim or improve the quality of existing ground water;

(iv) barrier wells used to inject fluids into ground water to prevent the intrusion of saline or contaminated water into ground water of better quality;

(v) subsidence control wells (not used for purposes of oil or natural gas production) used to inject fluids into a non-oil or gas producing zone to reduce or eliminate subsidence associated with the overdraft of fresh water;

(vi) wells used in experimental technologies;

(e) agricultural injection wells - drainage wells used to inject fluids into ground water to prevent the intrusion of saline or contaminated water into ground water of better quality.

[20.6.2.5002 NMAC - N, 12-1-01; A, 8-1-14; A, 8-31-15; A, XX/XX/17]

20.6.2.5003 NOTIFICATION AND GENERAL OPERATION REQUIREMENTS FOR ALL UNDERGROUND INJECTION CONTROL WELLS: All operators of underground injection control wells, except those wells regulated under the Oil and Gas Act, the Geothermal Resources [~~Conservation~~]Development Act, and the Surface Mining Act, shall:

A. for existing underground injection control wells, submit to the secretary the information enumerated in Subsection C of 20.6.2.1201 NMAC of this part; provided, however, that if the information in Subsection C of 20.6.2.1201 NMAC has been previously submitted to the secretary and acknowledged by him, the information need not be resubmitted; and

B. operate and continue to operate in conformance with 20.6.2.1 through 20.6.2.5399 NMAC;

C. for new underground injection control wells, submit to the secretary the information enumerated in Subsection C of 20.6.2.1201 NMAC of this part at least 120 days prior to well construction.

[9-20-82, 12-1-95; 20.6.2.5300 NMAC - Rn, 20 NMAC 6.2.V.5300, 1-15-01; 20.6.2.5003 NMAC - Rn, 20.6.2.5300 NMAC, 12-1-01; A, 12-1-01; A, 9-15-02; A, 8-31-15; A, XX/XX/17]

20.6.2.5004 PROHIBITED UNDERGROUND INJECTION CONTROL ACTIVITIES AND WELLS:

A. No person shall perform the following underground injection activities nor operate the following underground injection control wells.

(1) The injection of fluids into a motor vehicle waste disposal well is prohibited. Motor vehicle waste disposal wells are prohibited. Any person operating a new motor vehicle waste disposal well (for which construction began after April 5, 2000) must close the well immediately. Any person operating an existing motor vehicle waste disposal well must cease injection immediately and must close the well by December 31, 2002, except as provided in this subsection.

(2) The injection of fluids into a large capacity cesspool is prohibited. Large capacity cesspools are prohibited. Any person operating a new large capacity cesspool (for which construction began after April 5, 2000) must close the cesspool immediately. Any person operating an existing large capacity cesspool must cease injection immediately and must close the cesspool by December 31, 2002.

(3) The injection of any hazardous or radioactive waste into a well is prohibited, except as provided in 20.6.2.5300 through 20.6.2.5399 NMAC or this subsection.

(a) Class I radioactive waste injection wells are prohibited, except naturally-occurring radioactive material (NORM) regulated under 20.3.1.1407 NMAC is allowed as a Class I non-hazardous waste injection well pursuant to Paragraph (1) of Subsection B of 20.6.2.5002 NMAC.

(b) Class IV wells are prohibited, except for wells re-injecting treated ground water into the same formation from which it was drawn as part of a removal or remedial action if the injection has prior approval from the environmental protection agency (EPA) or the department under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or the Resource Conservation and Recovery Act (RCRA).

(4) Barrier wells, drainage wells, recharge wells, return flow wells, and motor vehicle waste disposal wells are prohibited, except when the discharger can demonstrate that the discharge will not adversely affect the health of persons, and

(a) the injection fluid does not contain a [~~contaminant~~]constituent or exhibit a physical parameter (which could include pH, redox condition or temperature) which may cause an exceedance at any place of present or reasonable foreseeable future use of any primary state drinking water maximum contaminant level as specified in the water supply regulations, "Drinking Water" (20.7.10 NMAC), adopted by the environmental improvement board under the Environmental Improvement Act or the standard of 20.6.2.3103 NMAC, whichever is more stringent;

(b) the discharger can demonstrate that the injection will result in an overall or net improvement in water quality as determined by the secretary.

B. Closure of prohibited underground injection control wells shall be in accordance with 20.6.2.5005 and 20.6.2.5209 NMAC.

[20.6.2.5004 NMAC - N, 12-1-01; A, 8-31-15; A, XX/XX/17]

20.6.2.5005 PRE-CLOSURE NOTIFICATION AND CLOSURE REQUIREMENTS:

A. Any person proposing to close a Class I, III, IV or V underground injection control well must submit pre-closure notification to the department at least 30 days prior to closure. Pre-closure notification must include the following information:

(1) Name of facility.
(2) Address of facility.
(3) Name of Owner/Operator.
(4) Address of Owner/Operator.
(5) Contact Person.
(6) Phone Number.
(7) Type of Well(s).
(8) Number of Well(s).
(9) Well Construction (e.g. drywell, improved sinkhole, septic tank, leachfield, cesspool, other…).
(10) Type of Discharge.
(11) Average Flow (gallons per day).
(12) Year of Well Construction.
(13) Proposed Well Closure Activities (e.g. sample fluids/sediment, appropriate disposal of remaining fluids/sediments, remove well and any contaminated soil, clean out well, install permanent plug, conversion to other type well, ground water and vadose zone investigation, other).
(14) Proposed Date of Well Closure.
(15) Name of Preparer.
(16) Date.
(17) Well plugging plan as submitte4d to the Office of the State Engineer pursuant to 19.27.4 NMAC.

B. Proposed well closure activities must be approved by the department prior to implementation.

[20.6.2.5005 NMAC - N, 12-1-01; A; XX/XX/17]

20.6.2.5006 DISCHARGE PERMIT REQUIREMENTS FOR CLASS V INJECTION WELLS: Class V injection wells must meet the requirements of Sections 20.6.2.3000 through 20.6.2.3999 NMAC and Sections 20.6.2.5000 through 20.6.2.5006 NMAC. Class V injection wells or surface impoundments constructed as recharge basins used to replenish the water in an aquifer, including use to reclaim or improve the quality of existing water must additionally provide documentation of compliance with 19.25.5 NMAC (Underground Storage and Recovery) and shall not be subject to the exemptions of 20.6.2.3105 NMAC.

[20.6.2.5006 NMAC - N, 12-1-01; A, XX/XX/17]

20.6.2.5007 - 20.6.2.5100: [RESERVED]

[12-1-95; 20.6.2.5001 - 20.6.2.5100 NMAC - Rn, 20 NMAC 6.2.IV.4116-5100, 1-15-01; 20.6.2.5007 -20.6.2.5100 NMAC - Rn 20.6.2.5001 - 20.6.2.5100 NMAC, 12-1-01]

20.6.2.5101 DISCHARGE PERMIT AND OTHER REQUIREMENTS FOR CLASS I WELLS AND CLASS III WELLS:

A. Class I wells and Class III wells must meet the requirements of 20.6.2.5000 through 20.6.2.5399 NMAC in addition to other applicable requirements of the commission regulations. The secretary may also require

that some Class IV and Class V wells comply with the requirements for Class I wells in 20.6.2.5000 through 20.6.2.5399 NMAC if the secretary determines that the additional requirements are necessary to prevent the movement of water contaminants from a specified injection zone into ground water having 10,000 mg/l or less TDS. No Class I well or Class III well may be approved which allows for movement of fluids into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to 20.6.2.5103 NMAC, or pursuant to a temporary designation as provided in Paragraph (2) of Subsection C of 20.6.2.5101 NMAC.

B. Operation of a Class I well or Class III well must be pursuant to a discharge permit meeting the requirements of 20.6.2.3000 through 20.6.2.3999 NMAC and 20.6.2.5000 through 20.6.2.5399 NMAC.

C. Discharge permits for Class I wells, or Class III wells affecting ground water of 10,000 mg/l or less TDS submitted for secretary approval shall:

(1) receive an aquifer designation if required in 20.6.2.5103 NMAC prior to discharge permit issuance; or

(2) for Class III wells only, address the methods or techniques to be used to restore ground water so that upon final termination of operations including restoration efforts, ground water at any place of withdrawal for present or reasonably foreseeable future use will not contain either concentrations in excess of the standards of 20.6.2.3103 NMAC or any toxic pollutant; issuance of a discharge permit or project discharge permit for Class III wells that provides for restoration of ground water in accordance with the requirements of this subsection shall substitute for the aquifer designation provisions of 20.6.2.5103 NMAC; the approval shall constitute a temporary aquifer designation for a mineral bearing or producing aquifer, or portion thereof, to allow injection as provided for in the discharge permit; such temporary designation shall expire upon final termination of operations including restoration efforts.

D. The exemptions from the discharge permit requirement listed in 20.6.2.3105 NMAC do not apply to underground injection control wells except as provided below:

(1) wells regulated by the oil conservation division of the energy, minerals and natural resources department under the exclusive authority granted under Section 70-2-12 NMSA 1978 or under other sections of the "Oil and Gas Act";

(2) wells regulated by the [~~oil conservation division~~]energy conservation management division of the energy, minerals and natural resources department under the "Geothermal Resources Development Act";

(3) wells regulated by the [~~New Mexico coal surface mining bureau~~]mining and minerals division of the energy, minerals and natural resources department under the "Surface Mining Act";

(4) wells for the disposal of effluent from systems which are regulated under the "Liquid Waste Disposal and Treatment" regulations (20.7.3 NMAC) adopted by the environmental improvement board under the "Environmental Improvement Act".

E. Project permits for Class III wells.

(1) The secretary may consider a project discharge permit for Class III wells, if the wells are:

(a) within the same well field, facility site or similar unit;

(b) within the same aquifer and ore deposit;

(c) of similar construction;

(d) of the same purpose; and

(e) operated by a single owner or operator.

(2) A project discharge permit does not allow the discharger to commence injection in any individual operational area until the secretary approves an application for injection in that operational area (operational area approval).

(3) A project discharge permit shall:

(a) specify the approximate locations and number of wells for which operational area approvals are or will be sought with approximate time frames for operation and restoration (if restoration is required) of each area; and

(b) provide the information required under the following sections of this part, except for such additional site-specific information as needed to evaluate applications for individual operational area approvals: Subsection C of 20.6.2.3106, 20.6.2.3107, 20.6.2.5204 through 20.6.2.5209, and Subsection B of 20.6.2.5210 NMAC.

(4) Applications for individual operational area approval shall include the following:

(a) site-specific information demonstrating that the requirements of this part are met; and

(b) information required under 20.6.2.5202 through 20.6.2.5210 NMAC and not previously provided pursuant to Subparagraph (b) of Paragraph (3) of Subsection E of this section.

(5) Applications for project discharge permits and for operational area approval shall be processed in accordance with the same procedures provided for discharge permits under 20.6.2.3000 through 20.6.2.3114 NMAC, allowing for public notice on the project discharge permit and on each application for operational area approval pursuant to 20.6.2.3108 NMAC with opportunity for public hearing prior to approval or disapproval.

(6) The discharger shall comply with additional requirements that may be imposed by the secretary pursuant to this part on wells in each new operational area.

F. If the holder of a discharge permit for a Class I well, or Class III well submits an application for discharge permit renewal at least 120 days before discharge permit expiration, and the discharger is in compliance with his discharge permit on the date of its expiration, then the existing discharge permit for the same activity shall not expire until the application for renewal has been approved or disapproved. An application for discharge permit renewal must include and adequately address all of the information necessary for evaluation of a new discharge permit. Previously submitted materials may be included by reference provided they are current, readily available to the secretary and sufficiently identified to be retrieved.

G. Discharge permit signatory requirements: No discharge permit for a Class I well or Class III well may be issued unless:

(1) the application for a discharge permit has been signed as follows:

(a) for a corporation: by a principal executive officer of at least the level of vice-president, or a representative who performs similar policy-making functions for the corporation who has authority to sign for the corporation; or

(b) for a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(c) for a municipality, state, federal, or other public agency: by either a principal executive officer who has authority to sign for the agency, or a ranking elected official; and

(2) all reports required by Class I hazardous waste injection well permits and other information requested by the director pursuant to a Class I hazardous waste injection well permit shall be signed by a person described in Paragraph (1) of this subsection, or by a duly authorized representative of that person; a person is a duly authorized representative only if:

(a) the authorization is made in writing by a person described in Paragraph (1) of this subsection;

(b) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility; (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(c) the written authorization is submitted to the director.

(3) *Changes to authorization.* If an authorization under Paragraph (2) of this subsection is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Paragraph (2) of this subsection must be submitted to the director prior to or together with any reports, information, or applications to be signed by an authorized representative.

(4) The signature on an application, report or other information requested by the director must be directly preceded by the following certification: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

H. Transfer of Class I non-hazardous waste injection well and Class III well discharge permits.

(1) The transfer provisions of 20.6.2.3111 NMAC do not apply to a discharge permit for a Class I non-hazardous waste injection well or Class III well.

(2) A Class I non-hazardous waste injection well or Class III well discharge permit may be transferred if:

(a) the secretary receives written notice 30 days prior to the transfer date; and

(b) the secretary does not object prior to the proposed transfer date; the secretary may require modification of the discharge permit as a condition of transfer, and may require demonstration of adequate financial responsibility.

(3) The written notice required by Subparagraph (a) of Paragraph (2) of Subsection H above shall:

(a) have been signed by the discharger and the succeeding discharger, including an acknowledgement that the succeeding discharger shall be responsible for compliance with the discharge permit upon taking possession of the facility; and

(b) set a specific date for transfer of discharge permit responsibility, coverage and liability; and

(c) include information relating to the succeeding discharger's financial responsibility required by Paragraph (17) of Subsection B of 20.6.2.5210 NMAC.

I. Modification or termination of a discharge permit for a Class I well or Class III well: If data submitted pursuant to any monitoring requirements specified in the discharge permit or other information available to the secretary indicate that this part are being or may be violated, the secretary may require modification or, if it is determined by the secretary that the modification may not be adequate, may terminate a discharge permit for a Class I well, or Class III well or well field, that was approved pursuant to the requirements of this under 20.6.2.5000 through 20.6.2.5399 NMAC for the following causes:

(1) noncompliance by the discharger with any condition of the discharge permit; or

(2) the discharger's failure in the discharge permit application or during the discharge permit review process to disclose fully all relevant facts, or the discharger's misrepresentation of any relevant facts at any time; or

(3) a determination that the permitted activity may cause a hazard to public health or undue risk to property and can only be regulated to acceptable levels by discharge permit modification or termination.

[9-20-82, 12-1-95, 11-15-96; 20.6.2.5101 NMAC - Rn, 20 NMAC 6.2.V.5101, 1-15-01; A, 12-1-01; A, 9-15-02; A, 8-1-14; A, 8-31-15; A, XX/XX/17]

20.6.2.5102 PRE-CONSTRUCTION REQUIREMENTS FOR CLASS I WELLS AND CLASS III WELLS:

A. Discharge permit requirement for Class I wells.

(1) Prior to construction of a Class I well or conversion of an existing well to a Class I well, an approved discharge permit is required that incorporates the requirements of 20.6.2.5000 through 20.6.2.5399 NMAC, except Subsection C of 20.6.2.5210 NMAC. As a condition of discharge permit issuance, the operation of the Class I well under the discharge permit will not be authorized until the secretary has:

(a) reviewed the information submitted for his consideration pursuant to Subsection C of 20.6.2.5210 NMAC; and

(b) determined that the information submitted demonstrates that the operation will be in compliance with this part and the discharge permit.

(2) If conditions encountered during construction represent a substantial change which could adversely impact ground water quality from those anticipated in the discharge permit, the secretary shall require a discharge permit modification or may terminate the discharge permit pursuant to Subsection I of 20.6.2.5101 NMAC, and the secretary shall publish public notice and allow for comments and hearing in accordance with 20.6.2.3108 NMAC.

B. Notification requirement for Class III wells.

(1) The discharger shall notify the secretary in writing prior to the commencement of drilling or construction of wells which are expected to be used for in situ extraction, unless the discharger has previously received a discharge permit or project discharge permit for the Class III well operation.

(a) Any person proposing to drill or construct a new Class III well or well field, or convert an existing well to a Class III well, shall file plans, specifications and pertinent documents regarding such construction or conversion, with the ground water quality bureau of the environment department.

(b) Plans, specifications, and pertinent documents required by this section, if pertaining to [~~geothermal installations,~~]carbon dioxide facilities, or facilities for the exploration, production, refinement or pipeline transmission of oil and natural gas, shall be filed instead with the oil conservation division of the energy, minerals and natural resources department.

(c) Plans, specifications and pertinent documents required to be filed under this section must be filed 90 days prior to the planned commencement of construction or conversion.

(d) The following plans, specifications and pertinent documents shall be provided with the notification:

(i) information required in Subsection C of 20.6.2.3106 NMAC;

(ii) a map showing the Class III wells which are to be constructed; the map must also show, in so far as is known or is reasonably available from the public records, the number, name, and location of all producing wells, injection wells, abandoned wells, dry holes, surface bodies of water, springs, mines (surface and subsurface), quarries, water wells and other pertinent surface features, including residences and roads, that are within the expected area of review (20.6.2.5202 NMAC) of the Class III well or well field perimeter;

(iii) maps and cross-sections indicating the general vertical and lateral limits of all ground water having 10,000 mg/l or less TDS within one mile of the site, the position of such ground water within this area relative to the injection formation, and the direction of water movement, where known, in each zone of ground water which may be affected by the proposed injection operation;

(iv) maps and cross-sections detailing the geology and geologic structure of the local area, including faults, if known or suspected;

(v) the proposed formation testing program to obtain an analysis or description, whichever the secretary requires, of the chemical, physical, and radiological characteristics of, and other information on, the receiving formation;

(vi) the proposed stimulation program;

(vii) the proposed injection procedure;

(viii) schematic or other appropriate drawings of the surface and subsurface construction details of the well;

(ix) proposed construction procedures, including a cementing and casing program, logging procedures, deviation checks, and a drilling, testing, and coring program;

(x) information, as described in Paragraph (17) of Subsection B of 20.6.2.5210 NMAC, showing the ability of the discharger to undertake measures necessary to prevent [~~groundwater~~] ground water contamination; and

(xi) a plugging and abandonment plan showing that the requirements of Subsections B, C and D of 20.6.2.5209 NMAC will be met.

(2) Prior to construction, the discharger shall have received written notice from the secretary that the information submitted under item 10 of Subparagraph (d) of Paragraph (1) of Subsection B of 20.6.2.5102 NMAC is acceptable. Within 30 days of submission of the above information the secretary shall notify the discharger that the information submitted is acceptable or unacceptable.

(3) Prior to construction, the secretary shall review said plans, specifications and pertinent documents and shall comment upon their adequacy of design for the intended purpose and their compliance with pertinent sections of this part. Review of plans, specifications and pertinent documents shall be based on the criteria contained in 20.6.2.5205, Subsection E of 20.6.2.5209, and Subparagraph (d) of Paragraph (1) of Subsection B of 20.6.2.5102 NMAC.

(4) Within 30 days of receipt, the secretary shall issue public notice, consistent with Subsection B of 20.6.2.3108 NMAC, that notification was submitted pursuant to Subsection B of 20.6.2.5102 NMAC. The secretary shall allow a period of at least 30 days during which comments may be submitted. The public notice shall include:

(a) name and address of the proposed discharger;

(b) location of the discharge;

(c) brief description of the proposed activities;

(d) statement of the public comment period; and

(e) address and telephone number at which interested persons may obtain further information.

(5) The secretary shall comment in writing upon the plans and specifications within 60 days of their receipt by the secretary.

(6) Within 30 days after completion, the discharger shall submit written notice to the secretary that the construction or conversion was completed in accordance with submitted plans and specifications, or shall submit as-built plans detailing changes from the originally submitted plans and specifications.

(7) In the event a discharge permit application is not submitted or approved, all wells which may cause [~~groundwater~~]ground water contamination shall be plugged and abandoned by the applicant pursuant to the plugging and abandonment plan submitted in the notification; these measures shall be consistent with any comments made by the secretary in his review. If the wells are not to be permanently abandoned and the discharger demonstrates that plugging at this time is unnecessary to prevent [~~groundwater~~]ground water contamination, plugging pursuant to the notification is not required. Financial responsibility established pursuant to 20.6.2.5000

through 20.6.2.5299 NMAC will remain in effect until the discharger permanently abandons and plugs the wells in accordance with the plugging and abandonment plan.
[9-20-82, 12-24-87, 12-1-95; 20.6.2.5102 NMAC - Rn, 20 NMAC 6.2.V.5102, 1-15-01; A, 12-1-01; A, 8-31-15;A, XX/XX/17]

20.6.2.5103 DESIGNATED AQUIFERS FOR CLASS I WELLS AND CLASS III WELLS:

A. Any person may file a written petition with the secretary seeking commission consideration of certain aquifers or portions of aquifers as "designated aquifers". The purpose of aquifer designation is:

(1) for Class I wells, to allow as a result of injection, the addition of water contaminants into ground water, which before initiation of injection has a concentration between 5,000 and 10,000 mg/l TDS; or

(2) for Class III wells, to allow as a result of injection, the addition of water contaminants into ground water, which before initiation of injection has a concentration between 5,000 and 10,000 mg/l TDS, and not provide for restoration or complete restoration of that ground water pursuant to Paragraph (2) of Subsection C of 20.6.2.5101 NMAC.

B. The applicant shall identify (by narrative description, illustrations, maps or other means) and describe such aquifers, in geologic and geometric terms (such as vertical and lateral limits and gradient) which are clear and definite.

C. An aquifer or portion of an aquifer may be considered for aquifer designation under Subsection A of this section, if the applicant demonstrates that the following criteria are met:

(1) it is not currently used as a domestic or agricultural water supply; and

(2) there is no reasonable relationship between the economic and social costs of failure to designate and benefits to be obtained from its use as a domestic or agricultural water supply because:

(a) it is situated at a depth or location which makes recovery of water for drinking or agricultural purposes economically or technologically impractical at present and in the reasonably foreseeable future; or

(b) it is already so contaminated that it would be economically or technologically impractical to render that water fit for human consumption or agricultural use at present and in the reasonably foreseeable future.

D. The petition shall state the extent to which injection would add water contaminants to ground water and why the proposed aquifer designation should be approved. For Class III wells, the applicant shall state whether and to what extent restoration will be carried out.

E. The secretary shall either transmit the petition to the commission within 60 recommending that a public hearing be held, or refuse to transmit the petition and notify the applicant in writing citing reasons for such refusal.

F. If the secretary transmits the petition to the commission, the commission shall review the petition and determine to either grant or deny a public hearing on the petition. If the commission grants a public hearing, it shall issue a public notice, including the following information:

(1) name and address of the applicant;

(2) location, depth, TDS, areal extent, general description and common name or other identification of the aquifer for which designation is sought;

(3) nature of injection and extent to which the injection will add water contaminants to ground water; and

(4) address and telephone number at which interested persons may obtain further information.

G. If the secretary refuses to transmit the petition to the commission, then the applicant may appeal the secretary's disapproval of the proposed aquifer designation to the commission within 30 days, and address the issue of whether the proposed aquifer designation meets the criteria of Subsections A, B, C, and D of this section.

H. If the commission grants a public hearing, the hearing shall be held in accordance with the provisions of Section 74-6-6 NMSA 1978.

I. If the commission does not grant a public hearing on the petition, the aquifer designation shall not be approved.

J. After public hearing and consideration of all facts and circumstances included in Section 74-6-4(D) NMSA 1978, the commission may authorize the secretary to approve a proposed designated aquifer if the commission determines that the criteria of Subsections A, B, C, and D of this section are met.

K. Approval of a designated aquifer petition does not alleviate the applicant from complying with other sections of 20.6.2.5000 through 20.6.2.5399 NMAC, or of the responsibility for protection, pursuant to this part, of other nondesignated aquifers containing ground water having 10,000 mg/l or less TDS.

L. Persons other than the petitioner may add water contaminants as a result of injection into an aquifer designated for injection, provided the person receives a discharge permit pursuant to the requirements of 20.6.2.5000 through 20.6.2.5399 NMAC. Persons, other than the original petitioner or his designee, requesting addition of water contaminants as a result of injection into aquifers previously designated only for injection with partial restoration shall file a petition with the commission pursuant to the requirements of Subsections A, B, C, and D of this section.

[9-20-82, 12-1-95; 20.6.2.5103 NMAC - Rn, 20 NMAC 6.2.V.5103, 1-15-01; A, 12-1-01; A, 8-31-15]

20.6.2.5104 WAIVER OF REQUIREMENT BY SECRETARY FOR CLASS I WELLS AND CLASS III WELLS:

A. Where a Class I well or a Class III well or well field, does not penetrate, or inject into or above, and which will not affect, ground water having 10,000 mg/l of less TDS, the secretary may:

(1) issue a discharge permit for a well or well field with less stringent requirements for area of review, construction, mechanical integrity, operation, monitoring, and reporting than required by 20.6.2.5000 through 20.6.2.5399 NMAC; or

(2) for Class III wells only, issue a discharge permit pursuant to the requirements of 20.6.2.3000 through 20.6.2.3114 NMAC.

B. Authorization of a reduction in requirements under Subsection A of this section shall be granted only if injection will not result in an increased risk of movement of fluids into ground water having 10,000 mg/l or less TDS, except for fluid movement approved pursuant to 20.6.2.5103 NMAC.

[9-20-82, 12-1-95; 20.6.2.5104 NMAC - Rn & A, 20 NMAC 6.2.V.5104, 1-15-01; A, 12-1-01; A, 8-31-15]

20.6.2.5105 - 20.6.2.5199: [RESERVED]

[12-1-95; 20.6.2.5105 - 20.6.2.5199 NMAC - Rn, 20 NMAC 6.2.V.5105-5199, 1-15-01]

20.6.2.5200 TECHNICAL CRITERIA AND PERFORMANCE STANDARDS FOR CLASS I WELLS AND CLASS III WELLS:

[12-1-95; 20.6.2.5200 NMAC - Rn, 20 NMAC 6.2.V.5200, 1-15-01; A, 12-1-01; A, 8-31-15]

20.6.2.5201 PURPOSE: 20.6.2.5200 through 20.6.2.5210 NMAC provide the technical criteria and performance standards for Class I wells and Class III wells. (20.6.2.5300 through 20.6.2.5399 NMAC provide certain additional technical and performance standards for Class I hazardous waste injection wells.)

[9-20-82; 20.6.2.5201 NMAC - Rn, 20 NMAC 6.2.V.5201, 1-15-01; A, 12-1-01; A, 8-31-15]

20.6.2.5202 AREA OF REVIEW:

A. The area of review is the area surrounding a Class I non-hazardous waste injection well or Class III well or the area within and surrounding a well field that is to be examined to identify possible fluid conduits, including the location of all known wells and fractures which may penetrate the injection zone.

B. The area of review for each Class I non-hazardous waste injection well, or each Class III well or well field shall be an area which extends:

(1) two and one half (2 1/2) miles from the well, or well field; or

(2) one-quarter (1/4) mile from a well or well field where the area of review is calculated to be zero pursuant to Paragraph (3) of Subsection B below, or where the well field production at all times exceeds injection to produce a net withdrawal; or

(3) a suitable distance, not less than one-quarter (1/4) mile, proposed by the discharger and approved by the secretary, based upon a mathematical calculation to determine the area of review; computations to determine the area of review may be based upon the parameters listed below and should be calculated for an injection time period equal to the expected life of the Class I non-hazardous waste injection well, or Class III well or well field; the following modified Theis equation illustrates one form which the mathematical model may take to compute the area of review; the discharger must demonstrate that any equation or simulation used to compute the area of review applies to the hydrogeologic conditions in the area of review.

$$r = \left(\frac{2.25\,K\,H\,t}{S\,10^{x}} \right)^{1/2}$$

Where:

[~~———————————————~~]4BKH $(H_w - H_{bo})$x S_pG_b
[~~———x———=———~~
~~———————————————————————————2.3 Q~~]

r = Radius of the area of review for a Class I non-hazardous waste injection well or Class III well (length)

K = Hydraulic conductivity of the injection zone (length/time)

H = Thickness of the injection zone (length)

t = Time of injection (time)

S = Storage coefficient (dimensionless)

Q = Injection rate (volume/time)

H_{bo} = Observed original hydrostatic head of injection zone (length) measured from the base of the lowest aquifer containing ground water of 10,000 mg/l or less TDS

H_w = Hydrostatic head of underground source of drinking water (length) measured from the base of the lowest aquifer containing ground water of 10,000 mg/l or less TDS

S_pG_b = Specific gravity of fluid in the injection zone (dimensionless)

B = 3.142 (dimensionless)

(4) The above equation is based on the following assumptions:

(a) the injection zone is homogenous and isotropic;

(b) the injection zone has infinite areal extent;

(c) the Class I non-hazardous waste injection well or Class III well penetrates the entire thickness of the injection zone;

(d) the well diameter is infinitesimal compared to "r" when injection time is longer than a few minutes; and

(e) the emplacement of fluid into the injection zone creates an instantaneous increase in pressure.

C. The secretary shall require submittal by the discharger of information regarding the area of review including the information to be considered by the secretary in Subsection B of Section 20.6.2.5210 NMAC. [9-20-82, 12-1-95; 20.6.2.5202 NMAC - Rn, 20 NMAC 6.2.V.5202, 1-15-01; A, 12-1-01]

20.6.2.5203 CORRECTIVE ACTION FOR CLASS I NON-HAZARDOUS WASTE INJECTION WELLS AND CLASS III WELLS:

A. Persons applying for approval of a Class I non-hazardous waste injection well, or a Class III well or well field shall identify the location of all known wells, drill holes, shafts, stopes and other conduits within the area of review which may penetrate the injection zone, in so far as is known or is reasonably available from the public records. For such wells or other conduits which are improperly sealed, completed, or abandoned, or otherwise provide a pathway for the migration of contaminants, the discharger shall address in the proposed

discharge plan such steps or modifications (corrective action) as are necessary to prevent movement of fluids into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to Section 20.6.2.5103 NMAC.

B. Prior to operation, or continued operation of a well for which corrective action is required pursuant to Subsections A or D of Section 20.6.2.5203 NMAC, the discharger must demonstrate that:

(1) all required corrective action has been taken; or

(2) injection pressure is to be limited so that pressure in the injection zone does not cause fluid movement through any well or other conduit within the area of review into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to Section 20.6.2.5103 NMAC; this pressure limitation may be removed after all required corrective action has been taken.

C. In determining the adequacy of corrective action proposed in the discharge permit application, the following factors will be considered by the secretary:

(1) chemical nature and volume of the injected fluid;

(2) chemical nature of native fluids and by-products of injection;

(3) geology and hydrology;

(4) history of the injection and production operation;

(5) completion and plugging records;

(6) abandonment procedures in effect at the time a well, drill hole, or shaft was abandoned; and

(7) hydraulic connections with waters having 10,000 mg/l or less TDS

D. In the event that, after approval for a Class I non-hazardous waste injection well or Class III well has been granted, additional information is submitted or it is discovered that a well or other conduit within the applicable area of review might allow movement of fluids into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to Section 20.6.2.5103 NMAC, the secretary may require action in accordance with Subsection I of Section 20.6.2.5101 and Subsection B Section 20.6.2.5203 NMAC.

[9-20-82, 12-1-95; 20.6.2.5203 NMAC - Rn, 20 NMAC 6.2.V.5203, 1-15-01; A, 12-1-01]

20.6.2.5204 MECHANICAL INTEGRITY FOR CLASS I WELLS AND CLASS III WELLS:

A. A Class I well or Class III well has mechanical integrity if there is no detectable leak in the casing, tubing or packer which the secretary considers to be significant at maximum operating temperature and pressure; and no detectable conduit for fluid movement out of the injection zone through the well bore or vertical channels adjacent to the well bore which the secretary considers to be significant.

B. Prior to well injection and at least once every five years or more frequently as the secretary may require for good cause during the life of the well, the discharger must demonstrate that a Class I well or Class III well has mechanical integrity. The demonstration shall be made through use of the following tests:

(1) for evaluation of leaks:

(a) monitoring of annulus pressure (after an initial pressure test with liquid or gas before operation commences); or

(b) pressure test with liquid or gas;

(2) for determination of conduits for fluid movement:

(a) the results of a temperature or noise log; or

(b) where the nature of the casing used for Class III wells precludes use of these logs, cementing records and an appropriate monitoring program as the secretary may require which will demonstrate the presence of adequate cement to prevent such movement;

(3) other appropriate tests as the secretary may require.

C. The secretary may consider the use by the discharger of equivalent alternative test methods to determine mechanical integrity. The discharger shall submit information on the proposed test and all technical data supporting its use. The secretary may approve the request if it will reliably demonstrate the mechanical integrity of wells for which its use is proposed. For Class III wells this demonstration may be made by submission of adequate monitoring data after the initial mechanical integrity tests.

D. In conducting and evaluating the tests enumerated in this section or others to be allowed by the secretary, the discharger and the secretary shall apply methods and standards generally accepted in the affected industry. When the discharger reports the results of mechanical integrity tests to the secretary, he shall include a description of the test(s), the method(s) used, and the test results. In making an evaluation, the secretary's review shall include monitoring and other test data submitted since the previous evaluation.

[9-20-82, 12-1-95; 20.6.2.5204 NMAC - Rn, 20 NMAC 6.2.V.5204, 1-15-01; A, 12-1-01; A, 8-31-15]

20.6.2.5205 CONSTRUCTION REQUIREMENTS FOR CLASS I NON-HAZARDOUS WASTE INJECTION WELLS AND CLASS III WELLS:

A. General Construction Requirements Applicable to Class I non-hazardous waste injection wells and Class III wells.

(1) Construction of all Class I non-hazardous waste injection wells and all new Class III wells shall include casing and cementing. Prior to well injection, the discharger shall demonstrate that the construction and operation of:

(a) Class I non-hazardous waste injection wells will not cause or allow movement of fluids into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to Section 20.6.2.5103 NMAC;

(b) Class III wells will not cause or allow movement of fluids out of the injection zone into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to Section 20.6.2.5103 NMAC.

(2) The construction of each newly drilled well shall be designed for the proposed life expectancy of the well.

(3) In determining if the discharger has met the construction requirements of this section and has demonstrated adequate construction, the secretary shall consider the following factors:

(a) depth to the injection zone;

(b) injection pressure, external pressure, annular pressure, axial loading, and other stresses that may cause well failure;

(c) hole size;

(d) size and grade of all casing strings, including wall thickness, diameter, nominal weight, length, joint specification, and construction material;

(e) type and grade of cement;

(f) rate, temperature, and volume of injected fluid;

(g) chemical and physical characteristics of the injected fluid, including corrosiveness, density, and temperature;

(h) chemical and physical characteristics of the formation fluids including pressure and temperature;

(i) chemical and physical characteristics of the receiving formation and confining zones including lithology and stratigraphy, and fracture pressure; and

(j) depth, thickness and chemical characteristics of penetrated formations which may contain ground water.

(4) To demonstrate adequate construction, appropriate logs and other tests shall be conducted during the drilling and construction of new Class I non-hazardous waste injection wells or Class III wells or during work-over of existing wells in preparation for reactivation or for change to injection use. A descriptive report interpreting the results of such logs and tests shall be prepared by a knowledgeable log analyst and submitted to the secretary for review prior to well injection. The logs and tests appropriate to each type of injection well shall be based on the intended function, depth, construction and other characteristics of the well, availability of similar data in the area of the drilling site and the need for additional information that may arise from time to time as the construction of the well progresses.

(a) The discharger shall demonstrate through use of sufficiently frequent deviation checks, or another equivalent method, that a Class I non-hazardous waste injection well or Class III well drilled using a pilot hole then enlarged by reaming or another method, does not allow a vertical avenue for fluid migration in the form of diverging holes created during drilling.

(b) The secretary may require use by the discharger of the following logs to assist in characterizing the formations penetrated and to demonstrate the integrity of the confining zones and the lack of vertical avenues for fluid migration:

(i) for casing intended to protect ground water having 10,000 mg/l or less TDS: resistivity, spontaneous potential, and caliper logs before the casing is installed; and a cement bond, or temperature log after the casing is set and cemented.

(ii) for intermediate and long strings of casing intended to facilitate injection: resistivity, spontaneous potential, porosity, and gamma ray logs before the casing is installed; and fracture finder or spectral logs; and a cement bond or temperature log after the casing is set and cemented.

(5) In addition to the requirements of Section 20.6.2.5102 NMAC, the discharger shall provide notice prior to commencement of drilling, cementing and casing, well logging, mechanical integrity tests, and any well work-over to allow opportunity for on-site inspection by the secretary or his representative.

B. Additional construction requirements for Class I non-hazardous waste injection wells.

(1) All Class I non-hazardous waste injection wells shall be sited in such a manner that they inject into a formation which is beneath the lowermost formation containing, within one quarter mile of the well bore, ground water having 10,000 mg/l TDS or less except as approved pursuant to Section 20.6.2.5103 NMAC.

