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UIC PRIMACY (Class I, III, IV & V Wells)

DATE: 1983

NEW MEXICO UNDERGROUND INJECTION CONTROL PRIMACY APPLICATION FOR CLASS I, III, IV, & V WELLS

NEW MEXICO UNDERGROUND INJECTION CONTROL PROGRAM

PRIMARY ENFORCEMENT AUTHORITY APPLICATION

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(h) Any State program approved by the Administrator shall at all times be conducted in accordance with the requirements of this Part.

(i) States are encouraged to consolidate their permitting activities. While approval of State programs under this Part will facilitate such consolidation, these regulations do not require consolidation. Each of the four programs under this Part may be applied for and approved separately.

(j) Partial State programs are not allowed under NPDES, 404, or RCRA (for programs operating under final authorization). However, in many cases States will lack authority to regulate activities on Indian lands. This lack of authority does not impair a State's ability to obtain full program approval in accordance with this Part, i.e., inability of a State to regulate activities on Indian lands does not constitute a partial program. Similarly, a State can assume primary enforcement responsibility for the UIC program, notwithstanding § 123.51(e), when the State program is unable to regulate activities on Indian lands within the State. EPA, or in the case of section 404 programs the Secretary, will administer the program on Indian lands if the State does not seek this authority.

[Note.—States are advised to contact the United States Department of the Interior, Bureau of Indian Affairs, concerning authority over Indian lands.]

(k) Except as provided in § 123.32, nothing in this Part precludes a State from:

(1) Adopting or enforcing requirements which are more stringent or more extensive than those required under this Part;

(2) Operating a program with a greater scope of coverage than that required under this Part. Where an approved State program has a greater scope of coverage than required by Federal law the additional coverage is not part of the Federally approved program.

[Note.—For example, when a State requires permits for discharges into publicly owned treatment works, these permits are not NPDES permits. Also, State assumption of the section 404 program is limited to certain waters, as provided in § 123.91(c). The Federal program operated by the Corps of Engineers continues to apply to the remaining waters in the State even after program approval. However, this does not restrict States from regulating discharges of dredged or fill materials into those waters over which the Secretary retains section 404 jurisdiction.]

§ 123.2 Definitions.

The definitions in Part 122 apply to all subparts of this Part, including Subpart F.

§ 123.3 Elements of a program submission.

(a) Any State that seeks to administer a program under this Part shall submit to the Administrator at least three copies of a program submission. The submission shall contain the following:

(1) A letter from the Governor of the State requesting program approval;

(2) A complete program description, as required by § 123.4, describing how the State intends to carry out its responsibilities under this Part;

(3) An Attorney General's statement as required by § 123.5;

(4) A Memorandum of Agreement with the Regional Administrator as required by § 123.6, and, in the case of State section 404 programs, a Memorandum of Agreement with the Secretary as required by § 123.99;

(5) Copies of all applicable State statutes and regulations, including those governing State administrative procedures;

(6) The showing required by § 123.39(c) (RCRA programs only) and § 123.54(b) (UIC programs only) of the State's public participation activities prior to program submission.

(b) Within 30 days of receipt by EPA of a State program submission, EPA will notify the State whether its submission is complete. If EPA finds that a State's submission is complete, the statutory review period (i.e., the period of time allotted for formal EPA review of a proposed State program under the appropriate Act) shall be deemed to have begun on the date of receipt of the State's submission. If EPA finds that a State's submission is incomplete, the statutory review period shall not begin until all the necessary information is received by EPA.

(c) If the State's submission is materially changed during the statutory review period, the statutory review period shall begin again upon receipt of the revised submission.

(d) The State and EPA may extend the statutory review period by agreement.

§ 123.4 Program description.

Any State that seeks to administer a program under this part shall submit a description of the program it proposes to administer in lieu of the Federal program under State law or under an interstate compact. The program description shall include:

(a) A description in narrative form of the scope, structure, coverage and processes of the State program.

(b) A description (including organization charts) of the organization and structure of the State agency or agencies which will have responsibility for administering the program, including the information listed below. If more than one agency is responsible for administration of a program, each agency must have statewide jurisdiction over a class of activities. The responsibilities of each agency must be delineated, their procedures for coordination set forth, and an agency may be designated as a "lead agency" to facilitate communications between EPA and the State agencies having program responsibility. In the case of State RCRA programs, such a designation is mandatory (see paragraph (f)(4) of this section). When the State proposes to administer a program of greater scope of coverage than is required by Federal law, the information provided under this paragraph shall indicate the resources dedicated to administering the Federally required portion of the program.

(1) A description of the State agency staff who will carry out the State program, including the number, occupations, and general duties of the employees. The State need not submit complete job descriptions for every employee carrying out the State program.

(2) An itemization of the estimated costs of establishing and administering the program for the first two years after approval, including cost of the personnel listed in paragraph (b)(1) of this section, cost of administrative support, and cost of technical support.

(3) An itemization of the sources and amounts of funding, including an estimate of Federal grant money, available to the State Director for the first two years after approval to meet the costs listed in paragraph (b)(2) of this section, identifying any restrictions or limitations upon this funding.

(c) A description of applicable State procedures, including permitting procedures and any State administrative or judicial review procedures.

(d) Copies of the permit form(s), application form(s), reporting form(s), and manifest format the State intends to employ in its program. Forms used by States need not be identical to the forms used by EPA but should require the same basic information, except that State NPDES programs are required to use standard Discharge Monitoring Reports (DMR). The State need not provide copies of uniform national forms it intends to use but should note its intention to use such forms. State section 404 application forms must include the information required by § 123.94 and State section 404 permit forms must include the information and conditions required by § 123.97.

[Note.—States are encouraged to use uniform national forms established by the

Administrator. If uniform national forms are used, they may be modified to include the State Agency's name, address, logo, and other similar information, as appropriate, in place of EPA's.]

(e) A complete description of the State's compliance tracking and enforcement program.

(f) *State RCRA programs only.* In the case of State RCRA programs, the program description shall also include:

(1) A description of the State manifest tracking system, and of the procedures the State will use to coordinate information with other approved State programs and the Federal program regarding interstate and international shipments.

(2) An estimate of the number of the following:

(i) Generators;

(ii) Transporters; and

(iii) On- and off-site storage, treatment and disposal facilities, and a brief description of the types of facilities and an indication of the permit status of these facilities.

(3) If available, an estimate of the annual quantities of hazardous wastes:

(i) Generated within the State;

(ii) Transporters; and

State; and

(iii) Stored, treated, or disposed of within the State:

(A) on-site; and

(B) off-site.

(4) When more than one agency within a State has responsibility for administering the State program, an identification of a "lead agency" and a description of how the State agencies will coordinate their activities.

(g) *State UIC programs only.* In the case of a submission for approval of a State UIC program the State's program description shall also include:

(1) A schedule for issuing permits within five years after program approval to all injection wells within the State which are required to have permits under this Part and Part 122;

(2) The priorities (according to criteria set forth in 40 CFR § 146.09) for issuing permits, including the number of permits in each class of injection well which will be issued each year during the first five years of program operation;

(3) A description of how the Director will implement the mechanical integrity testing requirements of 40 CFR § 146.08, including the frequency of testing that will be required and the number of tests that will be reviewed by the Director each year;

(4) A description of the procedure whereby the Director will notify owners and operators of injection wells of the requirement that they apply for and obtain a permit. The notification required by this paragraph shall require applications to be filed as soon as possible, but not later than four years after program approval for all injection wells requiring a permit;

(5) A description of any rule under which the Director proposes to authorize injections, including the text of the rule;

(6) For any existing enhanced recovery and hydrocarbon storage wells which the Director proposes to authorize by rule, a description of the procedure for reviewing the wells for compliance with applicable monitoring, reporting, construction, and financial responsibility requirements of §§ 122.41 and 122.42, and 40 CFR Part 146;

(7) A description of and schedule for the State's program to establish and maintain a current inventory of injection wells which must be permitted under State law;

(8) Where the Director has designated underground sources of drinking water in accordance with § 122.35(a), a description and identification of all such designated sources in the State;

(9) A description of aquifers, or parts thereof, which the Director has identified under § 122.35(b) as exempted aquifers, and a summary of supporting data;

(10) A description of and schedule for the State's program to ban Class IV wells prohibited under § 122.36; and

(11) A description of and schedule for the State's program to establish an inventory of Class V wells and to assess the need for a program to regulate Class V wells.

(h) *State 404 programs only.* In the case of a submission for approval of a section 404 program the State's program description shall also include:

(1) A description of State regulated waters.

[Note.—States should obtain from the Secretary an identification of those waters of the U.S. within the State over which the Corps of Engineers retains authority under section 404(g) of CWA.]

(2) A categorization, by type and quantity, of discharges within the State, and an estimate of the number of discharges within each category for which the discharger must file for a permit.

(3) An estimate of the number and percent of activities within each category for which the State has already issued a State permit regulating the discharge.

(4) In accordance with § 123.92(a)(6), a description of the specific best management practices requirements proposed to be used to satisfy the exemption provisions of section 404(f)(1)(E) of CWA for construction or maintenance of farm roads, forest roads, or temporary roads for moving mining equipment.

(5) A description of how the State section 404 agency(ies) will interact with other State and local agencies.

(6) A description of how the State will coordinate its enforcement strategy with that of the Corps of Engineers and EPA.

(7) Where more than one agency within a State has responsibility for administering the State program:

(i) A memorandum of understanding among all the responsible State agencies which establishes:

(A) Procedures for obtaining and exchanging information necessary for each agency to determine and assess the cumulative impacts of all activities authorized under the State program;

(B) Common reporting requirements; and

(C) Any other appropriate procedures not inconsistent with section 404 of CWA or these regulations;

(ii) A description of procedures for coordinating compliance monitoring and enforcement, distributing among the responsible agencies information received from applicants and permittees, and issuing reports required by section 404 of CWA or these regulations.

(8) Where several State 404 permits are required for a single project, a description of procedures for:

(i) Ensuring that all the necessary State 404 permits are issued before any of the permits go into effect; and

(ii) Concurrent processing and, where appropriate, joint processing of all of the necessary State 404 permits.

§ 123.5 Attorney General's statement.

(a) Any State that seeks to administer a program under this Part shall submit a statement from the State Attorney General (or the attorney for those State or interstate agencies which have independent legal counsel) that the laws of the State, or an interstate compact, provide adequate authority to carry out the program described under § 123.4 and to meet the requirements of this Part. This statement shall include citations to the specific statutes, administrative regulations, and, where appropriate, judicial decisions which demonstrate adequate authority. State statutes and regulations cited by the State Attorney General or independent legal counsel shall be in the form of lawfully adopted State statutes and regulations at the time the statement is signed and shall be fully effective by the time the program is approved. To qualify as "independent legal counsel" the attorney signing the statement required by this section must have full authority to independently represent the State agency in court on

STATE OF NEW MEXICO
OFFICE OF THE GOVERNOR
SANTA FE
87503

BRUCE KING
GOVERNOR

November 19, 1982

Mr. Dick Whittington, P.E.
Regional Administrator (6A)
U.S. Environmental Protection Agency
Region VI
1201 Elm Street
Dallas, Texas 75270

Dear Mr. Whittington:

Herewith is transmitted the State of New Mexico's official request for approval of its application for primary enforcement responsibility in the operation of the Underground Injection Control Program as authorized by the Safe Drinking Water Act, Public Law 93-523 as amended.

This application contains all elements required by the United States Environmental Protection Agency and the Act to show State jurisdiction over Class I, III, IV and V injection wells, and hereby affirms the State of New Mexico's willingness to carry out the program. The Oil Conservation Division of the New Mexico Energy and Minerals Department is so designated by this letter as the appropriate agency to lead in the implementation of the program.

The Environmental Improvement Division of the New Mexico Health and Environment Department, and the Oil Conservation Division and Mining and Minerals Division of the Energy and Minerals Department have the statutory authority, available expert personnel, and other capabilities necessary to carry out the program of regulation of those wells in New Mexico which inject fluids. I feel confident that the newly amended Water Quality Control Commission Regulations, which were developed by the State of New Mexico in cooperation with the Environmental Protection Agency, various environmental groups, mineral producing companies and members of the public at large, 1) are enforceable throughout the entire state of New Mexico, 2) are at least as stringent in effect as the Federal Provisions, and 3) will permit the State to administer the Underground Injection Control Program without the burden of a dual Federal-State permitting process. Therefore, New Mexico has the requisite ability to effectively protect the State's vital, fresh, ground water from pollution by fluid injection processes.

I, therefore, request that the State of New Mexico be granted the primary enforcement responsibility over the Underground Injection Control Program provided for in the Safe Drinking Water Act.

I appreciate your continuing cooperation.

Sincerely,

Bruce King

BRUCE KING
Governor

PROGRAM DESCRIPTION: TEXT

PROGRAM DESCRIPTION

The material required pursuant to 123.4(a) is discussed below:

The State of New Mexico, through a number of Legislative Statutes, administered by several State Agencies, developed and implemented programs to control ground water pollution. A summary of these statutes, administering agencies and types of injection wells covered is given in the attached Table 1. The New Mexico Water Quality Act (74-6-1 through 74-6-13 NMSA 1978; see Appendix A) is the legislative authority for control of Class I, III, IV and some Class V injection wells. Class V wells relating to Coal Surface Mining are regulated by the Surface Mining Act (Appendix A) and Class V wells relating to geothermal operations are regulated by the Geothermal Resources Conservation Act (Appendix A). The Water Quality Act establishes the Water Quality Control Commission (WQCC) composed of eight constituent state agencies, plus an appointed member of the public, and assigns to the Commission the duty to "adopt, promulgate and publish regulations to prevent or abate water pollution . . .". In response to that mandate, the Commission has adopted the WQCC Regulations for ground water protection (Part 3). Technical requirements for Class I and Class III injection wells (Part 5) were adopted by the Commission on July 21, 1982.

New Mexico's highly effective program to protect ground water quality follows procedures that are equivalent in effect but not identical to the Consolidated Permit Regulations. The technical requirements of the New Mexico program are as stringent as the Federal provisions. Table 2 is a summary of the similarities and differences between the Consolidated Permit Regulations, as they apply to the UIC program, the New Mexico Water Quality Act and WQCC Regulations for protection of ground water. Although the methodology of application of the two sets of regulations differs between the two agencies, the results are identical: ground water in New Mexico has been and will continue to be protected, and the public is involved and participates in the permitting process.

The heart of the Environmental Improvement Division (EID) and the Oil Conservation Division's (OCD) program to protect ground water quality under the Water Quality Act is Part 3 of the WQCC Regulations: "Regulations for Discharges Onto or Below the Surface of the Ground."

The purpose of these Regulations as stated in Section 3-101 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."

These Regulations, adopted under the authority of the New Mexico Water Quality Act, are considered by many to be the most comprehensive in the nation for the

prevention and abatement of ground water pollution. The New Mexico ground water standards, some of the first in the United States, have been used extensively by other states in developing ground water protection programs. They apply to all discharges of effluent or leachate onto or below the surface of the ground, including all types of well injection, seepage from surface impoundments, land application of municipal and industrial wastes, and any other discharge which may impact ground water, except for those discharges which are specifically exempted.

Two central aspects of the Part 3 WQCC Regulations are the establishment of ground water quality standards and the requirement for an approved "discharge plan". Section 3-103 establishes numerical water quality standards for ground water of 10,000 mg/l or less total dissolved solids concentration. Standards for 27 parameters were adopted and have been in effect since 1977.

Development of the WQCC Regulations by the EID began in early 1974; they were discussed at numerous meetings of the WQCC from 1974 through 1976; they were taken to public hearing in June, 1976; they were adopted by the WQCC on January 11, 1977; and they became effective the following month. The Regulations were appealed by nine uranium companies in February, 1977, but they were not stayed by the court and remained in effect throughout the appeal process. The New Mexico Court of Appeals largely upheld the Regulations in December of 1978. A New Mexico Supreme Court ruling on November 16, 1979 was also generally favorable to the Regulations, except for the definition of "Toxic Pollutants" and the WQCC subsequently deleted that definition from the Regulations.

The EID presented information to the Water Quality Control Commission in September, 1980 on the potential hazards of various toxic organic compounds. In October, the EID requested and received authorization from the WQCC to proceed to the public hearing (held January 14-15, 1981) on proposed amendments to the Regulations to control the discharge of toxic pollutants to ground water. On April 22, 1981, the WQCC adopted a revised definition of "Toxic Pollutant" covering 76 compounds designated as potential toxic pollutants, and appropriate other amendments to incorporate effective control of these toxic pollutants into the Regulations. These amendments were subsequently filed at the State Records Center and became effective July 2, 1981. Four uranium companies challenged the amendments and filed a Notice of Appeal on June 30, 1981, but did not request a stay of the Regulation Amendments. The appeal did not apply to the bulk of the Regulations which were previously upheld by the courts. A public hearing was held in July 1981 on proposed standards for several of the "Toxic Pollutant" compounds and standards were adopted for 8 toxic pollutants at the December 16, 1981 WQCC meeting. The New Mexico Court of Appeals, in a unanimous decision on January 19, 1982, upheld the "Toxic Pollutant"amendments to the Regulations (See Appendix F). This decision has been subsequently affirmed by the New Mexico Supreme Court.

The Commission received and approved a request by the EID and the OCD at the January 12, 1982 WQCC meeting to conduct a public hearing on March 3, 1982 on the Part 5 amendments to the WQCC Regulations. These amendments are equivalent to the Environmental Protection Agency's (EPA) technical

requirements (40 CFR Part 146). Part 5 and the necessary Part 3 additions were unanimously adopted by the Commission on July 21, 1982. The procedural aspects of a discharge plan application and public and staff review remain the same. Changes to the existing regulations include references to the new Part 5 and additional UIC definitions.

A discharge plan submitted for staff review is essentially an application for a permit. In a discharge plan an applicant must describe in detail the process to be used for discharging to ground water, and the hydrology, geology and hydrochemistry of the ground water in areas which may be affected by the discharge. The applicant may also propose or the Director may require a monitoring and reporting schedule, a contingency plan in the event of failure of the system, and any other information that may be necessary to demonstrate the discharge will be consistent with the Regulations. All injection wells that are regulated under Part 5 of the WQCC Regulations must submit the information required in Section 5-210 and other applicable sections. Any discharge allowed must be consistent with the Regulations and with the conditions outlined in an approved discharge plan. Therefore an approved discharge plan is equivalent to an EPA permit because the New Mexico Regulations are equivalent to or more stringent than the Federal provisions.

Implementation of the WQCC Regulations as they apply to most types of discharges, including injection wells, is carried out by the EID Ground Water Section with aid from other sections (such as Surface Water). Certain oil, natural gas, carbon dioxide gas, geothermal, and coal mining discharges are specifically exempted from these Regulations since they are covered by other statutes and regulations as discussed in the Attorney General's statement (also see Table 1). In addition, the OCD administers the WQCC Ground Water Regulations as they apply to certain other aspects of the oil and gas industry, such as refining.

All new discharges since June, 1977, are subject to the discharge plan requirement, except as specifically exempted. In addition, there is legal authority to require existing discharges to come into conformance with the Regulations upon notification by the Division. New section 5-300 of the WQCC Regulations requires existing injection well dischargers which have not previously notified the Director to do so within 1 year. The 1980 New Mexico Surface Impoundment Assessment found that all of the documented or suspected cases of ground water contamination in New Mexico are from facilities which were existing prior to implementation of the Regulations and that there are no known ground water contamination problems due to new discharges initiated since implementation of the Regulations. The preliminary underground injection well inventory of Class I, III, and IV wells was completed in August, 1981 and revised August 8, 1982.. The results of the inventory (Table 4) show that 5 Class III wells are operating without an approved discharge plan. These brine production wells have been asked to submit a discharge plan and are required to have an approved discharge plan within 90 days of the effective date of the Regulations. All Class III wells under construction have applied for discharge plan approval. Six Class III wells were abandoned without State approval, but the operator will be required to meet State requirements for abandonment of their site. One inactive Class I well does not have an approved discharge plan; this well will be required to submit a discharge plan prior to resuming operation, or an abandonment plan

prior to final closure. Since the adoption of the WQCC Regulations in 1977 through August of 1982, 238 discharge plans of all types have been submitted to the EID. Approximately 200 have been approved, 2 have been disapproved and the rest either were withdrawn or are pending. The OCD has received 22 discharge plan applications with 6 approvals and the rest pending. Upon submission of a discharge plan, the receiving Division issues a public notice (Figure 1), provides an opportunity for public hearing and reviews the plan for conformance with the Regulations (Table 5).

When questions are raised by the Division reviewing staff about the adequacy of a discharge plan, most dischargers have been willing to provide more information and/or to amend their plans to come into conformance with the Regulations, and have had their amended plans approved. Public hearings have been held on six plans, four of which were subsequently approved and two were disapproved. The disapproved plans were for proposed surface impoundments which EID hydrologists judged to have unacceptable ground water contamination potential; one was a proposed copper leaching operation and one was a proposed uranium mill tailings pond. The uranium mill operators later submitted a completely new, environmentally acceptable discharge plan which was approved in January, 1980.

Self-monitoring of ground water is required of many discharges including all injection wells covered by Part 5. Self-monitoring results are reported to the Division regularly. Specific monitoring requirements for Class I and III injection wells are listed in Section 5-207. The Divisions periodically sample effluents and monitoring wells of dischargers. Past sampling programs have emphasized the uranium facilities in the Grants Mineral Belt and petroleum refining facilities in the southeast and northwest part of the state. Monitoring of dischargers was increased as a result of a very significant increase in EID Water Pollution Control Bureau staffing authorized in 1981 by the New Mexico Legislature. The Commission Regulations allow for a wide range of Division monitoring activity, including installation, maintenance and use of devices for monitoring effluent and ground water likely to be affected by a discharge; monitoring in the vadose zone, and continued monitoring after cessation of operations.

Violations of the provisions of an approved discharge plan may result in termination of the plan by the Director. Both criminal and civil penalities can be assessed against persons discharging without approval. The Water Quality Act provides for criminal fines ranging between $300 and $10,000 per day and/or up to a year imprisonment. A civil penality of up to $5,000 per day can also be assessed.

The Part 5 additions to the WQCC Regulations require that all "effluent disposal wells" and "in situ extraction wells" have an approved discharge plan (a permit) prior to operation. The definiton for "effluent disposal well" is broad enough to include all Class I and Class IV injection wells (the inventory found no Class IV wells in the State), and some Class V wells which the State feels may have the potential to cause a violation of the Safe Drinking Water Act. "In situ extraction wells" covers all Class III wells. Class V wells not covered by Part 5 are presently regulated by Part 1 and Part 3 of the existing WQCC Regulations, or under other State Statutes as discussed in the Attorney General's statement.

In evaluating the effectiveness of the existing program, the following facts are pertinent:

1. The WQCC Regulations (Part 3), adopted in 1977, were developed over a period of years with a large amount of public input, and they have been thoroughly tested and upheld by the courts.

2. New Mexico has established numerical ground water quality standards for 35 parameters, and these standards apply to ground water of 10,000 mg/l or less total dissolved solids concentration.

3. After the deletion of the generic "Toxic Pollutant" provisions from the WQCC Regulations in response to the November, 1979, New Mexico Supreme Court ruling, the Regulations controlled only contamination from the parameters listed in the numerical Standards, which were technically demonstrated in public hearing to be parameters of concern in New Mexico. The WQCC has taken action to control other parameters, but the definition and published list of "Toxic Pollutants" that became effective July 2, 1981, is not exhaustive.

4. The Part 5 Regulations adopted in 1982 the prohibit disposal of effluents by well injection, and the use of in situ extraction wells without a permit (discharge plan) and requires the applicant to satisfy stringent technical criteria and performance standards.

5. All new or modified discharges, including injection wells, initiated since the 1977 adoption of the WQCC Regulations are required to be in conformance with the Regulations and to have montoring adequate to assure that problems are promptly identified. There have been no known ground water contamination problems due to such new discharges.

The material required pursuant to 123.4(b). is discussed below:

The organization, structure and responsibilities of each State agency responsible for UIC is best described by the following tables. Table 1 shows the division of responsibility and authority for controlling ground water pollution from different classes and types of injection wells. The administrative structure of each agency is described in Tables 6 through 10. Since administrative review of Class I and Class III injection well applications is performed by either the Environmental Improvement Division (EID) or the Oil Conservation Division (OCD) under the WQCC Regulations, division responsibilities for these well classes are the same.

Each Division is responsible for determining whether an injection practice (including Class V wells) may affect ground water and therefore require a discharge plan. It is the responsibility of the Division to perform a technical evaluation of a discharge plan submitted to that Division. Based upon the technical evaluation, the Director will approve the discharge plan (equivalent to the issuance of a permit) or disapprove the plan. The Division is then responsible for insuring that the discharger operates pursuant to the Regulations and the approved discharge plan. The Division does this through spot inspections of the facility or an

evaluation of the monitoring reports required by the discharge plan. The Division can undertake studies to determine if a specific injection practice has the potential to cause ground water pollution. The Class V well evaluation is an example of the types of studies that the Division plans to undertake. In addition the Division can investigate complaints about ground water pollution from the public or from another state agency. Each Division has the authority to halt the discharge and impose fines or imprisonment subject to the "Water Quality Act" (74-6-5.J.,P.,Q., NMSA 1978).

A "Memorandum of Understanding" has been developed to codify the individual responsibilities of the EID, OCD and MMD and to designate the OCD as the "lead agency" for UIC responsibility within the State. The "Memorandum of Understanding" is attached as Appendix B to the Program Description.

EID and OCD budgets for Federal Fiscal Year 1981 and 1982 are presented in Appendix C. They adequately address the funding and cost estimates. As stated in the enclosed documents the funding is 75% Federal. Funding needs for FY '83 and '84 are expected to be increased only to compensate for increased costs of salaries due to inflation and/or productivity increases. The State does not anticipate any other source of funding to replace any loss of Federal funds for the UIC program.

The job specifications of the technical staff who will carry out the State program are given in Appendix D. The job descriptions for the EID staff are also presented.

The material required pursuant to 123.4(c) is discussed below:

New Mexico will not submit a lengthy narrative description of the permitting process for Underground Injection Wells (See Table 5). Instead Table 2 shows which portions of the New Mexico Statutes or Regulations would meet or sometimes exceed the requirements of CFR 40 Parts 122, 124, and 146. The equivalence of the Federal and State permitting process is obvious in most instances; however, some of the State Regulations or Statutes may require a brief narrative description. The State has attempted to anticipate those regulations which may require further explanation. These narrative descriptions which demonstrate the equivalency of the two processes are explained in Table 3. Under "the material required pursuant to 123.4(e)" administrative and judicial review procedures are discussed.

The material required pursuant to 123.4(d) is discussed below:

New Mexico does not require a discharger to fill out forms in order to obtain a permit to discharge. Information which must be submitted to the Director concerning any injection operations is addressed in the following sections of the New Mexico WQCC Regulations.

Regulation	Type of Well
1-201.B. 5-300	All injection wells covered under Water Quality Act.
5-101.B. 5-210 3-107.E.	All effluent disposal and in situ extraction wells needing a discharge plan.
3-107.A. 3-106.C.	Injection wells needing a discharge plan other than effluent disposal wells or in situ extraction wells

The material required pursuant to 123.4(e) is discussed below:

The New Mexico UIC program meets the EPA requirements of 40 CFR Part 123.8 (Requirements for compliance evaluation programs, also see Attorney General's Statement, point 6) and Part 123.9 (Requirements for enforcement authority, see also Attorney General's Statement, point 7). All effluent disposal wells and in situ extraction wells are required to submit monitoring data and other reports in accordance with sections 5-207 and 5-208 of the WQCC Regulations. If the Director feels that a monitoring program and reporting schedule is necessary for other types of injection wells that require a discharge plan under the WQCC regulations, the discharger will be required to include such a schedule in the discharge plan, or the discharge plan can be approved with monitoring and reporting prescribed by the Director. The hydrologist in charge of the discharge plan will review required reports to insure that injection conforms with the Regulations and the approved discharge plan.

The Water Quality Act (NMSA 1978) section 74-6-9.F. provides for Division access to any injection facility to:

1. Copy any records required to be maintained by the Regulations,
2. Inspect any monitoring equipment or methods required to be installed by regulations, and
3. Sample any effluents.

The administering Division will typically inspect every injection facility once a year to insure compliance with the Regulations and the approved discharge plan. The data collected by the Division is examined to determine if it is in agreement with the data supplied by the discharger.

The Divisions have District and field offices throughout the State (see Tables 6 - 10). These field offices are typically the first to hear any public complaint concerning injection operations. The field staff are usually the first to report gross violations of the Regulations and injection practices which may endanger ground water. The UIC staff will then respond to these complaints and recommend enforcement action or other remedies. The Division feels that yearly inspections (at a minimum) by the UIC staff, reporting by

the field staff and investigation of citizen complaints, plus review of reports submitted by the operator are adequate methods to insure compliance with the injection regulations.

Procedures have been established under the Water Quality Act for the administrative and judicial enforcement of injection operations. When the Division discovers a violation of laws or regulations it adminsters, through the methods listed above or through self-monitoring data submitted to the Division by the discharger, it first initiates administrative procedures seeking voluntary compliance. If such voluntary compliance is not achieved within a reasonable time, district court proceedings are initiated. Injunctive relief against any violation or threatened violation of regulations is subject to the continuing jurisdiction and supervision of the district court and the court's powers of contempt. A person required under Part 3 and Part 5 of the Regulations to obtain a permit, and who either refuses to apply or violates the permit or any permit condition is guilty of a misdemeanor and shall be punished by a fine of not less then $300 nor more than $10,000 per day, or by imprisonment for not more than one year, or both. The trial court may also impose a civil penality for a violation of permit requirements not to exceed $5000 per day. (74-6-5 NMSA 1978) As an additional means of enforcing the Water Quality Act or any regulation of the Commission, the "Commission may accept an assurance of discontinuance of any act or practice deemed in violation of the Water Quality Act or any regulation adopted pursuant thereto, from any person engaging in, or who has engaged in, such act or practice, signed and acknowledged by the chairman of the Commission and the party affected. Any such assurance shall specify a time limit during which such discontinuance is to be accomplished." (74-6-10, NMSA 1978)

In addition to the above enforcement actions, "if any person is causing or contributing to water pollution of such characteristics and duration as to create an emergency which requires immediate action to protect human health, the Director of the Environmental Improvement Division shall order the person to immediately abate the water pollution creating the emergency condition. If the effectiveness of the order is to continue beyond forty-eight hours, the Director of the Environmental Improvement Division shall file an action in the district court, not later than forty-eight hours after the date of the order, to enjoin operations of any person in violation of the order." (74-6-11, NMSA 1978)

<u>The material required pursuant to 123.4(f) does not apply to the UIC program.</u>

<u>The material required pursuant to 123.4(g).1. is discussed below:</u>

All effluent disposal wells and in situ extraction wells are required to have an approved discharge plan (permit) pursuant to Section 5-101. All operating effluent disposal (Class I) wells and in situ extraction (Class III) wells have an approved discharge plan under Part 3 of the WQCC Regulations except several salt solution mining wells under OCD jurisdiction. These solution mining wells are required to have an approved Part 3 discharge plan within 90 days of the effective date of the Part 5 of the WQCC Regulations to continue operation. Operations with approved Part 3 discharge plans will be

required to be in compliance with Part 5 of the regulations upon application for discharge plan approval.