(2) All Class I non-hazardous waste injection wells shall be cased and cemented by circulating cement to the surface.

(3) All Class I non-hazardous waste injection wells, except those municipal wells injecting noncorrosive wastes, shall inject fluids through tubing with a packer set in the annulus immediately above the injection zone, or tubing with an approved fluid seal as an alternative. The tubing, packer, and fluid seal shall be designed for the expected length of service.

(a) The use of other alternatives to a packer may be allowed with the written approval of the secretary. To obtain approval, the operator shall submit a written request to the secretary which shall set forth the proposed alternative and all technical data supporting its use. The secretary may approve the request if the alternative method will reliably provide a comparable level of protection to ground water. The secretary may approve an alternative method solely for an individual well or for general use.

(b) In determining the adequacy of the specifications proposed by the discharger for tubing and packer, or a packer alternative, the secretary shall consider the following factors:

(i) depth of setting;

(ii) characteristics of injection fluid (chemical nature or characteristics, corrosiveness, and density);

(iii) injection pressure;

(iv) annular pressure;

(v) rate, temperature and volume of injected fluid; and

(vi) size of casing.

C. Additional construction requirements for Class III wells.

(1) Where injection is into a formation containing ground water having 10,000 mg/l or less TDS, monitoring wells shall be completed into the injection zone and into the first formation above the injection zone containing ground water having 10,000 mg/l or less TDS which could be affected by the extraction operation. If ground water having 10,000 mg/l or less TDS below the injection zone could be affected by the extraction operation, monitoring of such ground water may be required. These wells shall be of sufficient number, located and constructed so as to detect any excursion of injection fluids, process byproducts, or formation fluids outside the extraction area or injection zone. The requirement for monitoring wells in aquifers designated pursuant to Section 20.6.2.5103 NMAC may be waived by the secretary, provided that the absence of monitoring wells does not result in an increased risk of movement of fluids into protected ground waters having 10,000 mg/l or less TDS.

(2) Where injection is into a formation which does not contain ground water having 10,000 mg/l or less TDS, no monitoring wells are necessary in the injection zone. However, monitoring wells may be necessary in adjoining zones with ground water having 10,000 mg/l or less TDS that could be affected by the extraction operation.

(3) In an area that the secretary determines is subject to subsidence or collapse, the required monitoring wells may be required to be located outside the physical influence of that area.

(4) In determining the adequacy of monitoring well location, number, construction and frequency of monitoring proposed by the discharger, the secretary shall consider the following factors:

(a) the local geology and hydrology;

(b) the operating pressures and whether a negative pressure gradient to the monitor well is being maintained;

(c) the nature and volume of injected fluid, formation water, and process by-products; and

(d) the number and spacing of Class III wells in the well field.

[9-20-82, 12-1-95; 20.6.2.5205 NMAC - Rn, 20 NMAC 6.2.V.5205, 1-15-01; A, 12-1-01]

20.6.2.5206 OPERATING REQUIREMENTS FOR CLASS I NON-HAZARDOUS WASTE INJECTION WELLS AND CLASS III WELLS:

A. General operating requirements applicable to Class I non-hazardous waste injection wells and Class III wells.

(1) The maximum injection pressure at the wellhead shall not initiate new fractures or propagate existing fractures in the confining zone, or cause the movement of injection or formation fluids into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to Section 20.6.2.5103 NMAC.

(2) Injection between the outermost casing and the well bore is prohibited in a zone other than the authorized injection zone.

B. Additional operating requirements for Class I non-hazardous waste injection wells.

(1) Except during well stimulation, the maximum injection pressure shall not initiate new fractures or propagate existing fractures in the injection zone.

(2) Unless an alternative to a packer has been approved under Subparagraph (c) of Paragraph (3) of Subsection B of Section 20.6.2.5205 NMAC, the annulus between the tubing and the long string of casing shall be filled with a fluid approved by the secretary and a pressure, also approved by the secretary shall be maintained on the annulus.

C. Additional operating requirements for Class III wells: Initiation of new fractures or propagation of existing fractures in the injection zone will not be approved by the secretary as part of a discharge permit unless it is done during well stimulation and the discharger demonstrates:

(1) that such fracturing will not cause movement of fluids out of the injection zone into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to Section 20.6.2.5103 NMAC; and

(2) that the provisions of Subsection [~~C~~]D of Section 20.6.2.3109 and Subsection C of Section 20.6.2.5101 NMAC for protection of ground water are met.

[9-20-82, 12-1-95; 20.6.2.5206 NMAC - Rn, 20 NMAC 6.2.V.5206, 1-15-01; A, 12-1-01]

20.6.2.5207 MONITORING REQUIREMENTS FOR CLASS I NON-HAZARDOUS WASTE INJECTION WELLS AND CLASS III WELLS:

A. The discharger shall demonstrate mechanical integrity for each Class I non-hazardous waste injection well or Class III well at least once every five years during the life of the well pursuant to Section 20.6.2.5204 NMAC.

B. Additional monitoring requirements for Class I non-hazardous waste injection wells.

(1) The discharger shall provide analysis of the injected fluids at least quarterly or, if necessary, more frequently to yield data representative of their characteristics.

(2) Continuous monitoring devices shall be used to provide a record of injection pressure, flow rate, flow volume, and pressure on the annulus between the tubing and the long string of casing.

(3) The discharger shall provide wells within the area of review as required by the discharge permit to be used by the discharger to monitor pressure in, and possible fluid movement into, ground water having 10,000 mg/l or less TDS except for such ground waters designated pursuant to Section 20.6.2.5103 NMAC. This Section does not require monitoring wells for Class I non-hazardous waste injection wells unless monitoring wells are necessary due to possible flow paths within the area of review.

C. Additional monitoring requirements for Class III wells.

(1) The discharger shall provide an analysis or description, whichever the secretary requires, of the injected fluids at least quarterly or, if necessary, more frequently to yield representative data.

(2) The discharger shall perform:

(a) appropriate monitoring of injected and produced fluid volumes by whichever of the following methods the secretary requires:

(i) recording injection pressure and either flow rate or volume every two weeks; or

(ii) metering and daily recording of fluid volumes;

(b) monitoring every two weeks, or more frequently as the secretary determines, of the monitor wells, required in Subsection C of Section 20.6.2.5205 NMAC for:

(i) water chemistry parameters used to detect any migration from the injection zone;

(ii) fluid levels adjacent to the injection zone; and

(c) other necessary monitoring as the secretary for good cause may require to detect movement of fluids from the injection zone into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to Section 20.6.2.5103 NMAC.

(3) With the approval of the secretary, all Class III wells may be monitored on a well field basis by manifold monitoring rather than on an individual well basis. Manifold monitoring to determine the quality, pressure, and flow rate of the injected fluid may be approved in cases of facilities consisting of more than one Class III well, operating with a common manifold, provided that the discharger demonstrates that manifold monitoring is comparable to individual well monitoring.

[9-20-82, 12-1-95; 20.6.2.5207 NMAC - Rn, 20 NMAC 6.2.V.5207, 1-15-01; A, 12-1-01]

20.6.2.5208 REPORTING REQUIREMENTS FOR CLASS I NON-HAZARDOUS WASTE INJECTION WELLS AND CLASS III WELLS:

A. Reporting requirements for Class I non-hazardous waste injection wells.

(1) If a Class I non-hazardous waste injection well is found to be discharging or is suspected of discharging fluids into a zone or zones other than the permitted or authorized injection zone, the discharger shall within 24 hours notify the secretary of the circumstances and action taken. The discharger shall provide subsequent written reports as required by the secretary.

(2) The discharger shall provide reports quarterly to the secretary on:

(a) the physical, chemical and other relevant characteristics of injection fluids;

(b) monthly average, maximum and minimum values for injection pressure, flow rate and volume, and annular pressure; and

(c) the results of monitoring prescribed under Subsection B of Section 20.6.2.5207 NMAC.

(3) The discharger shall report, no later than the first quarterly report after completion, the results of:

(a) periodic tests of mechanical integrity as required in Sections 20.6.2.5204 and 20.6.2.5207 NMAC;

(b) any other test of the Class I non-hazardous waste injection well conducted by the discharger if required by the secretary;

(c) any well work-over; and

(d) any changes within the area of review which might impact subsurface conditions.

B. Reporting requirements for Class III wells.

(1) The discharger shall notify the secretary within 48 hours of the detection or suspected detection of a leachate excursion, and provide subsequent reports as required by the secretary.

(2) The discharger shall provide to the secretary:

(a) reports on required monitoring quarterly, or more frequently as required by the secretary; and

(b) results of mechanical integrity testing as required in Sections 20.6.2.5204 and 20.6.2.5207 NMAC and any other periodic tests required by the secretary; these results are to be reported no later than the first regular report after the completion of the test.

(3) Where manifold monitoring is permitted, monitoring results may be reported on a well field basis, rather than individual well basis.

C. Report signatory requirements.

(1) All reports submitted pursuant to this [~~setion~~]section shall be signed and certified as provided in Subsection G of Section 20.6.2.5101 NMAC, or by a duly authorized representative.

(2) For a person to be a duly authorized representative, authorization must:

(a) be made in writing by a signatory described in Paragraph (1) of Subsection G of Section 20.6.2.5101 NMAC;

(b) specify either an individual or a position having responsibility for the overall operation of that regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, or position of equivalent responsibility; and

(c) have been submitted to the secretary.

[9-20-82, 12-1-95; 20.6.2.5208 NMAC - Rn, 20 NMAC 6.2.V.5208, 1-15-01; A, 12-1-01]

20.6.2.5209 PLUGGING AND ABANDONMENT FOR CLASS I WELLS AND CLASS III WELLS:

A. The discharger shall submit as part of the discharge permit application, a plan for plugging and abandonment of a Class I well or a Class III well that meets the requirements of Subsection [C]D of 20.6.2.3109, Subsection C of 20.6.2.5101, and 20.6.2.5005 NMAC for protection of ground water. If requested, a revised or updated abandonment plan shall be submitted for approval prior to closure. The obligation to implement the plugging and abandonment plan as well as the requirements of the plan survives the termination or expiration of the permit.

B. Prior to abandonment of a well used in a Class I well or Class III well operation, the well shall be plugged in a manner which will not allow the movement of fluids through the well bore out of the injection zone or between other zones of ground water. Cement plugs shall be used unless a comparable method has been approved by the secretary for the plugging of Class III wells at that site.

C. Prior to placement of the plugs, the well to be abandoned shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method approved by the secretary.

D. Placement of the plugs shall be accomplished by one of the following:

(1) the balance method; or

(2) the dump bailer method; or

(3) the two-plug method; or

(4) an equivalent method with the approval of the secretary.

E. The following shall be considered by the secretary in determining the adequacy of a plugging and abandonment plan:

(1) the type and number of plugs to be used;

(2) the placement of each plug, including the elevation of the top and bottom;

(3) the type, grade and quantity of cementing slurry to be used;

(4) the method of placement of the plugs;

(5) the procedure to be used to plug and abandon the well; and

(6) such other factors that may affect the adequacy of the plan.

F. The discharger shall retain all records concerning the nature and composition of injected fluids until five years after completion of any plugging and abandonment procedures.

[9-20-82, 12-1-95; 20.6.2.5209 NMAC - Rn, 20 NMAC 6.2.V.5209, 1-15-01; A, 12-1-01; A, 8-31-15]

20.6.2.5210 INFORMATION TO BE CONSIDERED BY THE SECRETARY FOR CLASS I WELLS AND CLASS III WELLS:

A. This section sets forth the information to be considered by the secretary in authorizing construction and use of a Class I well or Class III well or well field. Certain maps, cross-sections, tabulations of all wells within the area of review, and other data may be included in the discharge permit application submittal by reference provided they are current, readily available to the secretary and sufficiently identified to be retrieved.

B. Prior to the issuance of a discharge permit or project discharge permit allowing construction of a new Class I well, operation of an existing Class I well, or operation of a new or existing Class III well or well field, or conversion of any well to injection use, the secretary shall consider the following:

(1) information required in Subsection C of 20.6.2.3106 NMAC;

(2) a map showing the Class I well, or Class III well or well fields, for which approval is sought and the applicable area of review; within the area of review, the map must show, in so far as is known or is reasonably available from the public records, the number, name, and location of all producing wells, injection wells, abandoned wells, dry holes, surface bodies of water, springs, mines (surface and subsurface), quarries, water wells and other pertinent surface features, including residences and roads;

(3) a tabulation of data on all wells within the area of review which may penetrate into the proposed injection zone; such data shall include, as available, a description of each well's type, the distance and direction to the injection well or well field, construction, date drilled, location, depth, record of plugging or completion, and any additional information the secretary may require;

(4) for wells within the area of review which penetrate the injection zone, but are not properly completed or plugged, the corrective action proposed to be taken under 20.6.2.5203 NMAC;

(5) maps and cross-sections indicating the general vertical and lateral limits of all ground water having 10,000 mg/l or less TDS within the area of review, the position of such ground water within the area of review relative to the injection formation, and the direction of water movement, where known, in each zone of ground water which may be affected by the proposed injection operation;

(6) maps and cross-sections detailing the geology and geologic structure of the local area, including faults, if known or suspected;

(7) generalized maps and cross-sections illustrating the regional geologic setting;

(8) proposed operating data, including:

(a) average and maximum daily flow rate and volume of the fluid to be injected;

(b) average and maximum injection pressure;

(c) source of injection fluids and an analysis or description, whichever the secretary requires, of their chemical, physical, radiological and biological characteristics;

(9) results of the formation testing program to obtain an analysis or description, whichever the secretary requires, of the chemical, physical, and radiological characteristics of, and other information on, the receiving formation, provided that the secretary may issue a conditional approval of a discharge permit if he finds that further formation testing is necessary for final approval;

(10) expected pressure changes, native fluid displacement, and direction of movement of the injected fluid;

(11) proposed stimulation program;

(12) proposed or actual injection procedure;

(13) schematic or other appropriate drawings of the surface and subsurface construction details of the well;

(14) construction procedures, including a cementing and casing program, logging procedures, deviation checks, and a drilling, testing, and coring program;

(15) contingency plans to cope with all shut-ins or well failures so as to prevent movement of fluids into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to 20.6.2.5103 NMAC;

(16) plans, including maps, for meeting the monitoring requirements of 20.6.2.5207 NMAC; and

(17) the ability of the discharger to undertake measures necessary to prevent contamination of ground water having 10,000 mg/l or less TDS after the cessation of operation, including the proper closing, plugging and abandonment of a well, ground water restoration if applicable, and any post-operational monitoring as may be needed; methods by which the discharger shall demonstrate the ability to undertake these measures shall include submission of a surety bond or other adequate assurances, such as financial statements or other materials acceptable to the secretary, such as: (1) a surety bond; (2) a trust fund with a New Mexico bank in the name of the state of New Mexico, with the state as beneficiary; (3) a non-renewable letter of credit made out to the state of New Mexico; (4) liability insurance specifically covering the contingencies listed in this paragraph; or (5) a performance bond, generally in conjunction with another type of financial assurance; such bond or materials shall be approved and executed prior to discharge permit issuance and shall become effective upon commencement of construction; if an adequate bond is posted by the discharger to a federal or another state agency, and this bond covers all of the measures referred to above, the secretary shall consider this bond as satisfying the bonding requirements of 20.6.2.5000 through 20.6.2.5299 NMAC wholly or in part, depending upon the extent to which such bond is adequate to ensure that the discharger will fully perform the measures required hereinabove.

C. Prior to the secretary's approval that allows the operation of a new or existing Class I well or Class III well or well field, the secretary shall consider the following:

(1) update of pertinent information required under Subsection B of 20.6.2.5210 NMAC;

(2) all available logging and testing program data on the well;

(3) the demonstration of mechanical integrity pursuant to 20.6.2.5204 NMAC;

(4) the anticipated maximum pressure and flow rate at which the permittee will operate;

(5) the results of the formation testing program;

(6) the physical, chemical, and biological interactions between the injected fluids and fluids in the injection zone, and minerals in both the injection zone and the confining zone; and

(7) the status of corrective action on defective wells in the area of review.

[9-20-82, 12-24-87, 12-1-95; 20.6.2.5210 NMAC - Rn, 20 NMAC 6.2.V.5210, 1-15-01; A, 12-1-01; A, 8-31-15]

20.6.2.5211 - 20.6.2.5299: [RESERVED]

[12-1-95; 20.6.2.5211 - 20.6.2.5299 NMAC - Rn, 20 NMAC 6.2.V.5211-5299, 1-15-01]

20.6.2.5300 REQUIREMENTS FOR CLASS I HAZARDOUS WASTE INJECTION WELLS:

A. Except as otherwise provided for in 20.6.2.5300 through 20.6.2.5399 NMAC, Class I hazardous waste wells are subject to the minimum permit requirements for all Class I wells in 20.6.2.5000 through 20.6.2.5299 NMAC, in addition to the requirements of 20.6.2.5300 through 20.6.2.5399 NMAC. To the extent any requirement in 20.6.2.5300 through 20.6.2.5399 NMAC conflicts with a requirement of 20.6.2.5000 through 20.6.2.5299 NMAC, Class I hazardous waste injection wells must comply with 20.6.2.5300 through 20.6.2.5399 NMAC.

B. Class I hazardous waste injection wells are only authorized for use by petroleum refineries for the waste generated by the refinery ("generator").

C. The New Mexico energy, minerals and natural resources department, oil conservation division will administer and oversee all permitting of Class I hazardous waste wells pursuant to 20.6.2.5300 through 20.6.2.5399 NMAC.

[20.6.2.5300 NMAC - N, 8-31-15]

20.6.2.5301 DEFINITIONS: As used in 20.6.2.5300 through 20.6.2.5399 NMAC:

A. "**cone of influence**" means that area around the well within which increased injection zone pressures caused by injection into the hazardous waste injection well would be sufficient to drive fluids into groundwater of the state of New Mexico;

B. "**director**" means the director of the New Mexico energy, minerals and natural resources department, oil conservation division or his/her designee;

C. "**existing well**" means a Class I hazardous waste injection well which has become a Class I hazardous waste injection well as a result of a change in the definition of the injected waste which would render the waste hazardous under 20.4.1.200 NMAC (incorporating 40 C.F.R. Section 261.3);

D. "**[~~groundwater~~]ground water of the state of New Mexico**" means, consistent with 20.6.2.5001 NMAC, an aquifer that contains ground water having a TDS concentration of 10,000 mg/l or less;

E. "**injection interval**" means that part of the injection zone in which the well is screened, or in which the waste is otherwise directly emplaced;

F. "**new well**" means any Class I hazardous waste injection well which is not an existing well;

G. "**transmissive fault or fracture**" is a fault or fracture that has sufficient permeability and vertical extent to allow fluids to move between formations.

[20.6.2.5301 NMAC - N, 8-31-15; A, XX/XX/17]

20.6.2.5302 FEES FOR CLASS I HAZARDOUS WASTE INJECTION WELLS: For the purposes of Class I hazardous waste wells, this section shall apply to the exclusion of 20.6.2.3114 NMAC.

A. *Filing Fee.* Every facility submitting a discharge permit application for approval of a Class I hazardous waste injection well shall pay a filing fee of $100 to the water quality management fund at the time the permit application is submitted. The filing fee is nonrefundable.

B. *Permit fee.*

(1) Every facility submitting a discharge permit application for approval of a Class I hazardous waste injection well shall pay a permit fee of $30,000 to the water quality management fund. The permit fee may be paid in a single payment at the time of permit approval or in equal installments over the term of the permit. Installment payments shall be remitted yearly, with the first installment due on the date of permit approval. Subsequent installments shall be remitted yearly thereafter. The permit or permit application review of any facility shall be suspended or terminated if the facility fails to submit an installment payment by its due date.

(2) Facilities applying for permits which are subsequently withdrawn or denied shall pay one-half of the permit fee at the time of denial or withdrawal.

C. *Annual administration fee.* Every facility that receives a Class I hazardous waste injection well permit shall pay an annual administrative fee of $20,000 to the water quality management fund. The initial administrative fee shall be remitted one year after commencement of disposal operations pursuant to the permit. Subsequent administrative fees shall be remitted annually thereafter.

D. *Renewal fee.*

(1) Every facility submitting a discharge permit application for renewal of a Class I hazardous waste injection well shall pay a renewal fee of $10,000 to the water quality management fund. The renewal fee may be paid in a single payment at the time of permit renewal or in equal installments over the term of the permit. Installment payments shall be remitted yearly, with the first installment due on the date of permit renewal. Subsequent installments shall be remitted yearly thereafter. The permit or permit renewal review of any facility shall be suspended or terminated if the facility fails to submit an installment payment by its due date.

(2) The director may waive or reduce fees for discharge permit renewals which require little or no cost for investigation or issuance.

E. *Modification fees.*

(1) Every facility submitting an application for a discharge permit modification of a Class I hazardous waste injection well will be assessed a filing fee plus a modification fee of $10,000 to the water quality management fund.

(2) Every facility submitting an application for other changes to a Class I hazardous waste injection well discharge permit will be assessed a filing fee plus a minor modification fee of $1,000 to the water quality management fund.

(3) Applications for both renewal and modification shall pay a filing fee plus renewal fee.

(4) If the director requires a discharge permit change as a component of an enforcement action, the facility shall pay the applicable modification fee. If the director requires a discharge permit change outside the context of an enforcement action, the facility shall not be assessed a fee.

(5) The director may waive or reduce fees for discharge permit changes which require little or no cost for investigation or issuance.

F. *Financial assurance fees.*

(1) Facilities with approved Class I hazardous waste injection well permits shall pay the financial assurance fees specified in Table 2 of 20.6.2.3114 NMAC.

(2) Facilities relying on the corporate guarantee for financial assurance shall pay an additional fee of $5,000 to the water quality management fund.

[20.6.2.5302 NMAC - N, 8-31-15]

20.6.2.5303 CONVERSION OF EXISTING INJECTION WELLS: An existing Class I non-hazardous waste injection well may be converted to a Class I hazardous waste injection well provided the well meets the modeling, design, compatibility, and other requirements set forth in 20.6.2.5300 through 20.6.2.5399 NMAC and the permittee receives a Class I hazardous waste permit pursuant to those sections.

[20.6.2.5303 NMAC - N, 8-31-15]

20.6.2.5304 - 20.6.2.5309: [RESERVED]

20.6.2.5310 REQUIREMENTS FOR WELLS INJECTING HAZARDOUS WASTE REQUIRED TO BE ACCOMPANIED BY A MANIFEST:

A. *Applicability.* The regulations in this section apply to all generators of hazardous waste, and to the owners or operators of all hazardous waste management facilities, using any class of well to inject hazardous wastes accompanied by a manifest. (See also Subparagraph (b) of Paragraph (3) of Subsection A of 20.6.2.5004 NMAC.)

B. *Authorization.* The owner or operator of any well that is used to inject hazardous waste required to be accompanied by a manifest or delivery document shall apply for authorization to inject as specified in 20.6.2.5102 NMAC within six months after the approval or promulgation of the state UIC program.

C. *Requirements.* In addition to complying with the applicable requirements of this part, the owner or operator of each facility meeting the requirements of Subsection B of this section, shall comply with the following.

(1) *Notification.* The owner or operator shall comply with the notification requirements of 42 U.S.C. Section 6930.

(2) *Identification number.* The owner or operator shall comply with the requirements of 20.4.1.500 NMAC (incorporating 40 CFR Section 264.11).

(3) *Manifest system.* The owner or operator shall comply with the applicable recordkeeping and reporting requirements for manifested wastes in 20.4.1.500 NMAC (incorporating 40 CFR Section 264.71).

(4) *Manifest discrepancies.* The owner or operator shall comply with 20.4.1.500 NMAC (incorporating 40 CFR Section 264.72).

(5) *Operating record.* The owner or operator shall comply with 20.4.1.500 NMAC (incorporating 40 CFR Sections 264.73(a), (b)(1), and (b)(2)).

(6) *Annual report.* The owner or operator shall comply with 20.4.1.500 NMAC (incorporating 40 CFR Section 264.75).

(7) *Unmanifested waste report.* The owner or operator shall comply with 20.4.1.500 NMAC (incorporating 40 CFR Section 264.75).

(8) *Personnel training*. The owner or operator shall comply with the applicable personnel training requirements of 20.4.1.500 NMAC (incorporating 40 CFR Section 264.16).

(9) *Certification of closure*. When abandonment is completed, the owner or operator must submit to the director certification by the owner or operator and certification by an independent registered professional engineer that the facility has been closed in accordance with the specifications in 20.6.2.5209 NMAC.
[20.6.2.5310 NMAC - N, 8-31-15]

20.6.2.5311 - 20.6.2.5319: [RESERVED]

20.6.2.5320 ADOPTION OF 40 CFR PART 144, SUBPART F (FINANCIAL RESPONSIBILITY: CLASS I HAZARDOUS WASTE INJECTION WELLS): Except as otherwise provided, the regulations of the United States environmental protection agency set forth in 40 CFR Part 144, Subpart F are hereby incorporated by reference.
[20.6.2.5320 NMAC - N, 8-31-15]

20.6.2.5321 MODIFICATIONS, EXCEPTIONS, AND OMISSIONS: Except as otherwise provided, the following modifications, exceptions, and omissions are made to the incorporated federal regulations.

A. The following term defined in 40 CFR Section 144.61 has the meaning set forth herein, in lieu of the meaning set forth in 40 CFR Section 144.61: "plugging and abandonment plan" means the plan for plugging and abandonment prepared in accordance with the requirements of 20.6.2.5341 NMAC.

B. The following terms not defined in 40 CFR Part 144, Subsection F have the meanings set forth herein when the terms are used in this part:

(1) "administrator," "regional administrator" and other similar variations means the director of the New Mexico energy, minerals and natural resources department, oil conservation division or his/her designee;

(2) "United States environmental protection agency" or "EPA" means New Mexico energy, minerals and natural resources department, oil conservation division or OCD, except when used in 40 CFR Section 144.70(f).

C. The following provisions of 40 CFR Part 144, Subpart F are modified in 20.6.2.5321 NMAC:

(1) cross references to 40 CFR Part 144 shall be replaced by cross references to 20.6.2.5300 through 20.6.2.5399 NMAC;

(2) the cross reference to Sections 144.28 and 144.51 in Section 144.62(a) shall be replaced by a cross reference to 20.6.2.5341 NMAC;

(3) the cross references to 40 CFR Parts 264, Subpart H and 265, Subpart H shall be modified to include cross references to 40 CFR Parts 264, Subpart H and 265, Subpart H and 20.4.1.500 and 20.4.1.600 NMAC;

(4) references to EPA identification numbers in financial assurance documents shall be replaced by references to API well numbers (US well numbers);

(5) the first sentence of 40 CFR Section 144.63(f)(1) shall be replaced with the following sentence: "An owner or operator may satisfy the requirements of this section by obtaining a guarantee from a corporate parent that meets the requirements of 40 CFR Section 144.63(f)(10), including the guarantor meeting the requirements for the owner or operator under the financial test specified in this paragraph.";

(6) trust agreements prepared in accordance with 40 CFR Section 144.70(a) must state that they will be administered, construed, and enforced according to the laws of New Mexico;

(7) surety companies issuing bonds prepared in accordance with 40 CFR Section 144, Subpart F must be registered with the New Mexico office of superintendent of insurance;

D. The following provisions of 40 CFR Part 144, Subpart F are omitted from 20.6.2.5320 NMAC:

(1) Section 144.65;

(2) Section 144.66;

(3) the third sentence in 40 CFR Section 144.63(h).

[20.6.2.5321 NMAC - N, 8-31-15]

20.6.2.5322 - 20.6.2.5340 [RESERVED]

20.6.2.5341 CONDITIONS APPLICABLE TO ALL PERMITS: The following conditions apply to all Class I hazardous permits. All conditions applicable to all permits shall be incorporated into the permits either

expressly or by reference. If incorporated by reference, a specific citation to these regulations must be given in the permit.

A. *Duty to comply.* The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the New Mexico Water Quality Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application; except that the permittee need not comply with the provisions of this permit to the extent and for the duration such noncompliance is authorized in a variance issued under 20.6.2.1210 NMAC.

B. *Duty to reapply.* If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a permit renewal pursuant to Subsection F of 20.6.2.3106 NMAC.

C. *Need to halt or reduce activity not a defense.* It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. *Duty to mitigate.* The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

E. *Proper operation and maintenance.* The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

F. *Permit actions.* This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

G. *Property rights.* This permit does not convey any property rights of any sort, or any exclusive privilege.

H. *Duty to provide information.* The permittee shall furnish to the director, within a time specified, any information which the director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the director, upon request, copies of records required to be kept by this permit.

I. *Duty to provide notice.* Public notice, when required, shall be provided as set forth in 20.6.2.3108 NMAC except that the following notice shall be provided in lieu of the notice required by Paragraph (2) of Subsection B of 20.6.2.3108 NMAC: a written notice must be sent by certified mail, return receipt requested, to all surface and mineral owners of record within a ½ mile radius of the proposed well or wells.

J. *Inspection and entry.* The permittee shall allow the director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

(1) enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(2) have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(3) inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

(4) sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the 20.6.2.5300 through 20.6.2.5399 NMAC, any substances or parameters at any location.

K. *Monitoring and records.*

(1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(2) The permittee shall retain records of all monitoring information, including the following:

(a) calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report, or application; this period may be extended by request of the director at any time; and

(b) the nature and composition of all injected fluids until three years after the completion of any plugging and abandonment procedures specified under 20.6.2.5351 through 20.6.2.5363 NMAC;

the director may require the owner or operator to deliver the records to the director at the conclusion of the retention period.

(3) Records of monitoring information shall include:

(a) the date, exact place, and time of sampling or measurements;

(b) the individual(s) who performed the sampling or measurements;

(c) the date(s) analyses were performed;

(d) the individual(s) who performed the analyses;

(e) the analytical techniques or methods used; and

(f) the results of such analyses.

L. *Signatory requirement.* All applications, reports, or information submitted to the director shall be signed and certified. (See Subsection G of 20.6.2.5101 NMAC.)

M. *Reporting requirements.*

(1) *Planned changes.* The permittee shall give notice to the director as soon as possible of any planned physical alterations or additions to the permitted facility.

(2) *Anticipated noncompliance.* The permittee shall give advance notice to the director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(3) *Monitoring reports.* Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(4) *Compliance schedules.* Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 30 days following each schedule date.

(5) *Twenty-four hour reporting.* The permittee shall report any noncompliance which may endanger health or the environment, including:

(a) any monitoring or other information which indicates that any contaminant may cause an endangerment to [~~groundwater~~]ground water of the state of New Mexico; or

(b) any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between [~~groundwater~~]ground water of the state of New Mexico; any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances; a written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances; the written submission shall contain a description of the noncompliance and its cause; the area affected by the noncompliance, including any [~~groundwater~~]ground water of the state of New Mexico; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; the date and time the permittee became aware of the noncompliance; and steps taken or planned to reduce, remediate, eliminate, and prevent reoccurrence of the noncompliance.

(6) *Other noncompliance.* The permittee shall report all instances of noncompliance not reported under Paragraphs (3), (4), and (5) of Subsection M of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in Paragraph (5) of Subsection M of this section.

(7) *Other information.* Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the director, it shall promptly submit such facts or information.

N. *Requirements prior to commencing injection.* A new injection well may not commence injection until construction is complete; and

(1) the permittee has submitted notice of completion of construction to the director; and

(2) the director has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of the permit; or the permittee has not received notice from the director of his or her intent to inspect or otherwise review the new injection well within 13 days of the date of the notice in Paragraph (1) of Subsection N of this section, in which case prior inspection or review is waived and the permittee may commence injection; the director shall include in his notice a reasonable time period in which he shall inspect the well.

O. The permittee shall notify the director at such times as the permit requires before conversion or abandonment of the well.

P. The permittee shall meet the requirements of 20.6.2.5209 NMAC.

Q. *Plugging and abandonment report.* Within 60 days after plugging a well or at the time of the next quarterly report (whichever is less) the owner or operator shall submit a report to the director. If the quarterly report is due less than 15 days before completion of plugging, then the report shall be submitted within 60 days. The report

shall be certified as accurate by the person who performed the plugging operation. Such report shall consist of either:

(1) a statement that the well was plugged in accordance with the plan previously submitted to the director; or

(2) where actual plugging differed from the plan previously submitted, and updated version of the plan on the form supplied by the director, specifying the differences.

R. *Duty to establish and maintain mechanical integrity.*

(1) The permittee shall meet the requirements of 20.6.2.5204 NMAC.

(2) When the director determines that a Class I hazardous well lacks mechanical integrity pursuant to 20.6.2.5204 NMAC, the director shall give written notice of the director's determination to the owner or operator. Unless the director requires immediate cessation, the owner or operator shall cease injection into the well within 48 hours of receipt of the director's determination. The director may allow plugging of the well pursuant to the requirements of 20.6.2.5209 NMAC or require the permittee to perform such additional construction, operation, monitoring, reporting and corrective action as is necessary to prevent the movement of fluid into or between [~~groundwater~~]ground water of the state of New Mexico caused by the lack of mechanical integrity. The owner or operator may resume injection upon written notification from the director that the owner or operator has demonstrated mechanical integrity pursuant to 20.6.2.5204 and 20.6.2.5358 NMAC.

(3) The director may allow the owner or operator of a well which lacks mechanical integrity pursuant to Subsection A of 20.6.2.5204 NMAC to continue or resume injection, if the owner or operator has made a satisfactory demonstration that there is no movement of fluid into or between groundwater of the state of New Mexico.

S. *Transfer of a permit.* The operator shall not transfer a permit without the director's prior written approval. A request for transfer of a permit shall identify officers, directors and owners of 25% or greater in the transferee. Unless the director otherwise orders, public notice or hearing are not required for the transfer request's approval. If the director denies the transfer request, it shall notify the operator and the proposed transferee of the denial by certified mail, return receipt requested, and either the operator or the proposed transferee may request a hearing with 10 days after receipt of the notice. Until the director approves the transfer and the required financial assurance is in place, the director shall not release the transferor's financial assurance.

[20.6.2.5341 NMAC - N, 8-31-15; A, XX/XX/17]

20.6.2.5342 ESTABLISHING PERMIT CONDITIONS:

A. In addition to conditions required in 20.6.2.5341 NMAC, the director shall establish conditions, as required on a case-by-case basis under Subsection [~~H~~]I of 20.6.2.3109 NMAC, Subsection A of 20.6.2.5343 NMAC, and 20.6.2.5344 NMAC. Permits for owners or operators of hazardous waste injection wells shall also include conditions meeting the requirements of 20.6.2.5310 NMAC, Paragraphs (1) and (2) of Subsection A of this section, and 20.6.2.5351 through 20.6.2.5363 NMAC.

(1) *Financial responsibility.*

(a) The permittee, including the transferor of a permit, is required to demonstrate and maintain financial responsibility and resources to close, plug, and abandon the underground injection operation in a manner prescribed by the director until:

(i) the well has been plugged and abandoned in accordance with an approved plugging and abandonment plan pursuant to Subsection P of 20.6.2.5341 NMAC, and 20.6.2.5209 NMAC, and submitted a plugging and abandonment report pursuant to Subsection Q of 20.6.2.5341 NMAC; or

(ii) the well has been converted in compliance with the requirements of Subsection O of 20.6.2.5341 NMAC; or

(iii) the transferor of a permit has received notice from the director that the transfer has been approved and that the transferee's required financial assurance is in place.

(b) The owner or operator of a well injecting hazardous waste must comply with the financial responsibility requirements of 20.6.2.5320 NMAC.

(2) *Additional conditions.* The director shall impose on a case-by-case basis such additional conditions as are necessary to prevent the migration of fluids into [~~groundwater~~]ground water of the state of New Mexico.

B. *Applicable requirements.*

(1) In addition to conditions required in all permits the director shall establish conditions in permits as required on a case-by-case basis, to provide for and assure compliance with all applicable requirements of this part.

(2) An applicable requirement is a state statutory or regulatory requirement which takes effect prior to final administrative disposition of the permit. An applicable requirement is also any requirement which takes effect prior to the modification or revocation and reissuance of a permit.

(3) New or renewed permits, and to the extent allowed under 20.6.2.3109 NMAC modified or terminated permits, shall incorporate each of the applicable requirements referenced in 20.6.2.5342 NMAC.

C. *Incorporation.* All permit conditions shall be incorporated either expressly or by reference. If incorporated by reference, a specific citation to the applicable regulations or requirements must be given in the permit.

[20.6.2.5342 NMAC - N, 8-31-15; A,XX/XX/17]

20.6.2.5343 SCHEDULE OF COMPLIANCE:

A. *General.* The permit may, when appropriate, specify a schedule of compliance leading to compliance with this part.

(1) *Time for compliance.* Any schedules of compliance shall require compliance as soon as possible, and in no case later than three years after the effective date of the permit.

(2) *Interim dates.* Except as provided in Subparagraph (b) of Paragraph (1) of Subsection B of this section, if a permit establishes a schedule of compliance which exceeds one year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement.