All discharge plans are approved for a maximum of 5 years (WQA 74-6-5 and Section 3-109.C.4. of the WQCC regs). Part 5 discharge plans will be evaluated as they expire pursuant to Section 5-101.C.

The material required pursuant to 123.4(g).2. is discussed below:

The salt solution mining wells mentioned above are the only operating injection wells which are not permitted under an approved discharge plan. The operators of these wells have been asked to submit a discharge plan and are the first and only priority and will be operating with an approved discharge plan by time of program approval from the EPA. Future permitting priority will be set according to the expiration date of the discharge plans.

The material required pursuant to 123.4(g).3. is discussed below:

Please see Table 2 under EPA Section 146.08. Notification is required prior to mechanical integrity tests to allow Division inspection (see Section 5-205.A.5). UIC staff will observe all mechanical integrity tests of effluent disposal wells. Mechanical integrity testing of in situ extraction wells which is required every 5 years will be observed on a timely basis. The Director will review the results of all mechanical integrity tests.

The material required pursuant to 123.4(g).4. is discussed below:

The Director determines which wells require an approved discharge plan according to the information provided by the Notice of Intent to discharge (1-201 and 5-300 WQCC Regulations). A discharge plan for effluent disposal wells and in situ extraction wells must be submitted pursuant to Section 5-101. Other types of injection wells may be required to submit a discharge plan for approval pursuant to Part 3 of the WQCC regulations (See Table 5 showing the permitting process). As described in Section (g).1. above, all known operators of effluent disposal wells and in situ extraction wells are required to apply for discharge plan approval within 90 days of the effective date of the regulations.

The material required pursuant to 123.4(g).5. is discussed below:

Injection wells which are not effluent disposal wells or in situ extraction wells may be authorized by rule. Prior to 90 days after the effective date of Part 5, in situ extraction wells or effluent disposal wells which have a discharge plan approved pursuant to Part 3 are considered permitted by rule since Part 3 of the WQCC Regulations meets the EPA requirements of authorization by rule (see also Table 3, 122.37). Class V wells (injection wells which are not effluent disposal or in situ extraction wells) must submit notification pursuant to WQCC 1-201 and 5-300, and operate in conformance with Parts 1 and 3 of the Regulations.

The material required pursuant to 123.4(g).6. does not apply to this application.

The material required pursuant to 123.4(g).7. is discussed below:

The New Mexico injection well inventory for those wells affected by this program description is current. Updating the inventory is a simple task because all discharges to the subsurface are required to file a Notice of Intent to discharge. The inventory will be updated yearly based upon information received in that Notice and submitted to EPA annually.

The material required pursuant to 123.4(g).8. is discussed below:

All ground water in New Mexico which has a concentration of 10,000 mg/l TDS or less is considered an underground source of drinking water in New Mexico. However, under Part 5 of the Regulations, some waters between 5,000 and 10,000 mg/l TDS could be designated for injection.

The material required pursuant to 123.4(g).9. is discussed below:

New Mexico WQCC Regulations do not provide for exemption of aquifers. No aquifers in New Mexico are designated for injection pursuant to 5-103 of the WQCC regulations.

The material required pursuant to 123.4(g).10. discussed below:

Presently there are no Class IV wells in the state and these wells will not be permitted (see 5-205.B.1). If such a well did exist it would be required to submit a discharge plan application pursuant to Part 5-101.B. The Division could not approve any discharge plan application for a Class IV well because it does not meet the requirements of Part 5 or Part 3 for the protection of ground water. However, injection of hazardous or radioactive wastes into an aquifer containing between 5,000 and 10,000 TDS may be authorized if the aquifer is designated for injection pursuant to 5-103 and the applicant receives discharge plan approval.

The material required pursuant to 123.4(g).11 is discussed below:

Table 4 shows the known Class V wells in the state. A complete inventory and assessment of Class V wells will be submitted pursuant to 146.52. Information submitted under 1-201 and 5-300 will be used to inventory and assess all Class V wells. However, regulations for Class V wells are currently in effect as shown in Table 1.

The material required pursuant to 123.54(b) is described below:

After the close of the public comment period the Division will submit the following to EPA:

1. Copies of all written comments received by the State;

2. A copy of the transcript of the public hearing; and

3. A responsiveness summary which idenifies the public participation activities conducted, describes the matters presented to the public, summarizes significant comments received, and responds to these comments.

OCD STAFF RESPONSIBILITY FOR CLASS I AND III WELL REGULATION

The Oil Conservation Division Water Resource Specialist is responsible for requesting, evaluating and submitting to the Director for approval or disapproval, Discharge Plans from oil and gas related processing, refining, treatment and transportation facilities which are regulated under the Water Quality Control Commission Regulations. The Chief Engineer, the Technical Support Chief, the Chief Geologist, the General Counsel and other staff members assist in carrying out this task.

The UIC Program Administrator is responsible for carrying out administrative activities related to all Class I, II, III and V injection wells.

Other Division staff members offer support in all of the above activities. The Energy and Minerals Department and the Oil Conservation Division Tables of Organization are attached as Tables 9 and 10.

REGULATION OF CLASS V WELLS UNDER OCD JURISDICTION

Introduction

Under the provisions of the Geothermal Resources Act (see Appendix A) and the Rules promulgated thereunder, the OCD regulates the drilling for and the production of geothermal resources in this State. At the present time there are six geothermal injection wells in the state completed or under construction. Five of these are in two experimental projects in the Jemez Mountains intended for the production of heat to use in generating electrical power. The sixth injection well is in the south central area of the State and is for the purpose of disposal of geothermal fluids utilized for space heating at New Mexico State University.

During FY 83 the OCD will begin a program of studying Class V (geothermal) wells under its jurisdiction as a UIC Program task.

Geothermal Injection Well Study

The purpose of the geothermal injection well study to be started during FY 83 will be, in order of importance, to:

(1) Study the construction, use, operation, and history of geothermal injection wells for the purpose of recommending or validating the most appropriate regulatory approach;
(2) Assess contamination potential of such wells;
(3) Determine if corrective action is required relative to such wells and available alternatives;
(4) Complete an inventory of such wells giving information on construction and the nature and volume of injected fluids.

These items are to be begun within 12 months and completed within 3 years after the date primacy is granted provided funding is continued.

The ultimate purpose of the Division's proposed geothermal injection well study will be to codify those factors which are significant in any determination to permit or deny injection into geothermal wells. Such factors would include but not be limited to:

(1) Well construction,
(2) Expected well life,
(3) Water protection,
(4) Corrosion and treatment,
(5) Area of influence, and
(6) Hydrologic regimes.

The study is expected to involve use of private contractor as well as appropriate Division Staff. Division records and data on existing wells, both inside and outside New Mexico, will be utilized. Depending upon initial findings, the Division may seek industry cooperation in testing programs on actual wells.

Within three years after the approval of the State Primacy application, the Division will present recommendations to the EPA as to the most appropriate regulatory approach to permitting of geothermal injection wells and, if appropriate, remedial action.

OCD Regulatory Program Relative to Geothermal

In a manner to similar to its regulation of oil and gas wells, the Division regulates the drilling for and the production of geothermal resources in this State. This authority is exercised under provisions of the Geothermal Resources Act (Appendix A) and includes, in part, authority to permit and regulate the injection of fluids into geothermal reservoirs, to regulate the subsurface disposal of geothermal resources or the residue thereof, and to require geothermal wells to be operated in such a manner as to afford reasonable protection to human life and health and to the environment.

A full description of the Division's geothermal program does not appear necessary at this time due to the nature of the immediate study activity to be performed following approval of a State Primacy application. A full description would accompany any later application which may be required as a result of the aforesaid immediate activity.

In general, the Division's Geothermal Program encompasses the application and enforcement of its Rules and Regulations and permit terms and conditions.

Significant features of the Division's Rules and Regulations include:

(1) Rule 4 which requires operations to be conducted in a manner which will "afford maximum reasonable protection to human life and health and to the environment."
(2) Rule 100 through 119 which, in part, require designation of a local agent, a plugging bond, a drilling permit (all prior to operations), well identification, the sealing off and separation of strata, including fresh and saltwater strata, and the sealing off of geothermal strata, casing and cement to

protect water and geothermal zones, the proper disposal of produced water, and notice of leaks, spills and blowouts. Rule 111 confirms the right of duly authorized Division representatives to enter a geothermal resources lease for inspection purposes.

(3) Rule 200 through 212 requires and designates forms and locations for reporting a variety of geothermal operations, including:

   (a) Permit to drill,
   (b) Drilling reports,
   (c) Workover reports,
   (d) Plugging reports,
   (e) Well log data and history,
   (f) Requests for authority to produce or inject,
   (g) Production and injection reports, and
   (h) Well test reports.

(4) Rules 301 through 304 deal with liability and requirements to plug and abandon geothermal wells.

(5) Rules 401 through 403 concern the purchase of geothermal resources.

(6) Rules 501 through 506 cover geothermal injection wells and are more fully discussed later in this description.

(7) Rules 601 through 604 are designed to limit the possibility of loss of control (blowouts) of geothermal wells.

(8) Rules 701 through 723 contain the rules of procedure related to:

   (a) Public hearings and notice thereof,
   (b) Emergency orders,
   (c) Appeal process following issuance of orders resulting from such hearings.

The Division must approve applications to drill, inject into, or plug geothermal wells prior to commencing work. Considerations in such approvals include all those mandated by the Rules and Regulations as well as any considerations related to local conditions in the area involved.

The Division conducts inspections of all types of geothermal operations to assure compliance with Rules and Regulations and with specific permit terms and conditions.

Field inspectors investigate any complaints received and operators are required to cease or correct any operations which do not comply with the Rules and Regulations or with permit conditions.

Geothermal Injection Wells

Geothermal injection and disposal wells are currently regulated under Division Rule 501 through 506. These rules define each such well and preclude its use prior to Division approval.

Rule 501 defines geothermal injection wells and precludes their use prior to Division approval.

Rule 502 defines geothermal disposal wells and precludes their use prior to Division approval.

Rule 503 describes the method and form to be used in making application to the Division for approval of a geothermal injection or disposal well. In general this rule requires preparation of an application (Form G-112) which provides for submittal of plats or maps showing wells within one mile of a proposed injection well, a log of a well, data on well construction and cementing, information on fresh water zones, and information on appropriate operation parameters.

Rule 504 provides for the filing by permittees of monthly injection/disposal reports for any such well.

Rule 505 provides for periodic and continuing testing to confirm the injection/disposal well's mechanical integrity and the containement of injected fluids in the intended zone. The rule further provides for Division inspection of such operations and for prompt correction of unsatisfactory conditions. The rule finally provides for permit rescission after six months of non-injection.

Rule 506 provides for proper abandonment of injection wells.

OCD Staff Responsibility for Geothermal Regulation

The sixty-two staff members of the OCD spend on average of approximately eighteen per cent of their time on UIC activities. The majority of this time is devoted to Class II well regulation. Regulation of geothermal activity throughout the state is the responsibility of District IV staff. At present geothermal activity is taking place in the Rio Grande rift zone which bisects the state from north to south.

The District IV Supervisor, who is also the Division's Chief Geologist, and the District IV Field Inspector, inspect all geothermal operations. The District Supervisor must approve all geothermal applications to drill on state or private land. Applications to drill on federal land are submitted for approval to the U.S. Geological Survey.

Applications for approval to inject are submitted by the operator on Form G-112. They are reviewed and approval by the Division Chief Engineer and signed by the Division Director.

Enforcement actions are taken when required by the District Supervisor and Field Inspector, the General Counsel, and the Division Director.

Individual goethermal well files showing all activity in connection with each well are maintained by District IV personnel. Computer files of geothermal wells are maintained by the Division data processing staff.

Actual or potential water contamination problems related to geothermal drilling and production would be investigated and assessed by the Division Water Resource Specialist.

Program Description: Tables and Figures

TABLE 1--SUMMARY OF NEW MEXICO ACTS APPLICABLE TO AND ADMINISTRATIVE AGENCIES RESPONSIBLE FOR UNDERGROUND INJECTION CONTROL

	NM STATUTORY AUTHORITY				NM ADMINISTRATIVE AGENCY		
EPA UIC WELL CLASSIFICATION (40 CFR, PART 146.05)	WATER QUALITY ACT (74-6-1 through 74-6-13 NMSA 1978)	OIL AND GAS ACT (70-2-1 through 70-2-38 NMSA 1978)	GEOTHERMAL RESOURCES CONSERVATION ACT (71-5-1 through 71-5-24 NMSA 1978)	SURFACE MINING ACT (69-25A-1 through 69-25A-35 NMSA 1978)	EID[1] (ALL WQCC REGS)	OCD[1]	CSMB[1]
Class I	X	--	--	--	X	X[2] (WQCC REGS)	--
Class II	--	X	--	--	--	X (OIL & GAS RULES)[2]	--
Class III	X	--	--	--	X	X[2] (WQCC REGS)	--
Class IV	X	--	--	--	X	X[2] (WQCC REGS)	--
Class V (1)	X[3]	--	--	--	X	--	--
(2)	X[3]	--	--	--	X	--[2]	--
(3)	X	--	--	--	X	X[2] (WQCC REGS)	--
(4)	X	--	--	--	X	--	--
(5)	X	--	--	--	X	--	--
(6)	X	--	--	--	X	--	--
(7)	X	--	--	--	X	--	--
(8)	X[3]	--	--	--	X	--	--
(9)	X[3]	--	--	--	X	--	--
(10)	X	--	--	--	X	--	--
(11)	X	--	--	--	X	--	--
(12)	--	--	X	--	--	X (GEOTHERMAL RULES)	--
(13)	X	--	--	--	X	--	--
(14)	X	--	--	--	X	--	--
(15)	X	--	X	X	X	X (WQCC REGS OR GEOTHERMAL RULES)	X (SURFACE COAL MNG REGS)
(16)	X	--	--	X	X[4]	X[4] (WQCC REGS)	X (SURFACE COAL MNG REGS)

1. Abbreviations: CSMB - Coal Surface Mining Bureau of the Mining and Milling Division, Energy and Minerals Department
   EID - Environmental Improvement Division of Health and Environment Department
   OCD - Oil Conservation Division of the Energy and Minerals Department
   WQCC - Water Quality Control Commission
2. The OCD administers WQCC Regulations as they pertain to discharges at refineries and natural gas transmission lines, and solution mining of salt.
3. The WQCC Regulations cover all domestic septic and cesspool systems with capacity of 2,000 gallons per day or more (20 persons @ 100 gallons per day), and all non-domestic systems (any quantity).
4. No injection wells for lignite, tar sands or oil shale are currently in existence in New Mexico; oil shale wells will be regulated by the WQCC Regs, lignite wells by the CSMB, and tar sands by the EID.

TABLE 2

PART A: SUMMARY COMPARISON OF EPA CONSOLIDATED PERMIT REGULATIONS APPLICABLE TO STATE UIC PROGRAMS WITH NEW MEXICO WQCC REGULATIONS

	APPLICABLE STATE AUTHORIZING STATUTE AND/OR STATE WQCC REGULATIONS*	
FEDERAL REGULATION** (40 CFR, Part 122, and Part 124)	STATE STATUTE (NMSA, 1978)	STATE REGULATION (WQCC REGULATIONS)
122.3 Definitions	74-6-2 74-6-4.D.	1-101
122.4 Application for a Permit	74-6-4 74-6-5	See Table 3 and 122.38.
(a)		1-201
(b)		3-104 3-106.C.8. 5-101.A.
(c)		3-109.C.
(d)		1-201.B. 3-106.C.8. 5-210
(e)		3-107.A.7. 5-209.F.
122.6 Signatories to Permit Applications and Reports	74-6-2.H. 74-6-5.B.	See Attorney General's Statement, Point 5.
(a)		5-101.H.
(b)		5-208.C.
(c)		5-101.H.
(d)		5-101.H.2. 5-208.C.

*Part 5 references are the UIC requirements in the WQCC Regulations for effluent disposal wells (Class I) and in situ extraction wells (Class III), and to prohibit Class IV wells. Permitting procedures for all classes of injection wells regulated under the Water Quality Act, and requirements for Class V wells are covered by Parts 1 and 3 of the Regulations.

** EPA Federal Regulations not applicable to New Mexico's UIC program are omitted from this table.

Table 2 (Cont'd)

FEDERAL REGULATION (40 CFR, Part 122, and Part 124)	APPLICABLE STATE AUTHORIZING STATUTE AND/OR STATE WQCC REGULATIONS: STATE STATUTE (NMSA, 1978)	STATE REGULATION (WQCC REGULATIONS)
122.7 Conditions Applicable to All Permits (See also 122.41 and 122.42)	74-6-5	
(a)		3-104 5-101.J.
(b)		See Table 3 5-101.G.
(c)		5-101.J.
(d)		1-203.A. 5-101.J.
(e)		5-210.B.17. 3-107.A. 3-107.B. 3-107.C.
(f)		5-101.J.
(g)	See Attorney General's Statement, Point 5.	
(h)	74-6-9.F.	3-107.A.6. 3-107.D. 5-208
(i)	74-6-9.F.	3-107.D.
(j)		3-107 5-207
(k)		5-101.H. 5-208.C.
(l)		3-107.C. 1-203 3-111 5-101.I. 3-107 5-207 1-203 5-101.B. 5-208
122.8 Establishing Permit Conditions		See Table 3.
122.9 Duration of Permits	74-6-5.F.	
(c)		3-109.G.4.
(d)		3-109.G.4. 5-101.G.
(e)		3-109.G.4.

Table 2 (Cont'd)

FEDERAL REGULATION (40 CFR, Part 122, and Part 124)	APPLICABLE STATE AUTHORIZING STATUTE AND/OR STATE WQCC REGULATIONS: STATE STATUTE (NMSA, 1978)	STATE REGULATION (WQCC Regulations)
122.10 Schedule of Compliance		
(a)		5-101.B.
122.11 Requirements for Recording and Reporting and Monitoring Results	74-6-5.C.	
(a)		3-107.A.1. 3-107.A.2.
(b)		3-107 5-207
(c)		3-107.A. 5-208
122.13 Effect of a Permit		
(a)	74-6-5.I. 74-6-5.J.	3-109.C.4. 5-101.J.
(b) [See 122.7(a)]	See Attorney General's Statement, Point 5.	
122.14 Transfer of Permits		
(a), (b)		5-101.I.
122.15 Modifications or Revocation and Reissuance of Permits	74-6-5.J.	
(a), (b)		3-107.C. 5-101.J. 3-109.F. 5-101.I.
(c)		3-109.C.3.
122.16 Termination of Permits	74-6-5.J.	
(a), (b)		5-101.J.
122.18 Noncompliance and Program Reporting by the Director	See Memorandum of Agreement.	

Table 2 (Cont'd)

FEDERAL REGULATION (40 CFR, Part 122, and Part 124)	APPLICABLE STATE AUTHORIZING STATUTE AND/OR STATE WQCC REGULATIONS	
	STATE STATUTE (NMSA, 1978)	STATE REGULATION (WQCC Regulations)
122.19 Confidentiality of Information	74-6-12.B.	See Attorney General's Statement, Point 17; and Memorandum of Agreement, Item VIII.
122.32 Classification of Injection Wells	74-6-4	See Attorney General's Statement, Point 10.
(a)		1-101 "effluent disposal well"
(b)		5-101.D.1.
(c)		1-101 "in situ extraction well"
(d)		1-101 "effluent disposal well"
(e)		1-201.A. 3-104 5-300
122.33 Prohibition of Unauthorized Injection	74-6-5	See Attorney General's Statement, Point 1 and 122.42(a) on Table 3. 5-101 5-102
122.34 Prohibition of Movement of Fluid into USDW	74-6-4 74-6-10	
(a)		See Attorney General's Statement, Point 2. 3-104 5-101.A. 5-101.B.
(b)		5-101.J.
(c)		3-104 1-101 "effluent disposal well"
(d)		3-104
(e)	74-6-11	

Table 2 (Cont'd)

FEDERAL REGULATION (40 CFR, Part 122, and Part 124)	APPLICABLE STATE AUTHORIZING STATUTE AND/OR STATE WQCC REGULATIONS: STATE STATUTE (NMSA, 1978)	STATE REGULATION (WQCC Regulations)
122.35 Identification of USDW and Exempted Aquifers	74-6-4.D. 74-6-9	
(a)		3-101.A.
(b)		5-103
	See Memorandum of Agreement, Section VII.	
(c)		5-101.C.2. 5-103
See also program description, material required by 123.4 (g)(9).		
122.36 Elimination of Certain Class IV Wells	74-6-4.D. 74-6-5.D.	3-104 5-101.A. 5-101.C.
See also Program Description, material required by 123.4(g)(10). See also Attorney General's Statement, Point 11. See also Memorandum of Agreement, Section VII.		
122.37 Authorization of Underground Injection by Rule	74-6-4.I. 74-6-5.A.	
(a), (b)		5-101.B.1. 5-101.B.2. 5-101.G. 3-104
(c), (d)		5-300 See Table 3.
122.38 Application for A Permit; Authorization by Permit (See also 122.4)	74-6-5.A.	
(a)		1-201 5-101.A.
(b)		5-101.B. 5-102
See also program description material required by 123.4(g).(1), (2), (4).		
122.39 Area Permits	74-6-5.A.	
(a)		5-101.F.1.
(b)		5-101.F.3.
(c)		5-101.F.4. 5-101.F.6.
(d)		5-101.F.6. 5-101.J.

Table 2 (Cont'd)

FEDERAL REGULATION (40 CFR, Part 122, and Part 124)	APPLICABLE STATE AUTHORIZING STATUTE AND/OR STATE WQCC REGULATIONS: STATE STATUTE (NMSA, 1978)	STATE REGULATION (WQCC Regulations)
122.41 Additional Conditions Applicable to All UIC Permits	74-6-4.D. 74-6-5	
(b)		3-107.A.7. 3-107.D. 5-209.F.
(c)		3-104 5-102 5-205.A.5.
(d)		5-101.J. 5-208.A.1. 5-208.B.1.
(e)		5-102.A. 5-102.B. 5-209.A.
122.42 Establishing UIC Permit Conditions	74-6-4.D. 74-6-5	
(a)		See Table 3.
(b) [See 122.44, 146.7]		5-102 5-203
(c)		3-104 5-206
(d) [See 122.45]		5-101.B.
(e)		3-107 5-207 5-208
(f)		5-209
(g)		3-107.A.4. 3-107.A.11. 5-102.B.2. 5-210.B.17.
(h)		5-204
(i)		5-210
122.43 Waiver of Requirements by Director	74-6-4.D. 74-6-4.E.	
(a)		5-104
(c)		See Table 3.

Table 2 (Cont'd)

FEDERAL REGULATION (40 CFR, Part 122, and Part 124)	APPLICABLE STATE AUTHORIZING STATUTE AND/OR STATE WQCC REGULATIONS: STATE STATUTE (NMSA, 1978)	STATE REGULATION (WQCC Regulations)
122.44 Corrective Action	74-6-5.J. 74-6-5.L.	
(a), (b)		5-203
122.45 Requirements for Wells Injecting Hazardous Waste	74-6-5.A.	5-101.B. See Table 3.
124.3 Application for a Permit		[See 122.4]
124.5 Modification, Revocation and Reissuance, or Termination of Permits [See 122.15, 122.16.]	74-6-5.J. 74-6-5.L.	5-101.J. See Table 3. See Memorandum of Agreement, Section XIII.
124.6 Draft Permits		See Table 3.
124.8 Fact Sheet		
(a)		See Table 3.
(b)		
(1)		3-108.B.3.
(2)		3-108.B.4.
(4)		See Table 3.
(5)		1-210
(6)		3-109
(i)		3-108.B.7.
(ii)		3-108.B.6. 3-108.C.
(iii)		3-108.B.6.
(7)		3-108.B.8.
124.10 Public Notice of Permit Actions and Public Comment Period		
(a)		
(1)		
(ii)		[See 124.6]
(iii)		3-108.C.
(b)		
(1)		3-108.C.
(2)		3-108.C.
(c)		3-108.A.
(d)		3-108.B.
(e)		3-108.A.

Table 2 (Cont'd)

FEDERAL REGULATION (40 CFR, Part 122, and Part 124		APPLICABLE STATE AUTHORIZING STATUTE AND/OR STATE WQCC REGULATIONS: STATE STATUTE (NMSA, 1978)	STATE REGULATION (WQCC Regulations)
124.11	Public Comments and Requests for Public Hearings	74-6-5.E.	[See 124.6] 3-108.C.
124.12	Public Hearings	74-6-5.E.	3-108.C.
124.17	Response to Comments		See Table 3.

TABLE 2

PART B: COMPARISON OF EPA 40 CFR PART 146
"UNDERGROUND INJECTION CONTROL PROGRAM: Criteria and Standards"
WITH NEW MEXICO STATE REGULATIONS

FEDERAL REGULATIONS		STATE REGULATIONS
SUBPART A--GENERAL PROVISIONS		
146.01	Applicability and scope	5-101
146.02	Law authorizing these regulations	5-105
146.03	Definitions	1-101
146.04	Criteria for exempted aquifers [See 122.35]	5-103.C.1.
a)		5-103.C.1.
b)		5-103.C.2.
146.05	Classification of injection wells [See 122.32]	1-101 "effluent disposal well" 1-101 "in situ extraction well" 5-101.D. 5-300
146.06	Area of Review	5-202
a)		5-202.B.3.
b)		5-202.B.1.
c)		5-202.B.2.
146.07	Corrective action [See 122.44]	5-203
a)		5-203.C.1.
b)		5-203.C.2.
c)		3-101.A. 5-101.A.
d)		5-203.C.3.
e)		5-203.C.3.
f)		5-203.C.4.
g)		5-203.C.5.
h)		5-203.C.6.
i)		5-203.C.7.
146.08	Mechanical integrity	5-204
a)1)		5-204.A.
2)		5-204.A.
b)1)		5-204.B.1.a.
2)		5-204.B.1.b.
c)1)		5-204.B.2.a.
3)		5-204.B.2.b.
4)	[See 146.33.b]	5-204.B.2.b.
d)		5-204.C.
e)		See Memorandum of Agreement, Item XII. 5-204.D.

Table 2 (Cont'd)

FEDERAL REGULATIONS	STATE REGULATIONS
146.09 Criteria for establishing permitting priorities (See also program description material required by 123.4(g)(2).)	5-101
146.10 Plugging and abandoning Class I and III wells	5-209
a)	5-209.B.
b)	5-209.D.
c)	5-209.C.
d) [See 122.42(f) and 122.41(e)]	5-209.A. 3-109.C.2. 5-101.C.2.
SUBPART B--CRITERIA AND STANDARDS APPLICABLE TO CLASS I WELLS	
146.11 Applicability	5-201
146.12 Construction requirements	
a)	5-205.B.1.
b)	5-205.A.1. 5-201.A.2. 5-205.B.2.
1)	5-205.A.3.a.
2)	5-205.A.3.b.
3)	5-205.A.3.c.
4)	5-205.A.3.d.
5)	5-205.A.3.g.
6)	5-205.A.3.i.
7)	5-205.A.3.e.
c)	5-205.B.3.
1)	5-205.B.3.a.
2)	5-205.B.3.b.
d)	5-205.A.4.
1)	5-205.A.4.a.
2)	5-205.A.4.b.
e)	5-205.A.3.
146.13 Operating, monitoring and reporting requirements	
a)1)	5-206.A.1. 5-206.A.2.
2)	5-206.A.2.
3) [See 146.12(c)	5-206.B.2.

Table 2 (Cont'd)

FEDERAL RECULATIONS	STATE RECULATIONS
146.13 Operating, monitoring and reporting requirements, Continued	
b)1)	5-207.B.1.
2)	5-207.B.2.
3) [See 146.08]	5-207.A.1.
	5-204.B.
4)	5-207.B.3.
c)1)	5-208.A.2.
2)	5-208.A.3.
146.14 Information to be considered by the director	5-210.A.
a)1) [See 122.4 and 122.38(c)]	5-210.B.1.
2)	5-210.B.2.
3)	5.210.B.3.
4)	5-210.B.5.
5)	5-210.B.6.
146.14 Information to be considered by the director, Continued	
6)	5-210.B.7.
7)	5-210.B.8.
8)	5-210.B.9.
9)	5-210.B.11.
10)	5-210.B.12.
11)	5-210.B.13.
12)	5-210.B.15.
13) [See 146.13(b)]	5-210.B.16.
14) [See 122.44]	5-210.B.4.
15)	5-210.B.14.
16) [See 122.42(f)]	5-210.B.17.
b)1)	5-210.C.2.
2) [See 146.08]	5-210.C.3.
3)	5-210.C.4.
4)	5-210.C.5.
5)	5-210.B.12.
	5-210.C.1.
6)	5-210.C.6.
7)	5-210.C.7.
c)1)	5-209.E.1.
2)	5-209.E.2.
3)	5-209.E.3.
4)	5-209.E.4.
5) [See 146.10(c)]	5-209.E.5.
146.15 Mid-Course evaluation requirements [See 122.18(c)(4)(ii)]	See Memorandum Of Agreement, Item XI.
a) [See 146.14(a)(1)]	[See 5-210.B.1.]
b) [See 146.14(a)(3)]	[See 5-210.B.3.]