(a) The time between interim dates shall not exceed one year.

(b) If the time necessary for completion of any interim requirement is more than one year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.

(3) *Reporting.* The permit shall be written to require that if Paragraph (1) of Subsection A of this section is applicable, progress reports be submitted no later than 30 days following each interim date and the final date of compliance.

B. *Alternative schedules of compliance.* A permit applicant or permittee may cease conducting regulated activities (by plugging and abandonment) rather than continue to operate and meet permit requirements as follows.

(1) If the permittee decides to cease conducting regulated activities at a given time within the term of a permit which has already been issued:

(a) the permit may be modified to contain a new or additional schedule leading to timely cessation of activities; or

(b) the permittee shall cease conducting permitted activities before noncompliance with any interim or final compliance schedule requirement already specified in the permit.

(2) If the decision to cease conducting regulated activities is made before issuance of a permit whose term will include the termination date, the permit shall contain a schedule leading to termination which will ensure timely compliance with applicable requirements.

(3) If the permittee is undecided whether to cease conducting regulated activities, the director may issue or modify a permit to contain two schedules as follows:

(a) both schedules shall contain an identical interim deadline requiring a final decision on whether to cease conducting regulated activities no later than a date which ensures sufficient time to comply with applicable requirements in a timely manner if the decision is to continue conducting regulated activities;

(b) one schedule shall lead to timely compliance with applicable requirements;

(c) the second schedule shall lead to cessation of regulated activities by a date which will ensure timely compliance with applicable requirements;

(d) each permit containing two schedules shall include a requirement that after the permittee has made a final decision under Subparagraph (a) of Paragraph (3) of Subsection B of this section it shall follow the schedule leading to compliance if the decision is to continue conducting regulated activities, and follow the schedule leading to termination if the decision is to cease conducting regulated activities.

(4) The applicant's or permittee's decision to cease conducting regulated activities shall be evidenced by a firm public commitment satisfactory to the director, such as a resolution of the board of directors of a corporation.

[20.6.2.5343 NMAC - N, 8-31-15]

20.6.2.5344 [~~REQUIERMENTS~~]REQUIREMENTS FOR RECORDING AND REPORTING OF MONITORING RESULTS: All permits shall specify:

A. requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods (including biological monitoring methods when appropriate);

B. required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including when appropriate, continuous monitoring;

C. applicable reporting requirements based upon the impact of the regulated activity and as specified in 20.6.2.5359 NMAC; reporting shall be no less frequent than specified in the above regulations.

[20.6.2.5344 NMAC - N, 8-31-15; A, XX/XX/17]

20.6.2.5345 - 20.6.2.5350: [RESERVED]

20.6.2.5351 APPLICABILITY: 20.6.2.5351 through 20.6.2.5363 NMAC establish criteria and standards for underground injection control programs to regulate Class I hazardous waste injection wells. Unless otherwise noted, these sections supplement the requirements of 20.6.2.5000 through 20.6.2.5299 NMAC and apply instead of any inconsistent requirements for Class I non-hazardous waste injection wells.

[20.6.2.5351 NMAC - N, 8-31-15]

20.6.2.5352 MINIMUM CRITERIA FOR SITING:

A. All Class I hazardous waste injection wells shall be sited such that they inject into a formation that is beneath the lowermost formation containing within one quarter mile of the well bore groundwater of the state of New Mexico.

B. The siting of Class I hazardous waste injection wells shall be limited to areas that are geologically suitable. The director shall determine geologic suitability based upon:

(1) an analysis of the structural and stratigraphic geology, the hydrogeology, and the seismicity of the region;

(2) an analysis of the local geology and hydrogeology of the well site, including, at a minimum, detailed information regarding stratigraphy, structure and rock properties, aquifer hydrodynamics and mineral resources; and

(3) a determination that the geology of the area can be described confidently and that limits of waste fate and transport can be accurately predicted through the use of models.

C. Class I hazardous waste injection wells shall be sited such that:

(1) the injection zone has sufficient permeability, porosity, thickness and areal extent to prevent migration of fluids into [~~groundwater~~]ground water of the state of New Mexico; and

(2) the confining zone:

(a) is laterally continuous and free of transecting, transmissive faults or fractures over an area sufficient to prevent the movement of fluids into [~~groundwater~~]ground water of the state of New Mexico; and

(b) contains at least one formation of sufficient thickness and with lithologic and stress characteristics capable of preventing vertical propagation of fractures.

D. The owner or operator shall demonstrate to the satisfaction of the director that:

(1) the confining zone is separated from the base of the lowermost [~~groundwater~~]ground water of the state of New Mexico by at least one sequence of permeable and less permeable strata that will provide an added layer of protection for [~~groundwater~~]ground water of the state of New Mexico in the event of fluid movement in an unlocated borehole or transmissive fault; or

(2) within the area of review, the piezometric surface of the fluid in the injection zone is less than the piezometric surface of the lowermost groundwater of the state of New Mexico, considering density effects, injection pressures and any significant pumping in the overlying [~~groundwater~~]ground water of the state of New Mexico; or

(3) there is no [~~groundwater~~]ground water of the state of New Mexico present.

(4) The director may approve a site which does not meet the requirements in Paragraphs (1), (2), or (3) of Subsections D of this section if the owner or operator can demonstrate to the director that because of the geology, nature of the waste, or other considerations, abandoned boreholes or other conduits would not cause endangerment of [~~groundwater~~]ground water of the state of New Mexico.

[20.6.2.5352 NMAC - N, 8-31-15; A,XX/XX/17]

20.6.2.5353 AREA OF REVIEW: For the purposes of Class I hazardous waste wells, this section shall apply to the exclusion of 20.6.2.5202 NMAC. The area of review for Class I hazardous waste injection wells shall be a two-mile radius around the well bore. The director may specify a larger area of review based on the calculated cone of influence of the well.
[20.6.2.5353 NMAC - N, 8-31-15]

20.6.2.5354 CORRECTIVE ACTION FOR WELLS IN THE AREA OF REVIEW: For the purposes of Class I hazardous waste wells, this section shall apply to the exclusion of 20.6.2.5203 NMAC.

A. The owner or operator of a Class I hazardous waste well shall as part of the permit application submit a plan to the director outlining the protocol used to:

(1) identify all wells penetrating the confining zone or injection zone within the area of review; and

(2) determine whether wells are adequately completed or plugged.

B. The owner or operator of a Class I hazardous waste well shall identify the location of all wells within the area of review that penetrate the injection zone or the confining zone and shall submit as required in Subsection A of 20.6.2.5360 NMAC:

(1) a tabulation of all wells within the area of review that penetrate the injection zone or the confining zone; and

(2) a description of each well or type of well and any records of its plugging or completion.

C. For wells that the director determines are improperly plugged, completed, or abandoned, or for which plugging or completion information is unavailable, the applicant shall also submit a plan consisting of such steps or modification as are necessary to prevent movement of fluids into or between groundwater of the state of New Mexico. Where the plan is adequate, the director shall incorporate it into the permit as a condition. Where the director's review of an application indicates that the permittee's plan is inadequate (based at a minimum on the factors in Subsection E of this section), the director shall:

(1) require the applicant to revise the plan;

(2) prescribe a plan for corrective action as a condition of the permit; or

(3) deny the application.

D. Requirements.

(1) Existing injection wells. Any permit issued for an existing Class I hazardous waste injection well requiring corrective action other than pressure limitations shall include a compliance schedule requiring any corrective action accepted or prescribed under Subsection C of this section. Any such compliance schedule shall provide for compliance no later than two years following issuance of the permit and shall require observance of appropriate pressure limitations under Paragraph (3) of Subsection D until all other corrective action measures have been implemented.

(2) New injection wells. No owner or operator of a new Class I hazardous waste injection well may begin injection until all corrective actions required under this section have been taken.

(3) The director may require pressure limitations in lieu of plugging. If pressure limitations are used in lieu of plugging, the director shall require as a permit condition that injection pressure be so limited that pressure in the injection zone at the site of any improperly completed or abandoned well within the area of review would not be sufficient to drive fluids into or between groundwater of the state of New Mexico. This pressure limitation shall satisfy the corrective action requirement. Alternatively, such injection pressure limitation may be made part of a compliance schedule and may be required to be maintained until all other required corrective actions have been implemented.

E. In determining the adequacy of corrective action proposed by the applicant under Subsection C of this section and in determining the additional steps needed to prevent fluid movement into and between groundwater of the state of New Mexico, the following criteria and factors shall be considered by the director:

(1) nature and volume of injected fluid;

(2) nature of native fluids or byproducts of injection;

(3) geology;

(4) hydrology;

(5) history of the injection operation;

(6) completion and plugging records;

(7) closure procedures in effect at the time the well was closed;

(8) hydraulic connections with groundwater of the state of New Mexico;

(9) reliability of the procedures used to identify abandoned wells; and

(10) any other factors which might affect the movement of fluids into or between [~~groundwater~~]ground water of the state of New Mexico.

[20.6.2.5354 NMAC - N, 8-31-15; A, XX/XX/17]

20.6.2.5355 CONSTRUCTION REQUIREMENTS:

A. *General.* All existing and new Class I hazardous waste injection wells shall be constructed and completed to:

(1) prevent the movement of fluids into or between [~~groundwater~~]ground water of the state of New Mexico or into any unauthorized zones;

(2) permit the use of appropriate testing devices and workover tools; and

(3) permit continuous monitoring of injection tubing and long string casing as required pursuant to Subsection F of 20.6.2.5357 NMAC.

B. *Compatibility.* All well materials must be compatible with fluids with which the materials may be expected to come into contact. A well shall be deemed to have compatibility as long as the materials used in the construction of the well meet or exceed standards developed for such materials by the American petroleum institute, ASTM, or comparable standards acceptable to the director.

C. *Casing and cementing of new wells.*

(1) Casing and cement used in the construction of each newly drilled well shall be designed for the life expectancy of the well, including the post-closure care period. The casing and cementing program shall be designed to prevent the movement of fluids into or between [~~groundwater~~]ground water of the state of New Mexico, and to prevent potential leaks of fluids from the well. In determining and specifying casing and cementing requirements, the director shall consider the following information as required by 20.6.2.5360 NMAC:

(a) depth to the injection zone;

(b) injection pressure, external pressure, internal pressure and axial loading;

(c) hole size;

(d) size and grade of all casing strings (wall thickness, diameter, nominal weight, length, joint specification and construction material);

(e) corrosiveness of injected fluid, formation fluids and temperature;

(f) lithology of injection and confining zones;

(g) type or grade of cement; and

(h) quantity and chemical composition of the injected fluid.

(2) One surface casing string shall, at a minimum, extend into the confining bed below the lowest formation that contains [~~groundwater~~]ground water of the state of New Mexico and be cemented by circulating cement from the base of the casing to the surface, using a minimum of 120% of the calculated annual volume. The director may require more than 120% when the geology or other circumstances warrant it.

(3) At least one long string casing, using a sufficient number of centralizers, shall extend to the injection zone and shall be cemented by circulating cement to the surface in one or more stages:

(a) of sufficient quantity and quality to withstand the maximum operating pressure; and

(b) in a quantity no less than 120% of the calculated volume necessary to fill the annular space; the director may require more than 120% when the geology or other circumstances warrant it.

(4) Circulation of cement may be accomplished by staging. The director may approve an alternative method of cementing in cases where the cement cannot be recirculated to the surface, provided the owner or operator can demonstrate by using logs that the cement is continuous and does not allow fluid movement behind the well bore.

(5) Casings, including any casing connections, must be rated to have sufficient structural strength to withstand, for the design life of the well:

(a) the maximum burst and collapse pressures which may be experienced during the construction, operation and closure of the well; and

(b) the maximum tensile stress which may be experienced at any point along the length of the casing during the construction, operation, and closure of the well.

(6) At a minimum, cement and cement additives must be of sufficient quality and quantity to maintain integrity over the design life of the well.

D. *Tubing and packer.*

(1) All Class I hazardous waste injection wells shall inject fluids through tubing with a packer set at a point specified by the director.

(2) In determining and specifying requirements for tubing and packer, the following factors shall be considered:

(a) depth of setting;

(b) characteristics of injection fluid (chemical content, corrosiveness, temperature and density);

(c) injection pressure;

(d) annular pressure;

(e) rate (intermittent or continuous), temperature and volume of injected fluid;

(f) size of casing; and

(g) tubing tensile, burst, and collapse strengths.

(3) The director may approve the use of a fluid seal if he determines that the following conditions are met:

(a) the operator demonstrates that the seal will provide a level of protection comparable to a packer;

(b) the operator demonstrates that the staff is, and will remain, adequately trained to operate and maintain the well and to identify and interpret variations in parameters of concern;

(c) the permit contains specific limitations on variations in annular pressure and loss of annular fluid;

(d) the design and construction of the well allows continuous monitoring of the annular pressure and mass balance of annular fluid; and

(e) a secondary system is used to monitor the interface between the annulus fluid and the injection fluid and the permit contains requirements for testing the system every three months and recording the results.

[20.6.2.5355 NMAC - N, 8-31-15; A, XX/XX/17]

20.6.2.5356 LOGGING, SAMPLING, AND TESTING PRIOR TO NEW WELL OPERATION:

A. During the drilling and construction of a new Class I hazardous waste injection well, appropriate logs and tests shall be run to determine or verify the depth, thickness, porosity, permeability, and rock type of, and the salinity of any entrained fluids in, all relevant geologic units to assure conformance with performance standards in 20.6.2.5355 NMAC, and to establish accurate baseline data against which future measurements may be compared. A descriptive report interpreting results of such logs and tests shall be prepared by a knowledgeable log analyst and submitted to the director. At a minimum, such logs and tests shall include:

(1) deviation checks during drilling on all holes constructed by drilling pilot holes which are enlarged by reaming or another method; such checks shall be at sufficiently frequent intervals to determine the location of the borehole and to assure that vertical avenues for fluid movement in the form of diverging holes are not created during drilling; and

(2) such other logs and tests as may be needed after taking into account the availability of similar data in the area of the drilling site, the construction plan, and the need for additional information that may arise from time to time as the construction of the well progresses; at a minimum, the following logs shall be required in the following situations:

(a) upon installation of the surface casing:

(i) resistivity, spontaneous potential, and caliper logs before the casing is installed; and

(ii) a cement bond and variable density log, and a temperature log after the casing is set and cemented;

(b) upon installation of the long string casing:

(i) resistivity, spontaneous potential, porosity, caliper, gamma ray, and fracture finder logs before the casing is installed; and

(ii) a cement bond and variable density log, and a temperature log after the casing is set and cemented;

(c) the director may allow the use of an alternative to the above logs when an alternative will provide equivalent or better information; and

(3) a mechanical integrity test consisting of:

(a) a pressure test with liquid or gas;

(b) a radioactive tracer survey;

(c) a temperature or noise log;

(d) a casing inspection log, if required by the director; and

(e) any other test required by the director.

B. Whole cores or sidewall cores of the confining and injection zones and formation fluid samples from the injection zone shall be taken. The director may accept cores from nearby wells if the owner or operator can demonstrate that core retrieval is not possible and that such cores are representative of conditions at the well. The director may require the owner or operator to core other formations in the borehole.

C. The fluid temperature, pH, conductivity, pressure and the static fluid level of the injection zone must be recorded.

D. At a minimum, the following information concerning the injection and confining zones shall be determined or calculated for Class I hazardous waste injection wells:

(1) fracture pressure;

(2) other physical and chemical characteristics of the injection and confining zones; and

(3) physical and chemical characteristics of the formation fluids in the injection zone.

E. Upon completion, but prior to operation, the owner or operator shall conduct the following tests to verify hydrogeologic characteristics of the injection zone:

(1) a pump test; or

(2) injectivity tests.

F. The director shall have the opportunity to witness all logging and testing required by 20.6.2.5351 through 20.6.2.5363 NMAC. The owner or operator shall submit a schedule of such activities to the director 30 days prior to conducting the first test.

[20.6.2.5356 NMAC - N, 8-31-15]

20.6.2.5357 OPERATING REQUIREMENTS:

A. Except during stimulation, the owner or operator shall assure that injection pressure at the wellhead does not exceed a maximum which shall be calculated so as to assure that the pressure in the injection zone during injection does not initiate new fractures or propagate existing fractures in the injection zone. The owner or operator shall assure that the injection pressure does not initiate fractures or propagate existing fractures in the confining zone, nor cause the movement of injection or formation fluids into [~~groundwater~~]ground water of the state of New Mexico.

B. Injection between the outermost casing protecting [~~groundwater~~]ground water of the state of New Mexico and the well bore is prohibited.

C. The owner or operator shall maintain an annulus pressure that exceeds the operating injection pressure, unless the director determines that such a requirement might harm the integrity of the well. The fluid in the annulus shall be noncorrosive, or shall contain a corrosion inhibitor.

D. The owner or operator shall maintain mechanical integrity of the injection well at all times.

E. Permit requirements for owners or operators of hazardous waste wells which inject wastes which have the potential to react with the injection formation to generate gases shall include:

(1) conditions limiting the temperature, pH or acidity of the injected waste; and

(2) procedures necessary to assure that pressure imbalances which might cause a backflow or blowout do not occur.

F. The owner or operator shall install and use continuous recording devices to monitor: the injection pressure; the flow rate, volume, and temperature of injected fluids; and the pressure on the annulus between the tubing and the long string casing, and shall install and use:

(1) automatic alarm and automatic shut-off systems, designed to sound and shut-in the well when pressures and flow rates or other parameters approved by the director exceed a range or gradient specified in the permit; or

(2) automatic alarms, designed to sound when the pressures and flow rates or other parameters approved by the director exceed a rate or gradient specified in the permit, in cases where the owner or operator certifies that a trained operator will be on-site at all times when the well is operating.

G. If an automatic alarm or shutdown is triggered, the owner or operator shall immediately investigate and identify as expeditiously as possible the cause of the alarm or shutoff. If, upon such investigation, the well appears to be lacking mechanical integrity, or if monitoring required under Subsection F of this section otherwise indicates that the well may be lacking mechanical integrity, the owner or operator shall:

(1) cease injection of waste fluids unless authorized by the director to continue or resume injection;

(2) take all necessary steps to determine the presence or absence of a leak; and

(3) notify the director within 24 hours after the alarm or shutdown.

H. If a loss of mechanical integrity is discovered pursuant to Subsection G of this section or during periodic mechanical integrity testing, the owner or operator shall:

(1) immediately cease injection of waste fluids;

(2) take all steps reasonably necessary to determine whether there may have been a release of hazardous wastes or hazardous waste constituents into any unauthorized zone;

(3) notify the director within 24 hours after loss of mechanical integrity is discovered;

(4) notify the director when injection can be expected to resume; and

(5) restore and demonstrate mechanical integrity to the satisfaction of the director prior to resuming injection of waste fluids.

I. Whenever the owner or operator obtains evidence that there may have been a release of injected wastes into an unauthorized zone:

(1) the owner or operator shall immediately case injection of waste fluids, and:

(a) notify the director within 24 hours of obtaining such evidence;

(b) take all necessary steps to identify and characterize the extent of any release;

(c) comply with any remediation plan specified by the director;

(d) implement any remediation plan approved by the director; and

(e) where such release is into [~~groundwater~~]ground water of the state of New Mexico currently serving as a water supply, place a notice in a newspaper of general circulation.

(2) The director may allow the operator to resume injection prior to completing cleanup action if the owner or operator demonstrates that the injection operation will not endanger groundwater of the state of New Mexico.

J. The owner or operator shall notify the director and obtain his approval prior to conducting any well workover.

[20.6.2.5357 NMAC - N, 8-31-15; A, XX/XX/17]

20.6.2.5358 TESTING AND MONITORING REQUIREMENTS: Testing and monitoring requirements shall at a minimum include.

A. Monitoring of the injected wastes.

(1) The owner or operator shall develop and follow an approved written waste analysis plan that describes the procedures to be carried out to obtain a detailed chemical and physical analysis of a representative sample of the waste, including the quality assurance procedures used. At a minimum, the plan shall specify:

(a) the parameters for which the waste will be analyzed and the rationale for the selection of these parameters;

(b) the test methods that will be used to test for these parameters; and

(c) the sampling method that will be used to obtain a representative sample of the waste to be analyzed.

(2) The owner or operator shall repeat the analysis of the injected wastes as described in the waste analysis plan at frequencies specified in the waste analysis plan and when process or operating changes occur that may significantly alter the characteristics of the waste stream.

(3) The owner or operator shall conduct continuous or periodic monitoring of selected parameters as required by the director.

(4) The owner or operator shall assure that the plan remains accurate and the analyses remain representative.

B. Hydrogeologic compatibility determination. The owner or operator shall submit information demonstrating to the satisfaction of the director that the waste stream and its anticipated reaction products will not alter the permeability, thickness or other relevant characteristics of the confining or injection zones such that they would no longer meet the requirements specified in 20.6.2.5352 NMAC.

C. Compatibility of well materials.

(1) The owner or operator shall demonstrate that the waste stream will be compatible with the well materials with which the waste is expected to come into contact, and submit to the director a description of the methodology used to make that determination. Compatibility for purposes of this requirement is established if contact with injected fluids will not cause the well materials to fail to satisfy any design requirement imposed under Subsection B of 20.6.2.5355 NMAC.

(2) The director shall require continuous corrosion monitoring of the construction materials used in the well for wells injecting corrosive waste, and may require such monitoring for other waste, by:

(a) placing coupons of the well construction materials in contact with the waste stream; or

(b) routing the waste stream through a loop constructed with the material used in the well; or

(c) using an alternative method approved by the director.

(3) If a corrosion monitoring program is required:

(a) the test shall use materials identical to those used in the construction of the well, and such materials must be continuously exposed to the operating pressures and temperatures (measured at the well head) and flow rates of the injection operation; and

(b) the owner or operator shall monitor the materials for loss of mass, thickness, cracking, pitting and other signs of corrosion on a quarterly basis to ensure that the well components meet the minimum standards for material strength and performance set forth in Subsection B of 20.6.2.5355 NMAC.

D. Periodic mechanical integrity testing. In fulfilling the requirements of 20.6.2.5204 NMAC, the owner or operator of a Class I hazardous waste injection well shall conduct the mechanical integrity testing as follows:

(1) the long string casing, injection tube, and annular seal shall be tested by means of an approved pressure test with a liquid or gas annually and whenever there has been a well workover;

(2) the bottom-hole cement shall be tested by means of an approved radioactive tracer survey annually;

(3) an approved temperature, noise, or other approved log shall be run at least once every five years to test for movement of fluid along the borehole; the director may require such tests whenever the well is worked over;

(4) casing inspection logs shall be run whenever the owner or operator conducts a workover in which the injection string is pulled, unless the director waives this requirement due to well construction or other factors which limit the test's reliability, or based upon the satisfactory results of a casing inspection log run within the previous five years; the director may require that a casing inspection log be run every five years, if he has reason to believe that the integrity of the long string casing of the well may be adversely affected by naturally-occurring or man-made events;

(5) any other test approved by the director in accordance with the procedures in 40 CFR Section 146.8(d) may also be used.

E. Ambient monitoring.

(1) Based on a site-specific assessment of the potential for fluid movement from the well or injection zone, and on the potential value of monitoring wells to detect such movement, the director shall require the owner or operator to develop a monitoring program. At a minimum, the director shall require monitoring of the pressure buildup in the injection zone annually, including at a minimum, a shut down of the well for a time sufficient to conduct a valid observation of the pressure fall-off curve.

(2) When prescribing a monitoring system the director may also require:

(a) continuous monitoring for pressure changes in the first aquifer overlying the confining zone; when such a well is installed, the owner or operator shall, on a quarterly basis, sample the aquifer and analyze for constituents specified by the director;

(b) the use of indirect, geophysical techniques to determine the position of the waste front, the water quality in a formation designated by the director, or to provide other site specific data;

(c) periodic monitoring of the ground water quality in the first aquifer overlying the injection zone;

(d) periodic monitoring of the ground water quality in the lowermost [~~groundwater~~] ground water of the state of New Mexico; and

(e) any additional monitoring necessary to determine whether fluids are moving into or between [~~groundwater~~]ground water of the state of New Mexico.

F. The director may require seismicity monitoring when he has reason to believe that the injection activity may have the capacity to cause seismic disturbances.

[20.6.2.5358 NMAC - N, 8-31-15; A, XX/XX/27]

20.6.2.5359 REPORTING REQUIREMENTS: Reporting requirements shall, at a minimum, include:

A. quarterly reports to the director containing:

(1) the maximum injection pressure;

(2) a description of any event that exceeds operating parameters for annulus pressure or injection pressure as specified in the permit;

(3) a description of any event which triggers an alarm or shutdown device required pursuant to Subsection F of 20.6.2.5357 NMAC and the response taken;

(4) the total volume of fluid injected;

(5) any change in the annular fluid volume;

(6) the physical, chemical and other relevant characteristics of injected fluids; and

(7) the results of monitoring prescribed under 20.6.2.5358 NMAC;

B. reporting, within 30 days or with the next quarterly report whichever comes later, the results of:

(1) periodic tests of mechanical integrity;

(2) any other test of the injection well conducted by the permittee if required by the director; and

(3) any well workover.

[20.6.2.5359 NMAC - N, 8-31-15]

20.6.2.5360 INFORMATION TO BE EVALUATED BY THE DIRECTOR: This section sets forth the information which must be evaluated by the director in authorizing Class I hazardous waste injection wells. For a new Class I hazardous waste injection well, the owner or operator shall submit all the information listed below as part of the permit application. For an existing or converted Class I hazardous waste injection well, the owner or operator shall submit all information listed below as part of the permit application except for those items of information which are current, accurate, and available in the existing permit file. For both existing and new Class I hazardous waste injection wells, certain maps, cross-sections, tabulations of wells within the area of review and other data may be included in the application by reference provided they are current and readily available to the director (for example, in the permitting agency's files) and sufficiently identifiable to be retrieved.

A. Prior to the issuance of a permit for an existing Class I hazardous waste injection well to operate or the construction or conversion of a new Class I hazardous waste injection well, the director shall review the following to assure that the requirements of 20.6.2.5000 through 20.6.2.5399 NMAC are met:

(1) information required in 20.6.2.5102 NMAC;

(2) a map showing the injection well for which a permit is sought and the applicable area of review; within the area of review, the map must show the number or name and location of all producing wells, injection wells, abandoned wells, dry holes, surface bodies of water, springs, mines (surface and subsurface), quarries, water wells and other pertinent surface features, including residences and roads; the map should also show faults, if known or suspected;

(3) a tabulation of all wells within the area of review which penetrate the proposed injection zone or confining zone; such data shall include a description of each well's type, construction, date drilled, location, depth, record of plugging or completion and any additional information the director may require;

(4) the protocol followed to identify, locate and ascertain the condition of abandoned wells within the area of review which penetrate the injection or the confining zones;

(5) maps and cross-sections indicating the general vertical and lateral limits of all [~~groundwater~~]ground water of the state of New Mexico within the area of review, their position relative to the injection formation and the direction of water movement, where known, in each groundwater of the state of New Mexico which may be affected by the proposed injection;

(6) maps and cross-sections detailing the geologic structure of the local area;

(7) maps and cross-sections illustrating the regional geologic setting;

(8) proposed operating data:

(a) average and maximum daily rate and volume of the fluid to be injected; and

(b) average and maximum injection pressure;

(9) proposed formation testing program to obtain an analysis of the chemical, physical and radiological characteristics of and other information on the injection formation and the confining zone;

(10) proposed stimulation program;

(11) proposed injection procedure;

(12) schematic or other appropriate drawings of the surface and subsurface construction details of the well;

(13) contingency plans to cope with all shut-ins or well failures so as to prevent migration of fluids into any [~~groundwater~~]ground water of the state of New Mexico;

(14) plans (including maps) for meeting monitoring requirements of 20.6.2.5358 NMAC;

(15) for wells within the area of review which penetrate the injection zone or the confining zone but are not properly completed or plugged, the corrective action to be taken under 20.6.2.5354 NMAC;

(16) construction procedures including a cementing and casing program, well materials specifications and their life expectancy, logging procedures, deviation checks, and a drilling, testing and coring program; and

(17) a demonstration pursuant to 20.6.2.5320 NMAC, that the applicant has the resources necessary to close, plug or abandon the well and for post-closure care.

B. Prior to the director's granting approval for the operation of a Class I hazardous waste injection well, the owner or operator shall submit and the director shall review the following information, which shall be included in the completion report:

(1) all available logging and testing program data on the well;

(2) a demonstration of mechanical integrity pursuant to 20.6.2.5358 NMAC;

(3) the anticipated maximum pressure and flow rate at which the permittee will operate;

(4) the results of the injection zone and confining zone testing program as required in Paragraph (9) of Subsection A of 20.6.2.5360 NMAC;

(5) the actual injection procedure;

(6) the compatibility of injected waste with fluids in the injection zone and minerals in both the injection zone and the confining zone and with the materials used to construct the well;

(7) the calculated area of review based on data obtained during logging and testing of the well and the formation, and where necessary revisions to the information submitted under Paragraphs (2) and (3) of Subsection A of 20.6.2.5360 NMAC;

(8) the status of corrective action on wells identified in Paragraph (15) of Subsection A of 20.6.2.5360 NMAC; and

(9) evidence that the permittee has obtained an exemption under 40 C.F.R. Part 148, Subpart C for the hazardous wastes permitted for disposal through underground injection.

C. Prior to granting approval for the plugging and abandonment (*i.e.*, closure) of a Class I hazardous waste injection well, the director shall review the information required in Paragraph (4) of Subsection A of 20.6.2.5361 NMAC and Subsection A of 20.6.2.5362 NMAC.

D. Any permit issued for a Class I hazardous waste injection well for disposal on the premises where the waste is generated shall contain a certification by the owner or operator that:

(1) the generator of the hazardous waste has a program to reduce the volume or quantity and toxicity of such waste to the degree determined by the generator to be economically practicable; and

(2) injection of the waste is that practicable method of disposal currently available to the generator which minimizes the present and future threat to human health and the environment.

[20.6.2.5360 NMAC - N, 8-31-15; A, XX/XX/17]

20.6.2.5361 CLOSURE:

A. *Closure plan.* The owner or operator of a Class I hazardous waste injection well shall prepare, maintain, and comply with a plan for closure of the well that meets the requirements of Subsection D of this section and is acceptable to the director. The obligation to implement the closure plan survives the termination of a permit or the cessation of injection activities. The requirement to maintain and implement an approved plan is directly enforceable regardless of whether the requirement is a condition of the permit.

(1) The owner or operator shall submit the plan as a part of the permit application and, upon approval by the director, such plan shall be a condition of any permit issued.

(2) The owner or operator shall submit any proposed significant revision to the method of closure reflected in the plan for approval by the director no later than the date on which notice of closure is required to be submitted to the director under Subsection B of this section.

(3) The plan shall assure financial responsibility as required in Paragraph (1) of Subsection A of 20.6.2.5342 NMAC.

(4) The plan shall include the following information:

(a) the type and number of plugs to be used;

(b) the placement of each plug including the elevation of the top and bottom of each plug;

(c) the type and grade and quantity of material to be used in plugging;

(d) the method of placement of the plugs;

(e) any proposed test or measure to be made;

(f) the amount, size, and location (by depth) of casing and any other materials to be left in the well;

(g) the method and location where casing is to be parted, if applicable;

(h) the procedure to be used to meet the requirements of Paragraph (5) of Subsection D of this section;

(i) the estimated cost of closure; and

(j) any proposed test or measure to be made.

(5) The director may modify a closure plan following the procedures of 20.6.2.3109 NMAC.

(6) An owner or operator of a Class I hazardous waste injection well who ceases injection temporarily, may keep the well open provided he:

(a) has received authorization from the director; and

(b) has described actions or procedures, satisfactory to the director, that the owner or operator will take to ensure that the well will not endanger [~~groundwater~~]ground water of the state of New Mexico during the period of temporary disuse; these actions and procedures shall include compliance with the technical requirements applicable to active injection wells unless waived by the director.

(7) The owner or operator of a well that has ceased operations for more than two years shall notify the director 30 days prior to resuming operation of the well.

B. *Notice of intent to close.* The owner or operator shall notify the director at least 60 days before closure of a well. At the discretion of the director, a shorter notice period may be allowed.

C. *Closure report.* Within 60 days after closure or at the time of the next quarterly report (whichever is less) the owner or operator shall submit a closure report to the director. If the quarterly report is due less than 15 days after completion of closure, then the report shall be submitted within 60 days after closure. The report shall be certified as accurate by the owner or operator and by the person who performed the closure operation (if other than the owner or operator). Such report shall consist of either:

(1) a statement that the well was closed in accordance with the closure plan previously submitted and approved by the director; or

(2) where actual closure differed from the plan previously submitted, a written statement specifying the differences between the previous plan and the actual closure.

D. *Standards for well closure.*

(1) Prior to closing the well, the owner or operator shall observe and record the pressure decay for a time specified by the director. The director shall analyze the pressure decay and the transient pressure observations conducted pursuant to Paragraph (1) of Subsection E of 20.6.2.5358 NMAC and determine whether the injection activity has conformed with predicted values.

(2) Prior to well closure, appropriate mechanical integrity testing shall be conducted to ensure the integrity of that portion of the long string casing and cement that will be left in the ground after closure. Testing methods may include:

(a) pressure tests with liquid or gas;

(b) radioactive tracer surveys;

(c) noise, temperature, pipe evaluation, or cement bond logs; and

(d) any other test required by the director.

(3) Prior to well closure, the well shall be flushed with a buffer fluid.

(4) Upon closure, a Class I hazardous waste well shall be plugged with cement in a manner that will not allow the movement of fluids into or between groundwater of the state of New Mexico.

(5) Placement of the cement plugs shall be accomplished by one of the following:

(a) the balance method;

(b) the dump bailer method;

(c) the two-plug method; or

(d) an alternate method, approved by the director, that will reliably provide a comparable level of protection.

(6) Each plug used shall be appropriately tagged and tested for seal and stability before closure is completed.

(7) The well to be closed shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the director, prior to the placement of the cement plug(s).

[20.6.2.5361 NMAC - N, 8-31-15]

20.6.2.5362 POST-CLOSURE CARE:

A. The owner or operator of a Class I hazardous waste well shall prepare, maintain, and comply with a plan for post-closure care that meets the requirements of Subsection B of this section and is acceptable to the director. The obligation to implement the post-closure plan survives the termination of a permit or the cessation of injection activities. The requirement to maintain an approved plan is directly enforceable regardless of whether the requirement is a condition of the permit.

(1) The owner or operator shall submit the plan as a part of the permit application and, upon approval by the director, such plan shall be a condition of any permit issued.

(2) The owner or operator shall submit any proposed significant revision to the plan as appropriate over the life of the well, but no later than the date of the closure report required under Subsection C of 20.6.2.5361 NMAC.

(3) The plan shall assure financial responsibility as required in 20.6.2.5363 NMAC.

(4) The plan shall include the following information:

(a) the pressure in the injection zone before injection began;

(b) the anticipated pressure in the injection zone at the time of closure;

(c) the predicted time until pressure in the injection zone decays to the point that the well's cone of influence no longer intersects the base of the lowermost [~~groundwater~~]ground water of the state of New Mexico;

(d) predicted position of the waste front at closure;

(e) the status of any cleanups required under 20.6.2.5354 NMAC; and

(f) the estimated cost of proposed post-closure care.

(5) At the request of the owner or operator, or on his own initiative, the director may modify the post-closure plan after submission of the closure report following the procedures in 20.6.2.3109 NMAC.

B. The owner or operator shall:

(1) continue and complete any cleanup action required under 20.6.2.5354 NMAC, if applicable;

(2) continue to conduct any [~~groundwater~~]ground water monitoring required under the permit until pressure in the injection zone decays to the point that the well's cone of influence no longer intersects the base of the lowermost [~~groundwater~~]ground water of the state of New Mexico; the director may extend the period of post-closure monitoring if he determines that the well may endanger [~~groundwater~~]ground water of the state of New Mexico;

(3) submit a survey plat to the local zoning authority designated by the director; the plat shall indicate the location of the well relative to permanently surveyed benchmarks; a copy of the plat shall be submitted to the director;

(4) provide appropriate notification and information to such state and local authorities as have cognizance over drilling activities to enable such state and local authorities to impose appropriate conditions on subsequent drilling activities that may penetrate the well's confining or injection zone;

(5) retain, for a period of three years following well closure, records reflecting the nature, composition and volume of all injected fluids; the director shall require the owner or operator to deliver the records to the director at the conclusion of the retention period, and the records shall thereafter be retained at a location designated by the director for that purpose.

C. Each owner of a Class I hazardous waste injection well, and the owner of the surface or subsurface property on or in which a Class I hazardous waste injection well is located, must record a notation on the deed to the facility property or on some other instrument which is normally examined during title search that will in perpetuity provide any potential purchaser of the property the following information:

(1) the fact that land has been used to manage hazardous waste;

(2) the name of the state agency or local authority with which the plat was filed, as well as the address of the director;

(3) the type and volume of waste injected, the injection interval or intervals into which it was injected, and the period over which injection occurred.