Table 2 (Cont'd)

FEDERAL REGULATIONS	STATE REGULATIONS
146.15 Mid-Course evaluation requirements, Continued	
c)	[See 5-210.B.5.]
d)	[See 5-210.B.2.]
e)	[See 5-210.B.7.]
f)	[See 5-210.B.13.]
g)	[See 5-210.B.4.]
h)	[See 5-210.C.3.]
i)	[See 5-208.A.]
SUBPART C--CRITERIA AND STANDARDS APPLICABLE TO CLASS II WELLS	
146.21 - 146.25	Not Applicable [New Mexico Oil Conservation Division Jurisdiction under the Oil and Gas Act (70-2-1 through 70-2-38 NMSA 1978)]
SUBPART D--CRITERIA AND STANDARDS APPLICABLE TO CLASS III WELLS	
146.31 Applicability	5-201
146.32 Construction requirements	
a)	5-205.A.1. 5-205.A.2.
1)	5-205.A.3.a.
2)	5-205.A.3.b.
3)	5-205.A.3.c.
4)	5-205.A.3.d.
5)	5-205.A.3.c.g.
6)	5-205.A.3.i.
7)	5-205.A.3.e.
b)	5-205.A.4.
c)	
1)	5-205.A.3.h
2)	5-205.A.3.i.
3)	5-205.A.3.h.
d)	5-206.A.1.
e)	5-205.C.1.
f)	5-205.C.2.
g)	5-205.C.3.
h)	5-205.C.4.
1)	[See 5-210.B.2.]
2)	5-210.B.1. 5-210.B.2.

Table 2 (Cont'd)

FEDERAL REGULATIONS	STATE REGULATIONS
146.32 Construction requirements, Continued	
3)	5-205.C.4.a.
4)	5-205.C.4.b.
5)	5-205.C.4.c.
6)	5-205.C.4.d.
146.33 Operating, monitoring and reporting requirements	
a)	
1)	5-206.A.1.
	5-206.C.1.
2)	5-206.A.2.
146.33 Operating, monitoring and reporting requirements, Continued	
b)1)	5-207.C.1.
2)	5-205.C.2.a.
3) [See 146.08]	5-207.A.
4) [See 146.32(e)]	5-207.C.2.b.
	5-207.C.2.C.
5) [See 146.32(g)]	5-207.C.2.b.
	5-207.C.2.C.
6)	5-207.C.3.
c)1)	5-208.B.2.a.
2)	5-208.B.2.b.
3)	5-208.B.3.
146.34 Information to be considered by the director	5-210.A.
a)1) [See 122.4 and 122.38(c)]	5-210.B.1.
2)	5-210.B.2.
3)	5-210.B.3.
4)	5-210.B.5.
5)	5-210.B.6.
6)	5-210.B.7.
7)	5-210.B.8.
8)	5-210.B.9.
9)	5-210.B.11.
10)	5-210.B.12.
11)	5-210.B.13.
12) [See 146.33(b)]	5-210.B.16.
13)	5-210.B.10.
14)	5-210.B.15.
15)	5-210.B.17.
16) [See 122.44]	5-210.B.4.
b)1)	5-210.C.2.
2) [See 146.08]	5.210.C.3.
3)	5-210.C.4.
4)	5.210.C.5.
5)	5-210.B.12.
	5-210.C.1.
6)	5-210.C.7.

Table 2 (Cont'd)

FEDERAL REGULATIONS	STATE REGULATIONS
146.34 Information to be considered by the director, Continued	
c)1)	5-209.E.1.
2)	5-209.E.2.
3)	5-209.E.3.
4)	5-209.E.4.
5) [See 146.10(c)]	5-209.E.5.
146.35 Mid-Course Evaluation requirements [See 122.18(c)(4)(ii)]	See Memorandum of Agreement, Item II.
a) [See 146.14(a)(1)]	[See 5-210.B.1.]
b) [See 146.14(a)(3)]	[See 5-210.B.3.]
c)	[See 5-210.B.5.]
146.35 Mid-Course Evaluation Requirements, Continued	
d)	[See 5-210.B.2.]
e)	[See 5-210.B.7.]
f)	[See 5-210.B.13.]
g)	[See 5-210.C.3.]
h)	[See 5-208.B.]
SUBPART E--CRITERIA AND STANDARDS APPLICABLE TO CLASS IV WELLS	
(RESERVED BY EPA)	
SUBPART F--CRITERIA AND STANDARDS APPLICABLE TO CLASS V WELLS	
146.51 Applicability	
a),b) [See 146.05(e)]	[See 1-101, Definitions of "effluent disposal well" and "in situ extraction well"; 3-101.A.; 5-101.A.; 5-101.D. and 5-300]
146.52 Inventory and Assessment	
a) [See 122.37(c)(1)]	5-300
b) [See program description, material required by 123.4(g)(11).]	

TABLE 3 ADDITIONAL DESCRIPTION OF NEW MEXICO PERMITTING PROCESS

CONSOLIDATED PERMIT SECTION(S) WITH TITLE OR DESCRIPTION	STATE COMMENT
122.4 "Application for a Permit"	Pursuant to Section 3-104 and 5-101.A. and B of the Water Quality Control Commission Regulations, a discharge plan for a Class I or III well submitted for staff review is the equivalent of an application for a permit. The discharge plan must be submitted as required in 5-101. In a discharge plan an applicant must describe in detail the process to be used for discharging to ground water, and the hydrology, geology and hydrochemistry of the ground water in areas which may be affected by the discharge. The applicant must also propose a monitoring and reporting schedule, a contingency plan in the event of failure of the system, the other information listed in 5-210 and any other information that may be necessary to demonstrate the discharge will be consistent with the Regulations. The director may request additional information and the discharge plan must be complete before a decision by the director. Therefore, an approved discharge plan is equivalent to an EPA permit because the New Mexico Regulations are equivalent to or more stringent than the Federal provisions.
122.7 (b) "Duty to Reapply"	The New Mexico Part 5 regulations may allow a permittee to continue to inject for a limited period of time after expiration of an approved discharge plan (Section 5-101.G). Approval of such an extension is contingent upon submission of a complete application 180 days prior to expiration and upon the discharger being in compliance with the approved discharge plan. The Division will normally be able to approve or deny a discharge plan renewal within 180 days after it is submitted and therefore, as a normal course, a discharger will be operating under an approved plan. If the discharger is not making a concerted effort to submit an approvable discharge plan, the Director will deny the discharger an extension under 5-101.G. and the discharge will terminate upon expiration of the approved plan.

TABLE 3 ADDITIONAL DESCRIPTION OF NEW MEXICO PERMITTING PROCESS (CONT'D)

122.8 "Establishing Permit Conditions"	Every discharge plan must meet the requirements of the Water Quality Control Commissiion Regulations (3-104, 5-101.A). Therefore, every injection well will be permitted on a case-by-case basis. All permit conditions are stated in the discharge plan. The director's letter granting discharge plan approval may subject the discharger to conditions, provided he notifies the discharger of the reasons for the conditions (74-6-5.L NMSA 1978). There is no restriction on the type of condition that may be imposed, however, the discharger does have the right to appeal the conditions to the Commission (74-6-5.L NMSA 1978).
122.37 "Authorization of Underground Injection by Rule"	Before primacy is granted, all Class I and III wells in New Mexico will be operating under an approved discharge plan pursuant to Part 3 of the Water Quality Control Commission Regulations. A discharge plan approved under Part 3 prior to the effective date of the Part 5 UIC regulations meets the requirement of authorization by rule. Injection wells approved prior to the effective date of Part 5 will be required to comply with Part 5 of the regulations upon application for discharge plan renewal (5-101.B.2).
122.42 (a) "Construction Requirements"	Discharge plan approval is required prior to construction of an effluent disposal well. A permit is not required prior to construction of in situ extraction wells. However, preconstruction information must be submitted pursuant to Section 5-102 of the Part 5 regulations. If the director, upon review of the preconstruction information, determines that the discharge plan for an in situ extraction well can not be approved based upon the construction criteria outlined in Section 5-102, he will reply to that effect. For in situ extraction facilities, approval of a discharge plan may depend upon subsurface data which can be collected only after construction of the injection wells. The Division feels that disapproval of the operation of an in situ extraction facility would be more difficult if a permit for construction had already been issued. Therefore, the State

TABLE 3 ADDITIONAL DESCRIPTION OF NEW MEXICO PERMITTING PROCESS (CONT'D)

122.42 (a) (Cont'd)	"Construction Requirements"	of New Mexico has devised an alternate procedure which provides for: 1. EID comment on the proposed operation (5-102.B.3). 2. Public comment on the design and construction of the facility (5-102.B.4). 3. On site inspection of the construction by Division staff (5-205.A.5). 4. The plugging and abandonment of constructed but nonpermitted injection wells (5-102.B.7) with a guarantee of the financial responsibility to abandon the wells (5-102.B.2). New Mexico regulations and enforcement history adequately address reasons for not adopting the EPA requirement of an approved permit prior to construction of an in situ injection facility. The EPA has suggested that disapproval of a permit to operate is more difficult if the facility is already constructed. That may be true in other states where ground water is less precious. The EID director has disapproved discharge plans for two multi-million dollar facilities which had been constructed. The public record for these two plans, Occidental Minerals Cerrillos Copper Project, and the Bokum Corporation's Marquez Uranium Mill, are available for EPA review. The EID director and, on appeal, the Water Quality Control Commission have never approved the operation of a facility if it was demonstrated that the operation would cause a violation of the regulations. The State feels that the provisions and arguments listed above demonstrate the equivalence of the State and Federal construction requirements.

TABLE 3 ADDITIONAL DESCRIPTION OF NEW MEXICO PERMITTING PROCESS (CONT'D)

122.43 (c) "Waiver of Requirement by the Director"	The demonstration that an injection operation meets the criteria of 122.43 (a) is made by the discharger. This demonstration is included as part of the discharge plan and is described in the public notice of the discharge plan. The discharger's request for director consideration of less stringent requirements is open for discussion at any public hearing held on the discharge plan. Please refer to 124.8 and 124.17 of this Table. Please note that 5-104 (the waiver of requirement provision) provides that an in situ extraction well discharge plan issued under this section is required to have an approved discharge plan but the discharge plan is reviewed pursuant to the requirements of Part 3.
122.45 "Requirements for Wells Injection Hazardous Waste"	Presently New Mexico does not have primacy for the RCRA program. Therefore, the State will be responsible only for permitting the injection well and associated injection facilities under UIC primacy. The EPA will be responsible for permitting all surface facilities which handle hazardous waste. Injection of hazardous waste which is accompanied by a manifest will be subject to dual EPA and State permitting until such time as New Mexico satisfies EPA requirements and obtains RCRA primacy. The current RCRA authorization schedule for New Mexico calls for regulations to be adopted in the fall of 1982. There are currently no hazardous waste injection wells in New Mexico nor have any been proposed. Also see Section XVII of the Memorandum of Agreement.
124.5 "Modification, Revocation and Reissuance or Termination of Permits	The State's process for modification and reissuance follows the entire discharge plan approval procedures outlined in 3-109. Additional requirements for effluent disposal wells and in situ extraction wells are given in 5-101.C. Revocation and termination of a permit is addressed in 3-109.E, 5-101.J. and 74-6-5.L (NMSA 1978). The State believes these procedures are as stringent in effect as the Federal provisions. See also Section XIII of the Memorandum of Agreement.

TABLE 3 ADDITIONAL DESCRIPTION OF NEW MEXICO PERMITTING PROCESS (CONT'D)

124.6 "Draft Permits"	A proposed discharge plan is an application for permit. When a discharger submits a proposed discharge plan the Division issues a public notice pursuant to 3-108 of the WQCC Regulations. The proposed discharge plan is available to the public and contains all information which would normally be in the draft permit.
124.8 "Fact Sheet"	There is no specific requirement for a separate fact sheet. However, considerable information appropriate to a fact sheet is required by Regulation to be included in the public notice (3-108.B.). A sample Public Notice for December 2, 1980 is attached as Figure 1. A public hearing is held if the director determines that there is significant public interest (3-108.C.). Prior to a public hearing, Division staff prepare a summary of the discharge plan along with technical comments and preliminary recommendations to the Director for permit conditions (if any). All Division comments and summaries are public information (See Appendix G). Any conditions imposed by the director must be justified according to 74-6-5.L. (NMSA 1978). The New Mexico Water Quality Act requires that Division records, including discharge plans be available to the public (74-6-12.B.). All discharge plans are available at the Division office in Santa Fé, and all discharge plans for injection wells are also available at the appropriate Division district office and local Division field office. The State feels this methodology is as stringent as the Federal provision for a fact sheet.
124.17 "Response to Comments"	Comments received pursuant to 3-108.C. are evaluated by the Division and, where appropriate, public comments are referred to the discharger with the Division comments on the discharge plan. The Division's response to public comments are available to the public. The discharger must respond to these comments prior to discharge plan approval. These comments may also be raised at any pubic hearing on the discharge plan.

TABLE 4

PRELIMINARY INVENTORY OF INJECTION WELLS IN NEW MEXICO
THROUGH JANUARY 15, 1982 (REVISED AUGUST 8, 1982)

CLASS/TYPE	UNDER CONSTRUCTION	ACTIVE	INACTIVE	PERMANENTLY ABANDONED	TOTAL
I I			1	1	2
III M		5 (5)		4	9
III U	50+	9		11 (6)	70
		ESTIMATED FOR CLASS 5 WELLS			
V A		13	1	4	18
V B		15			15
V D		32		4	36
V S		7	4	2	13
V T	1	5			6
V W		9	12		21
V X		5	6		11
					201

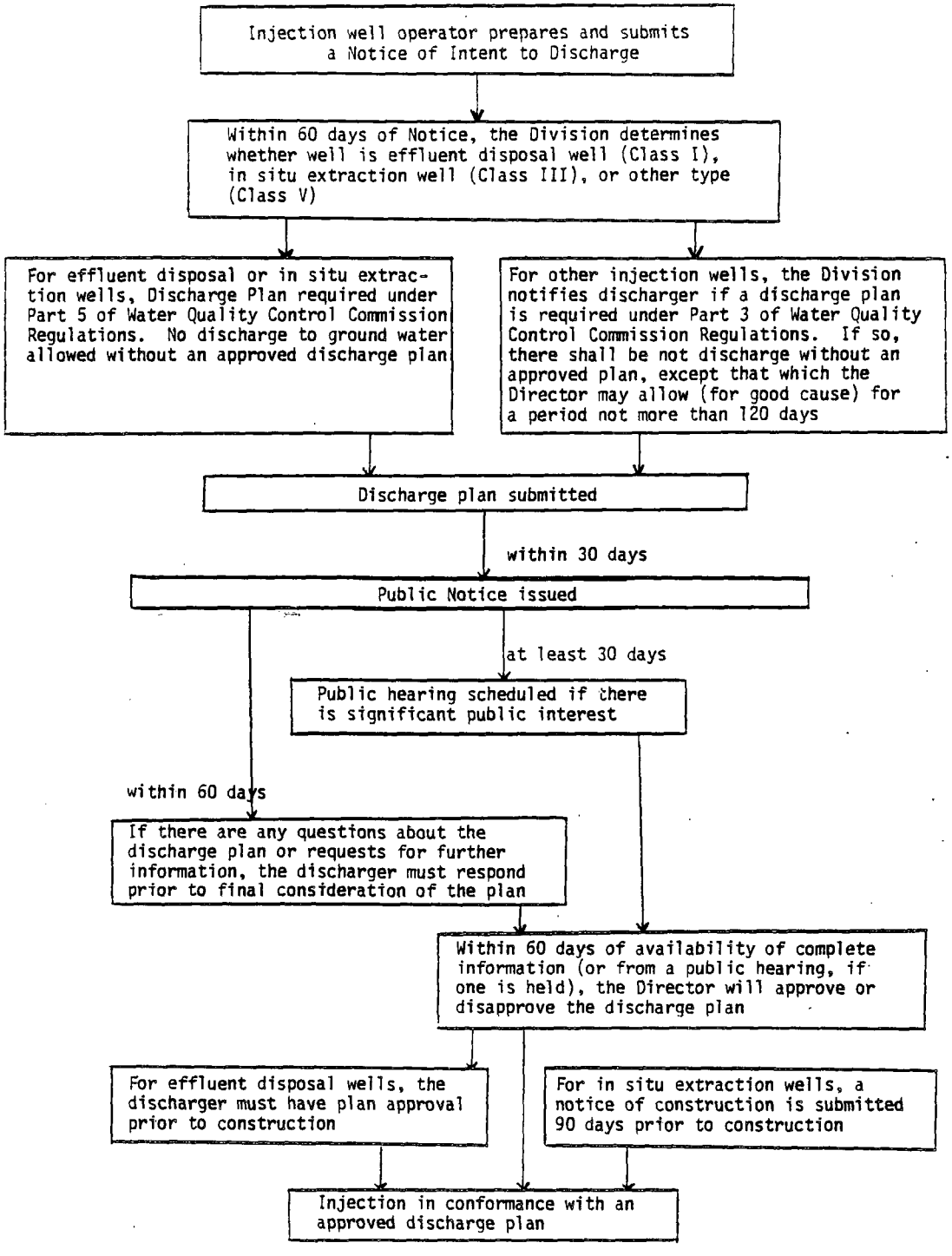
WELL CODES:

I I	Industrial Disposal Well
III M	Solution Mining Well
III U	Uranium Mining Well
V A	Air Conditioning/Cooling
V B	Barrier Well
V D	Storm Water Drainage
V S	Subsidence Control Well
5 T	Geothermal Well
V W	Waste Disposal Well (Cesspool)
V X	Other Class V Wells
()	Number of operating wells without an approved discharge plan

TABLE 5

NEW MEXICO UNDERGROUND INJECTION CONTROL

PERMITTING PROCESS



NEW MEXICO HEALTH AND ENVIRONMENT DEPARTMENT

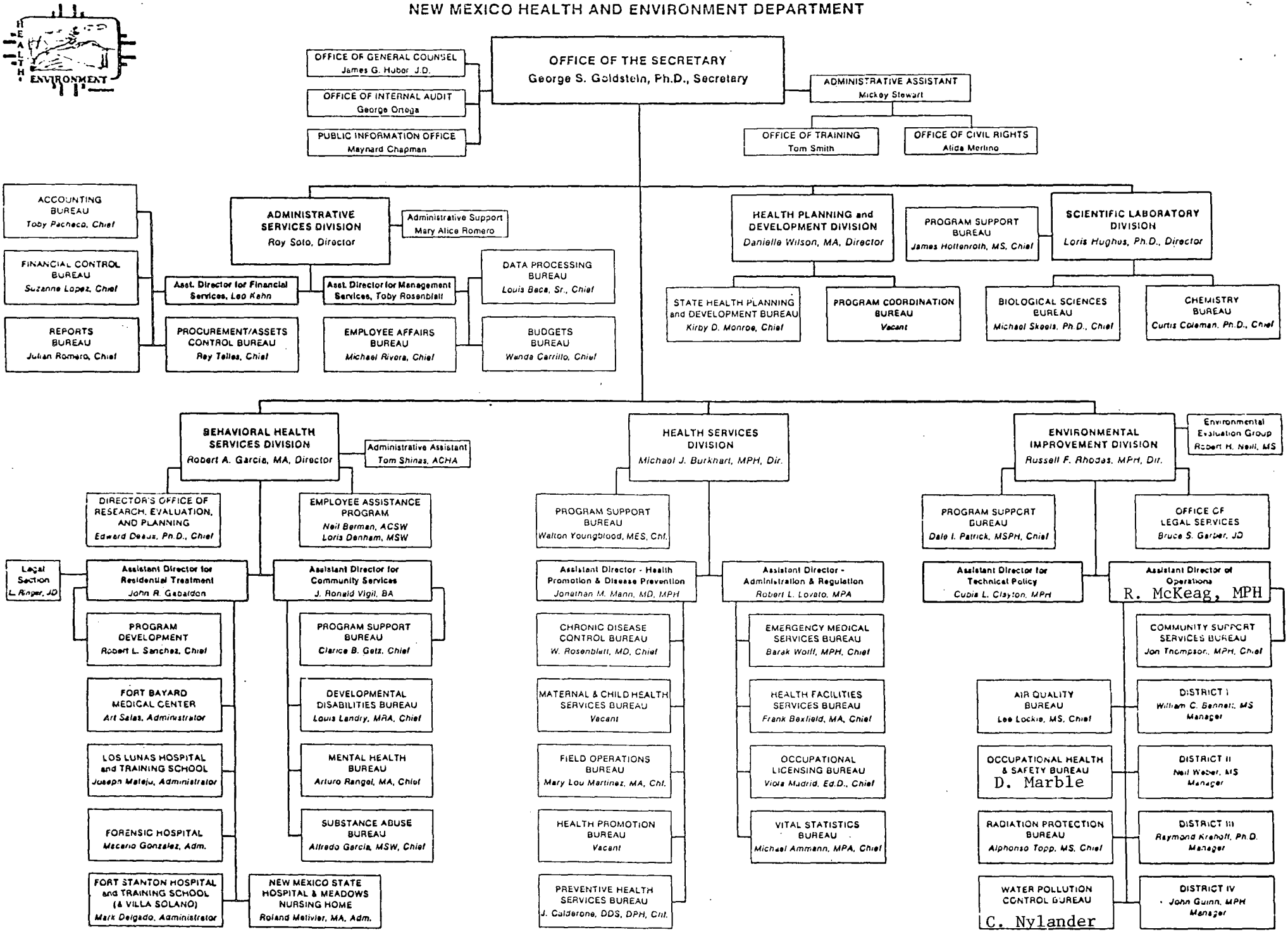


Table 6. Organization Chart of the Health and Environment Department

8/82

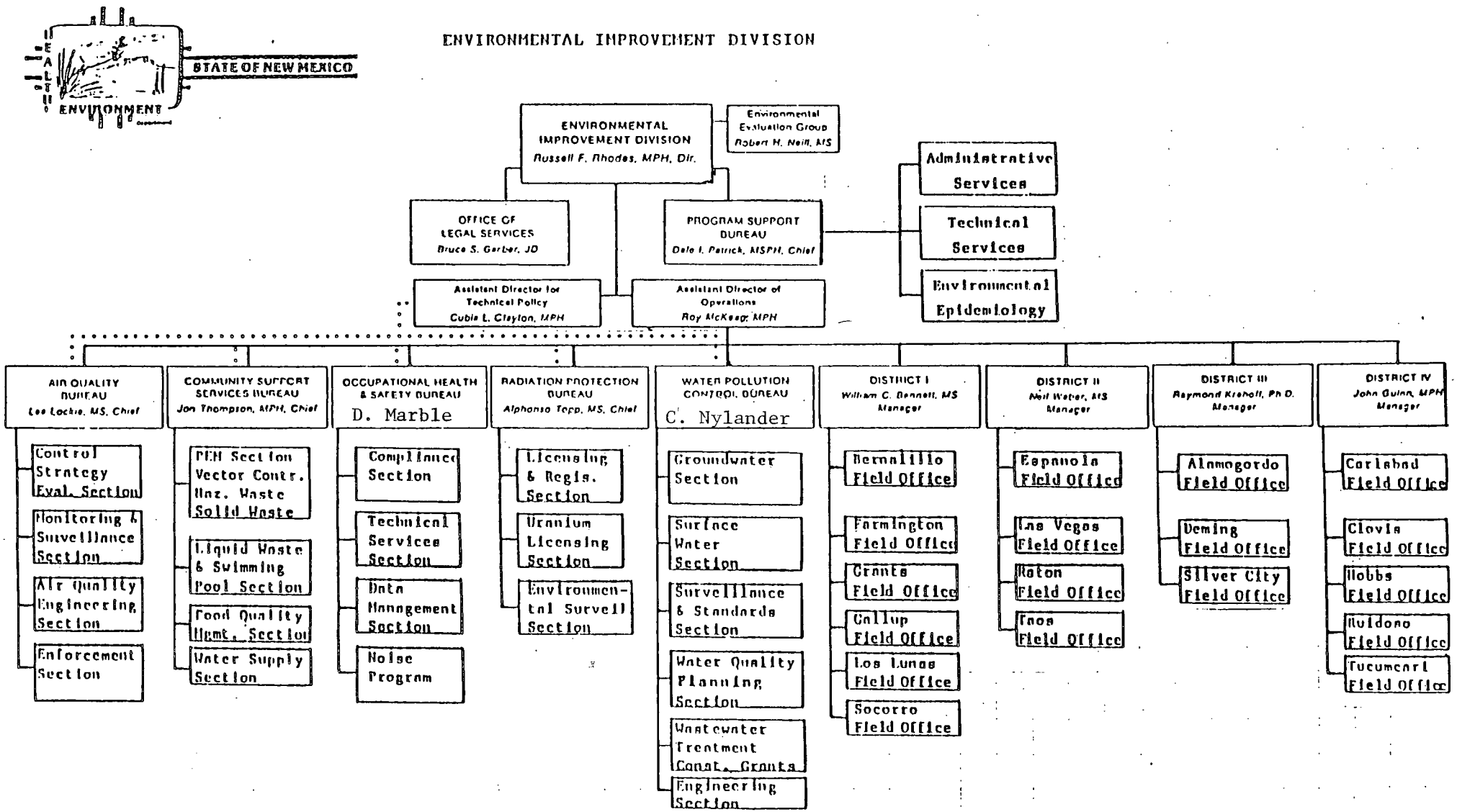
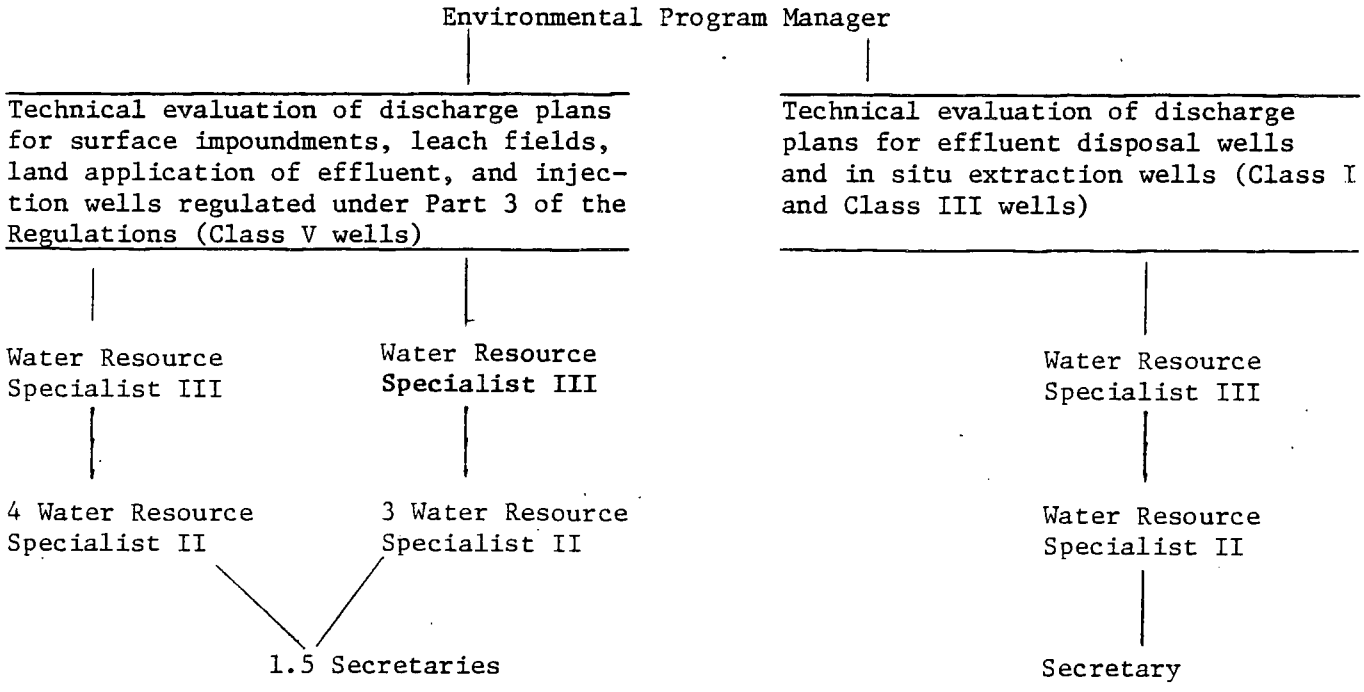


Table 7. Organization Chart of the Environmental Improvement Division

TABLE 8

GROUND WATER SECTION



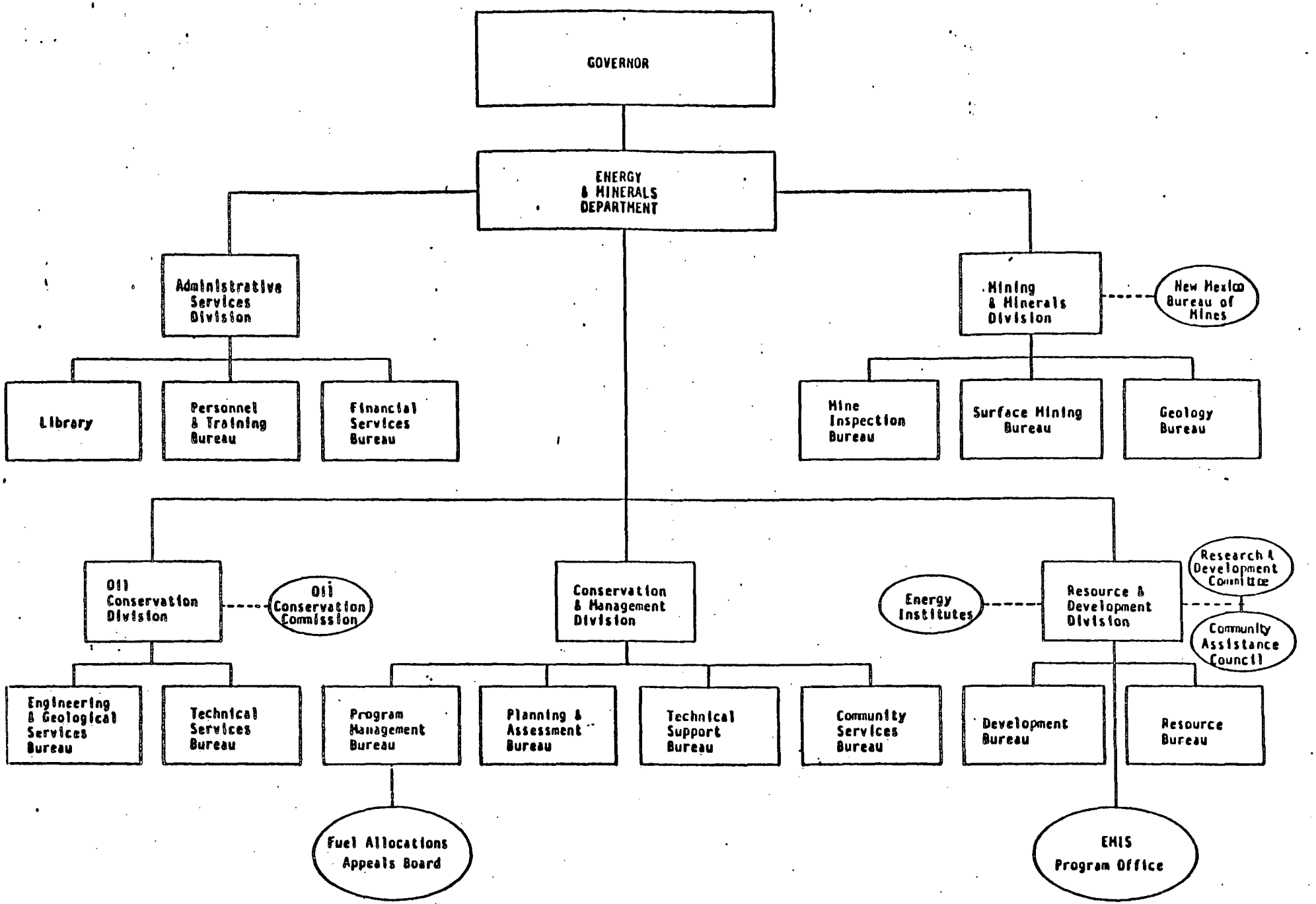


Table 9. **Organization Chart of New Mexico Energy and Minerals Department**

Table 10

OIL CONSERVATION DIVISION TABLE OF ORGANIZATION (62 staff)

SANTA FE ADMINISTRATIVE OFFICE/DISTRICT IV OFFICE

(34 staff)

Division Director

- Staff Specialist
- Secretary
- Typist

General Counsel

- N.M.P.A. Compliance Monitor

Technical Services Bureau

- Technical Support Chief
- Secretary
- Records Management and Support Section
- 2 Clerks
- Underground Injection Control Section
- Program Administrator
- Data Processing Section
- Information Systems Manager
- Programmer Analyst
- Development Programmer
- Records Manager
- Computer Operator
- Key Entry Supervisor
- 5 Key Entry Operators
- 2 Data Control Specialists
- Clerk
- Oil and Gas Proration Unit
- Supervisor
- 2 Clerks

Table 10 (cont.)

Engineering and Geological Services Bureau

Chief Petroleum Engineer

Petroleum Engineer

Secretary

Geothermal and Geological Services Section

Supervisor *

Field Inspector *

Water Resource Specialist

HOBBS DISTRICT I OFFICE

13 staff members

Supervisor

Geologist

Chief Field Inspector

4 Field Inspectors

Staff Specialist

Clerk Specialist

4 Clerks

ARTESIA DISTRICT II OFFICE

8 staff members

Supervisor

Geologist

Chief Field Inspector

2 Field Inspectors

3 Clerks

AZTEC DISTRICT III OFFICE

7 staff members

Supervisor

Chief Field Inspector

Geological Field Inspector

4 Clerks

* District IV Staff

Figure 1

December 2, 1980

PUBLIC NOTICE

NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION
HEALTH AND ENVIRONMENT DEPARTMENT

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following proposed discharge plans have been submitted for approval to the Director of the New Mexico Environmental Improvement Division, P. O. Box 968, Crown Building, 725 St. Michael's Dr., Santa Fe, New Mexico 87503; telephone (505) 827-5271.

ANACONDA COPPER COMPANY, Elrod Leany, Environmental Engineer, P.O. Box 638, Grants, New Mexico 87020, proposes to discharge 60,000 gallons per day of domestic sewage into clay-lined lagoons located at the Bluewater Mill site, SE1/4, SW1/4, Sec. 13, T12N, R11W, Valencia County, New Mexico. The water contained in the lagoons will be aerated and will be either used as process water or transferred to the tailings ponds. The ground water most likely to be affected is at a depth of approximately 170 feet with a total dissolved solids concentration of approximately 1,850 mg/l.

KARLER PACKING CO., Jess Karler, owner, P. O. Box 1005, Albuquerque, New Mexico 87103, proposes to amend their existing proposed discharge plan. The proposed amendment consists of a land application program where 95,000 gallons per day of wastewater will be mixed with 28,000 gallons per day of well water and sprinkler irrigated on 23 acres of land for the purpose of growing tall fesue. The land application is to continue from March 1, thru October 31, while the remaining months of the year are to use the rapid infiltration program as is previously described in the discharge plan. The 23 acres are divided into 2 parcels one being located immediately south of Karler's facility and the other immediately to the South East, SE1/4, Sec. 31, T9N, R3E, Bernalillo County, New Mexico. The ground water most likely to be affected is at a range of 50 to 100 feet and has a total dissolved solid concentration of approximately 800 mg/l.

MOBIL OIL CORPORATION, Uranium Minerals Division, P.O. Box 5444, Denver, Colorado 80217 proposes to operate an in situ uranium leaching facility in the South Trend Development Area of its Crownpoint Project located approximately 3.5 miles northwest of the town of Crownpoint, McKinley County, New Mexico, in Section 16, the Southwest Quarter of Section 15, the South One-half of Section 9, and the East One-half of Section 8, T17N, R13W, N.M.P.M. Initial operations are to begin with injection of a slightly alkaline leach solution at a total rate of 600 gallons per minute (gpm) via 49 injection wells located in four well fields within Section 16 and the Southwest Quarter of Section 15 of the above area. Later enlargement of well fields within the South Trend Development Area and expansion of the processing facility to a maximum operation of 3000 gpm is planned by Mobil when market conditions permit. Injection will be into ore bearing sands in the Westwater Canyon Member of the Morrison Formation at a depth of approximately 1950 feet below the land surface. The leach solution will be recovered in the initial operational phase via a total of 24 production wells located within the injection well fields. The discharge plan includes a description of the proposed operations and facility, a proposed water quality monitoring program, and a contingency plan to correct any excursion of leachate. Restoration of each

operational area is proposed to begin after its commercial production life has been expended. The ground water most likely to be affected by the proposed operation is at a depth of 1950 feet and has a total dissolved solids concentration of approximately 300 mg/l.

SOHIO WESTERN MINING COMPANY AND RESERVE OIL AND MINERALS CO., P.O. Box 25201, Albuquerque, New Mexico 87125 proposes a groundwater discharge plan for their L-bar uranium mill effluent tailing disposal site located approximately three miles east/southeast of the village of Seboyeta, T11N, R5W, Valencia County, New Mexico. The tailings pond, consisting of approximately 180 acres, will receive effluent at a discharge rate of approximately 1,660 tons per day of tailings solid and 432,000 gallons per day of tailings liquid. The tailings will have a pH of approximately 1.0, and a total dissolved solids concentration of approximately 40,000 milligrams per liter. The tailings is transported to the tailings disposal site by pipeline in the form of a water tailings slurry. The groundwater most likely to be affected is reported to be found within the sandstone beds of the uppermost section of the Tres Hermanos member of the Mancos Shale at a depth of approximately 50 feet. Its total dissolved solids content is estimated to average approximately 6600 milligrams per liter and ranges from 400 to 20,510 milligrams per liter.

TOYOPA MINING COMPANY, Raul E. Castro, President, 7107 Lakeside Dr., Tucson, Arizona 85730, proposes to discharge approximately 5,000 gallons per day of precious metal flotation mill tailings into unlined tailings ponds located over 40 year old existing tailings piles. The mill site is located off of "A" Street in western Lordsburg, NW1/4, NE1/4, Sec. 32, T22S, R18W, Hidalgo County, New Mexico. The ground water most likely to be affected is at a depth of approximately 120 feet and has an estimated total dissolved solids concentration of approximately 1,000 mg/l.

UNITED NUCLEAR CORPORATION, UNC Mining and Milling Division, P.O. Drawer QQ, Gallup, New Mexico 87301, proposes a modification to its approved discharge plan (DP-34) for an experimental uranium heap leach facility in Section 27, T14N, R9W, Ambrosia Lake area, McKinley County, New Mexico. The proposed modification consists of intermittent discharge of up to 175 gallons per minute (gpm) of effluent into holding ponds located in Section 28, T14N, R9W. The effluent is uranium mine water combined with a small amount (average 1 gpm) of leachate from the heap leach operation, all of which has passed through the ion exchange facility in the Old Phillips Mill. The ground water most likely to be affected is at a depth of 16 to 42 feet with a total dissolved solids concentration ranging from 3,000 to 5,000 mg/l.

Any interested person may obtain further information from the Ground Water Section, Water Pollution Control Bureau, EID, and may submit written comments to the Director of the EID at the address given above. Prior to ruling on any proposed discharge plan or its modification, the Director of EID will allow thirty (30) days after the date of publication of this notice during which comments may be submitted to him and a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why the hearing should be held. A hearing will be held if the Director determines that there is a significant public interest.

Attorney General's Statement

TEXT[1]

POINT 2: State Requirement that no permit will be granted if underground injection will endanger drinking water sources.

The regulations of the Water Quality Control Commission prohibit the approval of a discharge plan if the underground injection will endanger drinking water sources. See Point 2, Table 2 of this statement. The Commission has the authority to "grant an individual variance from any regulation of the commission, whenever it is found that compliance with the regulation will impose an unreasonable burden upon any lawful business, occupation or activity." § 74-6-4.G NMSA 1978. The Commission's flexibility has not been extended to grant a variance when the resulting activity will endanger drinking water sources because the Commission has consistently taken the view that to allow water pollution at a place of reasonsably foreseeable use as human drinking water is not reasonable, regardless of the economic burden on the discharger.

Under the Water Quality Act, §§ 74-6-1 et seq. NMSA 1978, the Commission's primary charge is to "adopt, promulgate and publish regulations to prevent or abate water pollution in the state . . . ."

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1 Numbering of Points in this Text corresponds to numbering given in Table 2 of references USEPA Model Attorney General's Statement, UIC Program, Groundwater Program Guidance #16 dated July 31, 1981.

[Emphasis added.] § 74-6-4.D NMSA 1978. In making its regulations, the Commission is to consider: "(1) character and degree of injury to or interference with helth, welfare and property[.]" § 74-6-4.D, supra. Water pollution is defined as "introducing . . . into water . . . one or more water contaminants . . . [that] may with reasonable probability injure human health . . . or . . . unreasonably interfere with the public welfare . . . ." § 74-6-2.B NMSA 1978. The Commission has consistently taken the veiw that burdens which a regulation places on the discharger are reasonable when the effect is to protect a current or potential source of drinking water from water pollution.

There has been a concern expressed by EPA representatives that Section 74-6-12 C NMSA 1978 might inhibit the Water Quality Control Commission's abili[illegible] to carry out the underground injection control program. That Section states:

> "The Water Quality Act does not authorize the Commission to adopt any regulation with respect to any condition or quality of water if the water pollution and its effects are confined entirely within the boundaries of property within which the water pollution occurs when the water does not combine with other waters." [Emphasis added.]

As a practical matter, this section would not inhibit implementation of the UIC program by the State. Consultation with technical experts indicates that there is no known situation in New Mexico where ground

water pollution and its effects would be confined entirely within the boundaries of property within which the water pollution occurs and the water does not combine with other waters.

POINT 4: Authority to issue permits or rule

EPA has questioned the stringency of the Commission's permitting requirements for in situ extraction wells. The three specific points delineated below are in response to EPA concerns.

1. Financial assurance requirements are contained in subsection 5-102.B.1.d(10), 5-102.B.2 and 5-210.B.17 of the Commission regulations. The purpose of these financial requirements is to insure that there are adequate funds available to the State to perform remedial action to protect groundwater if activities required under the regulations are not complied with by the party establishing the financial assurance arrangements. For example, if a bonded individual abandoned a construction site where a well was partially or fully completed, the State would take appropriate necessary measures to insure that the secured funds were appropriated for reclamation and other remedial action required to comply with the regulations. Such action could include initial court action to place the funds in an escrow account and subsequent court action to designate the money for the remedial work. If a bond is held by another responsible governmental agency, under the provisions of subsection 5-210.B.17 of the Commission regulations, the State will immediately notify that

agency upon default or non-compliance by the secured party and take all appropriate measures to insure that the bonding agency uses the money for appropriate remedial action. Such action by the State might include court action against the responsible agency if attempts at cooperation are unsuccessful.

2. If the State becomes aware of a significant threat to water quality during the construction phase of a project, the Director of the Environmental Improvement Division has authority, under Section 74-6-11, NMSA 1978, to order "immediate abatement of the water pollution creating an emergency condition". This authority may continue if the Director seeks court action within 48 hours. If a human health threatening emergency does not occur, but a situation which would impair the State's ability to grant an approved discharge plan for the project does occur, the State will notify the applicant of that situation. Under Section 3-104 of the Commission's Regulations:

> Unless otherwise provided by these regulations, 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 plan approved by the director. When a plan has been approved, discharges must be consistent with the terms and conditions of the plan.

The commingling of aquifers resulting from improper drilling practices or other causes is considered a discharge under the regulations. A prudent discharger would not begin any activity such as well drilling or injection of contaminants into ground water prior to approval of its discharge plan since discharge plans, may not and will

not be approved unless the application fully complies with the regulations. All prelicensing construction activities are at the applicatns own risk and notice to that effect will be given to the applicant as appropriate.

3. Under Section 5-102.B.4 and 3-108 of the regulations, there is substantial opportunity for public participation in the discharge plan review process. Any member of the public who is dissatisfied with the conduct of the reviewing agency, pursuant to these sections, may file an action in State court requesting relief. The State Mandamus Law, Section 44-2-1 et seq., NMSA 1978, allows the issuance of a Writ of Mandamus to compell "the performance of an Act which the law specifically enjoins as a duty resulting from an office, trust or station". Section 44-2-4 NMSA 1978. If the Commission or one of the Division's fails to perform a duty under the regulations a Writ of Mandamus could be requested.

POINT 5: Underground injection permits in New Mexico do not convey property rights.

Section 74-6-12.A NMSA 1978 specifically states:

> The Water Quality Act does not grant to the [Water Quality Control] commission or to any other entity the power to take away or modify property rights in water . . . .

Neither the Commission, nor any of its constituent agencies, can take away or modity property rights. A corollary is that neither can any of these entities grant or create property rights. Although the statute addresses itself specifically to property rights in water, it is clear

from the statutory scheme that a permit (or discharge plan) is not a property right. Permits are issued for a limited period of time, not to exceed five years. § 74-6-5.F NMSA 1978. A permit application may be denied, § 74-6-5.D, and, once granted, it may be modified or terminated. § 74-6-5.J Most importantly, the permittee is not relieved from complying with the Water Quality Act and applicable regulations. § 74-6-5.I. Had the legislature intended that a permit under the Water Quality Act would constitute some sort of property right, it would have so indicated. Instead, the contrary intent is indicated in § 74-6-12.A, supra. Moreover, to construe a permit as a property right would contradict the legislative intent of § 74-6-5.D, F, I, and J., supra. Permits issued pursuant to the Water Quality Act do not constitute property rights.

POINT 7: State authority to immediately restrain dangerous injections.

(a) The EID has the authority unfrt §§ 74-7-10 and 11 NMSA 1978 to immediately restrain any person from engaging in any unlawful activity which is endangering or causing damage to public health or the environment. § 74-6-11 NMSA 1978 states in part:

> [I]f any person is causing or contributing to water pollution of such characteristics and duration as to create an emergency which requires immediate action to protect human health, the director of the . . . [environmental improvement division] shall order the person to immediately abate the water pollution . . . .

If the director of the division wishes the order to continue beyond forty-eight hours, he may seek a temporary restraining order or injunction in district court. Id.

The OCD has authority to restrain by order or injunction any individual from engaging in any activities in violation of the Geothermal Resources Conservation Act. Section 71-5-20 of that Act provides in part:

> Whenever it shall appear that any person is violating, or threatening to violate, any statute of this State with respect to the conservation of geothermal resources, or any provision of the Geothermal Resources Conservation Act, or any rule, regulation or order made thereunder, the [Oil Conservation] Division through the Attorney General, shall bring suit against such person . . . . In such suit the Division may obtain injunction, prohibitory or mandatory, including temporary restraining orders and temporary injunctions, as the facts may warrant. . . ."

The MMD has authority to restrain by order any individual from engaging in any activities in violation of the Surface Mining Act which activities create imminent danger to public health or the environment. § 69-25A-25.A NMSA 1978. Failure to comply with a cessation order could result in an injunction under § 69-25A-25.E NMSA 1978.

Other authority from all the agencies is found in § 30-8-8 NMSA 1978, which allows a public officer to bring a civil action in the name of the state to abate a public nuisance. The type of civil action contemplated under this section includes an injunction. See, State ex rel Marron v. Compere, 44 N.M. 414, 103 P.2d 273 (1940). The knowing

and unlawful introduction of a substance into the groundwater "causing it to be offensive or dangerous for human or animal consumption or use" is a public nuisance. § 30-8-2 NMSA 1978. An unauthorized discharge which is endangering the environment would be within the purview of at least one of the statutes mentioned in this discussion.

(b) There is no requirement in the Water Quality Act the Geothermal Resources Conservation Act, the Surface Mining Act, or in the regulations promulgated pursuant to those acts, that a permit be revoked before a suit can be instituted to enjoin compliance with the permit or the regulations.

(c) The State can seek civil penalties of up to $5,000.00 per day for violations of § 74-6-5 NMSA 1978 of the Water Quality Act. See, § 74-6-5.Q. Under this statute, conditions may be imposed on permits. A violation of a condition of a permit would be considered a violation of § 74-6-5. For all wells covered under the Surface Mining Act (see Table 1 of this statement), the State can seek civil penalties of up to $5,000.00 per day for violations of a permit. § 69-25A-22.A NMSA 1978. Section 71-5-23 NMSA 1978 provides for a civil penalty for violation of the Geothermal Resources Act or the rules and regulation promulgate thereunder of not more than $2,500.00 per day for each violation.

Criminal penalties may be sought by the State under the pertinent acts. Section 74-6-5.P of the Water Quality Act authorizes the imposition of a criminal fine of up to $10,000.00 per day for a violation of a permit, as does § 69-25A-22.E of the Surface Mining Act.

Under the Geothermal Resrouces Conservation Act, any knowing and willful violation of a statute or regulation shall subject the violating party to the possibility of a criminal fine in the amount of $5,000.00 per day for each violation. This penalty is set forth in § 71-5-23.B and C.

(d) The civil penalties provided are flexible. Section 74-6-5.Q, of the Water Quality Act, states that the civil penalty imposed is not to exceed $5,000 per day. Similar wording is found in § 69-25A-22.A of the Surface Mining Act. As is the case with the other two acts, the Geothermal Resrouces Act, specifically, § 71-5-23, sets forth the maximum penalty and does not require that this maximum penalty be imposd. The State could request any civil penalty less than the statutory maximums and tailor its request so as to be appropriate to the violation. The court also has the discretion to adjust penalties as appropriate.

(e) Public participation in court enforcement actions is provided by means of Rule 24(a) of the Rules of Civil Procedure, NMSA 1978, which allows for intervention of right in civil actions in the state district courts. N.M.R. Civ. Pro. 24(a) is similar to Rule 24(a) of the Federal Rules of Civil Procedure.

None of the remedies specified in 40 CFR 123.9(a)(1), (2) and (3) would be obtained through administrative action. Nevertheless, the public may participate in administrative hearings on discharge plans, if the Water Quality Control Commission finds the hearing is affected

with a substantial public interest. § 74-6-5.M NMSA 1978. See, WQCC Reg. 3-112.

POINT 13: State jurisdiction over persons injecting on federal lands and over federal agencies injecting underground.

Under the Water Quality and the Geothermal Resources Acts, the State of New Mexico has jurisdiction over injections on federal lands, and over federal agencies. The Water Quality Control Commission's regulations define "person" as:

> the state or any agency, institution, commission, municipality, or other political subdivision thereof, federal agency, public or private corporation, individual, partnership, association or other entity and includes any officer or governing or managing body of any institution, political subdivision, agency or public or private corporation[.]

WQCC Reg. 1-101.O. Moreover, the Commission is charged with the duty of "promulgat[ing] . . . regulations to prevent or abate water pollution in the state . . . ." § 74-6-4.D NMSA 1978. There is no limitation in this statute excluding federal lands from the authority of the Commission.

Section 71-5-3(h) of the Geothermal Resources Act defines person so as to include within its terms persons conducting injection operations on federal lands, and federal agencies. That defition states:

> "Person" means any individual, estate, trust, receiver, cooperative association, club, corporation, company, firm, partnership, joint venture, syndicate or other entity of the United States or any agency or instrumentality thereof, the State of New Mexico or any political subdivision thereof.

The Mining and Minerals Division asserts jurisdiction over federal agencies pursuant to Executive Order 2380 which instructs all federal agencies to comply with state and local environmental provisions. The Division regulates coal surface mining and reclamation on federal lands in New Mexico under an agreement between the State of New Mexico and the Office of Surface Mining of the Department of the Interior. 45 Fed. Reg. 53.128 (Aug. 11, 1980). This agreement will be renewed. See, 46 Fed. Reg. 40,050 (Aug. 6, 1981).

State jurisdiction over injections conducted by federal agencies is not precluded by the federal Safe Drinking Water Act. The Act states:

> Each Federal agency . . . engaged in any activity resulting, or which may result in, underground injection which endangers drinking water . . . shall be subject to, and comply with all . . . State . . . requirements . . . . This subsection shall apply, notwithstanding any immunity of such agencies, under any law or rule of law.

SDWA § 1447(a).

POINT 14: Jurisdiction over non-Indian activities on Indian land.

The EID asserts that the State of New Mexico has authority to regulate injection wells on lands within the State but also lying within Indian reservations or territories. In determining whether a state has jurisdiction over different activities on Indian lands, courts have used a two-pronged test. Under this test, the state is considered to have jurisdiction unless 1) jurisdiction over this type

of activity on Indian land has been pre-empted by the federal government, or 2) the assertion of jurisdiction by the state over this activity would interfere with tribal self-government. Organized Villages of Kake v. Egan, 369 U.S. 60 (1962); Willims v. Lee, 358 U.S. 217 (1959); Norvell v. Sangre de Cristo Development Co., 372 F. Supp. 348 (D.N.M. 1974), rev'd on other grounds, 519 F.2d 370 (10th Cir. 1975).

> [C]ongress has plenary powers over all Indian affairs and can, if it so desires, preclude state jurisdiction. Where federal statutes and regulations issued pursuant thereto entirely comprehend a subject, there can remain no room for state laws imposing additional burdens on that subject. In the absence of governing acts of Congress, the resolution of whether a given state action is permitted depends on whether it infringes upon the right of the Indians to make their own laws and be ruled by them.

Norvell, supra at 353-54. No argument can be made that state regulation of underground injections by non-Indians lessees on Indian lands would interfere with tribal self-government.[2] Without the express delegation of Congress, no Indian tribe has power beyond that necessary to protect its self-government or control internal relations. Montana v. United States, 101 S. Ct. 1245 (1981). The remaining question is whether the area has been pre-empted by federal statutes and regulations.

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[2] While the question might be more complicated if the Indians themselves were injecting, it is unlikely that Indians will be operating the types of wells relevant to the UIC program.

The United States Supreme Court clearly employed the test of federal pre-emption in Warren Trading Post Co. v. Arizona Tax Commission, 380 U.S. 685 (1965). In deciding that the State of Arizona could not levy a 2 per cent gross income tax on a federally licensed trading post located on an Indian reservation, the Court noted the pervasive federal regulation of Indian traders and reasoned that, in such circumstances, it was inappropriate for the state to regulate the same entity. The Court wrote:

> These apparently all-inclusive regulations and the statutes authorizing them would seem in themselves sufficient to show that Congress has taken the business of Indian trading on reservations so fully in hand that no room remains for state laws imposing additional burdens on the traders.

Id. at 690. There are no federal statutes and regulations governing underground injections on Indian lands comparable to those in the Warren Trading Post case. Although the Federal Safe Drinking Water Act (SDWA), as amended, and EPA regulations adopted pursuant to it set up a federal scheme for regulating underground injections, the Act allows the states to assume primary enforcement responsibility and is silent on whether the states or the federal government should enforce such regulations on Indian lands. It is specifically stated that: "Nothing in the Safe Drinking Water Amendments of 1977 shall be construed to alter or affect the status of American Indian Lands or water rights . . ." § 1447(c)(1) of the SDWA. The SDWA and attendant regulations of EPA cannot be considered as evidence of federal

pre-emption. As there are no other federal acts and regulations which could be considered to pre-empt the regulation of underground injections on Indian Lands, the federal government has not pre-empted this area; and the State may regulate it.

The State has not renounced jurisdiction over Indian lands. This is so despite the disclaimer in the New Mexico Enabling Act, 36 Stat. 557 (Ch. 310), where the State disclaimed all right and title to, and the United States retained absolute jurisdiction and control over, lands held by the Indians. In Village of Kake, supra., the United States Supreme Court, interpreting a similar disclaimer found in the Alaska Statehood Act, concluded that absolute jurisdiction is not necessarily exclusive jurisdiction, and that such a disclaimer does not automatically preclude the exercise of state authority. Village of Kake, supra., is good authority for the proposition that the disclaimer in the New Mexico Enabling Act does not automatically prohibit state regulation of activities on Indian lands in the state.

Nor did the State renounce authority over Indian lands in Article XXI, § 2 of the Constitution of New Mexico which states in part:

> The people inhabiting this state do agree and declare that they forever disclaim all right and title to . . . all lands lying within [the boundaries of the state] . . . owned or held by any Indian or Indian tribes, the right or title to which shall have been acquired through the United States, or any prior sovereignty; and that until the title of such Indian or Indian tribes shall have been extinguished the same shall be and remain subject to the disposition and under the absolute jurisdiction and control of the congress of the United States. . . .

The courts have interpreted this article as a disclaimer or proprietary interest, rather than of governmental control, by the state. Norvell, supra; Sangre de Cristo Development Corp. v. City of Santa Fe, 84 N.M. 343, 503 P.2d 323 (1972).

The State's failure to act under Public Law 280 to assert jurisdiction over Indian lands is irrelevant in considering whether it can act to regulate non-Indian activities which affect the health and welfare of citizens of New Mexico. The Court in Norvell, supra., while noting that New Mexico was not a Public Law 280 state, failed to ascribe any importance to this fact in determining that certain state laws, among them, the New Mexico Water Quality Act, applied to a non-Indian lessee developing and operating a housing development for non-Indians on Indian land. In reaching its decision, the Court noted that the laws which the state wished to apply were designed to protect and promote the health and welfare of the citizens of New Mexico, and that New Mexican citizens would be affected if the State's regulations were not implemented. This consideration is also relevant in the regulation of underground injections.

While the possibility exists that New Mexico's assumption of authority might be challenged in court, this possibility is not a sufficient reason for the EPA to deny EID's application to regulate underground injection on Indian lands. The uncertainty of the extent of state authority over Indian lands is not limited to New Mexico, but exists in all states having Indian lands within their boundaries.

The State of New Mexico has maintained, and continues to maintain, that under the two-prong test, it clearly has jurisdiction to regulate activities on Indian lands. (See the attached xeroxed copies of two Attorney General's Opinions.) This view has been endorsed in the federal district court in New Mexico. Norvell, supra. Acting on its assertion of jurisdiction, the state currently issues permits regulating various activities by non-Indians on Indian lands.

POINT 17: State authority to submit information to EPA upon request.

The EID has the authority under the Water Quality Act to turn over information it obtains from the dischargers to the EPA upon request. The Act requires all information obtaind by EID to be made available to the public, except information divulging methods or processes entitled to protection as trade secrets. § 74-6-12.B, NMSA 1978. That act contains no restriction on intergovernment exchange of information as long as the states confidentiality requirements are complied with.

CONCLUSION

The Water Quality Act, the Geothermal Resources Act, the Surface Mining Act, and the regulations adopted pursuant to these acts, provide adequate authority to the State of New Mexico to regulate the four classes of wells specified in 40 C.F.R. § 122.32 in conformance with

the federal requirements.

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Assistant Attorney General
Environmental Improvement Division

W. Perry Pearce
Assistant Attorney General
Oil Conservation Division

Douglas Meiklejohn
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Civil Division, Counsel for the
Mining and Minerals Division

The above Assistant and Deputy Attorneys General have full authority to represent the state in court on matters pertaining to the State Underground Injection Control Program.

TABLE 1--SUMMARY OF NEW MEXICO ACTS APPLICABLE TO AND ADMINISTRATIVE AGENCIES RESPONSIBLE FOR UNDERGROUND INJECTION CONTROL

	NM STATUTORY AUTHORITY				NM ADMINISTRATIVE AGENCY		
EPA UIC WELL CLASSIFICATION (40 CFR, PART 146.05)	WATER QUALITY ACT (74-6-1 through 74-6-13 NMSA 1978)	OIL AND GAS ACT (70-2-1 through 70-2-38 NMSA 1978)	GEOTHERMAL RESOURCES CONSERVATION ACT (71-5-1 through 71-5-24 NMSA 1978)	SURFACE MINING ACT (69-25A-1 through 69-25A-35 NMSA 1978)	EID[1] (ALL WQCC REGS)	OCD[1]	CSMB[1]
Class I	X	--	--	--	X	X[2] (WQCC REGS)	--
Class II	--	X	--	--	--	X (OIL & GAS RULES)	--
Class III	X	--	--	--	X	X[2] (WQCC REGS)	--
Class IV	X	--	--	--	X	X[2] (WQCC REGS)	--
Class V (1)	X	--	--	--	X	--	--
(2)	X[3]	--	-	--	X	--	--
(3)	X	--	--	--	X	X[2] (WQCC REGS)	--
(4)	X	--	--	--	X	--	--
(5)	X	--	--	--	X	--	--
(6)	X	--	--	--	X	--	--
(7)	X	--	--	--	X	--	--
(8)	X	--	--	--	X	--	--
(9)	X[3]	--	--	--	X	--	--
(10)	X	--	--	--	X	--	--
(11)	X	--	--	--	X	--	--
(12)	--	--	X	--	--	X (GEOTHERMAL RULES)	--
(13)	X	--	--	--	X	--	--
(14)	X	--	--	--	X	--	--
(15)	X	--	X	X	X	X (WQCC REGS OR GEOTHERMAL RULES)	X (SURFACE COAL MNG REGS)
(16)	X	--	--	X	X[4]	X[4] (WQCC REGS)	X (SURFACE COAL MNG REGS)

1. Abbreviations: CSMB - Coal Surface Mining Bureau of the Mining and Milling Division, Energy and Minerals Department
   EID - Environmental Improvement Division of Health and Environment Department
   OCD - Oil Conservation Division of the Energy and Minerals Department
   WQCC - Water Quality Control Commission
2. The OCD administers WQCC Regulations as they pertain to discharges at refineries and natural gas transmission lines, and solution mining of salt.
3. The WQCC Regulations cover all domestic septic and cesspool systems with capacity of 2,000 gallons per day or more (20 persons @ 100 gallons per day), and all non-domestic systems (any quantity).
4. No injection wells for lignite, tar sands or oil shale are currently in existence in New Mexico; oil shale wells will be regulated by the WQCC Regs, lignite wells by the CSMB, and tar sands by the EID.