[20.6.2.5362 NMAC - N, 8-31-15; A/XX/XX/17]

20.6.2.5363 FINANCIAL RESPONSIBILITY FOR POST-CLOSURE CARE: The owner or operator shall demonstrate and maintain financial responsibility for post-closure by using a trust fund, surety bond, letter of credit, financial test, insurance or corporate guarantee that meets the specifications for the mechanisms and instruments revised as appropriate to cover closure and post-closure care in 20.6.2.5320 NMAC. The amount of the

funds available shall be no less than the amount identified in Subparagraph (f) of Paragraph (4) of Subsection A of 20.6.2.5362 NMAC. The obligation to maintain financial responsibility for post-closure care survives the termination of a permit or the cessation of injection. The requirement to maintain financial responsibility is enforceable regardless of whether the requirement is a condition of the permit.
[20.6.2.5363 NMAC - N, 8-31-15]

20.6.2.5364 - 20.6.2.5399: [RESERVED]

HISTORY of 20.6.2 NMAC:
Pre-NMAC History:
Material in this Part was derived from that previously filed with the commission of public records - state records center and archives:
WQC 67-2, Regulations Governing Water Pollution Control in New Mexico, filed 12-5-67, effective 1-4-68
WQC 72-1, Water Quality Control Commission Regulations, filed 8-4-72, effective 9-3-72
WQC 77-1, Amended Water Quality Control Commission Regulations, filed 1-18-77, effective 2-18-77
WQC 81-2, Water Quality Control Commission Regulations, filed 6-2-81, effective 7-2-81
WQC 82-1, Water Quality Control Commission Regulations, filed 8-19-82, effective 9-20-82

History of Repealed Material: [Reserved]

Other History:
20 NMAC 6.2, Water Quality - Ground and Surface Water Protection, filed 10-27-95, effective 12-1-95
20 NMAC 6.2, Water Quality - Ground and Surface Water Protection, filed 10-15-96, effective 11-15-96
20 NMAC 6.2, Water Quality - Ground and Surface Water Protection, filed 11-30-00, effective 1-15-01
20 NMAC 6.2, Water Quality - Ground and Surface Water Protection, filed 9-16-01, effective 12-1-01
20 NMAC 6.2, Water Quality - Ground and Surface Water Protection, filed 8-1-02, effective 9-15-02
20 NMAC 6.2, Water Quality – Ground and Surface Water Protection, filed X-X-17, effective X-X-17

STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION

In the Matter of:

PROPOSED AMENDMENTS TO *GROUND AND SURFACE WATER PROTECTION* REGULATIONS, 20.6.2 NMAC

No. WQCC 17-03 (R)

WRITTEN REBUTTAL TESTIMONY OF DENNIS MCQUILLAN

I. Rebuttal Testimony Regarding the Toxic Pollutants Narrative Groundwater Standard

The narrative groundwater standard for Toxic Pollutants, currently at 20.6.2.7.WW NMAC, was originally adopted by the Water Quality Control Commission ("WQCC") in 1981, and contains a list of "potential Toxic Pollutants" but does not include concentrations at which a potential Toxic Pollutant becomes a Toxic Pollutant. Instead, the New Mexico Environment Department ("NMED") determines the numerical concentration at which a chemical constituent becomes a Toxic Pollutant at the time the narrative standard is administered.

In upholding the Toxic Pollutant standard from an industry appeal, the New Mexico Court of Appeals affirmed the authority of NMED to make the determination of the numerical concentration at which a chemical constituent becomes a Toxic Pollutant:

> Although there are no numerical standards in the regulations for what concentration of compounds triggers the label "toxic pollutant," this is not detrimental to the dischargers. The Director (now NMED Secretary) will make those determinations before a discharge plan is approved or disapproved, and the discharger will be notified. *Kerr-McGee Nuclear Corp. v. N.M. Water Quality Control Comm'n*, 1982-NMCA-015, 647 P.2d 873.

NMED EXHIBIT 28

A. USAF/DoD Testimony Regarding Toxic Pollutants

Written testimony filed by the United States Air Force/Department of Defense ("USAF/DoD") (Dr. Brock) regarding the Toxic Pollutant narrative standard contains the following errors:

- The language in the narrative standard for "Toxic Pollutant" that USAF/DoD is objecting to, "scientific information currently available to the public", has been in the WQCC regulations for 35 years, and is not being "proposed" by NMED during this proceeding. NMED has proposed to relocate the subject language, without change, from the definitions section (20.6.2.7 NMAC) into the groundwater standards section (20.6.2.3103 NMAC). To be clear, this is an organizational change, not a substantive change to the language.
- Groundwater standards adopted by the WQCC are not enforced as drinking water standards pursuant to the federal Safe Drinking Water Act. The Water Quality Act was passed by the New Mexico state legislature in 1967, when the federal Safe Drinking Water Act did not exist. New Mexico's authority to enforce drinking water standards is provided by the New Mexico Environmental Improvement Act, which was passed by the New Mexico State Legislature in 1971. Drinking water regulations and standards are adopted by the New Mexico Environmental Improvement Board, not by the WQCC. The Wellhead Protection Program is authorized by the federal Safe Drinking Water Act, but is a voluntary program that is not enforced upon public water systems. In any case, New Mexico's Wellhead Protection Program was approved by the United States Environmental Protection Agency (EPA) in 1989, with the exact same Toxic Pollutant language regarding "scientific information currently available to the public" that USAF/DoD is now objecting to.

- The New Mexico Water Quality Act does not use the term "best available science". The exact language used in that Act is that the WQCC "shall adopt water quality standards for surface and ground waters of the state based on credible scientific data and other evidence appropriate under the Water Quality Act." NMSA 1978, § 74-6-4.D.

USAF/DoD's testimony asserts that "The language of the proposed rule does not set a standard for the highest quality, best available science in setting narrative toxic substances standards which will likely lead to excess litigation." Notwithstanding USAF/DoD's error that the contested language is not being proposed by NMED, but has actually existed in WQCC regulations for decades, there has been no litigation resulting from NMED's 35-year history of administering the narrative Toxic Pollutant standard.

NMED appreciates discussion on the issue of what scientific information should be used when the Toxic Pollutant standard is administered to determine a numerical groundwater concentration. The language recommended by USAF/DoD to require only "best available" science and only "peer reviewed science," however, is overly prescriptive, inconsistent with the flexibility provided by the New Mexico Water Quality Act, and severely limits the toxicological information that NMED, the New Mexico Department of Health, and our consultants might consider in order to prevent threats to human health and the health of protected plants and animals when applying the Toxic Pollutant narrative standard.

For these reasons, the WQCC should reject the amendments to the Toxic Pollutant narrative standard proposed by USAF/DoD. NMED proposes, instead, that the Toxic Pollutant narrative standard be amended to include the exact language used in the Water Quality Act, as proposed in underline/strikeout below.

B. Los Alamos National Security (LANS) Testimony Regarding Toxic Pollutants

NMED agrees with LANS's suggestion to add Chemical Abstract Service ("CAS") numbers to the Toxic Pollutant list in 20.6.2.7 NMAC.

C. New Mexico Municipal League Testimony Regarding Toxic Pollutants

The New Mexico Municipal League ("NMML") expressed concern that relocating the Toxic Pollutant narrative standard from the definitions section to the groundwater standards section may expand the scope of the standard beyond the list of regulated chemical constituents contained in the standard. Since the list of regulated chemical constituents will be retained in the definitions section, NMED does not believe that the proposed amendments will expand the regulated constituents beyond those listed.

NMML points out that some of the constituents proposed by NMED for inclusion in the Toxic Pollutant standard are not regulated by the federal Safe Drinking Water Act or the federal Clean Water Act. NMML objects to NMED's proposed inclusion of prometon and sulfolane in the Toxic Pollutant narrative standard on the basis that these contaminants are not currently regulated by either federal program. NMML also notes that the process for NMED to determine the concentration at which a regulated constituent becomes a Toxic Pollutant is very general, and that the concentration (standard) determined by NMED to be a Toxic Pollutant is not subject to public comment. For the reasons outlined below, the WQCC should reject NMML's arguments and include the contaminants proposed by NMED in the Toxic Pollutant narrative standard.

First, the New Mexico Water Quality Act was a pioneering law, enacted by the New Mexico legislature in 1967, years before Congress enacted the Safe Drinking Water Act and Clean Water Act (Exhibit 6 to NMED's Notice of Intent to Present Technical Testimony). The New Mexico Water Quality Act does not limit the protection of New Mexico groundwater resources only to contaminants covered by the federal Safe Drinking Water Act or Clean Water Act. The

WQCC Toxic Pollutant standard, currently at 20.6.2.7.WW NMAC, has long provided state authority to protect New Mexico groundwater from contaminants, such as prometon and sulfolane, for which federal standards do not exist.

Second, it is important to note that the WQCC Toxic Pollutant standard is a groundwater standard administered to persons who discharge water contaminants onto or below the surface of the ground, and not a drinking water standard administered to public water systems. The WQCC Toxic Pollutant standard protects aquifers that are used as sources of drinking water by approximately 95% of New Mexico's citizens, including public water systems operated by NMML members in major population areas such as Albuquerque, Clovis, Hobbs, Las Cruces and Roswell. Protecting New Mexico aquifers from contamination by prometon and sulfolane protects the health of public water system users and is in the best interest of public water systems, especially if the EPA adopts drinking water standards for these contaminants in the future.

Third, when the Toxic Pollutant narrative standard is administered, NMED must use credible scientific data such as EPA drinking water standards and health advisories, standards adopted by other states, and risk-based screening levels developed by NMED, to the extent that the contaminants of concern are addressed by these scientific resources. NMED agrees with NMML that numerical standards are preferable to a narrative standard that requires NMED to determine an allowable concentration at the time the standard is administered. NMED has a long history of proposing numerical standards for the public scrutiny of a WQCC hearing when the scientific understanding of toxicology and other issues develop to a point where codification of a specific numerical standard can be justified.

Fourth, the Toxic Pollutant standard also provides authority to regulate combinations of contaminants where the toxic effects of the combined contaminants may be worse than that of the

individual contaminants (i.e.- synergistic impacts). It is impossible to predict specific combinations of contaminants in future discharges that will be required to have groundwater discharge permits, and in future groundwater contamination plumes that will need to be abated. As such, NMED must perform a case-by-case evaluation of the specific combination of contaminants present at a site, their respective concentrations, and whether they pose a greater risk than the individual contaminants.

Finally, as the Court of Appeals has affirmed, NMED determines the concentration at which a contaminant becomes a Toxic Pollutant at the time the narrative standard is administered. *Kerr-McGee Nuclear Corp. v. N.M. Water Quality Control Comm'n*, 1982-NMCA-015, 647 P.2d 873. As such, the concentration determined by NMED to constitute a Toxic Pollutant becomes memorialized within an official regulatory public record, and is subject to review by any person. NMED's determination of the concentration at which a contaminant becomes a Toxic Pollutant also is appealable in accordance with law.

D. William Olson Testimony Regarding Toxic Pollutants

NMED agrees with Mr. Olson that the language providing that a "toxic pollutant shall not be present at a" be kept in the relocated narrative standard.

Based on the changes discussed above related to testimony submitted by USAF/DoD and by William Olson, NMED proposes that the relocated narrative standard for Toxic Pollutants be amended as follows:

> (2) Standards for Toxic Pollutants. A toxic pollutant shall not be present at a concentration shown by ~~scientific information~~ credible scientific data and other evidence appropriate under the Water Quality Act, currently available to the public, to have potential for causing one or more of the following effects upon exposure, ingestion, or assimilation either directly from the environment or indirectly by ingestion through food chains: (1) unreasonably threatens to injure human health, or the health of animals or plants which are commonly hatched, bred, cultivated or protected for use by man for food or economic benefit; as used in this definition injuries to health include death, histopathologic

change, clinical symptoms of disease, behavioral abnormalities, genetic mutation, physiological malfunctions or physical deformations in such organisms or their offspring; or (2) creates a lifetime risk of more than one cancer per 100,000 exposed persons.

II. Rebuttal Testimony Regarding Numerical Groundwater Standards for Chromium, Fluoride, and Xylenes

The New Mexico Mining Association (NMMA), NMML, and the City of Roswell object to NMED's proposal to keep the numerical groundwater standards for chromium, fluoride, and xylenes at the concentrations currently set by the WQCC, rather than adjusting the groundwater standards to the concentrations of EPA drinking water standards. It is the general goal of NMED's petition to adjust WQCC numerical groundwater standards to the concentrations of EPA's drinking water standards, with certain exceptions. The unique circumstances that exist for chromium, fluoride and xylenes, however, as explained in the direct testimony of Dennis McQuillan (Exhibit 5 to NMED's Notice of Intent to Present Technical Testimony), are such that NMED does not believe it would be in the best interest of public policy, and protection of groundwater and public health in New Mexico, to adjust these WQCC groundwater standards upward, to a less protective level, at this time.

With regard to fluoride, NMED objects to raising the existing groundwater standard from 1.6 milligrams per liter (mg/l) to the EPA drinking water standard of 4 mg/l, on the basis that allowing groundwater to be contaminated up to 4 mg/l would put New Mexico children at risk from the harmful effects of dental fluorosis. *See* U.S. Centers for Disease Control ("CDC") photo showing harmful effects of dental fluorosis caused by high fluoride in drinking water, attached as NMED Exhibit 29. According to the CDC:

> Dental fluorosis is a condition that causes changes in the appearance of tooth enamel. It may result when children regularly consume fluoride during the teeth-forming years, age 8 and younger. Most dental fluorosis in the U.S. is very mild to mild, appearing as white spots on the tooth surface that may be barely noticeable and do not affect dental function. Moderate and severe forms of dental fluorosis, which are far less common, cause more extensive enamel changes. In the rare,

severe form, pits may form in the teeth. The severe form hardly ever occurs in communities where the level of fluoride in water is less than 2 milligrams per liter.[1]

Accordingly, the WQCC groundwater standard for fluoride is currently set at 1.6 mg/l.

NMED ***strongly*** recommends against raising the groundwater standard for fluoride to 4 mg/l, because such a concentration puts New Mexico children at risk for developing dental fluorosis.

III. Rebuttal Testimony Regarding Proposed Abatement Completion Reopener Footnote to Groundwater Standards - 20.6.2.3103 NMAC

NMED agrees with NMMA's proposal that the footnote to 20.6.2.3103 NMAC refer to the existing definition of "hazard to public health" in order to more clearly define the circumstances under which the Secretary may reopen a site where abatement has been previously completed in conformance with numerical groundwater standards that are now being amended to a lower concentration. NMED makes the following observations regarding differences between existing language in the preamble to groundwater standards (20.6.2.3101 NMAC) and in the definition of "hazard to public health".

- The only groundwater standards that NMED proposes to lower in concentration are human health standards (20.6.2.3103.A NMAC). The purpose of the proposed abatement completion footnote, therefore, is to protect public health at sites that have been abated to the existing (numerically higher) standard concentration.
- The preamble to 20.6.2.3103.A NMAC provides that the numerical standards shall not be exceeded in groundwater "at any place of withdrawal for present or reasonably foreseeable future use".

[1] CDC Fluorosis overview, *available at* https://www.cdc.gov/fluoridation/faqs/dental_fluorosis/index.htm.

- The definition of "hazard to public health" in 20.6.2.7 NMAC refers to "water which is used or is reasonably expected to be used in the future" as a source of human drinking water supply.
- So, with regard to future use of groundwater, the WQCC used the terms "reasonably foreseeable" in 20.6.2.3103.A NMAC, and "reasonably expected" in the definition of "hazard to public health". NMED believes that "reasonably expected" denotes a more imminent future use of groundwater than "reasonably foreseeable".
- The definition of "hazard to public health" also contains the language "exceeds at the time and place of such use, one or more of the numerical standards in Subsection A of 20.6.2.3103 NMAC." The preamble to 20.6.2.3103 NMAC does not make reference to exceedances at the time and place of groundwater use.
- Therefore, a hazard to public health exists when groundwater, that is presently used or reasonably expected to be used in the future as a source of human drinking water supply, exceeds one or more human health standards at the time and place of such present or expected future use.

NMED agrees with NMML that the abatement completion reopener footnote, with whatever final language is adopted by the WQCC, be relocated to 20.6.2.4103 NMAC.

Severe Dental Fluorosis Caused by High Fluoride in Drinking Water.
Source: https://www.cdc.gov/fluoridation/images/fluorosis_4.jpg

STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION

In the Matter of:

PROPOSED AMENDMENTS TO *GROUND AND SURFACE WATER PROTECTION* REGULATIONS, 20.6.2 NMAC

No. WQCC 17-03 (R)

WRITTEN REBUTTAL TESTIMONY OF KURT VOLLBRECHT

I. Response to AB/GRIP's Testimony on Discharge Permit Amendments

In her direct testimony on behalf of Amigos Bravos and the Gila Resources Information Project ("GRIP") (collectively "AB/GRIP"), witness Kathy Martin first paints a picture of a New Mexico Environment Department ("NMED" or "Department") gone rogue, issuing discharge permit amendments at the behest of industry and in violation of the public trust. She then recommends two proposed alternative definitions for "discharge permit amendment," along with a significant public notice process for such amendments. The Department strongly disagrees with AB/GRIP's portrayal of the Department as a regulatory agency operating entirely outside of its regulatory authority, abusing the discharge permit amendment process in disregard of the sanctity of public trust. The Department opposes AB/GRIP's suggested changes to the Department's proposed definition of discharge permit amendment and the inclusion of a public notification process for discharge permit amendments that is essentially the same as that for a permit modification or issuance of a new discharge permit. In effect, the counter proposal by AB/GRIP would entirely defeat the purpose of discharge permit amendments, and would create a heavy burden on the resources of the Department with little to no corresponding benefit to public health and the environment.

NMED EXHIBIT 30

1. AB/GRIP's Testimony Regarding NMED's Past Practice

Martin's testimony raises multiple concerns regarding the Department's long-standing practice of issuing discharge permit amendments. Martin provides a number of examples of the Department approving discharge permit amendments for large-scale mining operations that, in her opinion, should have been processed as modifications. In the process of evaluating and interpreting the Department's past discharge permit amendment decisions based solely on approval letters and the underlying permits, Martin has in many instances misrepresented the facts, often omitting critical pieces of information in her analysis, or has misinterpreted the circumstances as set forth in the amendment approval letters or in the discharge permits in effect at the time of amendment approval. Further, in several instances, Martin presents her own interpretation of what can and should be considered a discharge permit modification, in a manner contrary to the definition of discharge permit modification in place at the time the amendments were issued, as if the existing definition is irrelevant.

Included as Appendix A to this rebuttal testimony is an analysis of each of the discharge permit amendment examples provided by AB/GRIP in Ms. Martin's direct testimony. Where appropriate, I have identified where Martin has misrepresented facts pertinent to the evaluation through omission of critical permit or amendment language, or misinterpreted the factual basis for the particular discharge permit amendment. Based on her resume and her technical testimony, as analyzed in Appendix A and the discussion below, it appears that Ms. Martin has little to no experience in regulating active, large scale mining operations, and lacks familiarity with the application of New Mexico statutes and regulations. Ms. Martin's testimony also fails to acknowledge the longstanding interactions and communications maintained between the Department and AB/GRIP, and that AB/GRIP had knowledge of most of the amendments she

discusses in her testimony, as demonstrated by AB/GRIP's exhibits showing that Amigos Bravos or GRIP were copied on over 80% of those amendments. The discussion of specific examples in Appendix A also addresses other issues raised by AB/GRIP, including amendments to address corrective actions, the relationship of amendments to other state laws, and the lack of fees charged.

2. Large open-pit mining operations are not representative of NMED's general practices with respect to discharge permit amendments

All of the examples of discharge permit amendments provided in Martin's technical testimony are associated with mine sites, with the bulk of the examples coming from discharge permits associated with two open pit copper mines located in southwestern New Mexico: Freeport McMoRan Inc.'s ("FMI's") Chino Mine and Tyrone Mine. These two mines are wholly unique with respect to operations and regulatory oversite in New Mexico. Each of these mines has multiple discharge permits associated with various mine operations and mine closure; the Chino Mine currently has ten active discharge permits while the Tyrone Mine has eight active permits, with three permits having been terminated as facilities were combined into still-existing permits. The mine disturbance at each of these mines is over 10,000 acres, and the discharge permits are issued for "permitted areas" rather than discrete discharge locations, as is the case at most other regulated sites.[1] *See* Maps of Chino North Mine Permitted Areas, Chino South Mine Permitted Areas, and Tyrone Mine Permitted areas, attached hereto as NMED Exhibits 31, 32, and 33, respectively. In fact, due to the mineralized nature of the copper ore bodies, combined with open pit mining, material handling, and mineral processing activities, the entire area of disturbance at these copper mines is considered a "discharge location" since it produces a discharge of water contaminants every time precipitation falls on the area. With the exception of Chevron Mining Inc.'s Questa

[1] Land application areas at dairies and effluent reuse would be exceptions. However, at those types of facilities, the discharges coming out of the pipe are what are regulated, whereas at mines the material produces a discharge every time precipitation falls on exposed material.

Mine, there are no other sites of this nature in New Mexico. And yet, AB/GRIP holds these mines out as representative of the Department's past practice of issuing discharge permit amendments with respect to hundreds of other non-mining related sites regulated by the Department pursuant to the Commission's regulations.

These enormous facilities are, by their nature, dynamic, transient operations that are constantly undergoing change on a daily basis. Pipes, impoundments, stockpiles, and tanks are frequently moved as the footprint of the open pits and material stockpiles change. Due to the transient and ever-changing nature of the mine units at these copper mines, it is absolutely essential for the Department to have the ability to make minor changes to the discharge plan or permit conditions quickly and efficiently, including allowance for construction of new mine units within the existing area of disturbance. Mine infrastructure is frequently relocated, and, if the relocation does not change the quantity, quality, or location of the discharge, then a permit amendment is the appropriate mechanism to document such changes. Changes made via discharge permit amendment for a copper mine may become completely irrelevant in a matter of months. To use these two mines as representative of some general NMED practice of "abuse" of the discharge permit amendment process clearly illustrates Ms. Martin's lack of understanding not only of NMED's regulation of copper mining in New Mexico, but also of how that practice compares to the hundreds of other facilities in the State that are subject to discharge permit requirements and possible discharge permit amendments.

Ms. Martin also neglects to mention that the Department has provided notification to the affected community of changes authorized under discharge permit amendments at the Chino and Tyrone mines, as well as the Questa Mine, the other significant open pit mine in New Mexico. NMED has copied GRIP or Amigos Bravos, as representatives of the respective communities, on

permit amendments dozens of times since 2009. In fact, it is the Department's practice to copy GRIP on all written correspondence with the permittee related to the copper mines in the Silver City area, and to copy Amigos Bravos on most written correspondence with the permittee relating to the Questa Mine. In addition, AB/GRIP were participants in the technical and advisory group meetings during the development of the rules governing discharges at copper mines later adopted by the Water Quality Control Commission ("Commission") at 20.6.7 NMAC (the "Copper Rule"). During the development of the Copper Rule, a definition of discharge permit amendment was first proposed in the Spring of 2012, and was subsequently codified in the rule adopted by the Commission in December of 2013. At no time during the Copper Rule technical and advisory committee meeting process did AB/GRIP object to the concept of discharge permit amendments, nor did they appeal that specific proposal during subsequent hearings. *See, e.g.*, edits to proposed rule governing copper mines provided by New Mexico Environmental Law Center on behalf of AB/GRIP, attached hereto as NMED Exhibit 34.

Although Ms. Martin implies that the "origin" of the proposed action regarding discharge permit amendments is the Copper Rule, Martin Direct, p. 7:1-3, the origin is in fact the Department's 24-year practice of issuing permit amendments in accordance with the definition of discharge permit modification, and a need to codify and formalize the process, just as it was done in the Copper Rule. In addition, as stated in my direct testimony, AB/GRIP's counsel, the New Mexico Environmental Law Center, was a party to revisions to the Commission's rules in 2006 that changed the definition of discharge permit modification in a manner that would necessarily result in broader application of discharge permit amendments. Thus, AB/GRIP's feigned shock in this proceeding over a purportedly new-found realization that the Department has been issuing discharge permit amendments for years comes across as disingenuous at best.

3. Amendments issued for expired permits

Another unique situation raised as a compounding issue by AB/GRIP concerns the multiple discharge permits that were expired at the time of discharge permit amendment issuance. NMED and FMI, including its predecessor Phelps Dodge as owner of the Chino and Tyrone Mines, were involved in litigation over permit conditions for many years. That litigation hampered the ability of the Department to renew permits in a timely manner. Copper mine permit renewal applications were invariably submitted prior to permit expiration in accordance with the Commission's rules, [20.6.2.3106.F NMAC] and therefore these permits were all administratively continued. Again, this should come as no surprise to GRIP due to its consistent communication with the Department regarding the status of all the copper mine discharge permits.

In 2009 and 2010, NMED, FMI, and GRIP entered into extensive good faith negotiations to resolve copper mine permitting issues and create a path forward to permitting these mines in a manner that would avoid ongoing litigation. The result of those negotiations was the December 2010 Tyrone Settlement Agreement and Stipulated Final Order, which GRIP in the final weeks chose not to become a signatory party to, despite full participation in the negotiations. Changes to the Water Quality Act in 2009 required the Commission to draft regulations for the copper and dairy industries specifying measures to be taken to prevent water pollution. *See* NMSA 1978, § 74-6-5(K). The dairy rules were the first to be promulgated, followed by the Copper Rule. Ms. Martin has indicated involvement in the rulemaking process on the dairy rule, and should therefore be well versed in the resulting delay to issuance of dairy permits under that rule. The Copper Rule became effective in December of 2013, and since that time NMED has proceeded with systematic renewal of copper mine discharge permits pursuant to that rule.

4. Amendments issued pursuant to the Copper Rule are not relevant to this proceeding

It should also be noted that many of the permit amendment examples provided by AB/GRIP were issued pursuant to the Copper Rule. The Copper Rule has a regulatory definition and process for discharge permit amendments. As explained in detail in Appendix A, all amendments issued pursuant to the Copper Rule were done in accordance with 20.6.7 NMAC and the definitions and process for amendment described therein. It should also be noted that GRIP has been copied on many, if not all, discharge permit amendments issued pursuant to the Copper Rule. Regardless of what the Commission determines with respect to this current rulemaking, the definition of discharge permit amendment as promulgated pursuant to the Copper Rule will remain in effect and enforceable. Any changes to the Copper Rule definition of discharge permit amendment would need to be proposed in a separate petition and rulemaking.

If one were to look in detail at the hundreds of other discharge permit amendments issued by NMED over the past 24 years, there would no doubt be inconsistencies. It would also be extraordinarily time consuming and ineffective to try and conduct a similar "Monday morning quarterback" effort for the hundreds of individual discharge permit amendments that have been issued over those years, as AB/GRIP has done for a select group of mine discharge permit amendments. Understanding the site-specific circumstances and thought process involved at the time the decision was made would be difficult at best, if not impossible. Martin states, without citation, that "[f]or ten years NMED has developed this historic and current practice of accepting any and all permit amendment requests." [Martin Direct at 35:18-19] There is no basis for this factually incorrect and misleading statement. If Ms. Martin had any knowledge of or familiarity with NMED's regulatory practices, she would know that NMED typically discusses proposed changes with a permittee in advance of receiving a proposal to amend or modify the permit to

ensure proper categorization, thereby avoiding the need to issue discharge permit amendment denials in most cases.

As previously discussed, many of the purported issues raised by Ms. Martin are exclusive to mine sites, and copper mines in particular. NMED has infrequently issued more than one permit amendment within a permit term for an individual discharge permit, except for those related to copper mines. If the copper mine and the Questa Mine discharge permit amendments are removed from the catalog of known amendments issued since 2000, over 60% of the remaining discharge permit amendments are one-time amendments for an individual discharge permit. Further, what AB/GRIP inaccurately refers to as "NMED's practice of using one permit amendment request to change more than one discharge permit," [Martin Direct at 17:17-18] has not been done for any other facility apart from a copper mine. Simply stated, there are very few facilities other than copper mines with multiple discharge permits, and none with the type of operations and site-specific characteristics present at copper mines that are conducive to this type request. With respect to changes to monitoring conditions, there are hundreds of monitoring points at the Chino and Tyrone Mines. Many of them are no longer relevant due to physical changes at the mines, as well as requirements pertinent to the Copper Rule.

5. Other states have similar processes for making minor changes to permits

An example from a neighboring state is Arizona's aquifer protection permit program, which is the equivalent of the Department's groundwater discharge permit program. The regulations adopted by the Arizona Department of Environmental Quality specifically provide for "permit amendments," setting up a three-tiered system of "significant permit amendments", "minor permit amendments", and "other permit amendments," each of which is subject to differing levels of required public notice and participation. *See* A.A.C. R18-9-A211. Notably, the definition

of "significant permit amendment" is largely the inverse of the Department's proposed definition of "discharge permit amendment," (and the equivalent of the current definition of "discharge permit modification") providing that such amendments are those that would result in, among other things, an increase of ten percent or more in the permitted discharge volume, discharge of an additional pollutant, or an increase in the concentration of a pollutant; these types of amendments require public notice, comment, and a public hearing if there is substantial public interest. *See* A.A.C. R18-9-A211(B); R18-9-A211(E); R18-9-108; R18-9-108. "Minor permit amendments" are for such things as typographical errors, nontechnical administrative information, or increasing the frequency of monitoring or reporting; these require no public notice whatsoever. *See* A.A.C. R18-9-A211(C); R18-9-A211(E). Arizona's definition of "other permit amendment," being anything that is not a significant or a minor amendment, *see* A.C.C. R18-9-A211(D), is the equivalent of the Department's proposed "discharge permit amendment," and the public notice process for such amendments in Arizona is exactly what the Department has proposed for discharge permit amendments: the Arizona Department of Environmental Quality provides notice to specified entities and interested persons of such amendments. *See* A.C.C R18-9-A211(E). There is no notice of the request for an amendment, or any public participation requirement. *See* R18-9-108.

6. <u>The Department, not the public, determines whether a proposed change is significant</u>

Ms. Martin states on multiple occasions that the public should have a say in determining whether a proposed change is significant. *See* Martin Direct, pp. 12:16-18; 13:20-22; 15:22-23; 17:11-14; 18:10-12; 19:7-9. These statements represent a fundamental misunderstanding of how the determination of whether a requested change should be treated as an amendment or a modification is made. When a proposed change is submitted, ***the Department***, not the public,

makes a determination whether the change is "significant" such that it qualifies as a modification. If it does, then the public notice provisions of Section 20.6.2.3108 and 3019 NMAC apply. If it does not, then the Department proceeds to make a determination, and then notifies the public if it approves the change. If a member of the public believes that a change was improperly treated as an amendment and should have been treated as a modification, they can appeal to the Commission on that basis pursuant to 20.6.2.3112 NMAC.

7. AB/GRIP's IPRA requests

In her technical testimony, Martin suggests that the Department has not fully responded to all Information of Public Records Act ("IPRA") requests submitted by AB/GRIP's counsel (seven separate requests between July 25 and September 25, 2017), and that this has limited AB/GRIP's efforts to fully review pertinent permitting records. On the contrary, the Department has responded to each and every IPRA request in as complete a manner as possible, and within the allotted time frame pursuant to that statute. If AB/GRIP is dissatisfied with the Department's responses to IPRA requests, the process for recourse is that which is provided under the IPRA statute.

8. AB/GRIP Proposed Revisions

AB/GRIP proposes two options for revised language to define the criteria for a discharge permit amendment. The Department opposes both of these options as being severely limiting. The "abuse" claimed by AB/GRIP that would occur under the proposed Department definition is based on their misunderstanding and misrepresentation of facts. The Department also opposes the AB/GRIP proposed public notice process, which mimics the process required for a new permit or discharge permit modification application. The process they propose is fatally flawed as written, and reflects a fundamental lack of understanding of how the regulations are structured and how the process works. Regardless, the intent of a discharge permit amendment is to facilitate minor

changes to a permit. The language proposed by AB/GRIP would entirely defeat the purpose of distinguishing between modifications and amendments, and would result in a significant addition to the existing workload the Department manages without any resulting increase in the protection of water quality.

As a component of the AB/GRIP proposed options for definition of discharge permit amendment, AB/GRIP contend that NMED could allow an increase in discharge volume that would result in an impact to a downgradient water supply due to coincident increases in mass loading of water contaminants, going so far as to suggest that as a result of a discharge permit amendment downgradient users may be subject to "additional costly water treatment" [Martin Direct at 39:17-18]. Any and every proposed discharge and associated change to a permit is thoroughly evaluated by the Department to ensure protection of water quality. That is the first priority with respect to evaluation of any proposal related to a discharge the Department regulates pursuant to the Water Quality Act and the Commission's regulations. To suggest that the Department would sidestep this responsibility when issuing a discharge permit amendment reflects a clear misunderstanding of the ethics and mission of the Department. AB/GRIP did raise this concern during negotiations prior to the Department petitioning the Commission for the proposed revisions. Although implicit in the Department's responsibilities in implementing the Commission's regulations, the Department included revisions to 20.6.2.3109 NMAC to state unequivocally that any discharge permit amendment approval must ensure that the standards of 20.6.2.3103 NMAC will be met at any place of withdrawal of water for present or reasonably foreseeable future use. The Department's proposed changes provide for public notice of

amendments, and a person could appeal to the Commission if they believed that the amendment compromises water quality in some way.

It should be noted that with respect to the notification process the Department has proposed, AB/GRIP has misinterpreted the intent of the Department's proposed language in 20.6.2.3109.B(2) NMAC. This language states "[t]he department shall provide notice of all discharge permit amendment approvals or denials to those persons on the facility-specific list maintained by the department who have requested notice of discharge permit applications." AB/GRIP interprets this to mean that only a "very small subset" of a facility-specific list maintained by the Department would receive notification." Martin Direct at 41:9-11; 42:4-6. The Department maintains one facility specific mailing list for a facility, and it is not broken in "subsets" based on a specific part of the permitting process for which a person would want to be notified. That said, the Department has addressed this misinterpretation in the new version of the proposed rule that is included with the Department's Notice of Intent to Submit Rebuttal Technical Testimony as NMED Exhibit 27. In the new version, the Department has not included the phrase "who have requested notice of discharge permit applications" in 20.6.2.3109.B(2), as well as several other places where this language was previously included.

In summary, AB/GRIP has painted a false picture that is in no way representative of the discharge permit amendment process as it has been used by the Department over the past 24 years for the majority of the facilities subject to discharge permit requirements, or as it would be used in the future if the Department's proposed definition and process is adopted by the Commission. Promulgating the definition of discharge permit amendment and adopting the process proposed by the Department will allow for greater transparency and notification, and provide for greater

consistency, while allowing the Department to continue to effectively and efficiently manage the multitude of unique discharge permits existing within the caseload today and into the future.

II. Response to Dairy Producers of New Mexico and Dairy Industry Group for a Clean Environment (jointly "Dairies")

1. Discharge Permit Amendment Definition (20.6.2.7.D(4) NMAC)

The Dairy Producers of New Mexico and Dairy Industry Group for a Clean Environment (collectively "Dairies") have proposed changes to the Department's proposed definition of "discharge permit amendment" that would allow use of the amendment process for increases of up to 20% of the previously permitted discharge volume, and would remove the maximum limit of 50,000 gallons per day volume increase allowed under a discharge permit amendment. The Dairies state that a 10% limit on increase in discharge volume is quite small for smaller discharges, and that Department discretion can be used to require a permit modification for increases proposed for larger volume discharges.

The Department opposes these changes. The 10% limit on volume increases has been the rule of thumb that the Department has used for 24 years in defining the cutoff for what is considered a "significant" increase in discharge volume. The Department believes that a limit of 10% for amendments is more appropriate than 20%, based on the Department's experience.

The intent of amendments is to only allow for minor changes. An increase in discharge volume greater than 10% would likely be accompanied by a significant engineering redesign effort, depending on facility type. It has been NMED's experience that increases of less than 10% are typically not associated with significant engineering redesign of treatment and disposal systems. Further, it should be stated that regardless of the size of the system and the proposed

volume of increase, if there is significant engineering redesign the secretary may require a permit modification, as indicated in the existing definition of "discharge permit modification."

With respect to the 50,000 gpd volume increase limitation, this was an arbitrary limit that was included in the proposed rule at the request of AB/GRIP and William C. Olson. NMED agreed to include this limitation in the spirit of compromise. However, based on AB/GRIP's pre-filed technical testimony, they now oppose this limit. Therefore, NMED has no argument in support of the 50,000 gpd volume increase limit, and does not oppose its removal from the definition of discharge permit amendment.