TABLE 2--FEDERAL REQUIREMENTS AS REFERENCED IN EPA'S MODEL ATTORNEY GENERAL'S STATEMENT OF JULY 31, 1981, WITH THE EQUIVALENT SECTIONS OF NEW MEXICO ACTS AND REGULATIONS[1]

Federal Requirement	State Statute N.M.S.A., 1978	Regulation for effluent disposal wells and in situ extraction wells (Classes I, III and IV)	Regulation for injection wells (Class V)
1. Prohibition of Unauthorized Injection			
Federal law prohibits any underground injection unless authorized by permit or rule (Section 1421(b)(1)(A) of the Safe Drinking Water Act (SDWA) and 40 CFR 122.31).	74-6-2.G 74-6-4.I 74-6-5.A 71-5-8.L 69-25.A-11	1-201 5-101.B	1-201 3-104 5-300
2. Prohibition of Endangering Drinking Water Sources[2]			
a. State authority, which provides authorization of underground	74-6-4.D 74-6-5.I	5-101.A[3] 5-102	3-106.C 3-109.C

[1] All regulations on this chart are those of the New Mexico Water Quality Control Commission (WQCC). The Environmental Improvement Division and the Oil Conservation Division administer the WQCC Regulations with reference to the classes of wells set out in Table 1. Authority over Class II injection wells regulated by the Oil Conservation Division (OCD) is addressed in the primacy submission to EPA by the OCD under Section 1425 of the Safe Drinking Water Act. Please see Table 2 in the program description for additional cross-references between the Federal Regulations and N.M. provisions.

[2] See program description on equivalency of federal definition of "source of drinking water" and New Mexico's use of "water having 10,000 mg/l or less TDS"

[3] The burden of proving that the discharge plan complies with the requirements of the regulations is on the discharger, for all types of wells regulated under the regulations. Reg. 3-106.C; see Reg. 5-210.B. In addition, Regs. 5-203.B., 5-204.B., 5-205.A.1., 5-207 and 5-209.A place the burden of showing specific criteria are met on the discharger with respect to effluent disposal and in situ extraction wells. Reg. 5-102.A specifies the burden of showing that the discharge will be in compliance with the regulations must be met before the Director may approve a discharge plan for an effluent disposal well. Failure to include in situ extraction wells in this section does not obviate the requirement of burden of proof with respect to in situ extraction wells. The other regulations cited above applying to in situ extraction wells make it clear that the burden of proof required to obtain an approved discarge plan is on the discharger.

injection by permit, shall require the the applicant for a permit to inject must satisfy the State that the underground injection will not endanger drinking water sources (Section 1421(b)(1)(B)(i)).		3-109.C See text for discussion of variances.	
b. The SWDA requires that a State program, in the case of a program which provides for authorization by rule, include the prohibition that no rule may be promulgated which authorizes any underground injection which endangers drinking water sources within the meaning of Section 1421(d)(2) (Section 1421(b)(1)(B)(ii)).	74-6-4.D	Not Applicable	3-106.C 3-109.C
3. Prohibition of Movement of Fluid into a USDW			
a. The Federal program at 40 CFR 122.34(a) requires State programs to prohibit any authorization of underground injection by permit or rule, that causes or allow movement of any contaminant into a USDW, if the presence of that contaminant may cause a violation of any primary drinking water regulation or may otherwise adversely effect the health of persons.	74-6-4.D	3-109.E 5-101.A 5-104 5-203.B 5-203.D	3-109.E
b. Corrective action must be imposed if any such movement is occurring from any Class I, II or III well. (40 CFR 122.34(b), and 122.44).	74-6-5.A	3-109.E 5-203.B 5-203.D	Not Applicable
4. Authority to Issue Permits or Rule			
The SDWA requires State authority to issue permits or promulgate rules for underground injection not less stringent than regulations of the Environmental Protection Agency [Section 1422(b)(1)(A)(i) and 40 CFR Parts 122, 123, 124 and 146].	74-6-5.A	5-101 5-102	3-104 3-109.C 3-109.D 3-109.G

5. Authority to Condition Authorized Injection Activities			
The SDWA requires State authority to condition permits in accordance with conditions applicable to all permits (40 CFR 123.7(a)(1) through (a)(17), §§ 122.41 and 122.42).	74-6-5.G 74-6-5.J 74-6-12.A	3-107.A 5-101.H See Table 2 in program description for list of state regulations meeting the federal requirements of 40 CFR parts 122 and 124 as set out in 40 CFR 123.7(a)(1)-(a)(17).	3-107.A 5-101.H
6. Authority to Impose Compliance Evaluation Requirements			
a. The SDWA requires the State to have authority for entry in or onto a site or facility for the purpose of inspections (Section 1421(b)(1)(C) and 40 CFR 123.8(c)).	74-6-9.F	3-107.D	3-107.D
b. The SDWA requires State authority to conduct inspection of facilities and activities subject to the program, and authority to require permittees and persons subject to authorization by permit or rule to conduct facility monitoring and reporting requirements in the manner prescribed by the Director (Section 1421(b)(1)(C) and 40 CFR 146.13, 146.23, and 146.33).	74-6-5.G 74-6-9.F	5-206 5-207 5-208	3-107.A
c. The SDWA requires State authority to require permittees and persons subject to the underground injection control regulations to keep all records and make all reports required by the Director (Section 1421(b)(1)(C) and 40 CFR 122.7(j)(2), 122.41(b) and 123.8).	74-6-5.G 74-6-9.B	3-107.A.7 5-207 See also Memorandum of Agreement for compliance evaluation.	3-107.A.7

[1] See Memorandum of Agreement concerning program reporting by the Director and treatment of confidential information. Additional comments concerning property rights are found in the Text of this Statement.

7. Authority for Enforcement Requirements	See text.	See text.	See text.
8. Authority for Public Participation in Permit Processing The Federal program requires State authority to allow for adequate public involvement and participation in permit processing, including draft permits (if applicable), public comment, public hearing (if applicable), and response to comments on the final permit (§ 123.7(a)(18) through (21).	74-6-[illegible] E	3-108 5-102.B.4 5-101.F.5 See also Table 3 of program description, discussions under 40 CFR 124.17.	3-108
9. Authority to Apply Technical Criteria and Standards for the Control of Underground Injection not less Stringent than 40 CFR Part 146 (Section 1421(a)(1) and (b)(1)).	74-7-4.D	Part 5	Not applicable
10. Classification of Injection Wells			
a. The State must have the authority to regulate all classes and types of wells as required for an underground injection control program (Section 1421(a)(1) and (b)(1), and 40 CFR 122.32).	See Table 1 of this Statement	See Table 1 of this Statement	See Table 1 of this Statement
b. If the State program is not applicable to one or more classes of injection wells because there are no such wells within the State, the State:	Not applicable because State has authority to regulate all classes of injection wells. See Table 1.		
(1) must have the authority explicitly banning new injections for that class (classes) not covered by the State program, or certify that such new injections cannot legally occur until the State has developed an approved program for that class (classes) (40 CFR 123.51(d), and			
(2) must demonstrate that there are no underground injections for those one or more classes of wells within the State.			

11. Elimination of Certain Class IV Wells			
a. The State must prohibit the construction of any Class IV well for the injection of hazardous waste directly into an underground source of drinking water (USDW) (40 CFR 122.36(a)(1).	74-6-5.A 74-6-5.D	5-101.A 5-102.A	Not applicable
b. The State must prohibit the injection of a hazardous waste directly into a USDW through a Class IV well that was not in operation prior to July 24, 1980 (effective date of Part 146 pg. (42472) (40 CFR 122.36(a)(2)).	74-6-5.A 74-6-5.D	5-101.A	Not applicable
c. The State must prohibit any increase in the amount of hazardous waste or change in the type of hazardous waste injected into a well injecting hazardous waste directly into a USDW (40 CFR 122.36(a)(3)).	74-6-5.A 74-6-5.D	Not applicable	Not applicable
d. The State must prohibit the operation operation of any Class IV well injecting hazardous waste directly into a USDW after six (6) months following approval of any UIC program for the State (40 CFR 123.7(c)(5), 122.36(a)(4), and 122.45).	74-6-5.A 74-6-5.D	5-101	Not applicable
e. The State must require the owners or operators of hazardous waste management facilities and all generators of hazardous waste to comply with the requirements of Section 122.45 (40 CFR 122.45).	74-6-5.A 74-6-5.D	5-101	Not applicable
12. Authority to Identify Aquifers that are Underground Sources of Drinking Water (USDW) and to Exempt Certain Aquifers (40 CFR 123.7(c)(4), 122.35, 122.3, and 123.4(g)(8) and (9)).	74-6-4.B 74-6-4.D	3-101.A 5-103 5-101.C	3-101.A
13. Authority Over Federal Agencies and Persons Operating on Federally Owned or Leased Property	See text.	See text.	See text.

14.	State Authority over Indian Lands	See text.	See text.	See text.
15.	Authority to Revise State Underground Injection Control Programs (Section 1422(b)(1)(B) and 40 CFR 123.13).	74-6-4.B 74-6-4.D		
16.	Authority to make and keep Records and make Reports on its Program Activities, all as prescribed by the Environmental Protection Agency Section 1422(b)(1)(A)(ii), 40 CFR 123.6(b)(3), 123.10, and 122.18).	74-6-9.B	See Memorandum of Agreement	
17.	The State must have authority to make available to EPA upon request, without restriction, any information obtained or used in the administration of the State program, including information claimed by permit applicants as confidential (40 CFR 123.10).	See text.	See text.	See text.

Attorney General Opinion
No. 70-5

January 22, 1970

OPINION
OF
JAMES A. MALONEY
Attorney General

By: Richard J. Smith
Assistant Attorney General

To: The Honorable Joseph M. Montoya
United States Senator
United States Senate
Washington, D.C.

QUESTION:

Do the provisions of New Mexico's Air and Water Quality Acts, respectively Sections 12-14-1 through 12-14-13 and 75-39-1 through 75-39-12, N.M.S.A., 1953 Compilation, apply to problems of pollution created by privately-owned industries located on Indian land?

CONCLUSION:

Yes.

ANALYSIS:

A similar question was addressed by this office in Attorney General Opinion No. 65-25, issued February 9, 1965. That opinion announced a conclusion identical with this one, but several important court decisions handed down since its issue have greatly clarified the relationship between state and federal responsibilities in the area of Indian affairs.

The fundamental nature of the relationship between state governments and Indian reservations was described more than one hundred years ago. In Worcester v. Georgia, 31 U.S. 518 (1832), Chief Justice Marshall declared that Indian reservations possess many of the attributes of sovereignty, and that general application of state laws within reservation boundaries is improper. Though on its face an absolute prohibition against state regulation of reservation matters, the Worcester rule yielded to modification and closer analysis when confronted with varying specific problems. When basic facets of tribal life, customs, and self-government were not at issue, the Supreme Court began to alter the Worcester doctrine to permit a measure of accommodation between Indian sovereignty and state law. Langford v. Monteith, 102 U.S. 145 (1880); United States v. McBratney, 104 U.S. 621 (1881); Utah & N.R. Co. v. Fisher, 116 U.S. 28 (1885).

Concurrently with these judicial developments, the United States Congress and the New Mexico courts began to explore other specific areas in which state laws could be made applicable to Indian reservations. In 1929, Congress authorized the states to enforce health and sanitation laws on Indian lands, and to enforce compulsory school attendance by Indian children. 25 U.S.C. §231. Since 1934, federal policy has permitted a gradual assumption by the states of other types of civil and criminal jurisdiction over reservation matters. 18 U.S.C. §1162; 28 U.S.C. §1360. New Mexico courts have determined that while principal jurisdiction over reservation affairs lies with the United States and the Indians themselves, this jurisdiction is not and was never intended to be exclusive. State v. Begay, 63 N.M. 409, 320 P.2d 1017

(1958); Batchelor v. Charley, 74 N.M. 717, 398 P.2d 49 (1965). In affirming the right of the Indian people of New Mexico to participate in this State's elections, Montoya v. Bolack, 70 N.M. 196, 372 P.2d 387 (1962), our Supreme Court emphasized that reservations are not completely separate entities existing outside the political and governmental jurisdiction of the State. In a recent case, the New Mexico Court of Appeals upheld the extension of the State's taxing power to the incomes of Indians living and working on Indian land. Ghahate v. Bureau of Revenue, 80 N.M. 98, 451 P.2d 1002 (1969).

The Batchelor and Ghahate cases, and the decision reached by the United States Supreme Court in Organized Village of Kake v. Egan, 369 U.S. 60 (1962) provide excellent analyses of the present limits of state authority over Indian reservations. In reviewing its own decisions on the matter, the Court declared in Kake:

> "In the latest decision, Williams v. Lee, 358 U.S. 217 (1959) . . . we held that Arizona had no jurisdiction over a civil action brought by a non-Indian against an Indian for the price of goods sold the latter on the Navajo reservation. The applicability of state law, we there said, depends upon 'whether the state action infringed on the right of reservation Indians to make their own laws and be ruled by them,' 358 U.S., at 220. Another recent statement of the governing principle was made in a decision reaffirming the authority of a State to punish crimes committed by non-Indians against non-Indians on reservations: '(I)n the absence of a limiting treaty obligation or Congressional enactment each state had a right to exercise jurisdiction over Indian reservations within its boundaries,' New York ex rel. Ray v. Martin, 326 U.S. 496 (1946).
>
> "These decisions indicate that even on reservations state laws may be applied unless such application would interfere with reservation self-government or impair a right granted or reserved by federal law."

The two criteria which the courts of this state will employ in assessing the validity of state regulation of reservation affairs appear in the Ghahate and Batchelor cases, cited above. The first requirement to be met is the compatibility between the operation of the state law and the proprietary rights of the Indians in their lands. In the Batchelor case, the New Mexico Supreme Court observed:

> "Civil jurisdiction over a suit on a promissory note against an Indian who does not live on a reservation is clearly a governmental and not a proprietary interest, and it follows that Article XXI, Section 2 of the New Mexico Constitution does not deny jurisdiction to the state court under the facts of the instant case."

* * * *

> "A similar disclaimer clause in the Alaska Statehood Act was construed by the Supreme Court of the United States . . . to be only a disclaimer of proprietary, rather than of governmental interest. We followed the . . . construction . . . in construing our disclaimer clause."

The second criterion in the application of state law is the effect such application would have on tribal self-government. The language of the Batchelor decision is again instructive:

> "As to matters not within the prohibition of the constitutional provisions supra, the test of state court jurisdiction is whether the state action infringes on the right of reservation Indians to make their own laws and be governed by them. Williams v. Lee, 358 U.S. 217 (1959)."

Thus, the application of state anti-pollution laws to industries located on Indian land is valid, provided that the operation of those laws neither impairs the proprietary interest of the Indian people in their lands nor limits the right of the tribe or pueblo to govern matters of tribal relations. It is clear that the regulation of industrial discharges is not a matter fundamental to tribal relations, and that the state supervision of environment pollution will not limit, in any meaningful manner, the right of the several Indian peoples to govern themselves. Similarly, the extension of pollution controls to

industries located on fi an land will not affect the ownership or control of the land, and will at most impose certain limitations on the operation of facilities erected on the land. Since no attempt directly to limit or control land use is contemplated, no interference with Indians' proprietary rights is foreseen.

Since the extension of New Mexico's anti-pollution laws cannot reasonably be said to violate either of the principles heretofore discussed, it is clear that the State of New Mexico may enforce its Air and Water Quality Acts on Indian lands.

Attorney General Opinion
No. 70-76

September 9, 1970

OPINION
OF
JAMES A. MALONEY
Attorney General

By: Gary O'Dowd
Deputy Attorney General

To: Elmer L. Kaemper
Executive Director
Construction Industries Commission
1302 Osage Avenue
Santa Fe, New Mexico 87501

QUESTIONS:

(1) Does the Construction Industries Commission have the duty to seek compliance with the Construction Industries Licensing Act and the construction codes of this state in cases where Indian pueblos or tribes lease land to private companies for the purpose of constructing buildings or other structures thereon?

(2) Does this make the private company subject to compliance with the Construction Industries Licensing Act and also give the State Inspectors the right of entry on Indian lands so leased to private companies for inspection purposes under the Construction Industries Licensing Act?

CONCLUSIONS:

(1) Yes.

(2) Yes.

ANALYSIS:

The above questions arise out of the proposed development by Great Western Cities on the Cochiti Pueblo Indian lands in Sandoval County, New Mexico. Cochiti Pueblo has leased certain of its lands to Great Western Cities under a 99 year lease. Great Western Cities proposes to subdivide this land and to sublease tracts to individuals who will build either homes or businesses as provided in their particular sublease agreement.

As we understand the facts, Great Western Cities has a master plan of development which has been approved by Cochiti Pueblo as well as by the Secretary of Interior. Sublessees must follow the approved architectural design and specifications when building. In certain situations, Great Western Cities will act as a general contractor in building businesses and homes. Sublessees may either hire a New Mexico contractor to build a home complying with the architectural design and specifications approved by Great Western, Cochiti Pueblo and the Secretary of Interior or they may have Great Western Cities build their home or business establishment meeting these already approved architectural design and specifications.

The question presented by the above facts is whether the state has jurisdiction over the construction of houses or other buildings on these Indian lands leased for 99 years to non-Cochiti Pueblo Indian lessees.

At this point, a short discussion on the status of New Mexico Indian pueblos may be helpful for understanding certain terms used in this opinion. When speaking of an Indian pueblo in New Mexico the term "public corporation" is perhaps the more appropriate characterization of their legal status. See Cohen, Federal Indian Law, p. 400. Unlike the case of reservation Indians holding their lands by virtue of a treaty with the United States, pueblo lands are held by virtue of title dating back to land grants from the Government of Spain. The pueblo Indians hold their lands by a right superior to the United States in that they have fee simple title to their lands. See United States v. Sandoval, 231 U.S. 28 (1913). Although there may be some distinguishing characteristics between pueblos and and other Indian tribes, this opinion is not limited to pueblos, but rather includes all Indian country including Indian reservations.

Although some state jurisdiction on Indian lands was almost nonexistent at one time, the law has changed in later years. When confronted with various specific problems the courts have generally refused to find Indian sovereignty when basic facets of tribal life, customs and self-government were not at issue. In these instances the courts have held state law applicable. Langford v. Monteith, 102 U.S. 145 (1880); United States v. McBratney, 104 U.S. 621 (1881).

In a landmark Alaska case, Organized Village of Kake v. Egan, 396 U.S. 60, 7 L.Ed.2d 573, 82 S.Ct. 562 (1962), the United States Supreme Court held that state laws may be applied on reservations or other tribal lands unless such application would interfere with reservation self-government or impair a right granted or reserved by federal law. In Organized Village of Kake v. Egan, supra, the court noted that in its latest decision, Williams v. Lee, 358 U.S. 217, 3 L.Ed.2d 251, 79 S.Ct. 269 (1959) it had said that:

"The applicability of the state law . . . depends upon 'whether the state action infringed on the right of reservation Indians to make their own laws and be ruled by them.' 358 U.S. at 221."

The court went on to point out that:

"Another recent statement of the governing principle was made in a decision reaffirming the authority of a State to punish crimes committed by

non-Indians against non-Indians on reservations: '(I)n the absence of limiting treaty obligation or Congressional enactment each state has a right to exercise jurisdiction over Indian reservations within its boundaries,' New York ex rel. Ray v. Martin, 326 U.S. 496 (1946)."

The Supreme Court in Organized Village of Kake v. Egan, supra, concluded that:

"These decisions indicate that even on a reservation state laws may be applied unless such application would interfere with reservation self-government or impair a right granted or reserved by federal law."

To determine whether the State of New Mexico has jurisdiction under its Construction Industries Act, we must therefore inquire whether the application of this law would interfere with tribal self-government or impair a right granted or reserved by federal law.

It is clear that state jurisdiction over the construction of buildings or other structures described in the facts above cannot in any way interfere with tribal self-government or infringe on the right of the Indians to govern themselves. This is essentially a non-Indian development in that the buildings constructed on the leased lands will be occupied by non-Indians. The New Mexico Construction Industries Act, and building codes issued thereunder, is designed:

to promote the general welfare of the people of New Mexico by providing for the protection of their lives, property and economic well-being against substandard or hazardous construction . . . work. Section 67-35-4, N.M.S.A., 1953 Compilation.

The public interest demands that the buildings in this state comply with established standards of construction to protect the people of this state. We must conclude that the application of the Construction Industries Act in no way interferes with reservation self-government and further that the State of New Mexico has a strong public interest in enforcing the provisions of this Act to protect the people of New Mexico.

The mere fact that the locus of an event is on an Indian reservation does not prevent the exercise of state jurisdiction, especially where the parties involved are not Indians and the subject matter of the transaction is not of federal concern. Thus, it has been held that the murder of a non-Indian by a non-Indian on a reservation, in the absence of express federal legislation to the contrary, is a matter of exclusive state jurisdiction. U.S. v. McBratney, 104 U.S. 621 (1881); Draper v. U.S., 164 U.S. 240 (1896). Likewise, the validity of state taxation of personalty of a non-Indian within Indian country has been sustained. Thomas v. Gay, 169 U.S. 240 (1896).

Having concluded that state inspection of buildings constructed by New Mexico contractors on Indian lands leased to private individuals under a 99 year lease does not interfere with reservation self-government we must turn to the question of whether it impairs a right granted or reserved by federal law. In Warren Trading Post Co. v. Arizona Tax Comm'n, 380 U.S. 685, 85 S.Ct. 1242, 14 L.Ed.2d 165 (1965), the Supreme Court of the United States held that states could not impose proceeds of sales tax or gross income tax on sales to reservation Indians by a licensed Indian trader. The reason for this holding was that the federal government preempted state government from imposing such a tax by regulating the prices charged Indians by Indian traders.

In the Warren Trading Post case, the Supreme Court pointed out that the Commissioner of Indian Affairs had "the sole power and authority to appoint traders to the Indian tribes and to specify the kind and quantity of goods and the prices at which such goods shall be sold to the Indians." The court concluded that "Congress has taken the business of Indian trading on reservations so fully in hand that no room remains for state laws imposing additional burdens upon the traders." We find no federal law which possibly could be considered to have preempted the state from its duty to inspect buildings constructed on Indian lands and therefore must conclude the state has jurisdiction to inspect under the provisions of the Construction Industries Act.

There may be some argument that since these buildings will be owned by the Cochiti Pueblo Indians under the terms of the master lease, the buildings belong to the Indians and therefore state regulation is somehow proscribed. In Agua Caliente Band of Mission Indians v. County of Riverside, 306 F.Supp. 279 (S.D. Cal. 1969), it was held that a possessory interest in a leasehold of 99 years is tantamount to an estate in fee for assessment purposes. We believe this general principle applies equally in the present case. As pointed out above, this is essentially a non-Indian development and the public interest demands that the 99 year leased buildings comply with established standards of construction to protect the people of this state.

Article XXI, Section 2 of the New Mexico Constitution* is a disclaimer of a proprietary rather than a governmental interest by the state and therefore is inapplicable in this case. See Ghahate v. Bureau of Revenue, 80 N.M. 98, 101, 451 P.2d 1002 (1969) and Organized Village of Kake v. Egan, supra at 580.

It follows from the foregoing that pursuant to Section 67-35-50, N.M.S.A., 1953 Compilation of the Construction Industries Licensing Act, State Inspectors have the right of entry on Indian lands to carry out the necessary inspections of the type of construction set forth in this opinion request.

We have not been asked, and therefore do not at this time answer the question of jurisdiction over the construction by Indians of such structures as pueblos, hogans and kivas on Indian country for the use or occupancy by Indians. The construction of such structures may well involve basic facets of tribal life and customs, and if so, state jurisdiction in this area would interfere with tribal self-government.

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*The people inhabiting this state do agree and declare that they forever disclaim all right and title to the unappropriated and ungranted public lands lying within the boundaries thereof, and to all lands lying within said boundaries owned or held by any Indian or Indian tribes, the right or title to which shall have been acquired through the United States, or any prior sovereignty; and that until the title of such Indian or Indian tribes shall have been extinguished the same shall be and remain subject to the disposition and under the absolute jurisdiction and control of the Congress of the United States; and that the lands and other property belonging to citizens of the United States residing without this state shall never be taxed at a higher rate than the lands and other property belonging to residents thereof; that no taxes shall be imposed by this state upon lands or property therein belonging to or which may hereafter be acquired by the United States or reserved for its use; but nothing herein shall preclude this state from taxing as other lands and property are taxed, any lands and other property outside of an Indian reservation, owned or held by any Indian, save and except such lands as have been granted or acquired as aforesaid, or as may be granted or confirmed to any Indian or Indians under any Act of Congress; but all such lands shall be exempt from taxation by this state so long and to such extent as the Congress of the United States has prescribed or may hereafter prescribe.

Appendix A

Applicable New Mexico Statutes, Rules and Regulations

ARTICLE 6

Water Quality

74-6-1. Short title.

This act [74-6-1 to 74-6-4, 74-6-6 to 74-6-13 NMSA 1978] may be cited as the "Water Quality Act."

History: 1953 Comp., § 75-39-1, enacted by Laws 1967, ch. 190, § 1.

Cross-references. — For the Pollution Control Revenue Bond Act, see 3-59-1 NMSA 1978.

Water laws apply on Indian land. — Where non-Indians enter into long-term lease with an Indian tribe under which the non-Indians are to develop the land as a subdivision, state laws concerning subdivision control, construction licensing and water cannot be held inapplicable to the lessee because of federal preemption. Norvell v. Sangre de Cristo Dev. Co., 372 F. Supp. 348 (D.N.M. 1974), rev'd on other grounds, 519 F.2d 370 (10th Cir. 1975).

Provided Indian proprietary interest and self-government unimpaired. — The application of state antipollution laws to industries located on Indian land is valid, provided that the operation of those laws neither impairs the proprietary interest of the Indian people in their lands nor limits the right of the tribe or pueblo to govern matters of tribal relations. The regulation of industrial discharges is not a matter fundamental to tribal relations, and the

state supervision of environment pollution will not limit, in any meaningful manner, the right of the several Indian peoples to govern themselves. The extension of pollution controls to industries located on Indian land will not affect the ownership or control of the land. 1970 Op. Att'y Gen. No. 70-5.

Law review. — For comment, "Control of Industrial Water Pollution in New Mexico," see 9 Nat. Resources J. 653 (1969).

For note, "New Mexico Water Pollution Regulations and Standards Upheld," see 19 Nat. Resources J. 693 (1979).

74-6-2. Definitions.

As used in the Water Quality Act [74-6-1 to 74-6-4, 74-6-6 to 74-6-13 NMSA 1978]:

A. "water contaminant" means any substance which alters the physical, chemical or biological qualities of water;

B. "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;

C. "wastes" means sewage, industrial wastes or any other liquid, gaseous or solid substance which will pollute any waters of the state;

D. "sewer system" means pipelines, conduits, pumping stations, force mains or any other structures, devices, appurtenances or facilities used for collecting or conducting wastes to an ultimate point for treatment or disposal;

E. "treatment works" means any plat or other works used for the purpose of treating, stabilizing or holding wastes;

F. "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;

G. "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;

H. "person" means the state or any agency, institution or political subdivision thereof, any public or private corporation, individual, partnership, association or other entity, and includes any officer, or governing or managing body of any political subdivision or public or private corporation;

I. "commission" means the water quality control commission;

J. "constituent agency" means, as the context may require, any or all of the following agencies of the state:

(1) the environmental improvement division of the health and environment department;

(2) the state engineer [director of the water resources division of the natural resources department] and the interstate stream commission;

(3) the New Mexico department of game and fish;

(4) the oil conservation commission;

(5) the state park and recreation commission [state park and recreation division of the natural resources department];

(6) the New Mexico department of agriculture;

(7) the state natural resource conservation commission [soil and water conservation division]; and

(8) the New Mexico bureau of mines [bureau of mines and mineral resources at the New Mexico institute of mining and technology]; and

K. "new source" means any source, the construction of which is commenced after the publication of proposed regulations prescribing a standard of performance applicable to the source.

History: 1953 Comp., § 75-39-2, enacted by Laws 1967, ch. 190, § 2; 1970, ch. 64, § 1; 1971, ch. 277, § 49; 1973, ch. 326, § 1; 1977, ch. 253, § 73.

Meaning of "state engineer". — Laws 1977, ch. 254, § 4, abolishes the office of the state engineer, and Section 9-10-3 NMSA 1978 establishes the natural resources department, consisting of several divisions, one of which is the water resources division. Section 72-2-1 NMSA 1978 provides that the director of this division is the "state engineer."

Park and recreation division. — The park and recreation commission was abolished by Laws 1977, ch. 254, § 4. Section 9-10-3 NMSA 1978 establishes the natural resources department, consisting of several divisions, including a state park and recreation division. Section 16-2-3 NMSA 1978 provides that references to the commission shall mean the state park and recreation division.

Soil and water conservation commission. — Laws 1977, ch. 254, § 58, amends 73-20-28 NMSA 1978 changing the name of the natural resource conservation commission to the "soil and water conservation commission"; said commission is headed by a chairman (see 73-20-29 NMSA 1978).

Bureau of mines and mineral resources. — The "New Mexico bureau of mines" refers to the bureau of mines and mineral resources, established by 69-1-1 NMSA 1978 as a department of the New Mexico institute of mining and technology.

Law reviews. — For note, "On Building Better Laws for New Mexico's Environment," see 4 N.M. L. Rev. 105 (1973).

74-6-3. Water quality control commission created.

A. There is created the "water quality control commission" consisting of:

(1) the director of the environment [environmental] improvement division of the health and environment department or a member of his staff designated by him;

(2) the director of the New Mexico department of game and fish or a member of his staff designated by him;

(3) the state engineer [director of the water resources division of the natural resources department] or a member of his staff designated by him;

(4) the secretary [chairman] of the oil conservation commission or a member of his staff designated by him;

(5) the director of state park and recreation commission [state park and recreation division] or a member of his staff designated by him;

(6) the director of the New Mexico department of agriculture or a member of his staff designated by him;

(7) the executive secretary of the state natural resource conservation commission [chairman of the soil and water conservation commission] or a member of his staff designated by him;

(8) the director of the New Mexico bureau of mines [bureau of mines and mineral resources at the New Mexico institute of mining and technology] or a member of his staff designated by him; and

(9) a representative of the public to be appointed by the governor for a term of four years and who shall be compensated from the budgeted funds of the health and environment department in accordance with the provisions of the Per Diem and Mileage Act [10-8-1 to 10-8-8 NMSA 1978].

B. No member of the commission shall receive or shall have received, during the previous two years, a significant portion of his income directly or indirectly from permit holders or applicants for a permit and shall, upon the acceptance of his appointment and prior to the performance of any of his duties, file a statement of disclosure with the secretary of state disclosing any amount of money or other valuable consideration, and its source, the value of which is in excess of ten percent of his gross personal income in each of the preceding two years, that he received directly or indirectly from permit holders or applicants for permits required under the Water Quality Act [74-6-1 to 74-6-4, 74-6-6 to 74-6-13 NMSA 1978].

C. The commission shall elect a chairman and other necessary officers and shall keep a record of its proceedings.

D. A majority of the commission constitutes a quorum for the transaction of business, but no action of the commission is valid unless concurred in by five or more members present at a meeting.

E. The commission is the state water pollution control agency for this state for all purposes of the Federal Water Pollution Control Act, the Water Quality Act of 1965 and the Clean Waters [Water] Restoration Act of 1966, and may take all action necessary and appropriate to secure to this state, its political subdivisions or interstate agencies the benefits of these acts.

F. The commission is administratively attached, as defined in the Executive Reorganization Act [9-1-1 to 9-1-10 NMSA 1978], to the health and environment department.

History: 1953 Comp., § 75-39-3, enacted by Laws 1967, ch. 190, § 3; 1970, ch. 64, § 2; 1971, ch. 277, § 50; 1973, ch. 326, § 2; 1977, ch. 253, § 74.

Cross-references. — As to exemption of water quality control commission from authority of secretary of health and environment, see 9-7-14 NMSA 1978. As to staff support from the environmental improvement division, see 9-7-14 NMSA 1978.

Appropriations. — Laws 1978, ch. 137, § 1, appropriates $4,900,000 from the general fund to the water quality control commission, or its successor agency, to match funds available under the federal Water Pollution Control Act to construct sewage treatment facilities in accordance with the Water Quality Act in the sixty-seventh fiscal year and provides that no expenditure is to be made until the expenditure is matched by federal and other funds on the basis of 75% federal funds, 12½% state funds from this appropriation and 12½% from the funds of the political subdivision or state agency initiating the construction project.

Laws 1978, ch. 137, § 2, makes the act effective immediately. Approved March 6, 1978.

Laws 1979, ch. 246, § 1, appropriates $955,600 from the general fund to the water quality control commission for expenditure in the sixty-seventh and sixty-eighth fiscal years to match funds available under the federal Water Pollution Control Act for the construction of sewage treatment facilities in accordance with that act and provides that no expenditure shall be made from the appropriation until the expenditure is matched by federal and other funds on the basis of 75 percent federal funds, 12½ percent state funds from the appropriation and 12½ percent from the funds of the political subdivision or state agency initiating the construction project.

Laws 1979, ch. 246, § 2, makes the act effective immediately. Approved April 3, 1979.

Compiler's notes. — The Federal Water Pollution Control Act, the Water Quality Act of 1965 and the Clean Water Restoration Act of 1966, were compiled as 33 U.S.C. § 1151 et seq., but are now omitted as superseded by 33 U.S.C. 1251 et seq.

Environmental improvement division. — The reference to the "environment improvement division" of the health and environment department in Subsection A(1) is incorrect, as the correct title is the "environmental improvement division." See 9-7-4 NMSA 1978.

Meaning of "state engineer". — See 74-6-2 NMSA 1978 and notes thereto.

Oil and conservation commission. — The oil and conservation commission, referred to in Subsection A(4), is headed by a chairman. See 70-2-4 NMSA 1978.

Park and recreation division. — See 74-6-2 NMSA 1978 and notes thereto.

Soil and water conservation commission. — See 74-6-2 NMSA 1978 and notes thereto.

Bureau of mines and mineral resources. — See 74-6-2 NMSA 1978 and notes thereto.

Law reviews. — For comment, "Control of Industrial Water Pollution in New Mexico," see 9 Nat. Resources J. 653 (1969).

For note, "On Building Better Laws for New Mexico's Environment," see 4 N.M. L. Rev. 105 (1973).

74-6-4. Duties and powers of commission.

The commission:

A. may accept and supervise the administration of loans and grants from the federal government and from other sources, public or private, which loans and grants shall not be expended for other than the purposes for which provided;

B. shall adopt a comprehensive water quality program and develop a continuing planning process;

C. shall adopt water quality standards as a guide to water pollution control;

D. shall adopt, promulgate and publish regulations to prevent or abate water pollution in the state or in any specific geographic area or watershed of the state or in any part thereof, or for any class of waters. Regulations shall not specify the method to be used to prevent or abate water pollution, but may specify a standard of performance for new sources which reflects the greatest degree of effluent reduction which the commission determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants. In making its regulations, the commission shall give weight it deems appropriate to all facts and circumstances, including but not limited to:

(1) character and degree of injury to or interference with health, welfare and property;

(2) the public interest, including social and economical value of the sources of water contaminants;

(3) technical practicability and economic reasonableness of reducing or eliminating water contaminants from the sources involved and previous experience with equipment and methods available to control the water contaminants involved;

(4) successive uses, including but not limited to, domestic, commercial, industrial, pastoral, agricultural, wildlife and recreational uses;

(5) feasibility of a user or a subsequent user treating the water before a subsequent use; and

(6) property rights and accustomed uses;

E. shall assign responsibility for administering its regulations to constitutent agencies so as to assure adequate coverage and prevent duplication of effort. To this end, the commission may make such classification of waters and sources of water contaminants as will facilitate the assignment of administrative responsibilities to constituent agencies. The commission shall also hear and decide disputes between constituent agencies as to jurisdiction concerning any matters within the purpose of the Water Quality Act [74-6-1 to 74-6-4, 74-6-6 to 74-6-13 NMSA 1978]. In assigning responsibilities to constituent agencies, the commission shall give priority to the primary interests of the constituent agencies. The environmental improvement agency [environmental improvement division of the health and environment department] shall provide testing and other technical services;

F. may enter into or authorize constituent agencies to enter into agreements with the federal government or other state governments for purposes consistent with the Water Quality Act, and receive and allocate to constitutent agencies funds made available to the commission;

G. may grant an individual variance from any regulation of the commission, whenever it is found that compliance with the regulation will impose an unreasonable burden upon any lawful business, occupation or activity. The commission may grant a variance conditioned upon a person effecting a particular abatement of water pollution within a reaonable [reasonable] period of time. Any variance shall be granted for the period of time specified by the commission. The commission shall adopt regulations specifying the procedure under which variances may be sought, which regulations shall provide for the holding of a public hearing before any variance may be granted;

H. may adopt regulations to require the filing with it or a constituent agency, of proposed plans and specifications for the construction and operation of new sewer systems, treatment works or sewerage systems or extensions, modifications of or additions to new or existing sewer systems, treatment works or sewerage systems. Filing with or approval by the federal housing administration of plans for an extension to an existing, or construction of a new, sewerage system intended to serve a subdivision substantially residential in nature shall be deemed compliance with all provisions of this subsection;

I. may adopt regulations requiring notice to it or a constituent agency of intent to introduce or allow the introduction of water contaminants into waters of the state;

J. may adopt regulations establishing pretreatment standards that prohibit or control the introduction into publicly owned sewerage systems of water contaminants which are not susceptible to treatment by the treatment works or which would interfere with the operation of the treatment works; and

K. shall not require a permit respecting the use of water in irrigated agriculture, except in the case of the employment of a specific practice in connection with such irrigation that documentation or actual case history has shown to be hazardous to public health.

History: 1953 Comp., § 75-39-4, enacted by Laws 1967, ch. 190, § 4; 1970, ch. 64, § 3; 1971, ch. 277, § 51; 1973, ch. 326, § 3; 1981, ch. 347, § 1.

Cross-references. — For certification of utility operators, see 61-30-1 NMSA 1978.

The 1981 amendment deleted "and" at the end of Subsection I, added "and" at the end of Subsection J and added Subsection K.

Effective dates. — Laws 1981, ch. 347, contains no effective date provision but was enacted at the session which adjourned on March 21, 1981. See N.M. Const., art. IV, § 23.

Environmental improvement division. — The environmental improvement agency was abolished by Laws 1977, ch. 253, § 5. Section 9-7-4 NMSA 1978 creates the health and environment department, consisting of several divisions, including an environmental improvement division, and Laws 1977, ch. 253, § 14 provides that all references to the agency shall mean the division.

No requirement that commission consider complete environmental impact. — There is no specific requirement in the commission's mandate that it consider to the fullest extent possible the environmental consequences of its action. The commission could in all good faith adopt a regulation governing the effluent quality of sewage so restrictive that municipalities would turn to methods other than those currently used to dispose of it which would have adverse environmental consequences far more serious than some pollution of the waters of the state. City of Roswell v. New Mexico Water Quality Control Comm'n, 84 N.M. 561, 505 P.2d 1237 (Ct. App. 1972), cert. denied, 84 N.M. 560, 505 P.2d 1236 (1973) (decided under former law).

Law reviews. — For comment, "Control of Industrial Water Pollution in New Mexico," see 9 Nat. Resources J. 653 (1969).

For note, "Ground and Surface Water in New Mexico: Are They Protected Against Uranium Mining and Milling?" see 18 Nat. Resources J. 941 (1978).

For note, "New Mexico Water Pollution Regulations and Standards Upheld," see 19 Nat. Resources J. 693 (1979).

Am. Jur. 2d, A.L.R. and C.J.S. references. — 61 Am. Jur. 2d Pollution Control §§ 69 to 71.

39A C.J.S. Health and Environment §§ 133 to 136.

74-6-5. Permits; appeals; penalty.

A. By regulation the commission may require persons to obtain from a constituent agency designated by the commission a permit for the discharge of any water contaminant either directly or indirectly into water.

B. Prior to the issuance of a permit, the constituent agency may require the submission of plans, specifications and other relevant information which it deems necessary.

C. The commission shall by regulation set the dates upon which applications for permits must be filed and designate the time periods within which the constituent agency must, after the filing of an application for a permit, either grant the permit, grant the permit subject to conditions or deny the permit.

D. The constituent agency may deny any application for a permit if:

(1) it appears that the effluent would not meet applicable state or federal effluent regulations or limitations;

(2) any provision of the Water Quality Act [74-6-1 to 74-6-4, 74-6-6 to 74-6-13 NMSA 1978] would be violated; or

(3) it appears that the effluent would cause any state or federal stream standard to be exceeded.

E. The commission shall by regulation develop procedures which will ensure that the public, affected governmental agencies and any other state whose water may be affected, shall receive notice of each application for issuance or modification of a permit. No ruling shall be made on any application for a permit without opportunity for a public hearing at which all interested 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.

F. Permits shall be issued for fixed terms not to exceed five years.

G. By regulation the commission may impose reasonable conditions upon permits requiring permittees to:

(1) install, use and maintain effluent monitoring devices;

(2) sample effluents in accordance with methods and at locations and intervals as may be prescribed by the commission;

(3) establish and maintain records of the nature and amounts of effluents and the performance of effluent control devices;

(4) provide any other information relating to the discharge of water contaminants; and

(5) notify a constituent agency of the introduction of new water contaminants from a new source and of a substantial change in volume or character of water contaminants being introduced from sources in existence at the time of the issuance of the permit.

H. The commission may provide by regulation a schedule of application fees for permits not exceeding the estimated cost of investigation and issuance of permits. Fees are to be paid at the time the application for the permit is filed. Fees collected pursuant to this section shall be deposited in the general fund.

I. The issuance of a permit does not relieve any person from the responsibility of complying with the provisions of the Water Quality Act and any applicable regulations of the commission.

J. A permit may be terminated or modified by the constituent agency which issued it previous to its date of expiration for any of the following causes:

(1) violation of any condition of the permit;

(2) obtaining the permit by misrepresentation or failure to disclose fully all relevant facts;

(3) violation of any provisions of the Water Quality Act;

(4) violation of any applicable state or federal effluent regulations; or

(5) change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

K. Permits issued, denied, modified or terminated under this section shall not be deemed a major state action significantly affecting the quality of the human environment within the meaning of Section 12-20-6(C) NMSA 1953.

L. If the constituent agency denies, terminates or modifies a permit, or grants a permit subject to condition, the constituent agency must notify the applicant or permittee by certified mail of the action taken and the reasons therefor. If the applicant or permittee is dissatisfied with the action taken by the constituent agency, he may file a petition for hearing before the commission. The petition must be made in writing to the director of the constituent agency within thirty days after notice of the constituent agency's action has been received by the applicant or permittee. Unless a timely request for hearing is made, the decision of the constituent agency shall be final.

M. If a timely petition for hearing is made, the commission shall hold a hearing within thirty days after receipt of the petition. The constituent agency shall notify the petitioner by certified mail of the date, time and place of the hearing. Provided, that if the commission upon receipt of the petition deems the basis for the petition for hearing by the commission is affected with substantial public interest, it shall ensure that the public shall receive notice of the date, time and place of the hearing and shall be given a reasonable chance to submit data, views or arguments orally or in writing and to examine witnesses testifying at the hearing. Any public member submitting data, views or arguments orally or in writing shall be subject to examination at the hearing. In the hearing, the burden of proof shall be upon the petitioner. The commission may designate a hearing officer to take evidence in the hearing. Based upon the evidence presented at the hearing, the commission shall sustain, modify or reverse the action of the constituent agency.

N. If the petitioner requests, the hearing shall be recorded at the cost of the petitioner. Unless the petitioner requests that the hearing be recorded, the decision of the commission shall be final.

O. A petitioner may appeal the decision of the commission by filing with the court of appeals a notice of appeal within thirty days after the date the decision is made. The appeal must be on the record made at the hearing. The petitioner shall certify in his notice of appeal that arrangements have been made with the commission for preparation of a sufficient number of transcripts of the record of the hearing on which the appeal depends to support his appeal to the court, at the expense of the petitioner, including two copies which he shall furnish to the commission.

P. A person who violates any provision of this section is guilty of a misdemeanor and shall be punished by a fine of not less than three hundred dollars ($300) nor more than ten thousand dollars ($10,000) per day, or by imprisonment for not more than one year, or both.

Q. In addition to the remedy provided above, the trial court may impose a civil penalty for a violation of any provision of this section not exceeding five thousand dollars ($5,000) per day.

History: 1953 Comp., § 75-39-4.1, enacted by Laws 1973, ch. 326, § 4.

Compiler's notes. — Sections 12-20-1 to 12-20-8, 1953 Comp., relating to environmental quality control, were repealed by Laws 1974, ch. 46, § 1.

Commission's requirement of information to prevent water pollution within statutory mandate. — Where the objective of the Water Quality Act is to abate and prevent water pollution, it is not "clearly incorrect" for the commission to require a discharger of toxic pollutants to provide a site and method for flow measurement and to provide any pertinent information relating to the discharge of water contaminants in order to demonstrate to the commission that the plans of the discharger will not result in a violation of the standards and regulations; these requirements are well within the statutory mandate. Bokum Resources Corp. v. New Mexico Water Quality Control Comm'n, 93 N.M. 546, 603 P.2d 285 (1979).

In determining whether administrative interpretation is "clearly incorrect," the authority granted to an administrative agency should be construed so as to permit the fullest accomplishment of the legislative intent or policy. Bokum Resources Corp. v. New Mexico Water Quality Control Comm'n, 93 N.M. 546, 603 P.2d 285 (1979).

Law reviews. — For note, "New Mexico Water Pollution Regulations and Standards Upheld," see 19 Nat. Resources J. 693 (1979).

Am. Jur. 2d, A.L.R. and C.J.S. references. — 61 Am. Jur. 2d Pollution Control §§ 69 to 73.

Validity of state statutory provision permitting administrative agency to impose monetary penalties for violation of environmental pollution statute, 81 A.L.R.3d 1258.

39A C.J.S. Health and Environment §§ 134, 145, 154.

74-6-6. Adoption of regulations; notice and hearing.

No regulation or water quality standard or amendment or repeal thereof shall be adopted until after a public hearing within the area of the state concerned; provided that the commission may adopt water quality standards on the basis of the record of hearings held by the New Mexico department of public health [health and environment department] prior to the effective date of the Water Quality Act if those hearings were held in general conformance with the provisions of this section. Hearings on regulations of statewide application shall be held at Santa Fe. Notice of the hearing shall be given at least thirty days prior to the hearing date and shall state the subject, the time and the place of the hearing and the manner in which interested persons may present their views. The notice shall also state where interested persons may secure copies of any proposed regulation or water quality standard. The notice shall be published in a newspaper of general circulation in the area affected. Reasonable effort shall be made to give notice to all persons who have made a written request to the commission for advance notice of its hearings. At the hearing, the commission shall allow all interested persons reasonable opportunity to submit data, views or arguments orally or in writing and to examine witnesses testifying at the hearing. The commission may designate a hearing officer to take evidence in the hearing. Any person heard or represented at the hearing shall be given written notice of the action of the commission. No regulation or water quality standard or amendment or repeal thereof adopted by the commission shall become effective until thirty days after its filing with the supreme court law librarian.

History: 1953 Comp., § 75-39-5, enacted by Laws 1967, ch. 190, § 5.

Cross-references. — As to filing with the supreme court law librarian, see 14-4-9 NMSA 1978.

Effective dates. — Laws 1967, ch. 190, § 14, makes the act effective immediately. Approved March 29, 1967.

Health and environment department. — Laws 1937, ch. 39, § 2, creating the state department of public health, was repealed by Laws 1968, ch. 37, § 3, that department being replaced by the health and social services department. Laws 1977, ch. 253, § 5, abolished the latter department. Laws 1977, ch. 253, § 4 establishes the health and environment department. See 9-7-4 NMSA 1978.

Law reviews. — For comment, "Control of Industrial Water Pollution in New Mexico," see 9 Nat. Resources J. 653 (1969).

Am. Jur. 2d, A.L.R. and C.J.S. references. — 61 Am. Jur. 2d Pollution Control §§ 117, 118.

39A C.J.S. Health and Environment §§ 138, 142.

74-6-7. Validity of regulation; judicial review.

A. Any person who is or may be affected by a regulation adopted by the commission may appeal to the court of appeal [appeals] for further relief. All such appeals shall be upon the record made at the hearing, and shall be taken to the court of appeals within thirty days after filing of the regulation under the State Rules Act [14-3-24, 14-3-25, 14-4-1 to 14-4-9 NMSA 1978].

B. The procedure for perfecting an appeal to the court of appeals under this section consists of the timely filing of a notice of appeal with a copy attached of the regulation from which the appeal is taken. The appellant shall certify in his notice of appeal that arrangements have been made with the commission for preparation of a sufficient number of transcripts of the record of the hearing on which the appeal depends to support his appeal to the court, at the expense of the appellant, including three copies which he shall furnish to the commission.

C. Upon appeal, the court of appeals shall set aside the regulation only if found to be:

(1) arbitrary, capricious or an abuse of discretion;

(2) not supported by substantial evidence in the record or reasonably related to the prevention or abatement of water pollution; or

(3) otherwise not in accordance with law.

History: 1953 Comp., § 75-39-6, enacted by Laws 1967, ch. 190, § 6; 1970, ch. 64, § 4.

Standards adopted as rules, appealable. — Since the standards for the evaluation of waste water to determine whether it is contaminated were adopted as rules, they are appealable to the court of appeals. Bokum Resources Corp. v. New Mexico Water Quality Control Comm'n, 93 N.M. 546, 603 P.2d 285 (1979).

Standard is rule, if the proper procedure has been followed in promulgating it. Bokum Resources Corp. v. New Mexico Water Quality Control Comm'n, 93 N.M. 546, 603 P.2d 285 (1979).

Law reviews. — For comment, "Control of Industrial Water Pollution in New Mexico," see 9 Nat. Resources J. 653 (1969).

For note, "New Mexico Water Pollution Regulations and Standards Upheld," see 19 Nat. Resources J. 693 (1979).

Am. Jur. 2d, A.L.R. and C.J.S. references. — 61 Am. Jur. 2d Pollution Control § 119.

Validity and construction of anti-water pollution statutes and ordinances, 32 A.L.R.3d 215.

Pollution control: validity and construction of statutes, ordinances or regulations controlling discharge of industrial wastes into sewer system, 47 A.L.R.3d 1224.

39A C.J.S. Health and Environment § 146.

74-6-8. Duties of constituent agencies.

Each constituent agency shall administer regulations adopted pursuant to the Water Quality Act [74-6-1 to 74-6-4, 74-6-6 to 74-6-13 NMSA 1978], responsibility for the administration of which has been assigned to it by the commission.

History: 1953 Comp., § 75-39-7, enacted by Laws 1967, ch. 190, § 7.

74-6-9. Powers of constituent agencies.

Each constituent agency may:

A. receive and expend funds appropriated, donated or allocated to the constituent agency for purposes consistent with the Water Quality Act [74-6-1 to 74-6-4, 74-6-6 to 74-6-13 NMSA 1978];

B. develop facts and make studies and investigations and require the production of documents necessary to carry out the responsibilities assigned to the constituent agency. The result of any investigation shall be reduced to writing and a copy thereof furnished to the commission and to the owner or occupant of the premises investigated;

C. recommend regulations for adoption by the commission;

D. report to the commission and to other constituent agencies water pollution conditions that are believed to require action where the circumstances are such that the responsibility appears to be outside the responsibility assigned to the agency making the report;

E. make every reasonable effort to obtain voluntary cooperation in the prevention or abatement of water pollution; and

F. upon presentation of proper credentials, enter at reasonable times upon or through any premises in which an effluent source is located or in which are located any records required to be maintained by regulations of the commission; provided that entry into any private residence without the permission of the owner shall be only by order of the district court for the county in which the residence is located and that, in connection with any entry provided for in this subsection, the constituent agency may:

(1) have access to any copy of the records;

(2) inspect any monitoring equipment or methods required to be installed by regulations of the commission; and

(3) sample any effluents.

History: 1953 Comp., § 75-39-8, enacted by Laws 1967, ch. 190, § 8; 1973, ch. 326, § 5.

Appropriations. — Laws 1976 (S.S.), ch. 56, § 3, appropriates $33,000 for the training of utility operators of sewage treatment facilities.

Laws 1976 (S.S.), ch. 57, § 3, appropriates $25,000

for the training of utility operators for water supply facilities.

Laws 1977, ch. 133, § 1, appropriates $60,000 for the training of utility operators for water and waste water facilities.

Law reviews. — For note, "On Building Better Laws for New Mexico's Environment," see 4 N.M. L. Rev. 105 (1973).

74-6-10. Abatement of water pollution.

A. If, as a result of investigation, a constituent agency has good cause to believe that any person is violating or threatens to violate any regulation of the commission for the enforcement of which the agency is responsible, and, if the agency is unable within a reasonable time to obtain voluntary compliance, the commission may initiate proceedings in the district court of the county in which the violation occurs. The commission may seek injunctive relief against any violation or threatened violation of regulations, and such relief shall be subject to the continuing jurisdiction and supervision of the district court and the court's powers of contempt. The attorney general shall represent the commission.

B. In addition to the remedies provided in this section, the district court may impose civil penalties not exceeding one thousand dollars ($1,000) for each violation of the Water Quality Act [74-6-1 to 74-6-4, 74-6-6 to 74-6-13 NMSA 1978] or any regulation of the commission, and may charge the person convicted of such violation with the reasonable cost of treating or cleaning up waters polluted. Each day during any portion of which a violation occurs constitutes a separate violation.

C. Any party aggrieved by any final judgment of the district court under this section may appeal to the court of appeals as in other civil actions.

D. As an additional means of enforcing the Water Quality Act or any regulation of the commission, the commission may accept an assurance of discontinuance of any act or practice deemed in violation of the Water Quality Act or any regulation adopted pursuant thereto, from any person engaging in, or who has engaged in, such act or practice, signed and acknowledged by the chairman of the commission and the party affected. Any such assurance shall specify a time limit during which such discontinuance is to be accomplished.

History: 1953 Comp., § 75-39-9, enacted by Laws 1967, ch. 190, § 9; 1970, ch. 64, § 5.

Voluntary compliance no bar to assessment of civil penalties and cleanup costs. — The voluntary compliance provision of Subsection A of this section does not apply to the remedies provided in Subsection B of this section. The absence of voluntary compliance actions on the part of the state in a case does not prevent the state from seeking civil penalties and costs of cleanup under Subsection B. State ex rel. New Mexico Water Quality Control Comm'n v. Molybdenum Corp. of America, 89 N.M. 552, 555 P.2d 375 (Ct. App.), cert. denied, 90 N.M. 8, 558 P.2d 620 (1976).

Law reviews. — For comment, "Control of Industrial Water Pollution in New Mexico," see 9 Nat. Resources J. 653 (1969).

Am. Jur. 2d, A.L.R. and C.J.S. references. — 61 Am. Jur. 2d Pollution Control §§ 154 to 158.

Injunction against pollution of stream by private persons or corporations, 46 A.L.R. 8.

Validity and construction of statutes, ordinances or regulations controlling discharge of industrial wastes into sewer system, 47 A.L.R.3d 1224.

Preliminary mandatory injunction to prevent, correct or reduce effects of polluting practices, 49 A.L.R.3d 1239.

Right to maintain action to enjoin public nuisance as affected by existence of pollution control agency, 60 A.L.R.3d 665.

Validity, under federal constitution, of state statute or local ordinance regulating phosphate content of detergents, 21 A.L.R. Fed. 365.

39A C.J.S. Health and Environment §§ 150 to 154.

74-6-11. Emergency procedure.

Notwithstanding any other provision of the Water Quality Act [74-6-1 to 74-6-4, 74-6-6 to 74-6-13 NMSA 1978], if any person is causing or contributing to water pollution of such characteristics and duration as to create an emergency which requires immediate action to protect human health, the director of the environmental improvement agency [environmental improvement division of the health and environment department] shall order the person to immediately abate the water pollution creating the emergency condition. If the effectiveness of the order is to continue beyond forty-eight hours, the director of the environmental improvement agency [environmental improvement division of the health and environment department] shall file an action in the district court, not later than forty-eight hours after the date of the order, to enjoin operations of any person in violation of the order.

History: 1953 Comp., § 75-39-10, enacted by Laws 1967, ch. 190, § 10; 1970, ch. 64, § 6; 1971, ch. 277, § 52.

Environmental improvement division. — See 74-6-4 NMSA 1978 and notes thereto.

Law reviews. — For comment, "Control of Industrial Water Pollution in New Mexico," see 9 Nat. Resources J. 653 (1969).

Am. Jur. 2d, A.L.R. and C.J.S. references. — 61 Am. Jur. 2d Pollution Control § 124.

39A C.J.S. Health and Environment § 144.

74-6-12. Limitations.

A. The Water Quality Act [74-6-1 to 74-6-4, 74-6-6 to 74-6-13 NMSA 1978] does not grant to the commission or to any other entity the power to take away or modify property rights in water, nor is it the intention of the Water Quality Act to take away or modify such rights.

B. Effluent data obtained by the commission or a constituent agency shall be available to the public. Other records, reports or information obtained by the commission or a constituent agency shall be available to the public, except upon a showing satisfactory to the commission or a constituent agency that the records, reports or information or a particular part thereof, if made public, would divulge methods or processes entitled to protection as trade secrets.

C. The Water Quality Act does not authorize the commission to adopt any regulation with respect to any condition or quality of water if the water pollution and its effects are confined entirely within the boundaries of property within which the water pollution occurs when the water does not combine with other waters.

D. The Water Quality Act does not grant to the commission any jurisdiction or authority affecting the relation between employers and employees with respect to or arising out of any condition of water quality.

E. The Water Quality Act does not supersede or limit the applicability of any law relating to industrial health, safety or sanitation.

F. In the adoption of regulations and water quality standards and in any action for enforcement of the Water Quality Act and regulations adopted thereunder, reasonable degradation of water quality resulting from beneficial use shall be allowed.

G. The Water Quality Act does not permit the adoption of regulations or other action by the commission or other constituent agencies which would interfere with the exclusive authority of the oil conservation commission [oil conservation division of the energy and minerals department] over all persons and things necessary to prevent water pollution as a result of oil or gas operations through the exercise of the power granted to the oil conservation commission [oil conservation division of the energy and minerals department] under Section 70-2-12 NMSA 1978, and other laws conferring power on the oil conservation commission [oil conservation division of the energy and minerals department].

History: 1953 Comp., § 75-39-11, enacted by Laws 1967, ch. 190, § 11; 1973, ch. 326, § 6.

Oil conservation division. — Section 70-2-12 NMSA 1978, described in Subsection G as granting powers to the oil conservation commission, was amended by Laws 1977, ch. 255, § 47, so that it now enumerates the powers of the oil conservation division, one of the divisions of the energy and minerals department established by Laws 1977, ch. 255, § 4. See 9-5-4 NMSA 1978.

Law reviews. — For comment, "Control of Industrial Water Pollution in New Mexico," see 9 Nat. Resources J. 653 (1969).

For note, "New Mexico Water Pollution Regulations and Standards Upheld," see 19 Nat. Resources J. 693 (1979).

74-6-13. Construction.