2. Five Year Review for Variances (20.6.2.1210.E NMAC)

The Dairies propose several changes to the Department's proposed language regarding variance petitions, including the following: allowing a variance compliance report to be submitted with a discharge permit renewal application; clarification that changes in circumstances or newly discovered facts required to be included in the variance compliance report should be material to the variance; and, a statement that any person "who would have standing to appeal a permit decision" may request a hearing based on the variance compliance report.

The Department opposes the inclusion of an allowance for submittal of the variance compliance report accompanying a discharge permit application. Discharge permits are issued for a fixed term of five years, but if the permit renewal application is submitted a minimum of 120 days before the permit expires, the permit remains in effect until such time as the Department acts on the renewal application in accordance with 20.6.2.3106.F NMAC. The Dairies' proposed language could result in submittal of variance compliance reports at greater than five-year intervals. It is for this reason that NMED does not support the proposed addition of this language

to the requirements to submit a variance compliance report, and that instead it should be submitted at five-year intervals, regardless of the length of time that may pass between permit renewals.

The Department does not oppose the inclusion of language that clarifies that variance compliance reports should include only those changes of circumstances and newly discovered facts that are "material to the variance." However, the Department opposes inclusion of the language that would require the variance holder to include in the report only those changes of circumstances and newly discovered facts that are "substantially different" from the circumstances or facts presented in the original petition. That phrase leaves it to the variance holder to determine what facts and circumstances they consider "substantially different" and could be interpreted by the variance holder in a manner that would result in exclusion of important information. Any changed circumstances or newly discovered facts that are material to the variance should be included in the five-year variance compliance report.

The Department opposes the Dairies' proposal to limit the persons who can request a hearing to revoke, modify, or reconsider a variance to "any person who would have standing to appeal a permit decision." The WQA does not link variances to permits, and does not limit those who participate in variance proceedings before the Commission to those who have standing to participate in permitting proceedings.

3. Alternative Abatement Standards

The Department's proposed language at 20.6.2.4103.F NMAC provides, in pertinent part, that a person abating water pollution "pursuant to the exemptions of 20.6.2.4105 NMAC" may file a petition for alternative abatement standards. The Dairies have proposed a change to the quoted language that would read "pursuant to *one or more of* the exemptions of 20.6.2.4105." NMED does not oppose this proposed change, but does not believe it is necessary. It is implicit in the

Department's proposed language that the person only needs to be abating water pollution pursuant to one of the exemptions, not several of them, in order to be eligible to petition for an alternative abatement standard.

4. Clarifying Exemption from Abatement Plan Requirement

The Dairies propose a change to 20.6.2.4103.F(2)(d) NMAC that would allow a person who is abating pursuant to an exemption as set forth in 20.6.2.4105 NMAC to petition for alternative abatement standards without being required to submit a Stage 1 or Stage 2 abatement plan. Although the Department recognizes that this proposed language is meant to align with the intent of the exemption in 20.6.2.4105 NMAC, the Department opposes the specific language proposed because it appears to require something less than what is required under 20.6.2.4105.A(6) NMAC. In lieu of the Dairies' proposed language, the Department would support the following language in 20.6.2.4103.F(2)(d) NMAC:

> a summary of all actions taken to abatement water pollution to standards, including a summary of the Stage 1 and Stage 2 abatement plan. For abatement conducted by a person exempt under 20.6.2.4105 NMAC and who has not submitted a Stage 1 or Stage 2 abatement plan, in lieu of submitting such a plan or plans, the petitioner shall submit a demonstration that abatement is consistent with the requirements and provisions of Subsections C and E of Section 20.6.2.4106.

5. Clarifying Language in 20.6.2.4106.C and 20.2.6.4106.C(7) NMAC

The Department believes the Dairies' proposed language is unnecessary. Subsection 20.6.2.4106.C NMAC already implicitly requires that the information required for a Stage 1 abatement plan and the Department's requests for additional information must be reasonable, as is true of all the actions that the Department takes under the WQA and the Commission's regulations.

6. Clarifying Language in 20.6.2.4113 and 20.6.2.4114 NMAC

The Dairies' proposed additions to these sections are implicit in the existing rules. Thus, the Department believes the proposed changes are unnecessary.

III. Response to Laun-Dry Direct Testimony

Laun-Dry proposes additional language in 20.6.2.4103.C(2) NMAC to clarify that abatement of water pollution shall be to either background concentrations or the standards as set forth in 20.6.2.3103.A, B, or C NMAC shall be met, and that the existing conditions as set forth in 20.6.2.3101 and 3103 NMAC shall not be used for purposes of abatement.

The Department does not disagree with these concepts as they pertain to abatement of water pollution, but believes the changes are unnecessary due to the Department's proposed language in 20.6.2.4103.C(2) NMAC stating that ground water pollution shall be abated to meet the standards of Subsections A, B, and C of Section 20.6.2.3103 NMAC, thereby excluding the reference to existing concentrations set forth in the preamble to 20.6.2.3103 NMAC. In addition, 20.6.2.4101.B NMAC establishes that background is the appropriate standard for abatement purposes in the event background exceeds the standards set forth in Subsections A, B, C, and D of 20.6.2.4103 NMAC.

IV. Response to New Mexico Mining Association's ("NMMA") Direct Testimony

1. Definition of Discharge Permit Amendment

NMMA proposes to replace the Department's proposed definition of discharge permit amendment with the definition established in the Copper Rule. In particular, they discuss the limit of 50,000 gallons per day by stating this amount would be "trivial" with respect to the typical discharge volumes authorized for a mining operation.

NMMA is correct in their statement that a 50,000 gallon per day change could be trivial relative to discharges typically associated with large scale mining operations. With respect to the limiting criteria of 50,000 gallons per day, as stated above, this was an arbitrary limit that was

included in the proposed rule at the request of AB/GRIP and William C. Olson. NMED agreed to include this limitation in the spirit of compromise. However, based on AB/GRIP's pre-filed technical testimony, they now oppose this limit. NMED has no argument in support of the 50,000 gpd volume increase limit, and does not oppose its removal from the definition of discharge permit amendment.

The Department notes that although the Copper Rule definition of discharge permit amendment may be more appropriate for large scale mining operations, the Copper Rule contains significant prescriptive requirements that are by definition not applicable to any other type mining operations.

2. Five-Year Review for Variances

NMMA proposed several changes to the Departments proposed revision to variance petition language, including a change from the plural word "variances" to "a variance" in 20.6.2.1210.D and E NMAC; an allowance for submittal of the variance compliance report to be submitted with a discharge permit renewal application; clarification that changes in circumstances or newly discovered facts required to be submitted should be material to the variance; and, a statement that any person "who would have standing to appeal a permit decision" may request a hearing based on the variance compliance report.

The Department supports the proposed change from the plural "variances" to the singular "a variance" in 20.6.2.1210.D and E NMAC.

The remaining changes proposed by NMMA with respect to five-year review for variances are the same as those proposed by the Dairies, and thus the Department's position on those changes is the same as set forth above at pages 14-15, lines 3-23 and 1-10 respectively.

V. Response to William C. Olson Direct Testimony

NMED has met with Mr. Olson regarding his proposed changes to Sections 20.6.2.1210.A(5), 3103.A(2); 3105.A; 3109.F(4); 4103.F(1); and 4103.F(1)(a), (b), (c), and (d) NMAC. NMED agrees with Mr. Olson on these changes and has included them, with some minor modifications, in the new version of the proposed rule at NMED Exhibit 27.

Regarding Mr. Olson's proposed changes to the definition of discharge permit amendment, the Department has added two additional criteria to that definition in the new version of the proposed rule at NMED Exhibit 27, as follows:

> **"discharge permit amendment"** means a minor change to the requirements of a discharge permit that meets the requirements of 20.6.2.3109.I NMAC, and does not result in:
>
> **(a)** a change in the location of a discharge that would affect groundwater beyond that impacted by the existing discharge location;
>
> **(b)** an increase in daily discharge volume of greater than ten percent of the daily discharge volume approved in the most recent discharge permit approval, renewal or modification for an individual discharge location, and where the sum of any volume increases via amendments during a permit term is greater than ten percent of the approved, renewed or modified discharge permit volume, or greater than 50,000 gallons/day, whichever is less;
>
> **(c)** any increase in discharge volume for a facility that is conducting abatement of water pollution;
>
> **(d)** an increase in an effluent limit set forth in the most recent discharge permit approval, renewal or modification for an individual discharge location;
>
> **(e)** introduction of a new water contaminant;
>
> **(f)** a reduction of existing monitoring, reporting, or recordkeeping requirements; or
>
> **(g)** submission of multiple amendment applications that, taken together, would not be eligible as an amendment. The secretary may, at his discretion, require that multiple related amendments be treated as a discharge permit modification.

Regarding the suggested proposal by Mr. Olson to recombine 20.6.2.4103.F(1)(a) and (b) NMAC back into one criteria, the Department prefers to leave these as two separate criteria, however the Department notes that this is intended to reflect what is already implicit in the existing

regulations, and is not intended to set a lower standard. The standard for achieving either of these criteria should not be lessened with respect to an evaluation of a petition for alternative abatement standards.

With respect to the changes Mr. Olson has proposed to Section 20.6.2.4108 NMAC, NMED supports those changes subject to the following modifications (shown in highlighted text):

> **A.** Within thirty (30) days of filing of a Stage 1 abatement plan proposal, the secretary shall issue a news release summarizing:
>
> **(1)** the source, extent, magnitude and significance of water pollution, as known at that time;
>
> **(2)** the proposed Stage 1 abatement plan investigation; and
>
> **(3)** the name and telephone number of an agency contact who can provide additional information.
>
> **B.** [~~Within thirty (30) days of filing of~~]Any person proposing a Stage 2 abatement plan [~~proposal, or proposed~~], a significant modification [~~of~~]to a Stage 2 [~~of the~~]abatement plan, or an alternative abatement standard [~~any responsible person~~]shall provide [~~to the secretary proof of public~~]notice of the [~~abatement plan~~]proposal to the following persons:
>
> **(1)** the public, who shall be notified through publication of a notice in newspapers of general circulation in this state and in the county where the abatement will occur or where the water body that would be affected by a proposed alternative abatement standard is located, and, in areas with large percentages of non-English speaking people, through the mailing of the public notice in English to a bilingual radio station serving the area where the abatement will occur with a request that it be aired as a public service announcement in the predominant non-English language of the area;
>
> **(2)** those persons, as identified by the secretary, who have requested notification, who shall be notified by mail or email;
>
> **(3)** the New Mexico Trustee for Natural Resources, and any other local, state or federal governmental agency affected, as identified by the secretary, which shall be notified by certified mail;
>
> **(4)** owners and residents of surface property located inside, and within one (1) mile from, the perimeter of the geographic area where the standards and requirements set forth in Section 20.6.2.4103 NMAC are exceeded who shall be notified by a means approved by the secretary; and
>
> **(5)** the Governor or President of each Indian Tribe, Pueblo or Nation within the state of New Mexico, as identified by the secretary, who shall be notified by mail or email.
>
> **C.** The public notice proposal for a Stage 2 abatement plan proposal or significant modification of a Stage 2 abatement plan shall [~~include, as approved in advance by~~]be submitted to the secretary for approval with a proposed Stage 2

abatement plan or significant modification of a Stage 2 abatement plan, and shall include:

(1) name and address of the responsible person;

(2) location of the proposed abatement;

(3) brief description of the nature of the water pollution and of the proposed abatement action;

(4) brief description of the procedures followed by the secretary in making a final determination;

(5) statement on the comment period;

(6) statement that a copy of the abatement plan can be viewed by the public at the department's main office or at the department field office for the area in which the discharge occurred;

(7) statement that written comments on the abatement plan, and requests for a public meeting or hearing that include the reasons why a meeting or hearing should be held, will be accepted for consideration if sent to the secretary within sixty (60) days after the [~~determination of administrative completeness; and~~]date of public notice; and

(8) address and phone number at which interested persons may obtain further information.

D. The public notice proposal for a proposed alternative abatement standard shall be submitted to the secretary for approval thirty (30) days prior to the filing of a petition for alternative abatement standards, and shall include:

(1) name and address of the responsible person;

(2) location of the proposed alternative abatement standards;

(3) brief description of the nature of the water pollution and of the proposed alternative abatement standards;

(4) brief description of the procedures followed by the commission in making a final determination on a petition for alternative abatement standards;

(5) statement that a copy of the petition for alternative abatement standards can be viewed by the public at the department's main office or at the department field office for the area in which the affected body of water is located;

(6) statement on how members of the public can request to be placed on a facility-specific mailing list for notification of any hearing conducted on the petition for alternative abatement standards pursuant to 20.1.3 NMAC; and

(7) address and phone number at which interested persons may obtain further information.

E. Within thirty (30) days of the secretary's approval of a public notice proposal for a proposed Stage 2 abatement plan, significant modification of a Stage 2 abatement plan, or alternative abatement standard, any responsible person shall provide to the secretary proof of public notice to the persons listed in Subsection B of 20.6.2.4108 NMAC.

[~~**D.**~~]**F.** For a proposed Stage 2 abatement plan, or significant modification of a Stage 2 abatement plan, [~~A~~] a public meeting or hearing may be held if the secretary determines there is significant public interest. Notice of the time and

place of the meeting or hearing shall be given at least thirty (30) days prior to the meeting or hearing pursuant to Subsections A and B above. The secretary may appoint a meeting facilitator or hearing officer. The secretary may require the responsible person to prepare for approval by the secretary a fact sheet, to be distributed at the public meeting or hearing and afterwards upon request, written in English and Spanish, describing site history, the nature and extent of water pollution, and the proposed abatement. The record of the meeting or hearing, requested under this Section, consists of a tape recorded or transcribed session, provided that the cost of a court recorder shall be paid by the person requesting the transcript. If requested by the secretary, the responsible person will provide a translator approved by the secretary at a public meeting or hearing conducted in a locale where testimony from non-English speaking people can reasonably be expected. At the meeting or hearing, all interested persons shall be given a reasonable chance to submit data, views or arguments orally or in writing, and to ask questions of the secretary or the secretary's designee and of the responsible person, or their authorized representatives.

G. An alternative abatement standard shall only be granted after a public hearing before the commission as required by NMSA 1978, Section 74-6-4(H) of the Water Quality Act. The commission shall review petitions for alternative abatement standards in accordance with the procedures for review of variance petitions in the commissions adjudicatory procedures at 20.1.3 NMAC.

VI. Rebuttal Testimony to City of Roswell Direct Testimony

The City of Roswell has proposed changes to Subsections 20.6.2.4103.E and F NMAC that would allow the Secretary of NMED discretion in determining an appropriate number of samples required for demonstrations of compliance with the abatement standards and of technical infeasibility. The proposed changes are based, in part, on an argument that quarterly sampling is arbitrary and may not be required at all sites under abatement, and in particular sites that are not being abated pursuant to a discharge permit.

The Department opposes these proposed changes as unnecessary. The Department has proposed changes to 20.6.2.4103.F(1)(d) NMAC in recognition that some sites under abatement may sample at less than a quarterly basis, while still preserving the minimum of eight sampling events. The Department proposes to include this same language in 20.6.2.4103.E NMAC to maintain consistency and has included this proposed change in the new version of the proposed

rule that is included as NMED Exhibit 27. It should also be noted that quarterly sampling typically required under discharge permits and at sites under abatement is not arbitrary, but is intended to monitor for seasonal variations in water depth and water quality.

Roswell has also proposed changes to 20.6.2.4103.F NMAC that would remove the requirement for a technical infeasibility demonstration that shows that the statistically valid extrapolation of reduction in concentration over time would be less than 20%, leaving the reduction amount to the discretion of the NMED Secretary. Roswell likewise proposes to leave the number of sampling events required to make the demonstration of technical infeasibility to the discretion of the Secretary.

The Department opposes these proposed changes. The intent of the criteria for technical infeasibility as a basis for a petition for alternative abatement standards is to demonstrate that the concentration of contaminants has become asymptotic over time, i.e. the rate of change with respect to improvements to water quality is approaching zero. The less than 20% reduction in contaminant concentration over a 20-year period is a mathematical example of an asymptotic concentration curve. The stipulation for no less than a 20% reduction over twenty years based on eight consecutive quarters of sampling was based on professional judgement of numerous industry and environmental groups, and was agreed to during the rulemaking on the abatement regulations in 1995. The Department has already proposed to expand the timeframe for acquiring eight consecutive samples to address sites where sampling is no longer being conducted on a quarterly basis.

VII. Correction of Errors in Prefiled Direct Testimony and Typographical Errors in Proposed Rule

In my direct testimony I state "A review of the available scanned reading file of letters issued by NMED reveals that the Department has issued over 330 discharge permit amendments

since 2000." Vollbrecht Direct, p. 5:8-9. Some number of those amendment approvals were duplicate scans, approximately ten discharge permit amendments from the 1990's were inadvertently included in the file, and several of the files, while referencing "amendment" in the title were actually amendments to, or letters related to, other types of regulatory actions, not discharge permit amendments. Therefore, that statement should be corrected to read as follows: "A review of the available scanned reading file of letters issued by NMED reveals that the Department has issued over 300 discharge permit amendments since 2000."

The Department has identified several typographical errors in the amended petition that require correction. These include removing the reference to Subsection "D" from 20.6.2.4101.B; removing the reference to Subsection "B" from 20.6.2.4103.A; removing the references to Subsection "B" from 20.6.2.4103.F; and changing 20.6.2.4108.B to revert back to the defined term "significant modification of Stage 2 of the abatement plan."

APPENDIX A TO WRITTEN REBUTTAL TESTIMONY OF KURT VOLLBRECHT

In her direct testimony, AB/GRIP's expert witness Kathy Martin provides examples of discharge permit amendments approved by NMED that AB/GRIP claim should have been processed as discharge permit modifications because they resulted in a significant change to the quantity, quality, or location of the permitted discharge. I have reviewed all of these examples, and in every case, Ms. Martin's assertions are incorrect. As demonstrated in my testimony below, Ms. Martin routinely takes specifics out of context, ignores pertinent details, states incorrect conclusions, and appears to purposefully confuse the issues. Where appropriate, NMED has referenced documents that AB/GRIP provided as exhibits to their direct testimony.

Rebuttal to Examples of DP Amendments Discussed By AB/GRIP

VI.A.1 - New discharges (change in location) (Martin Direct, pp. 10:19 – 12:12)

VI.A.1.a: DP-213, Chino Mine, Ivanhoe Concentrator (AB/GRIP Exhibit E4, GRIP copied on amendment approval dated 12-5-16)

This example illustrates the complexity of regulating an enormous mine site covered by multiple discharge permits. As is often the case, the mine unit creating the discharge is covered by one permit, while the discharge location is covered in a different permit. Specifically, the Ivanhoe Concentrator is permitted under DP-213, and the Pregnant Leach Solution ("PLS") launder and Reservoir 4A are mine units permitted under DP-526. Therefore, this discussion is about an amendment to DP-213 that includes DP-526. A copy of DP-526 is attached as NMED Exhibit 35. Both permits are assigned to the Chino Mine site where AB/GRIP alleges new discharges were processed erroneously as amendments.

The discharge permit amendment to DP-213 authorized the discharge of 3,200 gallons per day ("gpd") of domestic waste from a septic tank located at the Ivanhoe Concentrator into Reservoir 4A (DP-526). Prior to the amendment, DP-213 authorized the discharge of domestic waste from a septic tank located at the Ivanhoe Concentrator authorized into Tailing Pond 7 via the tailing pipeline. AB/GRIP claims that Reservoir 4A is a "...a new location for the Ivanhoe Concentrator domestic wastewater under DP-213...". Martin Direct, p. 11:19-20In her direct testimony, Martin quotes language from the amendment request explaining that Reservoir 4A, as a component of the PLS launder system, is approved to accept domestic waste as permitted under DP-526. *Id.* at 11:8-11.

Condition 10 of DP-526 states that Reservoir 4A is permitted to receive (via the PLS launder system) "up to 60,000 gallons per day from the mine maintenance, truck wash and general offices area," and "[t]he discharges include domestic wastewater...". In addition to the 60,000 gpd mentioned above, the PLS launder system receives 24.5 million gallons of PLS that emerges as flow from the base of the leach stockpiles permitted under DP-526, as well as stormwater that falls on, infiltrates through, and runs off the slopes of the South Leach Stockpile.

NMED defines a "new discharge location" as a location that was not previously permitted to receive the type of waste being proposed for discharge. The PLS launder system and Reservoir 4A are already authorized to receive domestic waste under DP-526, as Ms. Martin correctly states in her direct testimony. Martin Direct at p. 11:9-11. The addition of 3,200 gpd of domestic waste to a system that processes in excess of 24 million gpd of heavily-impacted mine process water is significantly less (.01%) than the ten percent increase in discharge volume allowed under the definition of discharge permit amendment in the Water Quality Control Commission's ("WQCC's") rules governing copper mines at 20.6.7 NMAC (the "Copper Rule"). The changes

that were approved under this discharge permit amendment did not constitute a discharge permit modification because the change in location of the domestic waste discharge from the Ivanhoe Concentrator to Reservoir 4A was to an existing permitted discharge location that was already permitted to receive domestic waste, and the additional volume was significantly less than the allowed limit of 10% of the existing permitted discharge volume under DP-526.

This discharge permit amendment was issued pursuant to the Copper Rule and the definition of discharge permit amendment contained therein, and is therefore not relevant to the issues in this rulemaking proceeding. The amendment complied with that rule, as it did not result in a change to the quantity in excess of 10% of the permitted discharge volume, or a change to the quality or location of discharge.

VI.A.1.b, DP-1681 Intrepid Potash Solar Solution Mine (AB/GRIP Exhibit E40, BLM copied on amendment approval dated 11-18-16)

This discharge permit amendment authorized construction of a brine header at the Intrepid Potash HB Plant. The purpose of the brine header is to sell brine to oil and gas operators for use in the oilfield. AB/GRIP suggest that the construction of a brine header to load brine into oil field service trucks is a new discharge location.

In this instance, the discharge permit amendment addresses brine that is discharged from a pipe into an oilfield truck. The oilfield trucks are authorized by the New Mexico Oil Conservation Division ("OCD") for brine hauling pursuant to the Oil and Gas Act and corresponding regulations, and OCD regulates the final disposition of brine for use in drilling operations within the oilfield. When Intrepid contacted NMED to inquire about permit requirements for constructing a brine header even though there would be no actual discharge onsite, NMED suggested that the discharge be incorporated into the existing discharge permit via an amendment so that spills or releases could

be effectively tracked under the existing permit. The sale of brine to the oilfield ultimately reduces the amount of discharge volume and loading onto the salt stack at the Intrepid Potash HB Plant Facility and offsets use of other waters in the oilfield with a net benefit to the environment.

Because the construction of the brine header did not result in an actual discharge onsite, this discharge permit amendment did not result in a change to the quantity, quality or location of discharge.

VI.A.2 – New discharges (changes in quality) (Martin Direct, pp. 12:13 – 13:17)

VI.2.a: DP-166, Tyrone SX/EW and Leach Stockpiles (AB/GRIP exhibit E41, GRIP copied on amendment approval dated 2-1-16)

This discharge permit amendment authorized Tyrone Mine to double the concentration of sulfuric acid in raffinate[2] applied to leach stockpiles. AB/GRIP claims that "it is clear this amendment authorized a change in quality of a discharge that may be significant." Martin Direct, p. 13:13-14. AB/GRIP quote a statement from Tyrone in the amendment approval indicating that Tyrone did not expect the quality of the PLS to change significantly. Martin Direct, p. 13:4-6.

NMED does not impose limits on the quality of PLS discharges that result from the leaching of ore stockpiles. PLS, by definition, is the solution resulting from leaching metals from ore stockpiles (i.e. creation of the solution is the mining process itself), and has extremely elevated concentrations of water contaminants. *See* 20.6.7.7.B(49) NMAC. The intent of a heap leach operation is to concentrate metals, particularly copper in the case of the Tyrone and Chino Mines, which creates extremely poor quality water; TDS levels can exceed 100,000 mg/l, pH levels are typically less than 2, and high concentrations of metals are present, including copper

[2] Raffinate is barren leach solution that is applied to leach stockpiles for the purpose of leaching copper from stockpiled copper ore. This is in contrast to "pregnant leach solution" or "PLS" which is the term to identify the leach solution that emerges from the toe of a leach stockpile and contains high concentrations of metals.

concentrations in excess of 4,000 mg/l, depending on the copper content of the rock being leached. In addition, the method to insure protection of water quality is independent of the quality of PLS. The mechanism to protect water quality from exceedances of standards resulting from discharges related to leach ore stockpiles is capture and containment of PLS. In the case of DP-166, the presence of carbonate minerals was resulting in a ***decrease*** in metal concentrations in the PLS, and thus additional sulfuric acid was needed in order to effectively increase the metals concentrations to economic levels. The permit condition requiring amendment is an example of a condition that was too prescriptive and unnecessary. There are no such limitations on sulfuric acid loading at the Chino Mine, and this permit condition will not be brought forward into DP-166 upon renewal.

This discharge permit amendment was issued pursuant to the Copper Rule and the definition of discharge permit amendment contained therein, and is therefore not relevant to the issues in this rulemaking proceeding. This discharge permit amendment did not result in a change to the quantity in excess of ten percent of the permitted discharge volume, or a change to the quality or location of discharge.

VI.A.3 – New discharges (changes in quantity) (Martin Direct, pp. 13:18 – 17:14)

VI.A.3.a: DP-1236 Little Rock Mine (AB/GRIP exhibit E33, GRIP copied on amendment approval dated 4-19-13)

This permit amendment authorized construction of the Little Rock Mine pit dewatering facilities. At the time of the amendment request, DP-1236 (issued December 27, 2000) authorized pit dewatering with transfer of the water to Tyrone (DP-27) for use as process water. The permit amendment simply approved the revised engineering design for components of that transfer system.

AB/GRIP erroneously state that this amendment would "generate millions of gallons of new and potentially contaminated water that is pumped through several new pipelines to new pits and sumps to end up at a discharge (1X1 Pond) location that was previously permitted for a different mine and purpose (Ohio Mine dam)." Martin Direct, p. 14:23 – 15:3. AB/GRIP also incorrectly states that the amendment allowing collected waters from the 1X1 Pond pumped to the SX/EW plant at the Tyrone Mine will increase the "quantity of discharge at the SX/EW" and allows construction of a "new discharge location". *Id.* at p. 15:18-19.

The following language is from the Introduction of DP-1236 when it was issued in December of 2000:

> Pursuant to Water Quality Control Commission (WQCC) Regulation 3109, the Discharge Permit application for DP-1236, submitted by Phelps Dodge Tyrone, Inc. (PDTI) *for the discharge of up to l,000 gallons per minute (gpm) of water pumped from the Little Rock Mine open pits (Little Rock Pit); 20 gpm annual average of acidic seepage from the North Seep, South Seep and Ohio Dam; and, waste rock from mining operations is hereby approved*, subject to the conditions listed below. The facility is located approximately 10 miles south of Silver City in Sections 16, 17, and 20, T19S, R15W, Grant County. In approving this Discharge Permit, the New Mexico Environment Department (NMED) has determined that the requirements of 20 NMAC 6.2.3109.C have been met.
>
> The approved Little Rock Mine operation is briefly described as follows:
>
> *Acidic seepage discharging from the pre-existing Copper Leach Stockpile will be collected at the North Seep, the South Seep, and Ohio Dam and piped to the lX Tailing Impoundment or an alternative location approved by NMED.* Approximately 92. 7 million tons of waste rock will be removed from the Little Rock open pits (Little Rock Pit) during mining operations. The waste rock will be used as backfill for the Little Rock Pit, placed on the No.1A Stockpile, used for site reclamation, or hauled to the Tyrone Mine for disposal dependent upon acid base accounting results. *Dewatering water, consisting of ground water and surface water, will be pumped from the open pit to facilitate mining below the water table. The dewatering water will be pumped to the Tyrone Mine for use as make-up water.* California Gulch surface water will be routed into the open pit during mining operations. *Water collected in California Gulch behind the Ohio Mine Dam will be pumped or diverted to the Little Rock open pit as needed to prevent overtopping of the dam once the Little Rock Pit has been constructed.*

AB/GRIP exhibit G5 (emphasis added). The Tyrone SX/EW is regulated pursuant to DP-166 and allows for a discharge of 60 million gpd of PLS to the PLS feed pond, and 40 million gpd from the raffinate tanks to the No. 2 Leach System. The average volume of water pumped from the Little Rock Mine pit for 2016 is approximately 15,800 gpd, and generally meets standards, while the volume of captured seepage from the reclaimed historic leach stockpile is less than 1,400 gpd. The volume of process water from the Little Rock Mine is clearly not "significant" relative to the massive volume of process water from the Tyrone Mine site.

The Little Rock Pit Mine, a subsidiary to the larger Tyrone Mine complex, had not been mined for over 30 years when Tyrone initiated mining in 2011, and has an extremely lengthy and complex history. In 2000 there was an historic, un-reclaimed leach stockpile that was the cause for acidic seeps and impacted surface water collecting behind the Ohio Mine Dam. The Ohio Mine Dam itself is a historic feature, possibly a relic from the Ohio Mine which is thought to have operated in the late-1800's and early 1900's. Ms. Martin's assertion that the 1X1 Pond was permitted in association with the Ohio Mine is blatantly incorrect, and demonstrates her complete lack of knowledge regarding operations associated with the Tyrone Mine. The combined acidic seeps and impacted surface water collecting behind the Ohio Mine Dam was transferred to the Tyrone 1X tailing impoundment as stated in DP-1236. Discharges to the Tyrone tailing impoundments were covered under DP-27. In 2003, pursuant to the DP-27 settlement agreement, Tyrone had to reclaim all of the inactive tailing impoundments, including the 1X. Tyrone was also required to submit a plan to eliminate transfer of the Little Rock leach stockpile seepage to the 1X tailing impoundment. The 1X1 lined pond was constructed as a component of a work plan approved under the DP-27 settlement agreement. By 2010 the leach stockpile at Little Rock had been reclaimed. Within the past two years the Ohio Mine Dam has been mined out. The sumps

authorized under this discharge permit amendment have also been mined out and subsequently replaced by additional temporary sumps. Under the Copper Rule, temporary sumps of this nature are not required to be documented in a discharge permit due to of the transient nature of such mine units within a constantly changing open pit.

This discharge permit amendment did not result in a change to the quantity, quality or location of discharge.

VI.A.3.b: DP-933 Chevron Mining (CMI) Questa Tailing Facility (AB/GRIP exhibit E32, Amigos Bravos and Village of Questa copied on approval dated 2-29-11)

This discharge permit amendment authorized an increase in the amount of tailing water used for dust suppression on the tailing impoundments at the Questa Mine from 1 million gallons per year (2,740 gpd) to 10 million gallons per year (27,400 gpd). AB/GRIP suggest that the discharge volume increase should have been calculated by comparing an increase in 1 million gallons per year to 10 million gallons per year rather than comparing the 10 million gallons used for dust suppression to the "total mine discharge." *See* Martin Direct, p. 17:9-11. AB/GRIP also question whether NMED received and reviewed a report required under the 2008 discharge permit approval to determine if dust suppression would cause ground water contamination. *Id.* at 17:6-8.

With respect to the discharge volume, AB/GRIP quote only a small portion of the 2008 discharge permit regarding "[t]he activities that produce the discharge." Martin Direct, p. 16:14-18. The small piece of the permit referenced by AB/GRIP has nothing to do with dust suppression, and is misleading with respect to the permitted discharge to the tailing impoundments. Pertinent information includes the entire four paragraphs describing the activities that produce the discharge, and the section on page 2 of the discharge permit DP-933 titled "Quantity, Quality, and Flow

Characteristics of the Discharge," which indicates the most significant discharges are 22,000 tons per day of tailing solids and 12,960,000 gpd of mine water (AB/GRIP exhibit G6).

In response to AB/GRIP's claims regarding an increase in discharge volume and concerns over ground water impacts, the amendment approval speaks for itself, providing as follows:

> The approval to use an additional 9,000,000 gallons per year for dust suppression does not increase the total allowable discharge of water to the Tailing Facility, rather distributes this small fraction of the total annual discharge in a manner that minimizes dust and encourages rapid evaporation of the sprayed water. NMED concurs with CMI that the spraying of an additional 9,000,000 gallons per year in the manner proposed will not result in further degradation of ground water.

(AB/GRIP exhibit E32). AB/GRIP claim that there was an increase in discharge volume, when in fact the permit amendment simply allows for spraying and evaporating a relatively small portion of the tailing water, amounting to approximately 0.2% of the existing permitted discharge, over the approximately 1,000 acre permitted discharge location.

This discharge permit amendment did not result in a change to the quantity, quality or location of discharge.

VI.B – One Amendment Request for Multiple Permits (Martin Direct, pp. 17:15 – 19:9)

In this section, AB/GRIP inaccurately discusses "NMED's practice of using one permit amendment request to change more than one discharge permit," Martin Direct, p. 17:17-18, and provides two examples. In this case, the second example given is an amendment of the first amendment. It should be noted that although AB/GRIP implies that it is a common NMED practice to issue multiple permit amendments for one request, this has only occurred in conjunction with permit amendments issued to Freeport McMoran, Inc. ("FMI") for the Chino and Tyrone Mines, and it was completely appropriate.

VI.B.1: Multi-permit amendment request for Chino Mine (AB/GRIP exhibit E38, GRIP copied on approval dated 6-22-12)

This discharge permit amendment authorized a variety of sources of water to be used for dust suppression at the Chino Mine north mine area. Because copper mine discharge permits address areas of the mine often without a break between areas, *see* NMED Exhibits 31, 32, and 33, and because haul roads to which dust suppression water is applied traverse multiple permitted areas at the Chino Mine, four discharge permits were affected by the permit amendment. AB/GRIP argues that because the volume is spread out over four discharge permits it is difficult to determine if the volume is significant, and they further claim that this is a "new use" of mining wastewater for dust suppression on haul roads.

The combined total of the permitted discharge volumes for the four permits is approximately 80 million gallons per day. In addition, the entire mine site has significant exposed surfaces within the open pit, as well as material in adjacent stockpiles, that contains sulfide minerals which produce acid mine drainage when in contact with oxygen and water. Essentially, with a few exceptions, the entire Chino Mine north mine area is a discharge location when it rains.

The Chino Mine has been in operation as an open pit mine since the early 1900's. Dust suppression activities have been conducted at the mine as a standard industry practice before air quality regulations required these activities, and before such activities were included in the discharge permits. Therefore, the permit amendment does not authorize a "new" discharge, but rather incorporates longstanding discharges that were always considered minor with respect to the ongoing active operational and stormwater discharges into permits, thereby allowing for greater monitoring and enhanced regulatory oversite.

This discharge permit amendment did not result in a change to the quantity, quality or location of discharge.

VI.B.2: Multi-permit amendment request for Chino Mine (AB/GRIP exhibit E8, GRIP copied on approval dated 4-28-15)

This amendment in 2015 added two new sources of water for dust suppression, and included two additional discharge permits for the Chino Mine north mine area which had been inadvertently omitted from the 2012 permit amendment referenced above. AB/GRIP express concerns about the increased discharge volume, claiming it should have been considered a 33% increase. Martin Direct, p. 19:3-7.

The Copper Rule definition of "discharge permit amendment" includes criteria limiting the increase in discharge volume to ten percent of the previously approved discharge volume. [20.6.7.7.B(19) NMAC] As explained above, the entire Chino north mine area is considered a discharge location. The total combined permitted discharge volume for operational purposes for these discharge permits is approximately 80 million gallons per day, excluding 43.2 million gallons per day of captured solutions discharged to the PLS feed pond under DP-591. Therefore, dust suppression makes up 2.5% of the total permitted discharge volume at the Chino Mine north mine area, and the 2015 permit amendment represented a 0.625% increase in the total permitted discharge volume. Water applied for dust suppression is spread evenly throughout haul roads within the mine site. This calculation of relative discharge volume does not include far more substantial volumes of impacted stormwater and ground water inflow that occur at the Chino Mine.

This discharge permit amendment was issued pursuant to the Copper Rule and the definition of discharge permit amendment contained therein, and did not result in an increase in quantity in excess of ten percent of the permitted discharge volume, or a change to the quality or location of discharge.

VI.C – DP Amendments for Corrective Action for Unauthorized Discharges (Martin Direct, pp. 19:10 – 21:23.

VI.C.1: DP-376, Chino Mine Lampbright Leach System (AB/GRIP Exhibit E5, approval dated 6-14-07, GRIP not copied)

This amendment incorporated the Northeast Lampbright Booster Station ("NLBS") into DP-376. AB/GRIP correctly states that the NLBS was not previously incorporated into a permit. However they then make a wildly speculative statement that "the only reason NMED knew about it was because of a failed pump spill." Martin Direct, p. 20:18-19. AB/GRIP does not provide a reference for this statement. AB/GRIP also suggests that the permittee would have had to "pay a large fee" if NMED had permitted the NLBS as a discharge permit modification. *Id.* at 20:21.

The NLBS was constructed in late-1997 within the permitted leaching area of the North Lampbright Stockpile. Over time, NMED has drafted increasingly prescriptive discharge permits, that include operational mine units that have existed at the mine for some time but were not previously noted in the original discharge permits. Prior to the Commission's adoption of the Copper Rule, there was uncertainty about whether certain mine units, such as booster tanks and pipelines inside active mining and stockpile areas, at these large and complex sites with numerous transient features should be included in discharge permits. The NLBS is a prime example of such a unit. With the adoption of the Copper Rule, there is now much greater clarity regarding which types of mine units need to be described in the discharge permit application. As a component of the Copper Rule's permit application requirements, FMI has provided a "master document" for each mine that catalogs the numerous mine units within the perimeter of the permitted facility, totaling 145 pages for the Chino Mine and 185 pages for the Tyrone Mine, including text and numerous figures.

Inclusion of the booster station in DP-376 in no way changed the quantity, quality or location of the permitted discharge, and therefore that inclusion did not meet the definition of discharge permit modification in effect in 2007. This is an example of a discharge permit amendment that provides NMED with greater regulatory oversight.

Regarding fees[3], based on the 1991 testimony of NMED, fees should not be required for changes to permits that do not require in-depth technical review to evaluate protection of water quality. *See* Written Direct Testimony of Kurt Vollbrecht, p. 6:2-10; NMED Exhibit 16. In addition, a review of the fee schedule in effect in 2007 reveals that there is no fee associated with incorporation of a booster tank into a mine discharge permit. Pursuant to the Copper Rule, permittees are required to pay annual fees for each mine. Individual discharge permit renewals and modifications are subject to an application fee, as are amendments, but no permit fee is assessed.

VI.C.2: DP-455, Tyrone Mine, Gettysburg Leach System (AB/GRIP exhibit E13 - GRIP copied on amendment approval dated 12-11-09)

This was a discharge permit amendment to incorporate the 6C perched PLS collection system ("6C perched system"). The 6C perched system was constructed without NMED approval, and a slope failure resulted in a four million gallon release of PLS into the Gettysburg Pit. NMED issued a Notice of Non-Compliance on September 2, 2009, requiring additional corrective actions, as well as a permit amendment to incorporate the 6C perched system into DP-455.

Leach solutions from the 6C leach stockpile were captured at the bottom of the Gettysburg Pit in the permitted 6C PLS pond. FMI constructed the unpermitted 6C perched system in an effort to intercept PLS higher up on the wall of the Gettysburg Pit. Thus, the 6C perched system was not

[3]AB/GRIP mention several times in direct testimony that the minor changes NMED approved pursuant to discharge permit amendments should have been subject to fees. *See* Martin Direct, pp. 8:5-7; 9:11, 22; 20:21; 21:20.

a new discharge location, but rather a collection of solutions that were previously traveling deeper into the Gettysburg Pit prior to capture. Inclusion of the 6C perched system in DP-455 did not in any way change the quantity, quality, or location of the permitted discharge. Therefore, incorporation of the 6C perched system into DP-455 did not meet the definition of discharge permit modification in effect in 2007. NMED took appropriate enforcement action by issuing a Notice of Non-Compliance for construction of 6C perched system without NMED's approval. The discharge permit amendment was an ancillary outcome to the Notice of Non-Compliance.

VI.D – DP-455, Case Study, more than one amendment per permit cycle (Martin Direct, pp. 22:1 – 28:10)

VI.D.1: DP-455 FM-Tyrone Gettysburg Pit and Leach system (AB/GRIP Exhibit G3, approved on 12-13-04, four permit amendments during permit cycle: 2-9-07 (AB/GRIP Exhibit E11), 5-15-08 (AB/GRIP Exhibit E12), 12-11-09 (AB/GRIP Exhibit E13, GRIP copied), 3-1-10 (AB/GRIP Exhibit E14, GRIP copied))

Each of these four amendments accomplished distinct changes to permit requirements, including changing the frequency of submittal of monitoring reports from quarterly to semi-annually; change in monitoring requirements associated with the installation of new wells near the Gettysburg Pit; authorizing operation of the 6C perched system discussed above; and authorizing construction of a new 7B Side Slope PLS collection system that was necessary due to recent precipitation events. These four discharge permit amendments provide a classic example of changing conditions at large-scale, complex mining operations. New PLS collection points may become necessary due to changes in mine operations or natural events, and often need to be completed in a short period of time.

NMED also notes that although AB/GRIP suggests that the change in monitoring reporting frequency in the February 9, 2007 discharge permit amendment was solely to "reduce the frequency of reporting 'all changes in pipeline operations that result in removal of pipeline fluids in unauthorized discharge areas' from quarterly to semi-annually," *Id.* at 23:12-14, in fact the change was to the reporting frequency for all monitoring required under DP-455 from quarterly to semi-annually. This change in monitoring frequency has been implemented site-wide at the Chino and Tyrone Mines, in part, because the hundreds of monitoring locations at these mines make it exceedingly difficult to collect, analyze, and prepare monitoring reports within a three-month timeframe. It appears that Ms. Martin's testimony was intended to mislead the reader by "cherry picking" one segment of a sentence from the discharge amendment approval and presenting it as if it was the only component of the discharge permit amendment issued on February 9, 2007. The sentence Ms. Martin excerpted from continues on to reference another permit condition that clarifies the true intent of this sentence, which does not imply they can discharge solutions to unauthorized areas and report that semi-annually. The sentence prior to the one Ms. Martin chose to quote in her testimony states very clearly that discharges to unauthorized areas must be reported pursuant to 20.6.2.1203 NMAC, which includes notification within 24 hours of discovery of the discharge. AB/GRIP exhibit E11, page 2.

NMED notes that under its most recent changes to the proposed rule, reductions in monitoring requirements would not be allowed under a discharge permit amendment for a non-copper mining facility, but would instead have to be treated as discharge permit modifications.

VI.D.2: DP-455, FM-Tyrone Gettysburg Pit and Leach System (Renewed 8-17-10) (Three permit amendments in permit cycle: AB/GRIP Exhibit E17 (approved on 12-9-13, GRIP copied); AB/GRIP exhibit E16 (approved on 12-6-13, GRIP copied); AB/GRIP exhibit E18 (approved 10-21-14, GRIP copied))

The December 9, 2013 discharge permit amendment authorized removal of monitoring requirements associated with three wells. In her testimony, Ms. Martin states incorrectly that the reason for this amendment is because of water level data demonstrating capture. *See* Martin Direct, p. 25:12-18. AB/GRIP ignores the stated basis for the amendment request, which was the fact that it was unsafe to enter into the pit due to highwall instability. *See* AB/GRIP exhibit 17, p. 1. The statements about water levels were part of the technical information supporting the request. The December 6, 2013 permit amendment authorized a raise in operational levels in the 6A PLS pond because the barge pump was in danger from rock fall due to highwall instability. In both of these instances, an amendment was necessary due to safety concerns. Neither amendment resulted in a change to the quantity, quality, or location of a discharge.

In the October 21, 2014 amendment, NMED approved construction of a waste rock stockpile in the Gettysburg Pit, including construction of a PLS pond prior to submittal of engineering plans. The Gettysburg Pit is already a discharge location as previously discussed with respect to the Chino Mine. It should also be noted that under the Copper Rule, this stockpile is located within what is defined as the "open pit surface drainage area," where all impacted solutions are known to be captured, and ground water standards are not applicable.

VI.E - DP Amendments Approved to Relocate Mine Infrastructure (Martin Direct, pp. 28:11 – 29:18)

VI.E.1: DP-526, Chino Mines Whitewater Leach System (AB/GRIP exhibit E21, GRIP copied on amendment approval dated 8-6-13)

This permit amendment authorized Chino to move pipelines to accommodate pushback of the Lee Hill sub-pit wall. AB/Grip calls this a "massive endeavor," and state that "relocating this massive pipeline infrastructure" should be a permit modification. Martin Direct, p. 29:12-18. There are hundreds of miles of pipeline at Chino, many of which are moved periodically without any notification. In this instance, NMED determined that the pipeline relocation should be documented under a discharge permit amendment to ensure adequate regulatory oversite. This entire pipeline corridor is located within the impacted area of the Chino Mine. The drainage ditches referenced to capture any solutions released during the pipeline relocation are designed to convey impacted stormwater at the site when it rains. Similar to the case with pipelines, tens, if not hundreds of miles of stormwater ditches exist within the Chino Mine, and in fact stormwater ditches are so numerous and transient that they are not tracked under discharge permits. In this case, the pipeline relocation did not change the quantity, quality, or location of discharge, and thus it clearly fit within the existing definition of discharge permit amendment set forth in the Copper Rule.

VI.F – DP Amendments That May Violate Other State and Federal Law (Martin Direct, pp. 29:19 – 31:2)

VI.F.1: DP-526, FM-Tyrone Whitewater Leach System (this is actually at Chino) (AB/GRIP exhibit E24, GRIP copied on amendment approval dated 3-27-14)

This discharge permit amendment authorized the relocation of the Frog Pond from the toe of the West Stockpile to the top of the West Stockpile. AB/GRIP states that because NMED does

not discuss dam safety issues "we cannot presume that NMED considered state and federal laws that could impact the design of the Frog Pond." Martin Direct, p. 31:1-2. There could be a multitude of laws that apply to any given activity regulated pursuant to a ground water discharge permit. It is the responsibility of the person conducting the activity to ensure they are meeting all applicable laws. It is infeasible for NMED to accomplish such a task, nor would it be within NMED's authority to do so. That said, NMED includes a statement in all approvals it issues that states the following as appropriate (taken from AB/GRIP exhibit E24):

> Issuance of this Discharge Permit Amendment does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

It should also be noted that FMI and its predecessor Phelps Dodge, as well as other permittees, have at various times suggested to NMED that a statement of this nature should be removed from its approval letters since NMED has no authority to enforce other laws.

VI.G – DP Amendments for New Construction (Martin Direct, pp. 31:3 – 34:8)

AB/GRIP provides a list of twelve discharge permit amendments as examples of the use of the permit amendment process to allow new construction. Ten of the discharge permit amendments listed are for the Chino and Tyrone Mines, with one each for the Mosaic and Intrepid potash mines. GRIP was copied on all ten of the discharge permit amendments listed in this section for the Chino and Tyrone Mines.

As previously stated numerous times, these large mine sites are enormous facilities (in excess of 10,000 acres each) that are constantly undergoing change. The entire premise of a large open pit copper mine is predicated on change; as open pit boundaries and footprints of various stockpiles change, mine infrastructure is moved frequently, and mine units are built within the area of disturbance whenever possible. As open pit boundaries and footprints of various stockpiles

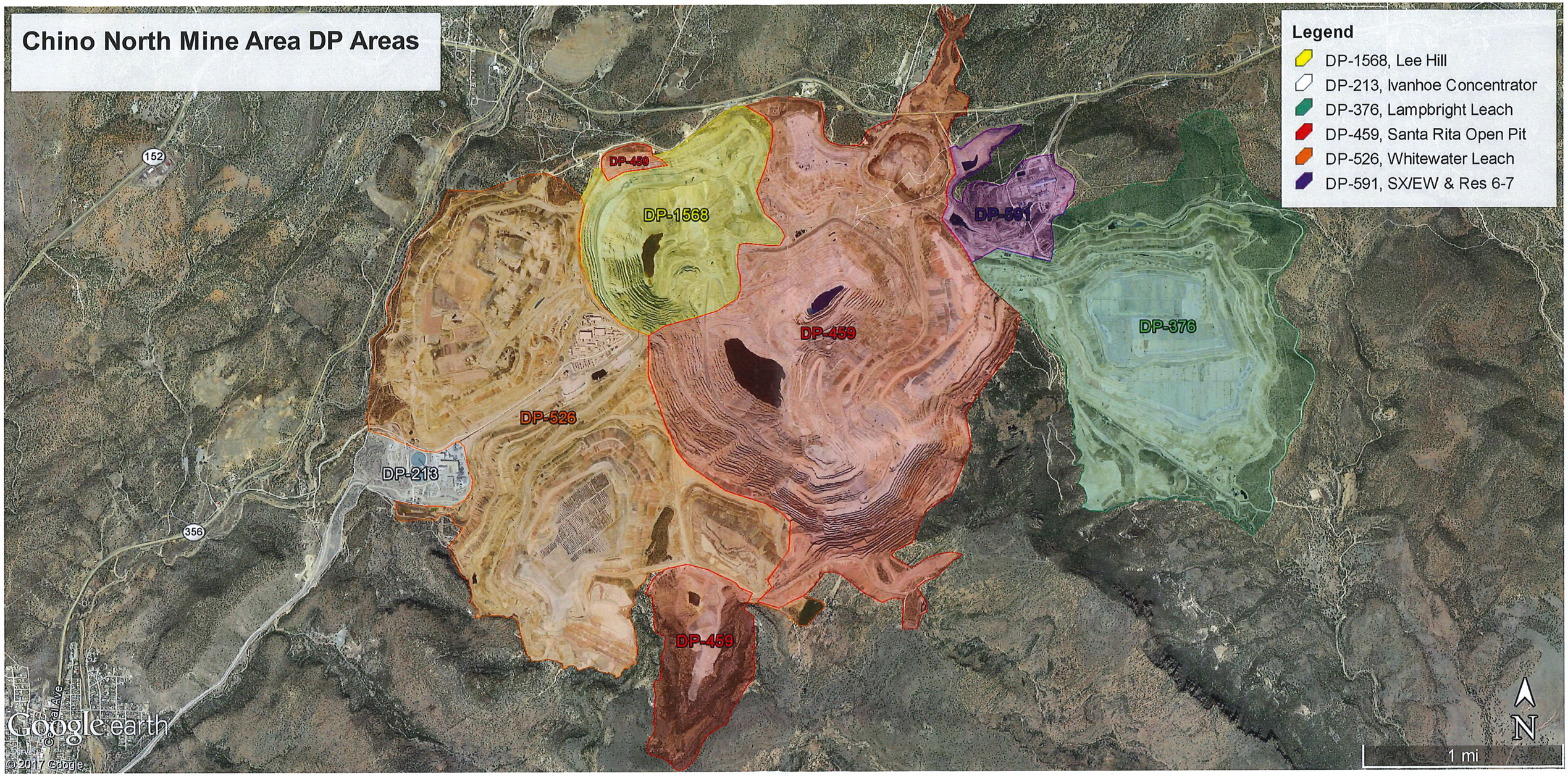
change, mine infrastructure must be moved with frequency. None of the permit amendments that are noted in the AB/GRIP testimony meet the definition of discharge permit modification in the rules at the time the amendment was issued because they did not result a significant increase in the quantity of the permitted discharge volume, or a change to the quality or location of discharge. All of the copper mine permit amendments issued after promulgation of the Copper Rule are consistent with the definition of discharge permit amendment as set forth in that rule.

VI.H – Denial of Permit Amendment Request (Martin Direct, pp. 34:9 – 36:10)

AB/GRIP analyzes two requests to amend DP-670 for the Tyrone Mine. The requests were to construct a pumping system to remove groundwater inflow and storm water collecting in the bottom of the Savannah Pit and to change the frequency of submittal of monitoring reports. NMED denied the requests, indicating that the pumping system would require a discharge permit modification.

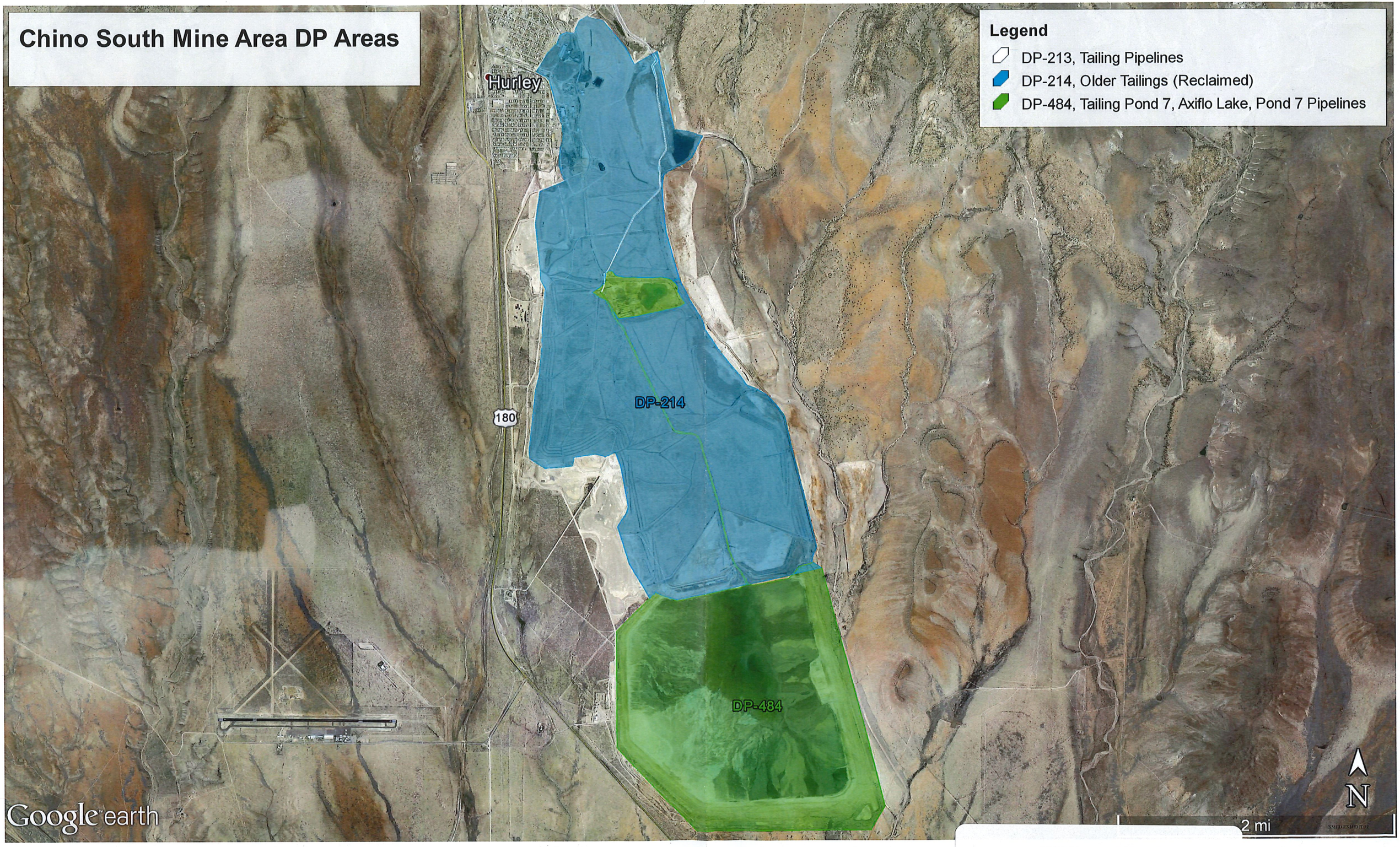
It would be difficult to understand the basis for this denial without better understanding the circumstances at the time. The proposed changes did not fall within the definition of discharge permit modification in place at the time of the amendment request. In reality, the discharge was already occurring (stormwater and ground water inflow), and the removal of this water from the pit bottom would help to ensure capture of impacted groundwater surrounding the pit. As NMED and Tyrone gained a greater understanding of the hydrologic conditions in and around the Savannah Pit over time, the pit has become the location of a leach stockpile and is known to sit above the regional groundwater table, with groundwater beneath it captured in the Main Pit. The pumping system as proposed was never constructed and never appeared in a discharge permit for the Savannah Pit.

Chino North Mine Area DP Areas



NMED EXHIBIT 31

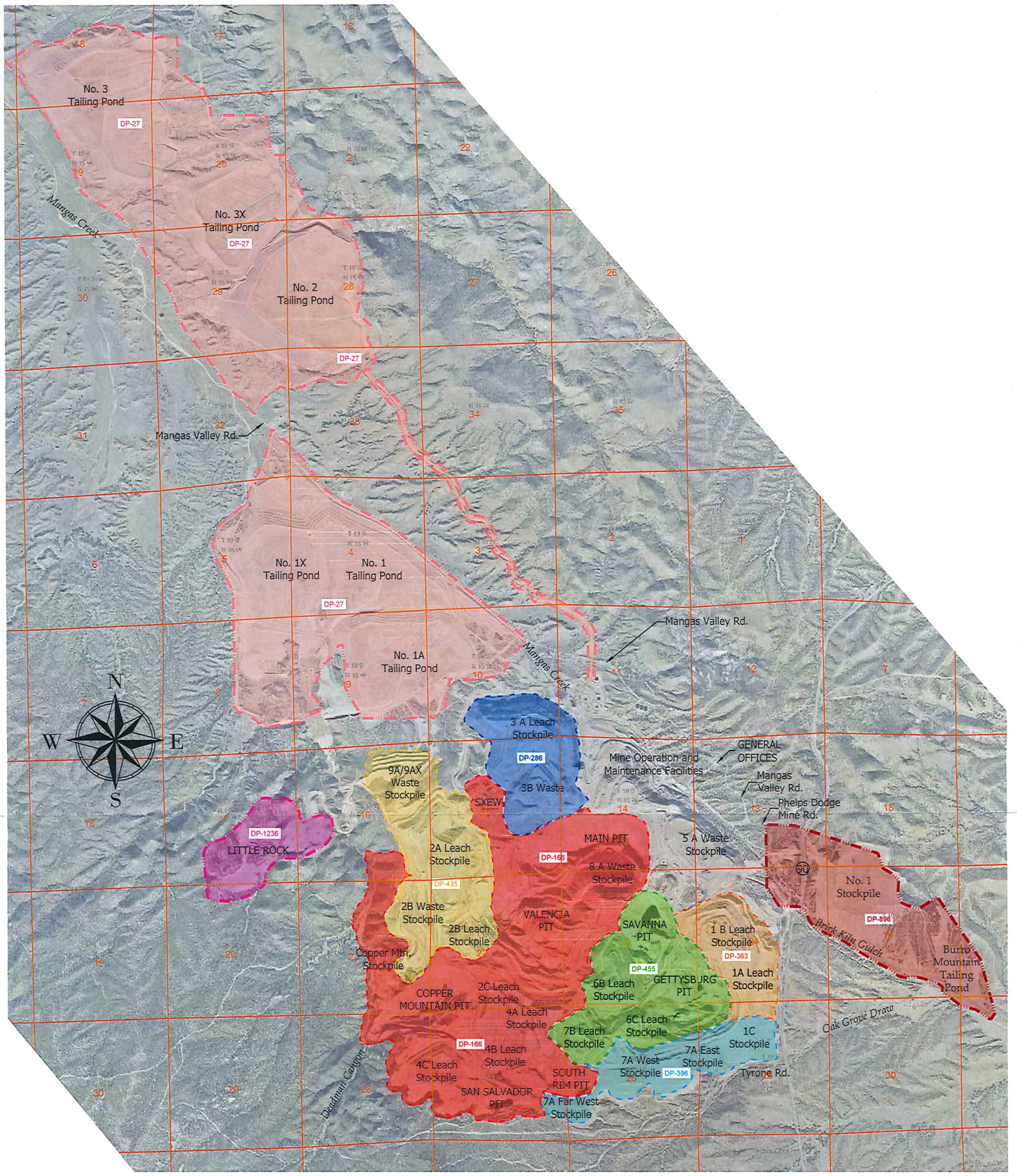
Chino South Mine Area DP Areas



Legend

- DP-213, Tailing Pipelines
- DP-214, Older Tailings (Reclaimed)
- DP-484, Tailing Pond 7, Axiflo Lake, Pond 7 Pipelines

NMED EXHIBIT 32



LEGEND

Operational

- DP-27
- DP-1236
- DP-166
- DP-435
- DP-896
- DP-363
- DP-396
- DP-286
- DP-455

Closure

DP-1341
GR010RE (Tyrone Mine & Tailing Area)
GR007RE (Little Rock Mine Area)
(Closure/Closeout of Disturbance and Reclamation)

The area of the mine facilities, including open pits, stockpiples, reclaimed areas, shops, and repositories occupies approximately 11,100 acres.

NOTE:
DP AREAS ARE SUBJECT TO CHANGE DUE TO OPERATIONAL MODIFICATIONS OR NEW HYDROLOGIC INFORMATION.
DP AREAS ARE BASED ON A GENERAL DESCRIPTION FROM EACH INDIVIDUAL DISCHARGE PLAN.

Revision 6 Date: 9-19-2016
PRINTED DOCUMENTS ARE UNCONTROLLED

Tyrone Mine
Approximate Discharge Plan Areas

NMED EXHIBIT 33

Katz, Lara, NMENV

From: Vollbrecht, Kurt, NMENV
Sent: Thursday, October 26, 2017 5:03 PM
To: Katz, Lara, NMENV
Subject: FW: NMELC Rule Comments
Attachments: NMELC 7-18 comments on GK_DOCS-#3086909-v1-Comments_on_7_1_Rule_Draft.DOC

Kurt Vollbrecht, Program Manager
Mining Environmental Compliance Section
Ground Water Quality Bureau
New Mexico Environment Department
(505) 827-0195

From: Jim Kuipers [mailto:jkuipers@kuipersassoc.com]
Sent: Wednesday, July 18, 2012 6:03 PM
To: 'Bill Olson' <billjeanie.olson@gmail.com>; Davis, Jim, NMENV <Jim.Davis@state.nm.us>; ginger@gis.nmt.edu; 'Mohr, Richard N.' <Richard_Mohr@FMI.com>; 'Ann Carpenter' <acarpenter@themacresourcesgroup.com>; 'Jens Deichmann' <jdeichmann@themacresourcesgroup.com>; 'Sally Smith' <sallysmithisnow@gmail.com>; 'Allyson Siwik' <grip@gilaresources.info>; Martinez, Fernando, EMNRD <fernando.martinez@state.nm.us>; Shepherd, Holland, EMNRD <holland.shepherd@state.nm.us>; rconn@amigosbravos.com; bshields@amigosbravos.com; Schoeppner, Jerry, NMENV <jerry.schoeppner@state.nm.us>; Vollbrecht, Kurt, NMENV <kurt.vollbrecht@state.nm.us>; Marcoline, Joseph, NMENV <Joseph.Marcoline@state.nm.us>; 'Shelley, Thomas L.' <Thomas_Shelley@FMI.com>; 'Tim Eastep' <tim_eastep@fmi.com>; mlinden@fs.fed.us; michaelsmith@blm.gov; 'Auby, William L' <bauby@blm.gov>; 'Steve Finch' <sfinch@shomaker.com>; 'Steve Raugust' <sraugust@themacresourcesgroup.com>; rnewcomer@golder.com; 'Lande, Lynn' <Lynn_Lande@FMI.com>; Ennis, David, EMNRD <David.Ennis@state.nm.us>; Ohori, David, EMNRD <david.ohori@state.nm.us>; mgrass@golder.com; jfinley@telesto-inc.com
Cc: Braswell, Misty, NMENV <Misty.Braswell@state.nm.us>; bfrederick@nmelc.org; jblock@nmelc.org; 'Moellenberg, Dalva L.' <DLM@gknet.com>; Trujillo, TJ <ajt@gknet.com>; 'Martin, Sandy L.' <Sandy_Martin@FMI.com>; robin_short@fmi.com; cma@gknet.com; 'Deely, Sheila H.' <Sheila_Deely@FMI.com>
Subject: NMELC Rule Comments

Please find attached NMELC's comments on the rules – we have provided comments on the Reclamation and Closure rules to the subcommittee. We have endeavored to provide these by the 18th deadline as requested but expect to do some additional review and have some additional comments which we will provide prior to July 31. We also are working on Financial Assurance comments which we are tentatively planning on providing by end of this week.

Jim K

From: Bill Olson [mailto:billjeanie.olson@gmail.com]
Sent: Tuesday, July 17, 2012 11:38 AM
To: 'Davis, Jim, NMENV'; ginger@gis.nmt.edu; 'Mohr, Richard N.'; 'Ann Carpenter'; 'Jens Deichmann'; 'Sally Smith'; 'Allyson Siwik'; 'Martinez, Fernando, EMNRD'; 'Shepherd, Holland, EMNRD'; rconn@amigosbravos.com; bshields@amigosbravos.com; 'Schoeppner, Jerry, NMENV'; 'Vollbrecht, Kurt, NMENV'; 'Marcoline, Joseph, NMENV'; jkuipers@kuipersassoc.com; 'Shelley, Thomas L.'; 'Tim Eastep'; mlinden@fs.fed.us; michaelsmith@blm.gov; 'Auby, William L'; 'Steve Finch'; 'Steve Raugust'; rnewcomer@golder.com; 'Lande, Lynn'; 'Ennis, David, EMNRD'; 'Ohori, David, EMNRD'; mgrass@golder.com; jfinley@telesto-inc.com
Cc: 'Braswell, Misty, NMENV'; bfrederick@nmelc.org; jblock@nmelc.org; 'Moellenberg, Dalva L.'; 'Trujillo, TJ'; 'Martin,

NMED EXHIBIT 34

Sandy L.'; robin_short@fmi.com; cma@gknet.com; 'Deely, Sheila H.'
Subject: Meeting Locations - Joint CRAC/CRTC Meetings July 31 - August 2, 2012

Last week during the Copper Rule Advisory Committee (CRAC) meeting we discussed trying to have all of next month's meetings in Albuquerque. The conference room at the NMED Albuquerque District 1 Office has now been reserved for all of the July 31 – August 2, 2012 CRAC meetings. Since the next meetings are the last scheduled committee meetings before issuing a draft rule for public input, these will be meetings of the CRAC and will include members of the Copper Rule Technical Committee (CRTC) for technical input on rule language. Agendas for the meetings will be sent to you prior to the meeting dates.

If you have any questions, please feel free to call or email me.

Bill

William Olson Consulting Services
14 Cosmic Way
Lamy, NM 87540
(505) 466-2969

CRAC DISCUSSION DRAFT
(July 1, 2012)
With Freeport-McMoRan Comments as of 7/10/12

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.

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

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

20.6.7.4 DURATION: Permanent.

20.6.7.5 EFFECTIVE DATE: ??/??/????, unless a later date is cited at the end of a section.

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 specific to copper mine facilities and their operations.

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 rock drainage" means water that has been impacted by the oxidation of mined sulfide materials ~~is discharged from a copper mine an area affected by mining exploration, mining, or reclamation, with a pH of less than 5.5~~ XX and in which total acidity exceeds total alkalinity and is typically characterized by low pH and possibly increased TDS ~~as defined by the latest edition of *standard methods for the examination of water and wastewater.*~~

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Freeport-McMoRan comment: We have not identified the source of the reference to the 5.5 pH level, and believe that this is too high for purposes of the copper rules. Scientifically, acid rock drainage has been associated with the oxidation of sulfide minerals, so this has been added to the definition. Also, since these rules are limited to copper mines, that term is used instead of the original text. The final definition should be consistent with the method(s) used to test for acid rock drainage.

NMELC comment: There is no "standard method" for the determination of ARD or accepted pH standard for its definition. Since the section of the rules itself only applies to copper mine facilities it should not be necessary to repeat it throughout the rules, particularly where ARD is copper mine ARD. The definition should be simple and general rather than based upon a specific circumstance.

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We are concerned that the rules are somewhat ARD specific and do not equally address neutral or alkaline drainage issues that are often times characterized by metalloids (arsenic, selenium), nitrates, TDS, and other contaminants not necessarily associated with ARD. We recommend that the term ARD be expanded to "Mine Impacted Waters" throughout the rules and include all types of drainage which might impact groundwater.

(3) "Applicable standards" means either the standards set forth in 20.6.2.3103 NMAC ("3103 Standards"), the background concentration approved by the department or, for an existing copper mine

facility, an alternative abatement standard approved by the commission pursuant to 20.6.2.4000 NMAC to 20.6.2.4115 NMAC.

Freeport-McMoRan comment: this definition does not address the "existing concentration" language in the 3103 Standards. This will need to be addressed in the rule. As specified in section 3103, if the "existing concentration" of a contaminant exceeds the standard, compliance for that facility is no further degradation of the existing concentration.

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

(5) "As-built drawings" means engineering drawings ~~signed and sealed by a professional engineer registered in New Mexico~~ which portray facilities as constructed, which the qualified professional engineer certifies has been constructed in accordance with the requirements of the applicable rule and discharge permit.

Freeport-McMoRan comment: the engineer certification requirement will need to be reviewed in the context of the permitting process. At any rate, the engineer should not be required to certify all compliance aspects of the facility.

NMELC: Allowing an "engineer" literally opens it to anyone who wants to call themselves an "engineer" including sanitation "engineers" and operating "engineers." Reference to an actual qualified professional engineer should be made in all cases where engineer is used with that intent. We believe all "as-built drawings" and other information which the department could have to rely upon need to be certified by a professional engineer.

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

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

Freeport-McMoRan comment: dictionary definitions of "vessel" do not match the use of that term in this definition. It likely will be better to define the term "tank" and use that definition in this one. Above ground tank also may need to be defined consistent with this term. Finally, the rule should avoid duplication with federal SPCC regulations and other state regulations that apply to tanks at copper mines.

(7) "Certification of closure" means a determination by the department that all copper mine rule and permit requirements for closure of the copper mine facility subject to the certification have been met including all amendments and modifications specified in the certification. This certification signifies the end of the closure period and the beginning of the post-closure period.

Freeport-McMoRan comment: the added language is intended to address the typical situation where only part of a mine is closed and subject to a certification, not the entire mine. "Copper mine facility" is used throughout the rule sometimes in reference to an entire mine, and other times in reference to a part of a mine. Additional or different terminology may be needed.

NMELC comment: We agree that the rules need to be reviewed carefully to distinguish between mine units or parts of a mine and the entire mine area. To the extent possible similar terminology to that of MMD should be used based on the mine units or entire mine facility.

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(9) "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.

(10) "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 mining and its related activities that may discharge water contaminants occurs and where the discharge and associated activities will or do 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, pipelines, tanks or impoundments used to convey or store process water, tailings or impacted stormwater, truck or equipment washing facilities and any other mining related operations that may discharge water contaminants.

Freeport-McMoRan comment: this definition needs to be substantially changed. Sometimes this term is used in the rule to reflect the entire mine (as it is defined here) and other times it is used in reference to a portion of a mine. Moreover, this definition does not adequately define a copper mine, such as by use of SIC code or the commodity mined. This is important, as mines typically produce byproducts and it is important to distinguish copper as the primary commodity produced from a mine subject to this rule. It may not be necessary to have a definition that lists various types of "facilities" at a mine, since these are called out in the rule and defined as necessary elsewhere.

NMELC: Recommend "Copper Mine" to include all areas and "Copper Mine Unit" to address individual areas – use of "facility" would typically be used to identify an individual mine unit (e.g. tailings facility, mill facility, etc.) rather than a mine as a whole which is typically referred to as a "project" or "operations" or "permitted" mine area.

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

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

Freeport-McMoRan comment: "water and amendments" is not necessary.

NMELC: see reclamation and closure comments for suggested revision

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

~~(16) "Discharge" means storing, spilling, leaking, pumping, pouring, emitting, or dumping of a water contaminant in a location and manner where there is a reasonable probability that the discharged substance may reach surface or subsurface water.~~means any release of water or other liquids which may result in groundwater contamination and are therefore subject to the requirements of this rule and not result in degradation of groundwater as defined in….

Freeport-McMoRan comment: this definition may not be necessary and may actually be confusing. The rule is very specific as to what facilities at a copper mine are subject to the rule. With respect to spills, etc., there already is a definition in 20.6.2.1203 NMAC. We have found few places, if any, in the rule where this definition adds any meaning.

NMELC: We believe as it is the purpose of the rule to specifically address "discharges" it is critical to provide a definition, preferably one which all parties can agree to.

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(17) "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 daily discharge volume permitted for an individual discharge, a significant increase in the concentration of water contaminants discharged, or introduction of a new water contaminant discharged.

NMELC: A 75% increase from a previously small discharge may not result in a 10% overall increase for the site so need to include "for an individual discharge." The same 10% rule of thumb measure should also be applied to concentration of water contaminants discharged measure based on a similar 10% rule which is typically used to suggest significant water quality degradation.

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

(19) "EPA" means the United States environmental protection agency.

(20) "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.

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

(22) "Ex parte" means any written or oral communication relating to the merits of the proceedings, between the secretary, hearing officer, any commissioner and any person, including communications between department staff directly involved in the proceeding and the secretary hearing officer or any commissioner. Ex parte does not include communications between any other party or person and department staff.

(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 over the driving forces.

(25) "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.

(26) "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.

(27) "Hearing clerk" means the person designated by the secretary to maintain the hearing record.

(28) "Hearing officer" means the person appointed by the secretary to conduct a proceeding under this Part.

(29) "Hearing record" means the record proper and the written transcript or recorded tape of the hearing, including all exhibits offered into evidence, whether or not admitted.

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

(??) "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 the one or more of the standards of 20.6.2.3103 NMAC.

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

(32) "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).

(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.