The Water Quality Act [74-6-1 to 74-6-4, 74-6-6 to 74-6-13 NMSA 1978] provides additional and cumulative remedies to prevent, abate and control water pollution, and nothing abridges or alters rights of action or remedies in equity under the common law or statutory law, criminal or civil. No provision of the Water Quality Act or any act done by virtue thereof estops the state or any political subdivision or person as owner of water rights or otherwise, in the exercise of their rights in equity or under the common law or statutory law to suppress nuisances or to abate pollution.

History: 1953 Comp., § 75-39-12, enacted by Laws 1967, ch. 190, § 12.

Emergency clauses. — Laws 1967, ch. 190, § 14, makes the act effective immediately. Approved March 29, 1967.

Severability clauses. — Laws 1967, ch. 190, § 13, provides for the severability of the act if any part or application thereof is held invalid.

Court retains jurisdiction of case seeking tort and contract damages. — The trial court correctly retains jurisdiction of a case seeking tort and contract damages against a utility for its failure to supply water meeting certain minimal standards of quality since the government agencies involved have no expertise in considering tort and contractual claims and are without power to grant the relief that the plaintiffs have asked, and this section evidences the legislative intent that common-law remedies against water pollution be preserved. O'Hare v. Valley Util., Inc., 89 N.M. 105, 547 P.2d 1147 (Ct. App.), modified, 89 N.M. 262, 550 P.2d 274 (1976).

Law reviews. — For comment, "Control of Industrial Water Pollution in New Mexico," see 9 Nat. Resources J. 653 (1969).

New Mexico
Water Quality Control Commission Regulations
As Amended Through September 20, 1982

Water Quality Control Commission Regulations

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WATER QUALITY CONTROL COMMISSION
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WQCC 82-1

WATER QUALITY CONTROL COMMISSION REGULATIONS

(Supersedes WQCC 81-2, filed June 2, 1981, and Amendment No. 1 filed December 28, 1981.)

PART I
General Provisions and Procedures

1-100. GENERAL PROVISIONS.

1-101. DEFINITIONS.--As used in the Water Quality Control Commission Regulations:

A. "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. "agency" means the environmental improvement division of the New Mexico health and environment department;

C. "barrier well" means a well used to inject fluids into ground water to prevent the intrusion of saline or contaminated water into ground water of better quality;

D. "board" means the Utility Operators Certification Advisory Board;

E. "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;

F. "cementing" means the operation whereby a cementing slurry is pumped into a drilled hole and/or forced behind the casing;

G. "certification act" means the Utility Operators Certification Act, Section 61-30-1 et seq., NMSA 1978;

H. "certified operator" means a person who is certified by the commission as being qualified to supervise or operate one of the classifications of water supply systems or wastewater facilities;

I. "collapse" means the structural failure of overlying materials caused by removal of underlying materials;

J. "collection system" means pipelines or conduits, pumping stations, force mains, and all other devices, appurtenances and facilities used for collecting and conducting waste to a point of treatment and disposal;

K. "commission" means the New Mexico water quality control commission;

L. "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;

M. "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.

N. "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;

O. "director" means the director of the New Mexico environmental improvement division or the director of a constituent agency designated by the commission;

P. "discharge plan" means a description of methods and conditions, including any monitoring and sampling requirements, for the discharge of effluent or leachate which may move directly or indirectly into ground water;

Q. "disposal" means to abandon, deposit, inter or otherwise discard a fluid as a final action after its use has been achieved;

R. "distribution system" means pipelines, appurtenances, devices and facilities which carry potable water under pressure to each consumer;

S. "drainage well" means a well used to drain storm runoff into a subsurface formation;

T. "education" means academic credit received attending any public or private primary, secondary or high school, approved vocational training courses in the water supply and wastewater field, college or university;

U. "effluent disposal well" means a well which is used for the disposal of fluids which may have the potential to cause water pollution. Wells used in the following practices are not effluent disposal wells: conventional mining, old stope leaching and sand backfilling. Wells where the emplacement of fluids is limited to natural ground water seeping or flowing into conventional mine workings are not effluent disposal wells. Barrier wells, drainage wells, recharge wells, and return flow wells are not effluent disposal wells if the discharger can demonstrate that the discharge will not adversely affect the health of persons, and

1. the injection fluid does not contain a contaminant 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" adopted by the Environmental Improvement Board under the Environmental Improvement Act; or

2. the discharger can demonstrate that the injection will result in an overall or net improvement in water quality as determined by the director.

V. "experience" means actual work experience, full or part-time, in the fields of potable water supply or wastewater treatment. Applicable experience may be in the categories of design, construction, administration, control, surveillance, operation or maintenance. Work experience in a related field may be accepted at the discretion of the commission;

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

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

Y. "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;

Z. "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 3-103.A, 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 director 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;

AA. "injection" means the subsurface emplacement of fluids through a well;

BB. "injection zone" means a geological formation, group of formations, or part of a formation receiving fluids through a well;

CC. "in situ extraction well" means a well which injects fluids for mineral extraction, except 1) conventional mines, 2) old stope leaching, 3) the extraction of oil, natural gas, or gas extracted from coal gasification, 4) wells for which the discharger can demonstrate use as part of an experimental technology;

DD. "old stope leaching" means the circulation of waters through the mined areas of conventional mines with or without the addition of chemicals, for the purpose of extraction of minerals;

EE. "operational area" means a geographic area defined in a project discharge plan where a group of wells or well fields in close proximity comprise a single in situ extraction well operation;

FF. "operator" means any person employed by the owner as the person responsible for the operation of all or any portion of a water supply system or wastewater facility. Not included in this definition are such persons as directors of public works, city engineers, city managers, or other officials or persons whose duties do not include actual operation or direct supervision of water supply systems or wastewater facilities;

GG. "owner" means the person or persons having the responsibility of managing or maintaining a water supply system or a wastewater facility;

HH. "packer" means a device lowered into a well to produce a fluid-tight seal within the casing;

II. "person" means the state or any agency, institution, commission, municipality, or other political subdivision thereof, federal agency, public or private corporation, individual, partnership, association or other entity, and includes any officer or governing or managing body of any institution, political subdivision, agency or public or private corporation;

JJ. "petitioner" means a person seeking a variance from a regulation of the Commission pursuant to Section 74-6-4(G) NMSA 1978;

KK. "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;

LL. "population served" means actual or estimated maximum number of persons served by the water supply system or wastewater facility;

MM. "project discharge plan" means a discharge plan which describes the operation of similar in situ extraction wells or well fields within one or more individual operational areas;

NN. "recharge well" means a well used to inject fluids for the replenishment of ground water, including use to reclaim or improve the quality of existing ground water, or to eliminate subsidence associated with the overdraft of fresh water;

OO. "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;

PP. "return flow well" means a well used to return to the supply aquifer, or to other ground water, the water used for heating or cooling for any purpose provided that the water does not receive any additional chemical or biological water contaminants other than heat or the absence thereof;

QQ. "sand backfilling" means the injection of a mixture of water and sand, mill tailings or other solids into underground conventional mines;

RR. "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;

SS. "sewerage system" means a system for disposing of wastes, either by surface of underground methods, and includes sewer systems, treatment works, disposal wells and other systems;

TT. "TDS" means total dissolved solids as determined by the "calculation method" (sum of constituents), by the "residue on evaporation method at 180°" of the "U.S. Geological Survey Techniques of Water Resource Investigations," or by conductivity, as the director may determine;

UU. "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, histiopathologic 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 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.

acrolein
acrylonitrile
aldrin
benzene
benzidine
carbon tetrachloride
chlordane
chlorinated benzenes
    monochlorobenzene
    hexachlorobenzene
    pentachlorobenzene
    1,2,4,5-tetrachlorobenzene
chlorinated ethanes
    1,2-dichloroethane
    hexachloroethane
    1,1,2,2-tetrachloroethane
    1,1,1-trichloroethane
    1,1,2-trichloroethane
chlorinated phenols
    2,4-dichlorophenol
    2,4,5-trichlorophenol
    2,4,6-trichlorophenol
chloroalkyl ethers
    bis (2-chloroethyl) ether
    bis (2-chloroisopropyl) ether
    bis (chloromethyl) ether
chloroform
DDT
dichlorobenzene
dichlorobenzidine
1,1-dichloroethylene
dichloropropenes
dieldrin
2,4-dinitrotoluene
diphenylhydrazine
endosulfan
endrin
ethylbenzene
halomethanes
    bromodichloromethane
    bromomethane

- chloromethane
- dichlorodifluoromethane
- dichloromethane
- tribromomethane
- trichlorofluoromethane

heptachlor
hexachlorobutadiene
hexachlorocyclohexane (HCH)
- alpha-HCH
- beta-HCH
- gamma-HCH
- technical HCH

hexachlorocyclopentadiene
isophorone
nitrobenzene
nitrophenols
- 2,4-dinitro-o-cresol
- dinitrophenols

nitrosamines
- N-nitrosodiethylamine
- N-nitrosodimethylamine
- N-nitrosodibutylamine
- N-nitrosodiphenylamine
- N-nitrosopyrrolidine

pentachlorophenol
phenol
phthalate esters
- dibutyl phthalate
- di-2-ethylhexyl phthalate
- diethyl phthalate
- dimethyl phthalate

polychlorinated biphenyls (PCB's)
polynuclear aromatic hydrocarbons (PAH)
- anthracene
- 3,4-benzofluoranthene
- benzo(k) fluoranthene
- fluoranthene
- fluorene
- phenanthrene
- pyrene

tetrachloroethylene
toluene
toxaphene
trichloroethylene
vinyl chloride

VV. "training" means the non-academic training in the field of water supply or wastewater;

WW. "training credit" means the amount of credit earned by a participant in a training program;

XX. "treatment works" means any plant or other works used for the purpose of treating, stabilizing or holding wastes;

YY. "wastes" means sewage, industrial wastes, or any other liquid gaseous or solid substance which will pollute any waters of the state;

ZZ. "wastewater facility" means a system of structures, equipment and processes designed to collect and treat domestic and industrial wastes and dispose of the effluents from a public system;

AAA. "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;

BBB. "water contaminant" means any substance which alters the physical, chemical or biological qualities of water;

CCC. "water supply system" means a system of pipes, structures and facilities through which potable water is obtained, treated and distributed to the public;

DDD. "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;

EEE. "well" means a bored, drilled or driven shaft, or a dug hole, whose depth is greater than the largest surface dimension;

FFF. "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.

1-200. PROCEDURES.

1-201. NOTICE OF INTENT TO DISCHARGE.

A. 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 Water Pollution Control Bureau of the Environmental Improvement Division. However, notice regarding discharges from facilities for the production, refinement and pipeline transmission of oil and gas, or products thereof, shall be filed instead with the Oil Conservation Commission.

B. 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.

1-202. 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 the Water Pollution Control Bureau of the Environmental Improvement Division. Modifications having a minor effect on the character of the discharge from sewerage systems shall be reported as of January 1st and June 30th of each year to the Water Pollution Control Bureau.

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 Commission.

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

1-203. NOTIFICATION OF DISCHARGE--REMOVAL.

A. Any person in charge of a facility, as soon as he has notice or knowledge of a discharge from the 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, shall immediately:

1. notify the chief, Water Pollution Control Bureau, Environmental Improvement Division, of the nature, amount and location of the discharge; provided, however, that such notification shall not be required if notification is required under rules, regulations or orders promulgated by the Oil Conservation Commission; and

2. take appropriate and necessary steps to contain and remove or mitigate the damage caused by the discharge.

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

1. in conformance with water quality control commission regulations and rules, regulations or orders of other state or federal agencies; or

2. in violation of water quality control commission regulations 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:

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; and

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

D. Notification of discharge received pursuant to this regulation 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.

1-210. VARIANCE PETITIONS.

A. Any person seeking a variance from a regulation of the commission pursuant to Section 74-6-4(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;

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.

B. Within sixty days after the receipt of the petition by the commission, the commission shall review the petition to determine whether to grant or deny a public hearing on the petition. Within fifteen days after commission determination to grant or deny a public hearing, the commission shall notify the petitioner by certified mail of the determination. If the commission refuses to grant a public hearing, then the petition shall be denied.

C. If the commission grants a public hearing, at least thirty days prior to each hearing date, the commission shall publish notice of the date, time, place and subject of the variance hearing in a newspaper of general circulation in the county in which the facility is located and in a newspaper of general circulation in the state. The notice shall also state the watercourse or water body affected. The commission shall maintain a file of persons interested in variance hearings and shall make a reasonable effort to notify them by mail of the date, time, place and subject of scheduled public hearings.

D. 1. Public hearings shall be held not less than thirty days nor more than ninety days from the date the commission mails the notice of granting the hearing to the petitioner.

2. Public hearings shall be held in Santa Fe unless the commission and the petitioner agree upon another site in the state.

3. The commission may designate a hearing officer to take evidence at the hearing.

4. A record shall be made at each hearing, the cost of which shall be borne by the Environmental Improvement Division. Transcript costs shall be paid by those persons requesting transcripts. If the hearing is conducted by a hearing officer designated by the commission, a transcript shall be prepared and the cost of providing transcript to the commission members shall be borne by the Environmental Improvement Division.

5. In variance hearings, the technical rules of evidence and the rules of civil procedure shall not apply, but the hearings shall be conducted so that all relevant views are amply and fairly presented without undue repetition. The commission may require reasonable substantiation of statements or records tendered and may require any view to be stated in writing when the circumstances justify.

6. At the hearing, all interested 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.

7. A petitioner may represent himself at the hearing or be represented by any other individual.

8. The commission may grant the requested variance, in whole or in part, may grant the variance subject to conditions, or may deny the variance. Any action taken by the commission shall be by written order entered within sixty days after the hearing. A copy of the order shall be mailed to the petitioner. All persons appearing or represented at the hearing who so request shall be mailed notice of the commission's action.

9. The commission shall not grant a variance for a period of time in excess of five years.

10. Orders of the commission shall:

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

(b) state the date the order is made;

(c) describe the facility for which the variance is sought;

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

(e) state the decision of the commission;

(f) if a variance is granted, state the period of time for which it is granted; and

(g) state the reasons for the commission's decision.

11. The commission shall maintain a file of all orders made by the commission. The file shall be open for public inspection.

E. 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.

F. When the last day for performing an act falls on Saturday, Sunday or a legal, state or national holiday, the performance of the act is timely if performed on the next succeeding day which is not a Saturday, Sunday, or a legal, state or national holiday. All matters required to be filed or mailed under this section are timely if deposited in the United States mail on or before the required date.

PART 2

Water Quality Control

2-100. APPLICABILITY OF REGULATIONS.--The requirements of Section 2-101 and 2-102 of these regulations 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 2-101 and 2-102 of these regulations until in compliance with the National Pollutant Discharge Elimination System permit conditions; provided further that nothing in these regulations shall be construed as a deterrent to action under Section 74-6-11 NMSA, 1978.

2-101. GENERAL REQUIREMENTS.

A. Except as otherwise provided in Part 2 of these regulations, 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:

Bio-chemical Oxygen Demand (BOD)	Less than 30 mg/1
Chemical Oxygen Demand (COD)	Less than 125 mg/1
Settleable Solids	Less than 0.5 mg/1
Fecal Coliform Bacteria	Less than 500 organisms/100 ml
pH	Between 6.6 and 8.6

B. Upon application, the director of the Environmental Improvement Division may eliminate the pH requirement for any effluent

source that the director 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.

2-102. 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:

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

B. Upon application, the director of the Environmental Improvement Division may eliminate the pH requirement for any effluent source that the director 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.

2-200. WATERCOURSE PROTECTION.

2-201. 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.

PART 3

Water Quality Control

3-100. REGULATIONS FOR DISCHARGES ONTO OR BELOW THE SURFACE OF THE GROUND.

3-101. PURPOSE.

A. The purpose of these regulations 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/1 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. The regulations 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 Section 3-103 of these regulations, 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 3-103, 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.

3-102. AUTHORITY.--Standards are adopted by the commission under the authority of Section 74-6-4, NMSA 1978 (the New Mexico Water Quality Act, Chapter 326, Laws of 1973, as amended). Regulations are adopted by the commission under the authority of Sections 74-6-4 and 74-6-5 NMSA 1978.

3-103. STANDARDS FOR GROUND WATER OF 10,000 mg/1 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 3-109.D. or Section 3-110. When an existing pH or concentration of any water contaminant exceeds the standard specified in Subsection A, B, or C, 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 of mercury which shall be total.

A. Human Health Standards--Ground water shall meet the standards of Section A and B unless otherwise provided.

Arsenic (As)	0.1 mg/l
Barium (Ba)	1.0 mg/l
Cadmium (Cd)	0.01 mg/l
Chromium (Cr)	0.05 mg/l
Cyanide (CN)	0.2 mg/l
Fluoride (F)	1.6 mg/l
Lead (Pb)	0.05 mg/l
Total Mercury (Hg)	0.002 mg/l
Nitrate (NO_3 as N)	10.0 mg/l
Selenium (Se)	0.05 mg/l
Silver (Ag)	0.05 mg/l
Uranium (U)	5.0 mg/l
Radioactivity: Combined Radium-226 and Radium-228	30.0 pCi/l
Benzene	0.01 mg/l
Polychlorinated biphenyls (PCB's)	0.001 mg/l
Toluene	15.0 mg/l
Carbon Tetrachloride	0.01 mg/l
1, 2-dichloroethane (EDC)	0.02 mg/l
1, 1-dichloroethylene (1, 1-DCE)	0.005 mg/l
1, 1, 2, 2-tetrachloroethylene (PCE)	0.02 mg/l
1, 1, 2-trichloroethylene (TCE)	0.1 mg/l

B. Other Standards for Domestic Water Supply

Chloride (Cl)	250. mg/l
Copper (Cu)	1.0 mg/l
Iron (Fe)	1.0 mg/l
Manganese (Mn)	0.2 mg/l
Phenols	0.005 mg/l
Sulfate (SO_4)	600. mg/l
Total Dissolved Solids (TDS)	1000. mg/l
Zinc (Zn)	10.0 mg/l
pH	between 6 and 9

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

Aluminum (Al)	5.0 mg/l
Boron (B)	0.75 mg/l
Cobalt (Co)	0.05 mg/l
Molybdenum (Mo)	1.0 mg/l
Nickel (Ni)	0.2 mg/l

3-104. DISCHARGE PLAN REQUIRED.--Unless otherwise provided by these regulations, 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 plan approved by the director. When a plan has been approved, discharges must be consistent with the terms and conditions of the plan.

3-105. EXEMPTIONS FROM DISCHARGE PLAN REQUIREMENT.--Sections 3-104 and 3-106 of these regulations do not apply to the following:

A. Effluent or leachate which conforms to all the listed numerical standards of Section 3-103 and has a total nitrogen concentration of 10 mg/l or less, and does not contain any toxic pollutant. 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 discharged from a sewerage system used only for disposal of household and other domestic waste which receives 2,000 gallons or less of liquid waste per day;

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 director 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 plan 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 director 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 director 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 solids disposed of in accordance with the Solid Waste Management Regulations adopted by the New Mexico Environmental Improvement Board on April 19, 1974;

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 Surface Mining Commission, provided that this exemption shall not be construed as limiting the application of appropriate ground water protection requirements by the New Mexico Coal Surface Mining Commission;

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.

3-106. APPLICATION FOR DISCHARGE PLAN APPROVAL.

A. Any person who, before or within 120 days after the effective date of these regulations, is discharging any of the water contaminants listed in Section 3-103 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 director that a discharge plan is required, or such longer time as the director shall for good cause allow, submit a discharge plan to the director for approval; such person may discharge without an approved discharge plan until 240 days after written notification by the director that a discharge plan is required or such longer time as the director shall for good cause allow.

B. Any person who intends to begin, more than 120 days after the effective date of these regulations, discharging any of the water contaminants listed in Section 3-103 or any toxic pollutant so that they may move directly or indirectly into ground water shall notify the director giving the information enumerated in Subsection 1-201.B.; the director shall, within 60 days, notify such person if a discharge plan is required; upon submission, the director shall review the discharge plan pursuant to Sections 3-108 and 3-109; for good cause shown, the director may allow such person to discharge without an approved plan for a period not to extend beyond one year after the effective date of these regulations; after one year after the effective date of these regulations, for good cause shown the director may allow such person to discharge without an approved discharge plan for a period not to exceed 120 days.

C. 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 these regulations. 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 approval of the discharge plan will not result in concentrations in excess of the standards of Section 3-103 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 effluent disposal wells or in situ extraction wells as provided in Part 5 of these regulations.

3-107. MONITORING, REPORTING, AND OTHER REQUIREMENTS.

A. Each discharge plan shall provide for the following as the director 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 director of results obtained pursuant to any monitoring requirements in the discharge plan and the methods used to obtain these results;

6. Periodic reporting to the director of any other information that may be required as set forth in the discharge plan;

7. The discharger to retain for a period of at least five years any monitoring data required in the discharge plan;

8. A system of monitoring and reporting to verify that the plan is achieving the expected results;

9. Procedures for detecting failure of the discharge system;

10. Contingency plans to cope with failure of the discharge plan or system;

11. Measures to prevent ground water contamination after the cessation of operation, including post-operational monitoring.

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

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.

C. The discharger shall notify the director 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 director to:

1. inspect and copy records required by a discharge plan;

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 plan requirement in order to collect samples from ground water or the vadose zone.

E. Each discharge plan for an effluent disposal well or in situ extraction well shall incorporate the requirements of Part 5 of these regulations.

3-108 PUBLIC NOTICE AND PARTICIPATION.

A. Within thirty (30) days of filing of a proposed discharge plan, the director shall notify the following persons:

1. the public, who shall be notified through publication of a notice in a newspaper of general circulation in this state;

2. those persons who have requested notification, who shall be notified by mail;

3. any local, state or federal governmental agency affected which shall be notified by certified mail;

B. The public notice shall include:

1. name and address of the proposed discharger;

2. location of the discharge;

3. brief description of the activities which produce the discharge described in the proposed discharge plan;

4. quantity, quality and flow characteristics of the discharge;

5. depth to and TDS concentration of the ground water most likely to be affected by the discharge;

6. brief description of the procedures followed by the director in making a final determination;

7. statement on the comment period; and

8. address and telephone number at which interested persons may obtain further information.

C. Following the public notice and prior to ruling on any proposed discharge plan or its modification, the director shall allow a period of at least thirty (30) days during which comments may be submitted to the director and a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A public hearing shall be held if the director determines there is significant public interest. The time and place of the hearing shall be determined by the director and notice shall be given at least thirty (30) days prior to the hearing pursuant to Subsections A and B above. The director may appoint a hearing officer. A transcript of the hearing shall be made at the request of either the director or the discharger and at the expense of the person requesting the transcript. At the hearing, all interested 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.

3-109. DIRECTOR APPROVAL, DISAPPROVAL, MODIFICATION OR TERMINATION OF PROPOSED DISCHARGE PLANS.

A. If no public hearing is held pursuant to Subsection 3-108.C., then the Director shall, within sixty (60) days after all required information is available to him, approve or disapprove the proposed plan based on the information available to him.

B. If a public hearing is held pursuant to Subsection 3-108.C., then the director shall, within sixty (60) days after the public hearing or after all required information is available to him, whichever is later, approve or disapprove the proposed plan based on information contained in the proposed plan and information submitted at the hearing.

C. Provided that the other requirements of these regulations are met and provided further that the discharge plan demonstrates that neither a hazard to public health nor undue risk to

property will result, the director shall approve a proposed discharge plan if the following requirements are met:

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

2. the person proposing to discharge demonstrates that approval of the discharge plan will not result in either concentrations in excess of the standards of Section 3-103 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 3-109.D., or

3. the plan conforms to either Subsection a or b below and Subsection 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:

(1) the discharge is from an impoundment or a leach field existing on the effective date of these regulations which receives less than 10,000 gallons per day and the director has not found that the discharge may cause a hazard to public health; or

(2) 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 Section 3-103 except for nitrates and except for contaminants in the water diverted as provided in Subsection 3-109.D.; or

(3) the total nitrogen in effluent that is applied to a crop which is harvested shall not exceed by more than 25% the maximum amount of nitrogen reasonably expected to be taken up by the crop and the effluent shall meet the standards of Section 3-103 except for nitrates and except for contaminants in the water diverted as provided in Subsection 3-109.D.

b. Discharges from industrial, mining or manufacturing operations.

(1) 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

(2) 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 Subsection 3-103 except for nitrate and contaminants in the water diverted as provided in Subsection 3-109.D.; or

(3) the total nitrogen in effluent that is applied to a crop that is harvested shall not exceed by more than 25% the maximum amount of nitrogen reasonably expected to be taken up by the crop and the effluent shall meet the standards of Section 3-103 except for nitrate and contaminants in the water diverted as provided in Subsection 3-109.D.

c. All Discharges.

(1) the monitoring system proposed in the 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.

(2) the monitoring data is reported to the director at a frequency determined by the director.

D. The director 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. If data submitted pursuant to any monitoring requirements specified in the approved plan or other information available to the director indicates that these regulations are being or may be violated or that the standards of 3-103 are being or will be exceeded in ground water at any place of withdrawal for present or reasonably foreseeable future use due to the discharge, except as provided in Subsections 3-109.D. and Section 3-110 of these regulations;

1. the director may require a discharger to modify a discharge plan within the shortest reasonable time so as to achieve compliance with these regulations and to provide that any exceeding of standards in ground water at any place of withdrawal for present or reasonably foreseeable future use due to the discharge except as provided in Subsections 3-109.D. and Section 3-110 will be abated or prevented.

2. the director may terminate an approved discharge plan when a discharger fails to modify the plan in accordance with Subsection E.1. of this subsection.

3. the director may require modification, or may terminate a discharge plan for an effluent disposal well or in situ extraction well pursuant to the requirements of Part 5 of these regulations.

F. At the request of the discharger, an approved discharge plan may be modified in accordance with these regulations.

G. The director shall not approve a discharge plan 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.

3-110. APPROVAL OR DISAPPROVAL OF PROPOSED DISCHARGE PLANS THAT DO NOT MEET THE STANDARDS OF SECTION 3-103.

A. The discharger may file a written petition with the director seeking commission consideration of a discharge plan that would not meet the standards of Section 3-103 if he believes that the discharge plan demonstrates the maximum use of technology within the economic capability of the discharger or that there is no reasonable relationship between the economic and social costs and benefits (including attainment of the standards of Section 3-103) to be obtained and that discharge under the plan would not create a hazard to public health or undue risk to property.

B. The petition shall state the extent to which the plan would violate the standards of Section 3-103 and why the plan should be approved. The director may transmit the petition to the commission recommending that it be approved or refuse to transmit the petition.

C. If the director transmits the petition to the commission, the commission shall review the petition and determine to either grant or deny a public hearing on the applicability of the criteria of Subsection A above to the proposed discharge plan.

D. If the director refuses to transmit the proposed discharge plan to the commission, or if the commission refuses to grant a hearing on the applicability of the criteria of Subsection A above to the proposed discharge plan, the director shall act on the proposed discharge plan without consideration of the criteria of Subsection A.

E. If the director denies the proposed discharge plan pursuant to Subsection D, then the discharger may address the issue of whether the proposed discharge plan meets the criteria of Subsection A above upon appeal of the director's disapproval of his proposed discharge plan to the commission in accordance with the provisions of Subsection 74-6-5(L) NMSA 1978.

F. If the commission grants a public hearing, the hearing shall be held in accordance with the provisions of Subsection 74-6-5(L), (M) and (N), NMSA 1978 Comp.

G. If the commission, after hearing held pursuant to Subsection F, denies the proposed discharge plan, the discharger may appeal pursuant to Section 74-6-5(O) NMSA 1978 and on appeal may address the issue of whether the proposed discharge plan meets the criteria of Subsection A.

H. After public hearing and consideration of all facts and circumstances included in Section 74-6-4(D) NMSA 1978 the commission may authorize the director to approve a proposed discharge plan if the commission determines that the plan meets the criteria of Subsection A above.

3-111. TRANSFER OF DISCHARGE PLAN.

A discharger shall notify by letter the succeeding owner of a facility which is operating pursuant to an approved discharge plan of the existence of the discharge plan. The notice shall be given on or before transfer of possession of the facility. A copy of the letter shall be forwarded to the director. The succeeding owner shall be responsible for compliance with the approved discharge plan upon taking possession of the facility and receiving notice of the discharge plan.

3-112. APPEALS FROM DIRECTOR'S DECISIONS.

A. If the director disapproves a proposed discharge plan, approves a proposed discharge plan subject to condition, or modifies or terminates an approved plan, appeal therefrom and any action of the commission thereon shall be in accordance with the provisions of Subsections 74-6-5(L), (M) and (N), NMSA, 1978.

B. If the director determines that a discharger is not exempt from filing a discharge plan pursuant to Section 3-105, or that the material to be discharged contains any toxic pollutant as defined in Section 1-101.X., which is not included in the numerical standards of 3-103, then discharger may appeal such determination by filing a notice of appeal to the commission within thirty days after receiving the director's written determination, and the appeal therefrom and any action of the commission thereon shall be in accordance with the provisions of Subsections 74-6-5(L), (M) and (N), NMSA 1978.

3-113. APPEALS FROM COMMISSION DECISIONS.--A discharger may appeal the decision of the commission in accordance with the provisions of Section 74-6-5(O), NMSA 1978.

3-114. SEVERABILITY.--If any section, subsection, individual standard or application of these standards or regulations is held invalid, the remainder shall not be affected.

PART 4

Utility Operators Certification

4-100. CLASSIFICATION OF WATER SUPPLY SYSTEMS AND WASTEWATER FACILITIES.

4-101. GENERAL PROVISIONS.

Water supply systems and wastewater facilities shall be classified by the commission in accordance with Section 4(A) of the Certification Act.

4-102. WATER SUPPLY SYSTEMS.

Population Served	2,500 5,000	5,001 10,000	10,001 20,000	20,000+
Treatment Process		Classification		
Filtration (sand, gravity)	III	III	III	IV
Coagulation, Sedimentation, Filtration	III	III	IV	IV
Chemical Precipitation (Mn, Fe, Softening)	III	III	IV	IV
Aeration	II	III	III	IV
Odor and Taste Control (activated carbon)	II	III	III	IV
Chemical Addition (stabilization)	II	II	III	IV
Pressure Filtration	II	II	III	IV
Ion Exchange (softening, defluoridation)	II	III	III	IV
Chlorination	II	II	III	IV
Fluoridation	II	II	III	IV
Special, such as desalinization	IV	IV	IV	IV
Production, ground water only	I	II	III	IV
Distribution Systems		Classification		
Distribution of Treated Surface Water	II	II	II	III

Distribution of Chlorinated Ground Water	II	II	II	III
Distribution of Unchlorinated Ground Water	I	II	II	III

4-103. WASTEWATER FACILITIES.