(??) "Liner system" means an engineered system required by the copper mine rule ~~for the containment, management or storage of waste or other materials that has the potential to generate water contaminants and includes all constructed elements of the system~~ including the foundations, subbases, leak detection systems, liners, overliners, solution collection systems, anchor trenches, and berms, as applicable.

Freeport-McMoRan comment: the copper rule will define when a liner is needed—the definition does not need to do that.

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

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

(23) "New copper mine facility" means a copper mine facility ~~that is not operating under~~ for which an approved discharge permit has not been issued as of the effective date of the copper mine rule.

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(??) "Non-impacted stormwater" means diverted run-on stormwater bypassing the mine area or stormwater generated as a result of direct precipitation within the ~~at a~~ copper mine area or within a individual mine unit~~facility~~ that does not exceed the standards of 20.6.2.3103 NMAC.

Katz, Lara, NMENV

From: Vollbrecht, Kurt, NMENV
Sent: Monday, October 16, 2017 11:10 AM
To: Katz, Lara, NMENV
Subject: FW: NMELC Group Comments on Draft Copper Regulations
Attachments: Copper Rule-NMELC group comments 9.5.12.doc; Copper Rule - FA - JK comnts 9.5.12.doc

Kurt Vollbrecht, Program Manager
Mining Environmental Compliance Section
Ground Water Quality Bureau
New Mexico Environment Department
(505) 827-0195

From: Bill Olson [mailto:billjeanie.olson@gmail.com]
Sent: Wednesday, September 5, 2012 3:11 PM
To: Vollbrecht, Kurt, NMENV <kurt.vollbrecht@state.nm.us>; Schoeppner, Jerry, NMENV <jerry.schoeppner@state.nm.us>; Braswell, Misty, NMENV <Misty.Braswell@state.nm.us>
Subject: FW: NMELC Group Comments on Draft Copper Regulations

Here are the NMELC comments.

Bill

William Olson Consulting Services
14 Cosmic Way
Lamy, NM 87540
(505) 466-2969

From: Bruce Frederick [mailto:bfrederick@nmelc.org]
Sent: Wednesday, September 05, 2012 2:27 PM
To: 'Bill Olson'
Cc: 'Bruce Frederick'; 'Jim Kuipers'; 'Brian Shields'; 'Rachel Conn'; 'Allyson Siwik'; 'Sally Smith'
Subject: NMELC Group Comments on Draft Copper Regulations

Bill,

Attached are comments from the groups working with NMELC. The comments are provided in redline/strikeout on the attached two documents—the financial assurance provisions and the rest of the rule.

As you will see, we suggest several substantive and stylistic changes, most of which are self-explanatory. I would, however, like to briefly explain why we NMED should *not* include in its petition to adopt copper regulations any incidental request to also change WQCC's existing variance regulations.

NMED is petitioning WQCC to adopt copper regulations pursuant to 74-6-4(K) of the Water Quality Act, which requires WQCC to "specify in regulations the measures to be taken to prevent water pollution and to monitor water quality" and, since 2009, expressly authorizes and requires WQCC to "adopt regulations for the dairy industry and the copper industry." In contrast, variances are covered under Section 74-6-4(H) of the Act, and this Section does not require or authorize WQCC to adopt special variance rules for the dairy, copper, or any other industries.

The groups represented by NMELC are not necessarily opposed to the proposed changes to the existing variance regulations. However, we do not believe it is appropriate to include such proposed changes in a petition to adopt copper regulations. Instead, any proposed change to the variance regulations should be proposed in a separate petition devoted exclusively to that purpose. This petition would be separately noticed and may well attract a larger and more diverse population than those who are only interested in copper mining.

We also would eliminate several definitions that are related to the "hybrid" hearing procedures that NMED is no longer proposing.

Finally, we reserve the right to propose further changes, to revise our latest proposed changes, and to take any position at hearing that we deem appropriate to best protect the public's water resources for current and future generations.

Thank you for all your excellent work on this very difficult petition.

R. Bruce Frederick, Staff Attorney

New Mexico Environmental Law Center

1405 Luisa Street, Suite 5

Santa Fe, NM 87501

505-989-9022

<<...>> <<...>>

COPPER MINE RULE
DISCUSSION DRAFT
(August 17, 2012)

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.

20.6.7.2 SCOPE: ~~All persons subject to the Water Quality Act, NMSA 1978, Sections 74-6-1 et seq and specifically copper mine facilities and their operations.~~This Part 20.6.7 shall apply only discharges of water contaminants from a copper mine facility within the meaning of the Water Quality Act, NMSA 1978, § 74-6-1 *et seq.*

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

20.6.7.4 DURATION: Permanent.

20.6.7.5 EFFECTIVE DATE: ??/??/????, unless a later date is cited at the end of a section.

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 specific to copper mine facilities and their operations.

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 rock 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*.

"Additional conditions" means conditions and requirements included in a discharge permit pursuant to Section 74-6-5(D) that are based on site-specific circumstances and that are in addition to those imposed in the regulations of the Water Quality Control Commission.

(2) "Affected discharge site" means the discharge site to which a variance petition applies.

(3) "Applicable standards" means either the standards set forth in 20.6.2.3103 NMAC ("3103 Standards"), the background concentration approved by the department or, for an existing copper mine facility, ~~and~~ any alternative abatement standard approved by the commission pursuant to 20.6.2.4000 NMAC to 20.6.2.4115 NMAC.

(4) "Applicant" means the person applying for a new, renewed, modified, or amended discharge permit, including all persons who own or control the Applicant. The Applicant shall be the owner or operator of the copper mine facility or the duly-authorized agent of the owner or operator of the facility.

(5) "As-built drawings" means engineering drawings signed and sealed by a qualified professional engineer registered in New Mexico which portray facilities as constructed.

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

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

"Closure" means all activities, including but not limited to surface reclamation and monitoring and remediation of soils and groundwater, that are reasonably required to stop, mitigate, prevent, minimize, control, or abate discharges and resulting water pollution associated with a copper mine facility after operations at the facility, or at part of the facility, have ceased.

"Closure discharge permit" means a discharge permit that is intended to apply after active operation of a copper mine facility has ceased and closure has begun.

(8) "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.

(9) "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.

(10) "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.

(11) "Copper mine facility" means all areas within which mining and its related activities that may discharge water contaminants occurs and where the discharge and associated activities will or do 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, slag piles, air and water treatment residues, pipeline systems, tanks or impoundments used to convey or store process water, tailings or impacted stormwater, truck or equipment washing facilities and any other mining related operations that may discharge water contaminants.

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

(13) "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. Critical design elements to maximize the effectiveness of store and release type covers systems include the ability to store water, resist erosion and sustain native vegetation without augmentation.

(14) "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 human life or property in the event of a significant unexpected slope movement,

(15) "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.

(16) "Discharge" means storing, spilling, leaking, pumping, pouring, emitting, or dumping of a water contaminant in a location and manner where there is a reasonable probability that the discharged substance may reach surface or subsurface water.

(17) "Discharge permit amendment" means a minor ~~modification of a~~ change to a discharge permit that does not require public notice and participation. Discharge permit amendments may be approved to correct typographical errors or

to make minor adjustments to the location of a discharge. The department may also approve a one-time discharge permit amendment to increase the volume of a discharge at a particular location by no more than 10 percent, provided that the type and concentration of the water contaminants discharged are not changed and the department determines that the risk of exceeding standards or of causing other water pollution will not be materially increased. ~~does not result in a significant change in the location of a discharge, an increase in daily discharge volume of greater than 10 percent of the daily discharge volume permitted for an individual discharge location, a significant increase in the concentration of water contaminants discharged, or introduction of a new water contaminant discharged.~~

(18) "Discharge volume" means the volume of discharged fluids (e.g. process water, leachate, contaminated stormwater ~~or tailings~~) measured at a specific point at the copper mine facility over a specified period of time.

Commented [JK1]: Tailings includes both solids and liquids and process water is associated with solution portion of tailings – needs to includes discharge volume for other sources

"Environmental law" means any federal or any state law or regulation that regulates, limits, or otherwise concerns discharges into surface water, discharges into ground water, air emissions, or solid, toxic and hazardous wastes (including the handling, disposal, transport and generation of such wastes).

"Environmental permit" means a permit that is issued pursuant to an environmental law.

(19) "EPA" means the United States Eenvironmental Pprotection Aagency.

(20) "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.

(21) "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.

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

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

(24) "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.

BILL RICHARDSON
GOVERNOR

State of New Me
ENVIRONMENT DEI
Ground Water Qualit
Harold Runnels B
1190 St. Francis Drive, P.
Santa Fe, New Mexico
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Timothy E. Eastep, Manager
Environment, Land & Water
Chino Mines Co./210 Cortez St.
Hurley, New Mexico 88043

PS Form 3800, January 2001 See Reverse for Instructions

CERTIFIED MAIL – RETURN I

October 3, 2006

Timothy E. Eastep, Manager
Environment, Land and Water
Chino Mines Company
210 Cortez St.
Hurley, NM 88043

RE: Discharge Permit Renewal and Modification, Whitewater Leach System, DP-526

Dear Mr. Eastep:

The New Mexico Environment Department (NMED) issues the enclosed Discharge Permit, DP-526 to Chino Mines Company pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Regulations, 20.6.2 NMAC.

The Discharge Permit contains terms and conditions that shall be complied with by Chino Mines Company and are enforceable by NMED pursuant to WQCC 20.6.2.3104, WQA, NMSA 1978 §74-6-5 and §74-6-10. Issuance of this Discharge Permit does not relieve Chino Mines Company of its responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, including zoning requirements and nuisance ordinances.

Pursuant to 20.6.2.3109.H.4 NMAC, the term of the Discharge Permit shall be five years from the date of issuance and will expire on **October 3rd, 2011**. You must submit an application for renewal at least 120 days before the permit expiration date.

Thank you for your cooperation during the discharge permit review. If you have any questions please contact Thomas Dewers at (505)827-2906.

Sincerely,

William C. Olson
Chief, Ground Water Quality Bureau
New Mexico Environment Department

enc:

1) Discharge Permit

xc: Rod Ventura. NMELC
Sally Smith, GRIP (1)
Karen Garcia, MMD (1)
District III Office, Las Cruces (1)
George Llewellyn, Silver City, MECS-GWQB (1)
Mary Ann Menetrey, Program Manager, MECS-GWQB (1)
Administrative Record Files: DP-526 (1)

DISCHARGE PERMIT
RENEWAL AND MODIFICATION
WHITEWATER LEACH SYSTEM, DP-526
October 3, 2006

I. INTRODUCTION

The New Mexico Environment Department (NMED) renews and modifies this Discharge Permit, DP-526, to Chino Mines Company (permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Regulations, 20.6.2 NMAC.

NMED's purpose in issuing this Discharge Permit, and in imposing the requirements and conditions specified herein, is to control the discharge of water contaminants from the Whitewater Leach System into ground and surface water, so as to protect ground and surface water for present and potential future use as domestic and agricultural water supply and other uses, and to protect public health. In issuing this Discharge Permit, NMED has determined that the requirements of 20.6.2.3109.C NMAC have been met.

DP-526, as issued in the last renewal dated April 3, 1998 for the Whitewater Leach System, is briefly described as follows:

> The Whitewater Leach System includes the South Stockpile, Upper South Waste Rock Pile and West Stockpile. The South Stockpile and the eastern portion of the West Stockpile are leached. The Upper South Waste Rock Pile and western portion of the West Stockpile cannot be leached.
>
> Acidic leach solution (raffinate) may be discharged up to 24,500,000 gallons per day (gpd) on the South Stockpile (up to 14,000 gallons per minute, gpm) and eastern portion of the West Stockpile (up to 3,000 gpm). The raffinate infiltrates through the stockpiles, dissolving copper minerals. Pregnant leachate solution (PLS) is collected at the toe of the stockpiles and is routed by gravity through open ditches and pipelines to collection ponds. The PLS is pumped to a stainless steel-lined tank and eventually to the solution extraction/electrowinning plant for copper extraction. Applying raffinate and collecting the pregnant leachate solution (PLS) to recover copper began in 1963 for the South Stockpile and 1969 for the West Stockpile.
>
> Stockpiling of low grade copper ore on the West Stockpile began in 1969, and mined rock was placed on the South Stockpile as early as 1940. The area of disturbance for the West Stockpile is limited to 625 acres. The area of disturbance for the Upper South Waste Rock Pile is limited to 313 acres. The area of disturbance for the South Stockpile is limited to 692 acres. The South Stockpile and eastern portion of the West Stockpile may receive ore from the open pit and ore blended with Lake One material for leaching. The Upper South Waste Rock Pile is for storage of waste rock only and is not permitted

to be leached. The western portion of the West Stockpile includes a ground water interceptor system that collects contaminated ground water. Portions of the West Stockpile are being used for a multi-year test plot reclamation study conducted pursuant to Discharge Permit DP-1340.

Operation of the Whitewater Leach System uses numerous reservoirs and smaller catchments (see table 3A, B, and C) to manage stormwater, seepage and PLS as well as to remove accumulated sediments in the basins. The reservoirs include PLS Pond and Launder, Reservoir 4A, Reservoir 2, Last Chance Reservoir, Reservoir 17 and Reservoir 9. The catchments along the western portion of West Stockpile include Dams 10, 11, 12, 13, 14, 14-1, 14-2, 14-3, 15, 16, 18, 19 and 20. The Chino Whitewater Leach System includes transfers and storage of water in several tanks and pumping stations such as the PLS Tank, Old High Head Pump House, South Side Booster and 6525 Tank. Also, the Mine Maintenance and General Offices areas are located within the DP-526 area to the east of the West Stockpile and west of the open pit.

The Whitewater Leach System is located approximately 2 miles northeast of Bayard and includes the reach of Whitewater Creek from Hanover Creek to the northern end of Hurley at the northern boundary of the former Lake One in Sections 28, 29, 32, 33 and 34, T17S, R12W; Sections 3, 4, 5, 6, 7, 18, 19, 30 and 31, T18S, R12W; and Sections 12 and 13, T18S, R13W in Grant County.

The modification to DP-526 is briefly described as follows:

- Reservoir 9 has been added to the permit, which has a capacity of approximate 15 million gallons to receive storm water from the Upper South Waste Rock Pile as well as the surrounding area south of the reservoir.

- Discharges from Mine Maintenance and General Offices, located at the southwestern toe of the West Stockpile, will be included in this renewal. These include domestic wastewater from two separate septic systems, assay lab wastewater, a small truck wash bay, a heavy equipment/haulage truck wash bay, and stormwater runoff from this area. This discharge will not exceed 60,000 gallons per day, and is channeled into the PLS Launder where it becomes part of the process water circuit.

Quantity, Quality and Flow Characteristics of the Discharge:

The leach ore and waste rock contain mineral sulfides which, when oxidized, generate acidic solutions. These acidic solutions react with in situ minerals, which produces acid rock drainage (ARD) and associated metals and sulfate contamination. The leach ore stockpiles also contain acidic leach solutions and residual acidity, including metals, from the leaching process that forms acidic leachate. This leachate from acid rock drainage and from the leaching process may move directly or indirectly into surface and ground water.

During the period from 1998 through present, the Whitewater Leach System received sediments from maintenance of storm water systems, Lake One material blended with ore, waste rock from historic stockpiles, sediments from Whitewater Creek "tin can" plants, spilled tailing and sediment from Whitewater Creek, construction debris from the former precipitation plant, furnace brick and 230 thickener material. In addition to the leach ore and waste rock, the above-mentioned materials contain some sulfides, metals and salts that contribute to ARD and may move directly or indirectly into surface and ground water.

The regulated discharge also consists of raffinate applied on leach ore stockpiles and collection of the resultant PLS, which has a total dissolved solids (TDS) concentration of approximately 160,000 milligrams per liter (mg/L). The raffinate has a pH of approximately 2 and a TDS concentration of 160,000 mg/L. The raffinate and PLS contain contaminants in excess of the levels specified in the ground water quality standards under WQCC Regulations in Section 20.6.2.3103.A NMAC for cadmium, chromium, fluoride and lead; Section 20.6.2.3103.B for chloride, copper, iron, manganese, sulfate, total dissolved solids (TDS) and zinc; and Section 20.6.2.3103.C for aluminum, cobalt, and nickel. The combined discharge rate of raffinate on to the South Stockpile and eastern portion of the West Stockpile shall not exceed 24,500,000 gpd.

Characteristics of Ground Water:

The depth to ground water at the site ranges from approximately 0 to 300 feet below ground surface and has a TDS concentration of approximately 1,000 mg/L.

Activities That Produce the Discharge:

The Whitewater leach system is part of the Chino open pit copper mine operated by Chino Mines Company. The South Stockpile and eastern portion of the West Stockpile are two of several stockpiles at the mine where raffinate is applied to the top of ore stockpiles for the purpose of leaching copper from the ore. Up to 24,500,000 gpd day of raffinate is discharged on the unlined South Stockpile and eastern portion of the West Stockpile. The PLS is collected at the base of the stockpiles in collection systems such as the unlined PLS launder, PLS collection pond and unlined ponds. The PLS is then transferred in pipelines or unlined ditches to the stainless steel PLS tank, or the unlined Reservoirs 2 and 4A. From the tank, the PLS is pumped to the solvent extraction and electrowinning (SX/EW) plant, which is covered by a separate discharge permit, DP-591, for processing. Alternatively, PLS and storm water may be transferred to Reservoir 7, also covered by DP-591. The cycle is completed when the raffinate from the SX/EW plant is returned to the stockpiles. In addition to the leach circuit, the Upper South Waste Rock Pile and western portion of the West Stockpile contain sulfide minerals that generate acid when in contact with oxygen and water.

General:

The Discharge Plan consists of the materials submitted by Chino to NMED dated December 4,

2002 and May 3, 2004. In addition the Discharge Plan includes information and materials submitted as part of the original plan approved on February 3, 1989; renewed on February 8, 1991, September 9, 1991 and April 3, 1998; modified on November 23, 1994 and April 16, 1995; and amended on April 23, 1996, April 17, 1997, July 2, 2003, August 28, 2003, September 16, 2003, and November 12, 2003. The discharge shall be managed in accordance with the Discharge Plan as conditioned by this Discharge Permit.

Issuance of this Discharge Permit does not relieve Chino of its responsibility to comply with all conditions or requirements of the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

Pursuant to 20.6.2.3109.E NMAC, NMED reserves the right to modify permit requirements in the event that NMED determines that the requirements of 20.6.2 NMAC are being or may be violated, or the standards of 20.6.2.3103 NMAC are being or may be violated. This may include a determination by NMED that operational practices approved under this Discharge Permit are not protective of ground and surface water quality, and that a modification is necessary to protect water quality and/or abate water pollution. Permit modification may include, but is not limited to, lining or relining impoundments, changing discharge locations, changing waste management practices, expanding monitoring requirements, and/or implementing abatement of water pollution.

The following abbreviations may be used in this permit:

Abbreviation	Explanation	Abbreviation	Explanation
Chino	Chino Mines Company	NMSA	New Mexico Statutes Annotated
gpm	gallons per minute	PLS	pregnant leachate solution
mg/L	milligrams per liter	TDS	total dissolved solids
NMAC	New Mexico Administrative Code	WQA	Water Quality Act
NMED	New Mexico Environment Department	WQCC	Water Quality Control Commission

II. FINDINGS

In issuing this Discharge Permit, NMED finds:

1. Chino Mines Company is discharging effluent or leachate from the Whitewater Leach System so that such effluent or leachate may move directly or indirectly into ground water within the meaning of 20.6.2.3104 NMAC.

2. Chino Mines Company is discharging effluent or leachate from the Whitewater Leach System so that such effluent or leachate may move into ground water of the State of New

Mexico which has an existing concentration of 10,000 milligrams per liter or less of total dissolved solids within the meaning of 20.6.2.3101.A NMAC.

3. The discharge from the Whitewater Leach System is not subject to any of the exemptions of 20.6.2.3105 NMAC.

4. Chino is required to abate ground water contamination pursuant to 20.6.2.3107.A(11) and 3109.E(1) NMAC because, the discharges of effluent or leachate from the Whitewater leach system have contaminated groundwater (of the State of New Mexico which has an existing concentration of 10,000 mg/l or less of TDS and which is at a place of withdrawal for present or reasonably foreseeable future use) above the standards and requirements in 20.6.2.3103 NMAC, and Water Quality Standards for Interstate and Intrastate Streams in New Mexico have been and may be violated in surface water due to discharges.

III. PERMIT CONDITIONS

The following conditions shall be complied with by Chino Mines Company and are enforceable by NMED.

OPERATIONAL PLAN

1. Chino shall implement the following operational plan in accordance with the WQCC Regulations at 20.6.2.3106.C and 3107 NMAC to ensure compliance with 20 NMAC, Chapter 6, Parts 1 and 2. [20.6.2.3106.C and 20.6.2.3107 NMAC]

Stockpile Limits:

2. Chino shall not exceed the land surface areas and volumes currently projected through year 2006 as presented in the proposed plan located in Table 5.3 from the March 2001 Closure/Closeout Plan, or more current version, for the West Stockpile (625 acres); Upper South Waste Rock Pile (313 acres) and South Stockpile (692 acres). Chino shall request from NMED a permit modification or amendment prior to expanding leach ore stockpile and waste rock pile limits beyond the 2006 projections. [20.6.2.3106.C and 3109 NMAC]

3. *Upper South Waste Rock Pile:* Pursuant to the Chino Upper South Waste Rock Pile Materials Handling Plan dated September 2, 1998, Chino is authorized to place rock from the Kneeling Nun Rhyolite and Sugar Lump Tuff Formations on the Upper South Waste Rock Pile. Chino must obtain permission from NMED to place any other materials on the Upper South Waste Rock Pile, and the request must be accompanied with a location map and geochemical analyses of the material for acid base accounting plus total and leachable metals. [20.6.2.3107 and 20.6.2.3109 NMAC]

Lake One Material:

4. Chino is authorized to place a blend of Santa Rita Pit ore and Lake One material on the South Stockpile and eastern portion of the West Stockpile. [20.6.2.3106.C NMAC]

Placement of Other Material:

5. For material other than authorized by this permit, Chino must request permission and obtain approval from NMED before placing the material on the Whitewater Leach System. The request must include a location map for the placement of the material, a description of the material, estimated volume, and geochemical analyses of the material for acid base accounting plus total and leachable metals. Based upon the results, NMED will determine if a discharge permit modification or amendment is required prior to placement.

Flow Description:

Chino shall manage discharges of PLS, raffinate, and various mine waters as follows:

6. *Application of Acidic Leach Solution:* Chino is authorized to discharge up to 24,500,000 gpd (17,000 gpm) of raffinate to the South Stockpile and eastern portion of the West Stockpile. Leaching is only permitted on the South Stockpile and eastern portion of the West Stockpile, which are located within the Whitewater Leach System as shown in Figure 1 of this Discharge Permit Renewal, and in Figures 4, 5 and 6 of the permit application dated December 4, 2002. Of the total 17,000 gpm, Chino is authorized to discharge up to 3,000 gpm of raffinate to the eastern portion of the West Stockpile, and up to 14,000 gpm to the South Stockpile. [20.6.2.3109 NMAC]

7. *Eastern Portion of the West Stockpile:* Chino shall control the leaching of the eastern portion of the West Stockpile by adjusting leaching application rates and by pumping well N-19 to maintain water levels in the stockpile at least 25 feet below the lowest point (6297 feet above mean sea level, amsl) on the buried topographic divide. A high level sensor in well N-19, will automatically engage the pump when water levels reach 6297 feet amsl (310.4 feet below ground surface). [20.6.2.3109 NMAC]

8. *South Portion of South Stockpile:* Chino shall not leach within 700 feet of Lucky Bill Canyon. The leaching boundary will remain visibly staked at all times. Chino shall not place material within 200 feet of Lucky Bill Canyon as depicted in Figure 4 of the permit application dated December 4, 2002. [20.6.2.3109 NMAC]

9. *Western Portion of the West Stockpile:* Chino shall not leach the western portion of the West Stockpile within a 1000 feet east of the buried topographic divide betweeen Hanover Creek and the drainages east of the open pit as depicted in Figure 5 of the permit application dated December 4, 2002 [20.6.2.3109 NMAC]

10. *Mine Maintanence, Truck Wash and General Offices Area:* Chino is authorized to discharge up to 60,000 gpd from the mine maintenance, truck wash and general offices area. The discharge goes to the PLS launder system for the South Stockpile, and the discharges are incorporated into the process water circuit. The discharges include domestic wastewater, assay lab wastewater, small truck wash bay wastewater, heavy equipment/haulage truck wash bay wastewater and stormwater runoff. [20.6.2.3109 NMAC]

11. *West Stockpile Ground Water Extraction System:* Chino is authorized to operate the West Stockpile Ground Water Extraction System to collect and transfer contaminated ground water to the western edge of the Ivanhoe Concentrator area. Chino is authorize to discharge up to 7,200 gpd of ground water from pumping wells to dams along the West Stockpile, which in turn, collect and transfer the water to larger reservoirs for use within the Chino process water circuit. [20.6.2.3109 NMAC]

12. *Catchment Dams and Reservoirs:* Chino shall manage flows to and from the catchment dams and reservoirs as described in Table 3B. [20.6.2.3109 NMAC]

Pipeline Operation:

13. Chino shall operate all PLS, raffinate and process water pipelines in a manner to prevent their discharge in areas not authorized by this DP. Upon discontinuing the operation of a pipeline or prior to moving a pipeline, all PLS, raffinate or process water within each pipeline shall be released to an authorized discharge location or otherwise properly contained, transferred or disposed of in a manner that does not result in discharges to non-authorized areas. After emptying, each pipeline shall be rinsed, or subject to other NMED-approved procedures, to ensure residual contaminants are removed. Discharges of PLS, raffinate and process water from pipelines to non-authorized areas must be reported under 20.6.2.1203 NMAC. All changes in pipeline operations that result in removal of pipeline fluids in unauthorized discharge areas must be reported quarterly in accordance with Condition 36. [20.6.2.3109 NMAC]

Storm Water Management:

14. *Stormwater Retention Ponds and Collection System:* Chino shall collect stormwater at lined and unlined dams indicated in Table 3A and as described in the Whitewater Leaching System Emergency Response Plan dated March 2001 or its current version. Chino shall collect and transfer stormwater in lined and unlined conveyance systems along the toe of the stockpiles. [20.6.2.3107 NMAC]

15. *Sediment Removal to Maintain Dams, Reservoirs and Launders:* Chino shall desilt catchments, dams, reservoirs and launders pursuant to Table 3B. Sediment material shall be placed on the West or South Stockpiles pursuant to Table 3C. Chino shall maintain a storage capacity in Reservoir 17 of 15 million gallons by keeping the water elevation at or below 6021 amsl (22.5 feet in depth) pursuant to the March 2001 Emergency Response Plan or its

most current version. Chino shall maintain Reservoir 17, which consists of a concrete dam with 80-mil HDPE liner underlain by a geosynthetic liner. [20.6.2.3107.A NMAC]

16. *Repairs to Dam 12:* Within two years of the issuance of this permit, Chino shall repair the lined portion of Dam 12 along the West Stockpile. Within 180 days of the issuance of this permit, Chino shall submit to NMED preliminary plans and specifications to synthetically line Dam 12 or an alternative design for NMED approval. Any proposed alternative designs must prevent PLS and contaminated stormwater from infiltrating through the ponds and associated conveyance systems into ground water. [20.6.2.3107.A NMAC] [20.6.2.3109.E and H] [20.6.2.4000 to 20.6.2.4115 NMAC]

17. *South Stockpile Reservoir Collection System:* Within 180 days of the issuance of this permit, Chino shall submit to NMED for approval preliminary plans and specifications to synthetically line, replace with tanks or silt traps, and/or replace with pipelines or other alternative designs, the South Stockpile reservoir system with the aim of preventing PLS and contaminated stormwater from infiltrating into groundwater.This would include the PLS Pond and Launder, Reservoir 2, Reservoir 4A and Last Chance Dam along the western portion of the South Stockpile. The plans will include an implementation schedule for the approved plans, completion of which shall not exceed three years from the effective date of this permit. [20.6.2.3107.A NMAC] [20.6.2.3109.E and H] [20.6.2.4000 to 20.6.2.4115 NMAC]

18. *Revised Emergency Response Plan:* Within four years of the issuance of this permit, Chino shall submit to NMED for approval a revised emergency response plan for water management of the Whitewater Leach System. [20.6.2.3107.A.10 NMAC]

Expansion of Ground Water Interceptor Systems and New Wells:

19. *New Interceptor wells:* Within 90 days of the effective date of this permit, Chino shall submit a work plan to address the addition of two interceptor wells to the existing network of wells between the West Stockpile and Hanover Creek that includes CB- 6E, WD-7, WD-8S, WD-9S, CB-10C, CB-10J, I-3 and I-7. One well shall be located near Dam 13, and the other well between Dams 15 and 16. These are in response to recommendations made by the May 2004 Chino report titled "Assessment of the Chino West Stockpile Extraction System" and approved by NMED in May, 2005. According to the recommendations in this report, two monitoring wells will be converted to interceptor wells by the addition of pneumatic pumps. Choice of wells to be converted must be subject to NMED approval.. [20.6.2.3107.A NMAC]

20. *New Monitoring Wells:* Within 12 months of issuance of this Discharge Permit, Chino shall submit to NMED for approval a work plan for location and installation of new monitoring wells to replace the two wells converted to extraction wells in Condition 19. The wells must meet NMED criteria for construction of monitoring wells in unconfined aquifers. Chino may demonstrate that the requirements of this permit condition may be met through submittals

required under the site-wide abatement condition for DP-1340. [20.6.2.3107.A NMAC]

21. *Lucky Bill 1 Improvement and Replacement of Well 526-98-04:* Within 180 days of the effective date of this permit, Chino must improve access to the seep at Lucky Bill 1 and replace well 526-98-04 (CGCS-2) to be designated Lucky Bill 1 Seep and 526-2006-01, respectively. Within 90 days after well completion, Chino must provide NMED with a brief summary report that includes well completion information and geologic data. [20.6.2.3107.A NMAC]

MONITORING AND REPORTING

22. Chino shall conduct the following monitoring, reporting and other requirements listed below. A summary of monitoring requirements is attached to the permit as Tables 1 and 2. [20.6.2.3107.A NMAC]

Sampling and Field Measurements:

23. Water Quality – In order to establish the water quality of new or existing wells that have been sampled fewer than four times, Chino shall sample the ground water monitoring wells quarterly for one year. Chino shall analyze the samples for the parameters listed in Conditions 34B and 34C. Chino shall also measure water levels quarterly as described in Condition 25.A.1) for the monitoring wells listed in Condition 25.A. Based on the results, Chino shall propose to NMED for approval, an amended monitoring program, which recommends analytes and sampling frequencies. For new wells, Chino shall have 18 months from the well completion to submit a proposal. For existing wells, Chino shall have 18 months from the effective date of this permit to submit a proposal. [20.6.2.3107.A NMAC]

24. Reservoirs, Tanks and Ponds: Chino shall sample reservoirs, tanks and ponds as follows:

    A. For the Raffinate Tank 6525, PLS Tank, and seeps or surface collections of Dam 10, Dam 11, Dam 13 and Dam 15, Chino shall collect samples twice per year and analyze for the water parameters listed in Condition 34B below. [20.6.2.3107.A NMAC]

    B. For Reservoir 17 and Dam 16, Chino shall collect samples quarterly and analyze for the water parameters listed in Conditions 34B and 34C below. [20.6.2.3107.A NMAC]

    C. For Reservoir 9, Reservoir 2 and Reservoir 4A, Chino shall collect samples twice per year and analyze for the water parameters listed in Conditions 34B and 34C below. [20.6.2.3107.A NMAC]

    D. For the Raffinate Tank 6525, PLS Tank, Dam 10, Dam 11, Dam 13 and Dam 15,

Chino shall collect samples annually and analyze for the water parameters listed in Condition 34C below. [20.6.2.3107.A NMAC]

E. For the 6525 Raffinate Tank, Reservoir 2, Reservoir 4A and PLS Tank, Chino shall:
   1) collect samples annually and analyze for the water parameter listed in Condition 34D.
   2) If TPH at any sample location exceeds 5 mg/L, Chino shall resample within two weeks of receiving the analysis described in 24E.1), and analyze for the water parameters listed in Condition 34E. [20.6.2.3107.A NMAC]

25. Ground Water Monitoring Wells and Seeps- Chino shall monitor ground water quality as follows:

A. Lucky Bill 1 Seep (after re-establishment), Monitoring Wells 526-99-02, 526-99-03, 526-99-04, 526-99-06, B-53, 526-96-11, 526-96-12, 526-96-13, the above mentioned 526-2006-01 and any new wells shall be sampled as follows:
   1) Chino shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft), quarterly, except for the seep.
   2) After completing the requirements of Condition 23, Chino shall collect samples from each location quarterly and analyze for the water parameters listed in Condition 34B below until the amendment to the monitoring program under Condition 23 is approved by NMED. [20.6.2.3107.A NMAC]

B. Monitoring Well N-19 shall be sampled for organic parameters as follows:
   1) Chino shall collect samples from wells annually and analyze for the water parameter listed in Condition 34D.
   2) If TPH in any well exceeds 5 mg/L, Chino shall resample the well within two weeks of receiving the analysis described in 25B.1, and analyze for the water parameters listed in Condition 34E.
   3) Two weeks prior to leaching of the West Stockpile, during leaching and one year following leaching, Chino shall collect weekly water levels. [20.6.2.3107.A NMAC]

C. Monitoring well WD-1 and seep west of South Stockpile shall be sampled as follows:
   1) Chino shall record the depth to the water table in the monitoring well to the nearest hundredth of a foot (0.01 ft), quarterly, except for the seep.
   2) Chino shall collect samples from each well and seep quarterly and analyze for the water parameters listed in Conditions 34B and 34C below. [20.6.2.3107.A NMAC]

D. Monitoring Wells 526-97-2B, 526-97-3, MW-1, MW-2, 526-99-07, 526-99-08, N-19, Star Shaft and Princess Shaft shall be sampled as follows:
   1) Chino shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft), quarterly.
   2) Chino shall collect samples from each well and water source quarterly and analyze for the water parameters listed in Condition 34B below.
   3) Chino shall collect samples from each well and water source annually and analyze for the water parameters listed in Condition 34C. [20.6.2.3107.A NMAC]

E. Monitoring Wells 526-96-17, 526-98-02, 526-98-03, 526-98-09, 214-93-1S, 214-93-1D, Dennis, B-39, B-40, B-42, B-43, B-44, B-46, WD-2S and WD-2D shall be sampled as follows:
   1) Chino shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft), annually.
   2) Chino shall collect samples from each well annually and analyze for the water parameters listed in Conditions 34B below. [20.6.2.3107.A NMAC]

F. Lucky Bill 2 Seep, and Monitoring Wells 526-96-15, 526-96-16, 526-96-18, B-54, B-55, B-57R, WD-6D, 526-98-01, CB-8C, WD-3, WD-4, WD-5, WD-8D, WD-9S, WD-9D, WD-10, WD-11, I-2, I-4, CB-10D, CB-10L, 526-2000-1S, 526-2000-1D, 526-2000-2S, 526-2000-3S, 526-2000-3D, 526-2000-4S, 526-2000-4D and Rifle Range, shall be sampled as follows:
   1) Chino shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft), twice per year, except for the seep.
   2) Chino shall collect samples from each well twice per year and analyze for the water parameters listed in Conditions 34B below. [20.6.2.3107.A NMAC]

G. Lucky Bill 1 Seep, and Monitoring Wells 526-98-01, 526-99-02, 526-99-03, 526-99-04, 526-99-06, B-53, WD-5, WD-6D, WD-8D, WD-9S, WD-9D, WD-10, I-2, I-4, CB-8C, CB-10D, CB-10L, 526-2000-1S, 526-2000-2S, 526-2000-3S, 526-2000-4S, 526-96-11, 526-96-12, and 526-96-13 shall be sampled as follows:

   Chino shall collect samples from each well annually and analyze for the water parameters listed in Conditions 34C below. [20.6.2.3107.A NMAC]

H. Monitoring Wells WD-7, WD-8S, I-3, I-7, CB-6E, CB-9S, CB-10C, CB-10J, shall be sampled as follows:
   1) Chino shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft), quarterly.
   2) Chino shall collect samples from each well and water source quarterly and analyze for the water parameters listed in Condition 34B below.

3) Chino shall collect samples from each well twice per year and analyze for the water parameters listed in Conditions 34C below. [20.6.2.3107.A NMAC]

I. Monitoring Wells 526-97-01, 526-97-2A, 526-97-04, CB-6A, CB-6B, CB-6C, CB-6D, CB-8A, CB-8B and CB-9A, shall be sampled as follows:
   1) Chino shall record the depth to the water table to the nearest hundredth of a foot (0.01 ft), twice per year.
   2) Chino shall collect samples from each well annually and analyze for the water parameters listed in Conditions 34B below. [20.6.2.3107.A NMAC]

Analytical results and depth to ground water measurements shall be reported as required in Condition 36 below. [20.6.2.3107.A NMAC]

26. Storm Water – Pursuant to the March 2001 Emergency Response Plan or its current version, Chino shall inspect on a monthly basis all storm water impoundments, dikes and collection ponds for the presence of storm water accumulations that exceed designed capacities. In the event of rainfall, Chino shall ensure that the pumping capacity is adequate to maintain Reservoir 17 at or below 6021 feet above mean sea level except as described in the emergency response plan. Chino shall inspect the Hanover Dams on a weekly basis during the months of July, August and September. Chino shall inspect the Hanover Dams every shift during precipitation events as well as after every significant rainfall (i.e., 0.4 inches or more within 24 hours). Every June 15, Chino shall confirm the minimum 250 million gallon capacity for storm water in the reservoir system. The results shall be reported as required in Condition 36 below. [20.6.2.3107.A NMAC]

27. Monitoring West Stockpile - Chino will monitor water levels in N-19 on a quarterly basis while the West Stockpile is not being leached and will submit measurements with quarterly reports. Two weeks prior to the initiation of leaching, Chino must notify NMED and will start monitoring water levels in pumping well N-19 on a weekly basis. Chino will monitor water levels in pumping well N-19 on a weekly basis when leaching the West Stockpile and on a weekly basis for one year following the termination of discharge. [20.6.2.3107.A NMAC]

28. Discharge Volume – Chino shall measure the daily volume of raffinate discharged to the South Stockpile and the eastern portion of the West Stockpile with a flow meter or other measuring device approved by NMED. Discharge volumes shall be reported as required in Condition 36 below. [20.6.2.3107.A NMAC]

29. Meterological Data- Chino shall measure daily precipitation at the South Stockpile, near Dam 17 and the Mine Planning Office. Chino shall measure temperature, relative humidity, wind speed, wind direction, and net solar radiation at the South Stockpile. All meteorological data shall be reported as required in Condition 36 below. [20.6.2.3107.A

NMAC]

30. Water Balance: Chino shall collect data for a water balance on the Whitewater System to evaluate containment of process water and potential losses to ground water. Chino shall monitor inflows including: 1) raffinate/leach solution from the SX/EW to the West Stockpile; 2) raffinate/leach solution from the SX/EW (6525 Tank) to the South Stockpile; 3) process water from the concentrator; 4) pumping from the Star and Bullfrog Shaft; 5) process water from Cobre/Continental Mine; 6) pumping from the South Side Booster and/or Reservoir 3A to the South Stockpile; and 7) pumping from Reservoir 16. Chino shall monitor outflows including: 1) PLS from the PLS launder to the SX/EW; 2) pumping from Reservoir 4A to Reservoir 6 or 7; 3) average monthly flow from High Head Pump Station to South Side Booster Station, 4) average monthly flow from Outfall 001, 5) pumping from ground water interceptor systems. Chino shall provide precipitation, evaporation and storage measurements on a monthly basis. Chino shall report the water balance quarterly pursuant to Conditon 36. [20.6.2.3107.A NMAC]

31. Water Balance Evaluation: Within one year of the effective date of this permit, Chino shall submit to NMED for approval a water balance report that evaluates the data collected since 1998 to the present for the Whitewater Leach System. The report must specifically address and provide an explanation for the imbalance of outflows to the system relative to inflows on the order of 30 to 100 percent in 2003, for example. The evaluation must incorporate uncertainty of measurements, evaporation, precipitation and storage estimates. The evaluation must make recommendations for improvements to the water balance methodology, including data collection addressed in Condition 30 and letters dated May 28, 1998, August 21, 1998 and August 31, 2000. Chino must include an evaluation of the monthly data from pumping sumps for (coffer) Dam 16, Reservoir 17, and the PLS tank from 1998 to the present. [20.6.2.3107.A NMAC]

32. Sump Pump Volumes: Chino shall calculate the average daily volume from the monthly total of water collected in the sumps for Dam 16, Reservoir 17 and the 500,000 gallon PLS Tank. Chino shall report these data quarterly, pursuant to Condition 36. [20.6.2.3107.A NMAC]

33. Ground Water Interceptor Wells: Chino shall monitor flow from all ground water extraction wells and calculate flow rates from monthly readings of totalizing flow meters. Chino shall report these data quarterly, pursuant to Condition 36. [20.6.2.3107.A NMAC]

Analysis:

34. Samples of surface water, storm water and process water shall be analyzed for total and dissolved concentrations of the analytes listed below. Samples of ground water, seeps and springs shall be analyzed for dissolved concentrations of the analytes listed below.

    A. Field parameters (analysis to be performed in the field): temperature, pH, and

specific conductance.

B. Indicator parameters: field parameters in Condition 34A plus sulfate and total dissolved solids (TDS).

C. Comprehensive inorganic parameters: alkalinity-bicarbonate, alkalinity-carbonate, calcium, magnesium, sodium, potassium, fluoride, chloride, aluminum, arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, nickel and zinc.

D. Organic parameters I: Total petroleum hydrocarbons (TPH).

E. Organic parameters II: Kerosene, Ethylbenzene, Naphthalene and Toluene.

F. Other parameters: any other parameters such as uranium, nitrate and selenium as identified during ongoing investigations of potential source areas and as required by NMED. [20.6.2.3107.A NMAC]

Methodology:

35. Unless otherwise approved in writing by NMED, Chino shall conduct sampling and analysis in accordance with the most recent edition of the following documents:

A. American Public Health Association, *Standard Methods for the Examination of Water and Wastewater.*

B. U.S. Environmental Protection Agency, *Methods for Chemical Analysis of Water and Waste.*

C. U.S. Geological Survey, *Techniques for Water Resource Investigations of the U.S. Geological Survey.*

D. American Society for Testing and Materials, *Annual Book of ASTM Standards*, Part 31. Water.

E. U. S. Geological Survey, et al., *National Handbook of Recommended Methods for Water Data Acquisition.*

F. Surface water monitoring must also be conducted according to test procedures approved under Title 40 Code of Federal Regulations Part 136. [20.6.2.3107.B NMAC]

Reporting:

36. Chino shall submit to NMED quarterly reports. Quarterly data shall be submitted by the last

day of January, April, July and October of each year; semi-annual data shall be submitted by the last day of April and October; and annual data shall be submitted by the last day of January for the preceding year. The reports shall conform to the following format:

A. A summary of all activities related to the discharge at the facility during the preceding quarter, including operational activities, daily flow volumes, spills, maintenance, repairs, synopsis of completed studies relevant to the facility, well drilling, water management, construction or demolition of structures, addition of leach ore material (volume), addition of waste rock material (volume), addition of blended Lake One material (volume), addition of any other material (volume), location map for placement of new material, water quality trends, precipitation, water balance and trends in water levels. If applicable, a summary of seep and spring flows as well as potentiometric maps shall also be included.

B. A single table shall be provided quarterly in a paper and electronic format (EXCEL spreadsheet) of water quality data with only those constituents analyzed and water levels, in both depth to ground water and water level elevation relative to mean sea level (referenced to an appropriate geoid), measured during a single event and shown in columns. Tabulated electrical conductivity shall include the measured field values and corrected values to 25 degrees Celsius. Monitoring sites shall be shown in rows. 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.

C. Copies of the signed laboratory analyses sheet shall be provided quarterly. Daily volumes of acid leach solution applied to leach ore stockpiles and PLS collected shall be reported quarterly. Sump pumping volumes and ground water interceptor system data shall be reported quarterly.

D. Semi-annual reports shall include water quality trends, laboratory QA/QC, trends in hydrographs, potentiometric surface maps and precipitation. At a minimum, graphs with the previous 5 years of indicator parameter data shall be presented for TDS, sulfate, and hydrographs (pH may subsituted for hydrographs at reservoirs or springs).

E. Flow measurements of seeps shall be reported quarterly with the seep location and flow estimation method noted.

F. Chino shall submit semi-annually two potentiometric maps for the aquifer in the western portion of the West Stockpile from wells WD-5 to Dam 20 and from Dam 20 to Lucky Bill 2. A sufficiently small scale map and contour interval shall be used to illustrate the effectiveness of intercepting ground water.

G. Chino shall submit annually a potentiomentric surface map of the northern area. The map may be the same as is required in DP-1340 for the northern area.

H. Chino shall submit annually the daily precipitation data from the station near the South and West Stockpiles. [20.6.2.3107.A NMAC]

ABATEMENT

37. Ground water standards have been exceeded within the area covered under this Discharge Permit. An abatement plan to address this ground water contamination shall be submitted to NMED for approval as part of the site-wide abatement plan required pursuant to Condition 32 of the Supplemental Discharge Permit for Closure, DP-1340. The Chino site-wide Stage 1 Abatement Plan Proposal was approved on December 21, 2004. In the event that any ground water contamination from facilities addressed under this Discharge Permit is not currently addressed under the DP-1340 site-wide abatement plan, Chino shall amend the DP-1340 abatement plan within 60 days to address this contamination. The abatement plan shall be conducted in two stages. Stage one of the abatement plan shall include a schedule to investigate all known areas of ground water and surface water contamination within the area covered by the DP-526 for the Whitewater Leach System, and define the extent magnitude of ground water contamination in accordance with Sections 20.6.2.3109.E.1 or 20.6.2.4000 NMAC through 4115 NMAC. Stage two of the abatement plan shall address selection of an abatement option to abate ground water contamination in the shortest reasonable timeframe and shall include an analysis of abatement alternatives pursuant to 20.6.2.4106.E.2 NMAC. [20.6.2.4000 through 4115 NMAC] [20.6.2.3109.E NMAC]

CONTINGENCY

Ground Water Exceedances:

38. In the event that monitoring indicates ground water standards are exceeded, or the extent or magnitude of existing ground water contamination is significantly increasing during the term of this Discharge Permit, Chino shall collect a confirmatory sample from the monitoring well(s) within 15 days to confirm the initial sampling results. Within 30 days of confirmation of ground water contamination or significant increases in existing contamination, Chino shall submit a plan to NMED for a site investigation to define the source, nature and extent of contamination, and select and design a proposed abatement option, including an implementation schedule. The site investigation and abatement option shall be consistent with the requirements and provisions of 20.6.2.4101, 4103, 4106, 4107, and 4112 NMAC. The plan shall be implemented within 30 days of NMED approval. [20.6.2.3107.A.10 NMAC]

Operational Failures:

39. In the event of a pipeline break, pump failure, pond overflow or other system failure at the

facility, the PLS and raffinate shall be contained, pumped and/or transferred to areas of the facility that impose minimal impacts to ground water quality pursuant to the March 2001 Emergency Response Plan or its most recent version. Failed components shall be repaired, replaced or temporarily replaced with an interim remedy as soon as possible and no later than 72 hours from the time of failure. [20.6.2.3107.A.10 NMAC]

40. In the event that NMED or Chino discovers evidence that the stability of any leach ore stockpile or waste rock pile may be compromised and result in significant failure, Chino shall submit a corrective action plan to NMED for approval within 15 days of discovery of the evidence. The corrective action plan shall describe corrective measures to be taken and a schedule for implementation. [20.6.2.3107.A.10 NMAC]

41. If NMED or Chino identifies any other failures of the discharge plan or system not specifically noted in this permit, NMED may require Chino to develop for NMED approval contingency plans and schedules to address failures. [20.6.2.3107.A.10 NMAC]

Spill Reporting:

42. In the event of a spill or release that is not authorized under this Discharge Permit, Chino shall initiate the notifications and corrective actions as required in 20.6.2.1203 NMAC. Chino shall take immediate corrective action to contain and remove or mitigate any damage caused by the discharge. Within 24 hours after discovery of the discharge, Chino shall verbally notify NMED and provide the information required by 20.6.2.1203.A.1 NMAC. Within 7 days of discovering the discharge, Chino shall submit a written report to NMED verifying the oral notification and providing any additional information or changes. Chino shall submit a corrective action report within 15 days after discovery of the discharge. [20.6.2.1203 NMAC]

CLOSURE

43. Chino shall maintain a closure plan for the entire Whitewater Leach System pursuant to the Supplemental Discharge Permit for Closure, DP-1340. In the event that Chino modifies or expands the Whitewater Leach System pursuant to this Discharge Permit in a manner that exceeds the scope of the closure plan, Chino shall propose changes to the closure plan accordingly. [20.6.2.3107.A.11 NMAC]

FINANCIAL ASSURANCE

44. Chino shall maintain financial assurance pursuant to the Supplemental Discharge Permit for Closure, DP-1340, for the entire Whitewater Leach System. In the event that Chino modifies or expands the Whitewater Leach System pursuant to this Discharge Permit in a manner that exceeds the scope of the closure plan, Chino shall propose changes to the financial assurance accordingly. [20.6.2.3107.A.11 NMAC]

IV. GENERAL TERMS AND CONDITIONS

Record Keeping:

45. Chino shall maintain at its facility a written record of all data and information on monitoring of ground water, surface water, seepage, and meteorological conditions pursuant to this Discharge Permit including the following:

    A. The date, exact time, and exact location of each sample collection or field measurement;

    B. The name and job title of the person who performed each sample collection or field measurement;

    C. The date of the analysis of each sample;

    D. The name and address of the laboratory and the name and job title of the person that reviewed the analysis of each sample;

    E. The analytical technique or method used to analyze each sample or take each field measurement;

    F. The results of each analysis or field measurement, including the raw data; and

    G. A description of the quality assurance and quality control procedures used. [20.6.2.3107.A NMAC]

46. Such data and information described in Conditon 45 shall also be maintained on all split and duplicate samples, spike and blank samples, and repeat samples. [20.6.2.3107.A NMAC]

47. Chino shall maintain a written record of any spills, seeps, or leaks of effluent, leachate or process fluids not authorized by this Discharge Permit. [20.6.2.3107.A NMAC]

48. Chino shall maintain a written record of the operation, maintenance and repair of all facilities/equipment used to treat, store, or dispose of wastewater or leachate; to measure flow rates; to monitor water quality; or, to collect other data required by this Discharge Permit. This record shall include repair, replacement or calibration of any monitoring equipment and repair or replacement of any equipment used in the conveyance of process waters throughout the permitted area. [20.6.2.3107.A NMAC]

49. Notwithstanding any company record retention policy to the contrary, until such time as NMED determines that all closure measures have been completed in accordance with the

requirements of this Discharge Permit, Chino shall retain copies of all data, records, reports, and other documents generated pursuant to this Discharge Permit. Such a record retention period may be increased by NMED at any time upon written notice to Chino. [20.6.2.3107.A NMAC]

50. All such data, records, reports, and other documents generated pursuant to this Discharge Permit, shall be provided to NMED upon request. [20.6.2.3107.A NMAC]

Inspection and Entry:

51. Chino shall allow the Secretary or an authorized representative of NMED, upon the presentation of credentials, to:

    A. Enter at regular business hours or at other reasonable times upon Chino's premises or at any other location where records are kept under the conditions of this Discharge Permit or under any federal or WQCC Regulation.

    B. Inspect and copy during regular business hours or at other reasonable times, any records required to be kept under the conditions of this Discharge Permit, or under any federal or WQCC Regulation.

    C. Inspect, at reasonable business hours or at other reasonable times, any facility, equipment (including monitoring and control equipments or treatment works), practices or operations regulated or required under this Discharge Permit, or under any federal or WQCC regulation.

    D. Sample or monitor at reasonable times for the purposes of assuring compliance with this Discharge Permit or as otherwise authorized by the New Mexico Water Quality Act, any effluent, water contaminant, or receiving water at any location before or after discharge. [20.6.2.3107.D NMAC] [74-6-9.B and E WQA]

52. Nothing in this Discharge Permit shall be construed as limiting in any way the inspection and entry authority of NMED under the WQA, the WQCC Regulations, or any other applicable law or regulation. [20.6.2.3107 NMAC]

Duty to Provide Information:

53. Within a reasonable time after a request from NMED, of which time may be specified by NMED, Chino shall provide NMED with any relevant information to determine whether cause exists for modifying, terminating, or renewing this Discharge Permit, or to determine whether Chino is in compliance with this Discharge Permit. [20.6.2.3107.D NMAC] [74-6-9.B and E WQA]

54. Nothing in this Discharge Permit shall be construed as limiting in any way the information gathering authority of NMED under the WQA, the WQCC Regulations, or any other applicable law or regulation. [20.6.2.3107.D NMAC] [74-6-9.B and E WQA]

Spills, Leaks and Other Unauthorized Discharges:

55. This Discharge Permit authorizes only those discharges specified herein. Any discharge not authorized by this Discharge Permit is a violation of 20.6.2.3104. NMAC. Chino must report any such discharge to NMED, and it must take corrective action to contain and remove or mitigate the damage caused by the discharge, as required by 20.6.2.1203. NMAC. [20.6.2.3104 NMAC, and 20.6.2.1203 NMAC]

Modifications/Amendments:

56. Chino shall notify NMED of any changes to its wastewater or leachate collection or disposal system, including any changes in the wastewater or leachate flow rate or the volume of wastewater or leachate storage, or of any other changes to its mining operations or processes that would result in any significant change in the discharge of water contaminants. Chino shall obtain NMED approval, as a modification to this Discharge Permit pursuant to 20.6.2.3109.E, F, or G NMAC, prior to any increase in the quantity of leachate discharged, or any increase in the concentration of water contaminants discharged, above those levels approved in this Discharge Permit. [20.6.2.3107.C NMAC, and 20.6.2.3109.E, F or G NMAC]

Enforcement:

57. Any violation of the requirements and conditions of this Discharge Permit, including any failure or refusal to allow NMED to enter and inspect records or facilities, or any refusal or failure to provide NMED with records or information, may subject Chino to an enforcement action. Pursuant to WQA § 74-6-10.A and B, such action may include a compliance order requiring compliance immediately or in a specified time, assessing a civil penalty, suspending or terminating the Discharge Permit, or any combination of the foregoing; or an action in district court seeking injunctive relief, civil penalties, or both. Pursuant to the WQA §§ 74-6-10.C and 74-6-10.1, civil penalties of up to $15,000 per day of noncompliance may be assessed for each violation of the WQA § 74-6-5, the WQCC regulations, or this Discharge Permit, and civil penalties of up to $10,000 per day of noncompliance may be assessed for each violation of any other provision of the WQA, or any regulation standard, or order adopted pursuant to such other provision. For certain violations specified in the WQA § 74-6-10.2, criminal penalties may also apply. In any action to enforce this Discharge Permit, Chino waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit. [74-6-5 WQA] [74-6-10 WQA]

Compliance with Other Laws:

58. Nothing in this Discharge Permit shall be construed in any way as relieving Chino of its obligation to comply with all applicable federal, State, and local laws, regulations, permits, or orders. Chino does not waive any rights under such applicable federal, State, and local laws, regulations, permits, or orders except as expressly provided in this Discharge Permit. [74-6-5.K WQA]

Liability:

59. The approval of this Discharge Permit does not relieve Chino of liability should operation result in actual pollution of surface or ground water which may be actionable under other laws and/or regulations. [20.6.2.3109 NMAC]

Right to Appeal:

60. Chino may file a petition for a hearing before the WQCC on this Discharge Permit. Such petition must be made in writing to the WQCC within thirty (30) days after Chino receives this Discharge Permit. Unless a timely petition for a hearing is made, the decision of NMED shall be final. [74-6-5.N WQA]

Transfer:

61. Prior to any transfer of ownership, control, or possession of the permitted facility or any portion thereof, Chino shall notify the proposed transferee in writing of the existence of this Discharge Permit and include a copy of this Permit with the notice. Chino shall deliver or send by certified mail to NMED a copy of the notification and proof that such notification has been received by the proposed transferee. [20.6.2.3111 NMAC]

Term:

62. Pursuant to WQA § 74-6-5.H, and § 20.6.2.3109.H NMAC, the term of this Discharge Permit is five (5) years, and the Permit will automatically expire five (5) years from the date it is issued. To renew this Discharge Permit, Chino must submit an application for renewal at least 120 days before that date. [74-6-5.H WQA, and 20.6.2.3109.H NMAC]

ISSUED this 3rd day of October, 2006,

WILLIAM C. OLSON, Chief
Ground Water Quality Bureau
New Mexico Environment Department

ISSUED: October 3rd, 2006
EXPIRES: October 3rd, 2011

CHINO WHITEWATER LEACH SYSTEM, DP-526
MONITORING SUMMARY

Monitoring Reports are due by 31-JAN, 30-APR, 31-JUL, 31-OCT

Table 1: Reporting Summary

Annual Sampling Frequency	Annual Reporting Frequency	Number of Sites	Sampling Description
4	4	2	Daily volume of raffinate applied and PLS pumped
4	4	29	Water levels quarterly,
2	2	40	Water levels semi-annually
1	1	15	Water levels annually
4	4	32	Temperature, pH, Specific Conductance, TDS and SO_4.
2	2	39	Temperature, pH, Specific Conductance, TDS and SO_4.
1	1	25	Temperature, pH, Specific Conductance, TDS and SO_4.
4	4	4	Alk-HCO_3, Alk-CO_3, Ca, Mg, Na, K, F, Cl, Al, As, Cd, Cr, Co, Cu, Fe, Pb, Ni and Zn.
2	2	11	Alk-HCO_3, Alk-CO_3, Ca, Mg, Na, K, F, Cl, Al, As, Cd, Cr, Co, Cu, Fe, Pb, Ni and Zn.
1	1	39	Alk-HCO_3, Alk-CO_3, Ca, Mg, Na, K, F, Cl, Al, As, Cd, Cr, Co, Cu, Fe, Pb, Ni and Zn.
4	4	varies	Signed lab sheets for lab and field data
4	4	1	Tabulated data.
4	4	1	Water Balance for Whitewater System
1	1	5	TPH
2	2	1	WD-5 to Dam 20 Potentiometric Map
1	1	1	Dam 20 to Lucky Bill 2 - Potentiometric Map
2	2	68	Hydrographs and water quality trends.
1	1	29	Hydrographs and water quality trends.
2	2	4	Flow measurement of seeps at Dams 10, 11, 13, 15.
365	1	3	Daily precipitation data plus additional meteor. data.
4	4	NA	Activities Report Quarterly

Table 2: Monitoring Schedule

Area / Sub-Area	Locations	Sampling						Notes
		Type	Q1	Q2	Q3	Q4	other	
Upper South Waste Rock Pile								
	526-96-16	mw	BW		BW			
	526-96-18	mw	BW		BW			
	526-96-17	mw			BW			Dry 1997-2005
	526-96-15	mw	BW		BW			
	Reservoir 9	mw	BC		BC			
South Stockpile								
	WD-1	mw	BCW	BCW	BCW	BCW		
	WD-2S	mw			BW			Dry 2001-2005
	WD-2D	mw			BW			Dry 2001-2005
	526-99-02	mw	BW	BW	BCW	BW		*3xBC
	526-99-03	mw	BW	BW	BCW	BW		*3xBC
	526-99-04	mw	BW	BW	BCW	BW		*3xBC
	526-99-06	mw	BW	BW	BCW	BW		*3xBC
	B-53	mw	BW	BW	BCW	BW		
	B-54	mw	BW		BW			
	B-55	mw	BW		BW			
	B-57R	mw	BW		BW			
	526-97-2A	mw	W		BW			
	526-97-2B	mw	BW	BW	BCW	BW		
	526-97-3	mw	BW	BW	BCW	BW		
	MW-1	mw	BW	BW	BCW	BW		
	MW-2	mw	BW	BW	BCW	BW		
	526-99-07	mw	BW	BW	BCW	BW		
	526-99-08	mw	BW	BW	BCW	BW		Dry 2002-5 intermitent
	6525 Raff Tank	tank	B		BCD			
	Reservoir 17	sw	BC	BC	BC	BC		
	Reservoir 2	sw	BC		BCD			
	Reservoir 4A	sw	BC		BCD			
	Dam 16	sw	BC	BC	BC	BC		
	PLS Tank	sw	B		BCD			
	New wells	mw	BW	BW	BW	BW		*3xBC
	Seep West of South	spg	BC	BC	BC	BC		
	526-97-01		W		BW			Dry 2001-5 intermitent
	526-97-04		W		BW			
	Star Shaft	shaft	BW	BW	BCW	BW		
Lucky Bill	Lucky Bill 1 Seep	spg	BW	BW	BCW	BW		Dry 2001-5 frequent.
	Lucky Bill 2 Seep	spg	BW		BW			Dry 2002-5 periodic.
	526-96-11	mw	BW	BW	BCW	BW		
	526-96-12	mw	BW	BW	BCW	BW		
	526-96-13	mw	BW	BW	BCW	BW		
West Stockpile								
	Princess Shaft	shaft	BW	BW	BCW	BW		
Dam 10	CB-6A	mw	W		BW			
	CB-6B	mw	W		BW			

Area	Locations	Sampling						Notes
Sub-Area		Type	Q1	Q2	Q3	Q4	other	
	CB-6C	mw	W		BW			
	CB-6D	mw	W		BW			
	CB-6E	ew	BCW	BW	BCW	BW		
	WD-6D	mw	BW		BCW			
Dam 14-2	WD-7	ew	BCW	BW	BCW	BW		
	526-98-01	mw	BW		BCW			
Dam 13	CB-8A	mw	W		BW			
	CB-8B	mw	W		BW			
	CB-8C	mw	BW		BCW			
	WD-8S	ew	BCW	BW	BCW	BW		
	WD-8D	mw	BW		BCW			
Dam 11	CB-9A	mw	W		BW			
	CB-9S	ew	BCW	BW	BCW	BW		
	WD-9S	mw	BW		BCW			
	WD-9D	mw	BW		BCW			
Hanover dams	Dam 10	sw	B		BC			
	Dam 11	sw	B		BC			
	Dam 13	sw	B		BC			
	Dam 15	sw	B		BC			
Dam 15	WD-10	mw	BW		BCW			
	I-2	mw	BW		BCW			
	I-3	ew	BCW	BW	BCW	BW		
	I-4	mw	BW		BCW			
	I-7	ew	BCW	BW	BCW	BW		
	CB-10C	ew	BCW	BW	BCW	BW		
	CB-10D	mw	BW		BCW			
	CB-10J	ew	BCW	BW	BCW	BW		
South	CB-10L	mw	BW		BCW			
Weste Leach Ore Stockpile and Mine Maintenance Area								
North	WD-5	mw	BW		BCW			
	N-19	mw	BW	BW	BCDW	BW		Weekly water level: 2 weeks before, during, 1-year after leaching
	WD-11	mw	BW		BW			
	WD-3	mw	BW		BW			Dry 2001-2003
South	WD-4	mw	BW		BW			Dry 2001-2003, intermitent
Upper Whitewater								
	526-2006-01 (rplc 526-98-04)	mw	BW	BW	BW	BW		(CGCS-2) Sample new well 3X's BCW
	526-98-09	mw			BW			(CGCS-11)
	526-2000-4S	mw	BW		BCW			
	526-2000-4D	mw	BW		BW			
	526-98-02	mw			BW			(CGCS-1S)
	526-98-03	mw			BW			(CGCS-1D)
	526-2000-3S	mw	BW		BCW			
	526-2000-3D	mw	BW		BW			

Area	Locations	Sampling						Notes
Sub-Area		Type	Q1	Q2	Q3	Q4	other	
	Rifle Range	mw	BW		BW			
	214-93-1S	mw			BW			Dry 2001-2005
	214-93-1D	mw			BW			
	Dennis	mw			BW			Dry 2001-2005
	B-40	mw			BW			
	526-2000-2S	mw	BW		BCW			
	B-43	mw			BW			
	B-42	mw			BW			
	B-39	mw			BW			
	526-2000-1S	mw	BW		BCW			
	526-2000-1D	mw	BW		BW			
	B-46	mw			BW			
	B-44	mw			BW			

Explanation to Abbreviations and Symbols

Type: mw = monitoring well ew = extraction well sw = surface water spg = spring sp = seep	Sampling Quarter: Q1 = Jan-Mar Q2 = Apr-Jun Q3 = Jul-Sep Q4 = Oct-Dec

Sampling Analytical Suites:
A = Field parameters: Temperature, pH, specific conductance
B = Indicator parameters: suite A, sulfate, TDS
C = Comprehensive inorganic suite: alk-HCO_3, alk-CO_3, Ca, Mg, Na, K, F, Cl, Al, As, Cd, Cr, Co, Cu, Fe, Pb, Mn, Ni and Zn
D = Organic parameters I: TPH
E = Organic parameters II: Kerosene, Ethylbenzene, Napthalene and Toluene.
F = Other parameters as required by NMED: U, NO_3 and Se.
W = Depth to water measurement to the nearest 0.01 foot.
*3xBC = establish water quality with a minimum of three sampling events for B and C.

Table 3A Reservoirs, Catchments and Tanks for Whitewater Leach System DP-526
Description, Location, and Size

Reservoir	Description/Lining	Location	Reservoir Size
10	Large, concrete, syn. lined	Northern most large dam	2.58 acre-feet
11	Large, concrete, syn. lined	Southern most large dam	2.8 acre-feet
12	Small, concrete, syn. lined	Northern most structure	Collection Basin ~10,000 gal
13	Medium, earthen	300 ft. North of Dam 14, near middle of West Stockpile	1.0 acre-feet
14	Large, concrete, syn. lined	1000 ft. North of Dam 11	4.7 acre-feet

14-1	Small, concrete	700 ft. North of Dam 13	Collection Basin ~10,000 gal
14-2	Small, concrete	500 ft. North of Dam 13	Collection Basin ~10,000 gal
14-3	Small, earthen	400 ft. North of Dam 13	Collection Basin ~5,000 gal
15	Small, concrete, earthen	South of Mine entrance road, 500 ft. west of laydown yard by concentrator	~10,000 gal
18	Small, concrete, earthen	300 ft. West of Dam 11	~0.5 acre-feet
19	Small, concrete, earthen	200 ft. West of Dam 13	~0.5 acre-feet
20	Small, earthen	Adjacent to North side of Mine entrance road by abandoned guard shack	~10,000 gal
2	Large, concrete	Between 4A and Reservoir 17 in Whitewater Creek Basin	3.5 acre-feet
4A	Large, concrete, earthen	Adjacent to the South Stockpile and up-gradient of Res. 2	15 million gal
16	Coffer Dam	2200 ft. Down Whitewater creek from Last Chance Dam	N/A
17	Large, concrete, syn. lined	Directly Down Gradient of Last Chance Dam	46.8 acre-feet
9	Large, concrete, earthen	East of Reservoir 3A	47 acre-feet
PLS Pond & Launder	Small, concrete, earthen	Adjacent to the South Stockpile and up-gradient of Res. 4A	N/A
PLS Tank	Concrete, Stainless Steel	Between Res. 4A and Res. 2 in Whitewater Creek Basin	500,000 gal
Old High Head Pumphouse (OHP)	Concrete Tank	Between Res. 4A and Res. 2 in Whitewater Creek Basin	N/A
South Side Booster	Earthen Sump	Southwest end of the South Stockpile	~10,000 gal
6525 Raffinate Tank	Stainless Steel-lined concrete	Northwest end of the South Stockpile	100,000 gal
Last Chance	Coffer Dam	Between Res. 2 and Res. 4A	N/A

Table 3B Reservoirs, Catchments and Tanks for Whitewater Leach System DP-526 Water Quality/Source and Discharge Location

Reservoir	Water Quality/ Source	Discharges to:
10	Stockpile Runoff and Seepage	Water is pumped via 12" pipe to above Res. 4A
11	Stockpile Runoff and Seepage	Water is pumped via 12" pipe to above Res. 4A
12	Stockpile Runoff and Seepage	Gravity discharges via a 22" pipe to Res. 14
13	Stockpile Runoff and Seepage	Water is pumped above Res. 4A and connects via pipe to Res. 14
14	Stockpile Runoff and Seepage	Water is pumped above Res. 4A and connects via pipe to Res. 13
14-1	Stockpile Runoff and Seepage	Gravity discharges via pipe to Res. 14
14-2	Stockpile Runoff and Seepage	Gravity discharges via pipe to Res. 14
14-3	Stockpile Runoff and Seepage	Gravity discharges via pipe to Res. 14-2
15	Seepage from West Stockpile and Mine waste and precipitation runoff	Pumped to Concentrator Thickeners
18	Seepage from Res. 11	Water is pumped via a small sump pump to Res. 11
19	Seepage from Res. 13	Water is pumped via a small sump pump to Res. 13
20	Storm runoff	Water is pumped via a small sump pump to above Res. 4A
2	PLS seepage from stockpiles and Res. 4A; Storm runoff from P-plant and Concentrator; and overflow from Res 4A, OHP, PLS Tank. Receives discharge from Last Chance, Dam 16, and Res. 17	Water can be pumped to Res 4A or OHP. Overflows into Last Chance.
4A	PLS seepage from stockpiles and PLS collection pond; Storm runoff from P-plant and mine shop area; overflow from PLS Pond, PLS Tank, and OHP. Receives discharges from Last Chance, Res. 2 and Res 17	Water can be pumped to Res. 6 and/or 7 via two 16" pipes and to the OHP
16	Alluvial flow from Whitewater Creek	Res. 2
17	PLS seepage in Whitewater Creek basin; Storm runoff from Concentrator area; and overflow from Last Chance	Water can be pumped to Res. 4A, OHP, PLS Tank, or 380' Thickener
9	Storm runoff from Upper South Stockpile	Water is pumped to Res. 3A
PLS Pond & Launder	PLS Collection from South and West Stockpiles; Storm runoff from Stockpiles and mine shop area	Gravity drains to PLS Tank, OHP, and Res. 4A
PLS Tank	PLS from PLS Pond, overflow from OHP	PLS is pumped to SX/EW or 6525 Raff Tank, overflows to Res 4A or OHP
Old High Head Pumphouse	PLS from PLS Pond, overflow from PLS Tank, and water pumped from Res. 17, Res. 4A, Res. 2, and Last Chance	Water is pumped to Southside Booster, overflows to PLS Tank, Res. 17, Res 4A, or Res. 2
South Side Booster	Water from OHP or Res. 3A	Water is pumped to Res. 3A, 6525 Raff Tank, or dispersed on top of South Stockpile
6525 Raffinate Tank	Water from SX/EW Raffinate Tank or PLS Tank	Water is dispersed on top of South Stockpile
Last Chance	PLS from PLS Pond, overflow from PLS Tank,	Water is pumped to Southside Booster,

Reservoir	and water pumped from Res. 4A, Res. 2,	overflows to PLS Tank, Res 4A, or Res. 2

Table 3C Reservoirs, Catchments and Tanks for Whitewater Leach System DP-526
Flow Measurement and De-silting

Reservoir	Water Balance	When to Desilt Reservoir	Where to Place Sediment
10	Hour Meter on Pump to record run time	The pump cannot maintain a water level below the top of the concrete pump sump.	West and South Stockpiles
11	Hour Meter on Pump to record run time	The pump cannot maintain a water level below the top of the concrete pump sump.	West and South Stockpiles
12	None	Sediment covers 25% of drainpipe	West and South Stockpiles
13	Hour Meter on Pump to record run time	The pump cannot maintain a water level below the top of the concrete pump sump.	West and South Stockpiles
14	Hour Meter on Pump to record run time	The pump cannot maintain a water level below the top of the concrete pump sump.	West and South Stockpiles
14-1	None	Sediment covers 25% of drainpipe	West and South Stockpiles
14-2	None	Sediment covers 25% of drainpipe	West and South Stockpiles
14-3	None	Sediment covers 25% of drainpipe	West and South Stockpiles
15	Hour Meter on Pump to record run time	The pump cannot maintain a water level below the top of the concrete pump sump.	West and South Stockpiles
18	None	The pump cannot maintain a water level below the top of the concrete pump sump.	West and South Stockpiles
19	None	The pump cannot maintain a water level below the top of the concrete pump sump.	West and South Stockpiles
20	Hour Meter on Pump to record run time	The pump cannot maintain a water level below the top of the concrete pump sump.	West and South Stockpiles
2	None	When sediment reaches 20% of the Reservoir capacity	West and South Stockpiles
4A	Mag flow meters record flow out 16" lines to Res. 6 & 7	When sediment reaches 20% of the Reservoir capacity or sediment interferes with vertical pumps	West and South Stockpiles
16	Paddle Wheel Meter at Coffer Dam	N/A	N/A
17	4 different Mag meters at dam on 3", 6", 10"E, and 10"W pipelines	Res. 17 has an automatic desilting system	West and South Stockpiles
9	None	When sediment reaches 20% of the Reservoir capacity	West and South Stockpiles
PLS Pond & Launder	N/A	When sediment reaches 20% of the Reservoir capacity	West and South Stockpiles
PLS Tank	Hour Meter on Pumps to record run time	When sediment interferes with PLS pumps	Res. 2A

Old High Head Pumphouse	Mag flow meters record flow out to Southside Booster	N/A	N/A
South Side Booster	None	N/A	N/A
6525 Raffinate Tank	Mag meter for flow into tank via Southside Booster	N/A	N/A
Last Chance Reservoir	None	N/A	N/A