Population Served	2,500 5,000	5,001 10,000	10,001 20,000	20,000+
Treatment Process	Classification			
Raw Sewage Lagoons	I	I	I	I
Aerated Lagoons	II	II	II	II
Primary Treatment	II	II	II	II
Primary Treatment and Oxidation Ponds	II	II	II	II
Secondary Treatment, Trickling Filter	II	III	III	IV
Secondary Treatment, Aeration	III	III	IV	IV
Physical-Chemical Treatment Processes	III	III	IV	IV
Advanced Waste Treatment Process	III	IV	IV	IV

Collection System

Ordinarily, collection systems are considered as a part of the treatment works; however, where the jurisdiction or responsibility for collection system is not the same as the jurisdiction or responsibility for the treatment works, the collection system shall be classified as Grade I, if the population served is less than 15,000 persons and as Grade II, if the population served is greater than 15,000 persons.

4-200. OPERATOR CERTIFICATION.

4-201. GENERAL PROVISIONS.

A. After July 1, 1976, each owner of a water supply system or wastewater facility, for public or commercial use, serving 2,500 persons or more shall employ a certified operator(s).

B. Class IV is the highest classification level and Class I is the lowest. The classes of certification are ranked so that a person holding certification in a particular class may operate any facility in that particular class and any lower class.

C. The name(s) of the certified operator(s) must be on file at all times with the agency. A certified operator may be replaced with another certified operator of the required particular class at any time. The owner shall notify the agency in writing within ten days after the replacement.

4-202. REQUIREMENTS FOR CERTIFICATION.--Each applicant for certification as a water system operator or wastewater facility operator shall:

A. Make application on forms furnished by the agency. Applications shall be submitted to the agency not later than thirty (30) days prior to the date of the examination.

B. Submit evidence that the applicant has reached the age of majority.

C. Pay a fee, in advance, to the agency through the commission. The fee shall be $2.00 for each agency action such as examination for certification, reexamination for certification, issuance of a certificate, issuance of a temporary certificate, or annual renewal.

D. Successfully meet the educational, experience and training requirements stipulated in Section 4-203 of this regulation. All training programs must be approved by the commission and the commission shall assign the number of training credits for each approved training program.

E. Successfully pass the examination for the class and type of certification being applied for:

1. Examinations for certification shall be scheduled at such times and locations as the commission deems necessary.

2. Examinations shall be used in determining skill, knowledge, ability and judgment of the applicant.

3. All examinations will be graded and the applicants notified of the results. Examination papers will not be returned to the applicant, but may be reviewed by the applicant at the agency office.

4-203. REQUIREMENTS FOR THE CLASSES.

A. Basic requirements are:

1. Class I requires one year of experience plus ten training credits;

2. Class II requires three years of experience plus thirty training credits;

3. Class III requires five years of experience plus 50 training credits; and

4. Class IV requires high school graduation, or G.E.D. equivalent, plus one year's experience as a Class III certificate holder plus 80 training credits.

B. Substitutions.

1. In no case shall the actual experience be less than one year for any class.

2. Education may be substituted for experience as follows:

a. High school graduation or G.E.D. equivalent may be substituted for one year's experience.

b. One year (30 semester hours) of successfully completed college education may be substituted for six months of the required experience.

c. One year of an approved vocational school in the water and wastewater field may be substituted for one year of the required experience.

4-204. TEMPORARY CERTIFICATION.--If, after reasonable time and effort by an owner, a qualified operator cannot be employed, temporary certification may be issued for the operator of a system or facility. Such a certificate is issued to an individual for a period not to exceed six months. A temporary certificate may be extended to a maximum of 18 months if the operator is involved in a training program that will qualify him for the required level in that period.

4-205. PRIOR CERTIFICATION.--Certificates in appropriate classification shall be issued without examination to persons who hold

valid certificates of competency issued under the voluntary program co-sponsored by the New Mexico Environmental Improvement Agency, provided application is made on or before July 1, 1976.

4-206. CERTIFICATION WITHOUT EXAMINATION.

A. 1. Certificates shall be issued without an examination to persons who, on July 1, 1973, were operators of a system or facility. Applications for certification under this section must have been made on or before January 1, 1974.

2. Certificates issued under this section will be restricted to the particular system or facility for which the applicant is employed as it existed on July 1, 1973. Major modification of the type of treatment employed would significantly affect the operation of the system or facility shall cause any certificate issued under this section to become invalid. The limitations of the certificate will be printed thereon.

3. An operator certified under this section may request to have his certificate transferred to another facility of the same general class and type or to another facility of lower class. Such a request will be granted if, in the opinion of the commission, such a transfer would not adversely affect the health and safety of the public or the environment.

B. The commission may issue certificates, in equivalent classification, without examination to applicants who hold valid certificates or licenses issued by any state, territory, or foreign jurisdiction, provided that the requirements for issuance of such certificates or licenses are, in the opinion of the commission, equal to or higher than those set forth in this regulation.

4-207. RENEWAL OF CERTIFICATES.

A. Application for certificate renewal shall be made annually prior to the last working day of the holder's birth month in accordance with Section 4-202(C).

B. The agency shall mail each holder of a certificate a renewal notice at least thirty days prior to the expiration date, mailed to his last address of record. Failure to receive such notice shall not relieve the holder of his responsibility to apply for renewal prior to the expiration date.

C. Annual renewal of certificate issued under Section 4-206 shall be required.

D. Effective July 1, 1982, annual renewal will require that each certificate holder is credited with having obtained thirty (30) training credits in the three-year period preceding the date on which renewal application is due. This requirement will apply after the third year of New Mexico certification for each operator.

4-208. LAPSED CERTIFICATES.

A. Certificates which have not been renewed in accordance with Section 4-207 will be considered lapsed and invalid.

B. Lapsed certificates may be reinstated without penalty upon application within thirty days of the date of expiration. A lapsed certificate which has not been renewed within the thirty-day period may be reinstated upon reapplication and payment of a $2.00 per month penalty fee for each month or portion thereof beyond the expiration date.

C. If a lapsed certificate has not been reinstated within one year of its expiration date, the commission shall give notice and may hold a hearing, if the applicant so requests, as required by the Uniform Licensing Act to determine whether re-examination is required for reinstatement.

4-209. SUSPENSION AND REVOCATION.

A. In the event of suspension or revocation of a certificate, the commission shall notify the applicant by registered mail of the reason for such action. Within 20 days after receipt of the notice, the applicant may request in writing that a hearing be held by the commission.

B. Re-issuance of a revoked certificate shall be accomplished by reapplication as provided for an original certificate. Any person whose certificate is revoked shall be ineligible for admission to any examination for certification for a period of not less than six months.

C. The commission may suspend a certificate for a specified period of time not to exceed six months.

4-210. ELIGIBILITY FOR OPERATOR TRAINING GRANT FUNDS.--Each applicant for operator training grant funds administered by the agency shall:

A. Submit evidence satisfactory to the agency that the recipient of the training:

1. is a person who is a candidate for employment as a "certified operator" as defined under Section 1-101 of these regulations; or

2. is a person in a supervisory role responsible for the management of a water supply system or wastewater treatment facility; or

3. is a person who is or will be involved in the instruction of operators.

B. Submit evidence satisfactory to the agency that not less than ten percent (10%) of the training cost is provided by the employer of the utility operator; the cost of per diem and mileage may not be paid from grant funds but may be accounted in determining the training cost provided by the employer; and

C. Supply any other pertinent information deemed necessary by the agency.

PART 5

Water Quality Control--Underground Injection Control

5-100. REGULATIONS FOR EFFLUENT DISPOSAL AND IN SITU EXTRACTION WELLS.

5-101. DISCHARGE PLAN AND OTHER REQUIREMENTS.

A. Effluent disposal wells and in situ extraction wells must meet the requirements of Part 5 in addition to other applicable requirements of the Water Quality Control Commission regulations. No effluent disposal well or in situ extraction 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 Section 5-103, or pursuant to a temporary designation as provided in Section 5-101.C.2.

B. Operation of an effluent disposal well or in situ extraction well must be pursuant to an approved discharge plan according to the schedules in the following subsections:

1. Any person who before the effective date of Part 5 of these regulations, is injecting fluids into an effluent disposal well or in situ extraction well without an approved discharge plan, may continue to inject without an approved discharge plan for 90 days after the effective date of Part 5. No person who intends to begin discharging into an effluent disposal well or in situ extraction well after the effective date of Part 5 shall discharge except in conformance with an approved discharge plan.

2. Any person who, before or within 90 days of the effective date of Part 5 of these regulations, has a discharge plan approved pursuant to Part 3 for the injection of fluids into an effluent disposal well or an in situ extraction well, may inject according to the approved discharge plan until the expiration of the current discharge plan approval. Upon application for renewal of the discharge plan approval, such person shall comply with the requirements of Parts 3 and 5, in the renewal application.

3. Later than 90 days after the effective date of Part 5, any person who does not have discharge plan approval pursuant to Subsection 5-101.B.2. shall not discharge into an effluent disposal well or an in situ extraction well without an approved discharge plan meeting the requirements of Parts 3 and 5.

C. Discharge plans for effluent disposal wells, or in situ extraction wells affecting ground water of 10,000 mg/1 or less TDS submitted for director approval shall:

1. Receive an aquifer designation as required in Section 5-103 prior to approval of the discharge plan; or

2. For in situ extraction 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 Section 3-103 or any toxic pollutant. Approval of a discharge plan or project discharge plan for in situ extraction wells that provides for restoration of ground water in accordance with the requirements of this paragraph shall substitute for the aquifer designation provisions of Section 5-103. 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 plan. Such temporary designation shall expire upon final termination of operations including restoration efforts.

D. The exemptions from the discharge plan requirement listed in Section 3-105 do not apply to effluent disposal wells or in situ extraction wells except as provided below:

1. Wells regulated by the Oil Conservation Division 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 under the "Geothermal Resources Act";

3. Wells regulated by the New Mexico Coal Surface Mining Bureau under the "Surface Mining Act";

4. Wells for the disposal of effluent from systems which receive less than 2,000 gallons per day of domestic sewage effluent and are regulated under the "Liquid Waste Disposal Regulations" adopted by the Environmental Improvement Board under the "Environmental Improvement Act".

E. Section 3-110 does not apply to discharge plans for effluent disposal wells or in situ extraction wells regulated under this Part, except for in situ extraction well discharge plans that address ground water restoration pursuant to Subsection 5-101.C.2.

F. Project Discharge Plans for In Situ Extraction Wells.

1. The director may consider a project discharge plan for in situ extraction 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. An approved project discharge plan does not allow the discharger to commence injection in any individual operational area until the director approves an application for injection in that operational area (operational area approval).

3. A project discharge plan 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 these regulations, except for such additional site-specific information as needed to evaluate applications for individual operational area approvals: Subsection 3-106.C., 3-107., 5-204 through 5-209, and 5-210.B.

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

a. Site-specific information demonstrating that the requirements of these regulations are met, and

b. Information required under Subsections 5-202 through 5-210 of these regulations and not previously provided pursuant to Paragraph 3.b. of this Subsection.

5. Applications for project discharge plan approval and for operational area approval shall be processed in accordance with the same procedures provided for discharge plans under Part 3 of the regulations, allowing for public notice on the project discharge plan and on each application for operational area approval pursuant to Section 3-108 with opportunity for public hearing prior to approval or disapproval.

6. The discharger shall comply with additional requirements that may be imposed by the director pursuant to these regulations on wells in each new operational area.

G. If the holder of an approved discharge plan for an effluent disposal well, or in situ extraction well submits an application for discharge plan renewal at least 180 days before discharge plan expiration, and the discharger is in compliance with his approved discharge plan on the date of its expiration, then the existing approved discharge plan for the same activity shall not expire until the application for renewal has been approved or disapproved. An application for discharge plan renewal must include and adequately address all of the information necessary for evaluation of a new discharge plan. Previously submitted materials may be included by reference provided they are current, readily available to the director and sufficiently identified to be retrieved.

H. Discharge Plan Signatory Requirements.

No discharge plan for an effluent disposal well or in situ extraction well may be approved unless:

1. The application for a discharge plan approval 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. The signature is 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."

I. Transfer of Effluent Disposal Well and In Situ Extraction Well Discharge Plans.

1. The transfer provisions of Section 3-111 do not apply to a discharge plan for an effluent disposal well or in situ extraction well.

2. An effluent disposal well or in situ extraction well discharge plan may be transferred if:

a. The director receives written notice 30 days prior to the transfer date; and

b. The director does not object prior to the proposed transfer date. The director may require modification of the discharge plan as a condition of transfer, and may require demonstration of adequate financial responsibility.

3. The written notice required by Subsection I.2.a. 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 approved discharge plan upon taking possession of the facility; and

b. Set a specific date for transfer of discharge plan responsibility, coverage and liability; and

c. Include information relating to the succeeding discharger's financial responsibility required by Subsection 5-210.B.17.

J. Modification or Termination of a Discharge Plan for an Effluent Disposal Well or In Situ Extraction Well.

If data submitted pursuant to any monitoring requirements specified in the approved plan or other information available to the director indicate that these regulations are being or may be violated, the director may require modification or, if it is determined by the director that the modification may not be adequate, may terminate a discharge plan for an effluent disposal well, or in situ extraction well or well field, that was approved pursuant to the requirements of Part 5 of these regulations for the following causes:

1. Noncompliance by the discharger with any condition of the discharge plan; or

2. The discharger's failure in the discharge plan application or during the discharge plan 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 plan modification or termination.

5-102. PRE-CONSTRUCTION REQUIREMENTS.

A. Discharge Plan Requirement for Effluent Disposal Wells.

Prior to construction of an effluent disposal well or conversion of an existing well to an effluent disposal well, an approved discharge plan is required that incorporates the requirements of Part 5 of these regulations, except Subsection 5-210.C. As a condition of discharge plan approval, the operation of the effluent disposal well under the discharge plan will not be authorized until the director has:

1. Reviewed the information submitted for his consideration pursuant to Subsection 5-210.C., and

2. Determined that the information submitted demonstrates that the operation will be in compliance with these regulations and the approved discharge plan.

B. Notification Requirement for In Situ Extraction Wells.

1. The discharger shall notify the director 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 discharge plan or project discharge plan approval for the in situ extraction operation.

a. Any person, proposing to drill or construct a new in situ extraction well or well field, or convert an existing well to an in situ extraction well, shall file plans, specifications and pertinent documents regarding such construction or conversion, with the Water Pollution Control Bureau of the Environmental Improvement Division.

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.

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:

(1) Information required in Subsection 3-106.C. of these regulations;

(2) A map showing the in situ extraction 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 (Section 5-202) of the in situ extraction well or well field perimeter;

(3) 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;

(4) Maps and cross-sections detailing the geology and geologic structure of the local area, including faults, if known or suspected;

(5) The proposed formation testing program to obtain an analysis or description, whichever the director requires, of the chemical, physical, and radiological characteristics of, and other information on, the receiving formation;

(6) The proposed stimulation program;

(7) The proposed injection procedure;

(8) Schematic or other appropriate drawings of the surface and subsurface construction details of the well;

(9) Proposed construction procedures, including a cementing and casing program, logging procedures, deviation checks, and a drilling, testing, and coring program;

(10) Information, as described in Subsection 5-210.B.17., showing the ability of the discharger to undertake measures necessary to prevent ground water contamination; and

(11) A plugging and abandonment plan showing that the requirements of Subsections 5-209.B., C., and D. will be met.

2. Prior to construction, the discharger shall have received written notice from the director that the information submitted under 5-102.B.1.d.(10) is acceptable. Within 30 days of submission of the above information the director shall notify the discharger that the information submitted is acceptable or unacceptable.

3. Prior to construction, the director 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 parts of these regulations. Review of plans, specifications and pertinent documents shall be based on the criteria contained in Section 5-205, Section 5-209.E., and Subsection 5-102.B.1.d. above.

4. Within thirty (30) days of receipt, the director shall issue public notice, consistent with Section 3-108.A.,

that notification was submitted pursuant to Section 5-102.B. The director shall allow a period of at least thirty (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 director shall comment in writing upon the plans and specifications within sixty (60) days of their receipt by the director.

6. Within thirty (30) days after completion, the discharger shall submit written notice to the director 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 plan is not submitted or approved, all wells which may cause 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 director 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 ground water contamination, plugging pursuant to the notification is not required. Financial responsibility established pursuant to these regulations will remain in effect until the discharger permanently abandons and plugs the wells in accordance with the plugging and abandonment plan.

5-103. DESIGNATED AQUIFERS.

A. Any person may file a written petition with the director seeking commission consideration of certain aquifers or

portions of aquifers as "designated aquifers". The purpose of aquifer designation is:

1. For effluent disposal wells, to allow as a result of injection, the addition of water contaminants into ground water, which before initiation of effluent disposal has a concentration between 5,000 and 10,000 mg/1 TDS; or

2. For in situ extraction wells, to allow as a result of injection, the addition of water contaminants into ground water, which before initiation of in situ extraction has a concentration between 5,000 and 10,000 mg/1 TDS, and not provide for restoration or complete restoration of that ground water pursuant to Subsection 5-101.C.2.

B. The applicant shall identify (by narrative description, illustrations, maps or other means) and describe such aquifers, in geologic and/or 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 Paragraph 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 in situ

extraction wells, the applicant shall state whether and to what extent restoration will be carried out.

E. The director shall either transmit the petition to the commission within sixty (60) days 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 director 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 director refuses to transmit the petition to the commission, then the applicant may appeal the director's disapproval of the proposed aquifer designation to the commission within thirty (30) days, and address the issue of whether the proposed aquifer designation meets the criteria of Subsections A, B, C, and D above.

H. If the commission grants a public hearing, the hearing shall be held in accordance with the provisions of Subsection 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 director to approve a proposed designated aquifer if the commission determines that the criteria of Subsection A, B, C, and D above are met.

K. Approval of a designated aquifer petition does not alleviate the applicant from complying with other Sections of Part 5 of these regulations, or of the responsibility for protection, pursuant to these regulations, 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 effluent disposal, or for in situ extraction without restoration, provided the person receives discharge plan approval pursuant to the requirements of Part 5. 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 in situ extraction with partial restoration shall file a petition with the commission pursuant to the requirements of 5-103.A, B, C, and D.

5-104. WAIVER OF REQUIREMENT BY DIRECTOR.

A. Where an effluent disposal well or an in situ extraction well or well field, does not penetrate, or inject into or above ground water having 10,000 mg/l or less TDS, the director may:

1. Approve a discharge plan for a well or well field with less stringent requirements for area of review, construction, mechanical integrity, operation, monitoring, and reporting than required by this Part of these regulations; or

2. For in situ extraction wells only, approve a discharge plan pursuant to the requirements of Part 3 of these regulations.

B. Authorization of a reduction in requirements under Paragraph 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 Section 5-103.

5-105. AUTHORITY--Regulations are adopted by the commission under the authority of Sections 74-64 and 74-6-5, NMSA 1978 (The Water Quality Act).

5-200. TECHNICAL CRITERIA AND PERFORMANCE STANDARDS FOR EFFLUENT DISPOSAL WELLS AND IN SITU EXTRACTION WELLS.

5-201. PURPOSE.

Sections 5-200 through 5-210 of these regulations provide the technical criteria and performance standards for effluent disposal wells and in situ extraction wells.

5-202. AREA OF REVIEW.

A. The area of review is the area surrounding an effluent disposal well or in situ extraction 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 effluent disposal well, or each in situ extraction well or well field shall be an area which extends:

1. Two and one half (2½) miles from the well, or well field; or

2. One-quarter (¼) mile from a well or well field where the area of review is calculated to be zero pursuant to Subsection B.3. 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 (¼) mile, proposed by the discharger and approved by the director, 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 effluent disposal well, or in situ extraction 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.

$$r = \left(\frac{2.25\ K\ H\ t}{S\ 10^{X}} \right)^{\frac{1}{2}}$$

Where:

$$x = \frac{4\pi KH\ (H_w - H_{bo})x\ S_pG_b}{2.3\ Q}$$

r = Radius of the area of review for an effluent disposal well or in situ extraction 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/1 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/1 or less TDS

S_pG_b = Specific gravity of fluid in the injection zone (dimensionless)

π = 3.142 (dimensionless)

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 effluent disposal well or in situ extraction 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 director shall require submittal by the discharger of information regarding the area of review including the information to be considered by the director in Subsection 5-210.B.

5-203. CORRECTIVE ACTION.

A. Persons applying for approval of an effluent disposal well, or an in situ extraction 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 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 5-103.

B. Prior to operation, or continued operation of a well for which corrective action is required pursuant to Subsection 5-203.D. or 5-203.A., 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 5-103. 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 plan, the following factors will be considered by the director:

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/1 or less TDS.

D. In the event that, after approval for an effluent disposal well or in situ extraction 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/1 or less TDS except for fluid movement approved pursuant to Section 5-103, the director may require action in accordance with Subsections 5-101.J. and 5-203.B. of the regulations.

5-204. MECHANICAL INTEGRITY.

A. An effluent disposal well or in situ extraction well has mechanical integrity if there is no detectable leak in the casing, tubing or packer which the director 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 director considers to be significant.

B. Prior to well injection and at least once every five years or more frequently as the director may require for good cause during the life of the well, the discharger must demonstrate that an effluent disposal well or in situ extraction well has mechanical integrity. The demonstration shall be made through use of the following tests:

1. For evaluation of leaks,

(a) Monotoring 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 in situ extraction wells precludes use of these logs, cementing records and an appropriate monitoring program as the director may require which will demonstrate the presence of adequate cement to prevent such movement;

3. Other appropriate tests as the director may require.

C. The director 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 director may approve the request if it will reliably demonstrate the mechanical integrity of wells for which its use is proposed. For in situ extraction 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 director, the discharger and the director shall apply methods and standards generally accepted in the affected industry. When the discharger reports the results of mechanical integrity tests to the director, he shall include a description of the test(s), the method(s) used, and the test results. In making an evaluation, the director's review shall include monitoring and other test data submitted since the previous evaluation.

5-205. CONSTRUCTION REQUIREMENTS.

A. General Construction Requirements Applicable to Effluent Disposal Wells and In Situ Extraction Wells.

1. Construction of all effluent disposal wells and all new in situ extraction wells shall include casing and cementing. Prior to well injection, the discharger shall demonstrate that the construction and operation of:

(a) Effluent disposal wells will not cause or allow movement of fluids into ground water having 10,000 mg/1 or less TDS except for fluid movement approved pursuant to Section 5-103;

(b) In situ extraction wells will not cause or allow movement of fluids out of the injection zone into ground water having 10,000 mg/1 or less TDS except for fluid movement approved pursuant to Section 5-103.

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 director 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, thicknesses 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 effluent disposal wells or in situ extraction 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 director 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 an effluent disposal well or in situ extraction 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 director 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/1 or less TDS:

(A) Resistivity, spontaneous potential, and caliper logs before the casing is installed; and

(B) 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:

(A) Resistivity, spontaneous potential, porosity, and gamma ray logs before the casing is installed;

(B) Fracture finder or spectral logs; and

(C) A cement bond or temperature log after the casing is set and cemented.

5. In addition to the requirements of Section 5-102, 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 director or his representative.

B. Additional Construction Requirements for Effluent Disposal Wells.

1. All effluent disposal 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 5-103.

2. All effluent disposal wells shall be cased and cemented by circulating cement to the surface.

3. All effluent disposal 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 director. To obtain approval, the operator shall submit a written request to the director which shall set forth the proposed alternative and all technical data supporting its use. The director may approve the request if the alternative method will reliably provide a comparable level of protection to ground water. The director 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 director 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 In Situ Extraction 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 5-103 may be waived by the director, 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 director determines is subject to subsisdence 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 director 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 in situ extraction wells in the well field.

5-206. OPERATING REQUIREMENTS.

A. General Operating Requirements Applicable to Effluent Disposal Wells and In Situ Extraction Wells.

1. The maximum injection pressure at the wellhead shall not initiate new fractures or propogate 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 5-103.

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 Effluent Disposal 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 Subsection 5-205.B.3.(a), the annulus between the tubing and the long string of casing shall be filled with a fluid approved by the director and a pressure, also approved by the director shall be maintained on the annulus.

C. Additional Operating Requirements for In Situ Extraction Wells.

1. Initiation of new fractures or propagation of existing fractures in the injection zone will not be approved by the director as part of a discharge plan unless it is done during well stimulation and the discharger demonstrates:

(a) 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 5-103, and

(b) That the provisions of Subsections 3-109.C. and 5-101.C. for protection of ground water are met.

5-207. MONITORING REQUIREMENTS.

A. The discharger shall demonstrate mechanical integrity for each effluent disposal well or in situ extraction well at least once every five years during the life of the well pursuant to Section 5-204.

B. Additional Monitoring Requirements for Effluent Disposal Wells.

1. The discharger shall provide analyses of the injected fluids at least quarterly or, if necessary, more frequently to yield data respresentative 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 plan to be used by the discharger to monitor pressure in, and possible fluid movement into, ground water having 10,000 mg/1 or less TDS except for such ground waters designated pursuant to Section 5-103. This section does not require monitoring wells for effluent disposal wells unless monitoring wells are necessary due to possible flow paths within the area of review.

C. Additional Monitoring Requirements for In Situ Extraction Wells.

1. The discharger shall provide an analysis or description, whichever the director 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 director 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 director determines, of the monitor wells, required in Section 5-205.C. 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 director for good cause may require to detect movement of fluids from the injection zone into ground water having 10,000 mg/1 or less TDS except for fluid movement approved pursuant to Section 5-103.

3. With the approval of the director, all in situ extraction 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 in situ extraction well, operating with a common manifold, provided that the discharger demonstrates that manifold monitoring is comparable to individual well monitoring.

5-208. REPORTING REQUIREMENTS.

A. Reporting Requirements for Effluent Disposal Wells.

1. If an effluent disposal 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 director of the circumstances and action taken. The discharger shall provide subsequent written reports as required by the director.

2. The discharger shall provide reports quarterly to the director 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 5-207.B.

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 5-204 and 5-207;

(b) Any other test of the effluent disposal well conducted by the discharger if required by the director;

(c) Any well work-over; and

(d) Any changes within the area of review which might impact subsurface conditions.

B. Reporting Requirements for In Situ Extraction Wells.

1. The discharger shall notify the director within 48 hours of the detection or suspected detection of a leachate excursion, and provide subsequent reports as required by the director.

2. The discharger shall provide to the director:

(a) Reports on required monitoring quarterly, or more frequently as required by the director; and

(b) Results of mechanical integrity testing as required in Sections 5-204 and 5-207 and any other periodic tests required by the director. 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 section shall be signed and certified as provided in Section 5-101.H., 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 Section 5-101.H.1.;

(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 director.

5-209. PLUGGING AND ABANDONMENT.

A. The discharger shall submit as part of the discharge plan, a plan for plugging and abandonment of an effluent disposal well or an in situ extraction well that meets the requirements of Subsections 3-109.C. and 5-101.C. for protection of ground water. If requested, a revised or updated abandonment plan shall be submitted for approval prior to closure.

B. Prior to abandonment of a well used in an effluent disposal or in situ extraction 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 director for the plugging of in situ extraction 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 director.

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 director.

E. The following shall be considered by the director 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.

5-210. INFORMATION TO BE CONSIDERED BY THE DIRECTOR.

A. This section sets forth the information to be considered by the director in authorizing construction and use of an effluent disposal well or in situ extraction 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 plan submittal by reference provided they are current, readily available to the director and sufficiently identified to be retrieved.

B. Prior to the approval of a discharge plan or project discharge plan allowing construction of a new effluent disposal well, operation of an existing effluent disposal well, or operation of a new or existing in situ extraction well or well field, or conversion of any well to injection use, the director shall consider the following:

1. Information required in Subsection 3-106.C. of these regulations;

2. A map showing the effluent disposal well, or in situ extraction wells 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 and/or completion, and any additional information the director 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 Section 5-203;

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; and

(c) Source of injection fluids and an analysis or description, whichever the director requires, of their chemical, physical, radiological and biological characteristics;

9. Results of the formation testing program to obtain an analysis or description, whichever the director requires, of the chemical, physical, and radiological characteristics of, and other information on, the receiving formation, provided that the director may issue a conditional approval of a discharge plan 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. Schmatic 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/1 or less TDS except for fluid movement approved pursuant to Section 5-103;

16. Plans, including maps, for meeting the monitoring requirements of Section 5-207; and

17. The ability of the discharger to undertake measures necessary to prevent contamination of ground water having 10,000 mg/1 or less TDS after the cessation of operations, 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 may demonstrate the ability to undertake these measures shall include submission of a surety bond or other adequate assurance, such as financial statements or other materials acceptable to the director. If an adequate bond is posted by the discharger to a federal or another state agency, and this bond is to insure closing and proper abandonment of the facility, the director shall consider this bond as a submission of a bond to the Division.

C. Prior to the director's approval that allows the operation of a new or existing effluent disposal well or in situ

extraction well or well field, the director shall consider the following:

1. Update of pertinent information required under Section 5-210.B.;

2. All available logging and testing program data on the well;

3. The demonstration of mechanical integrity pursuant to Section 5-204;

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.

5-300. INJECTION WELL NOTIFICATION REQUIREMENT.

All operators of injection wells, except those wells regulated under the Oil and Gas Act, the Geothermal Resources Conservation Act, and the Surface Mining Act, shall:

A. Submit to the director the information enumerated in Section 1-201.B. of these regulations within one year of the effective date of Part 5; provided, however, that if the information in 1-201.B. has been previously submitted to the director and acknowledged by him, the information need not be resubmitted; and

B. Operate and continue to operate in conformance with Parts 1 and 3 of these regulations.

History: Laws 1981, ch. 379, § 12.
Emergency clauses. — Laws 1981, ch. 379, § 24, makes the act effective immediately. Approved April 10, 1981.

ARTICLE 5

Geothermal Resources Conservation

Sec.

71-5-1. Short title.

This act may be cited as the "Geothermal Resources Conservation Act."

History: 1953 Comp., § 65-11-1, enacted by Laws 1975, ch. 272, § 1.
Meaning of "this act". — The term "this act" refers to Laws 1975, ch. 272, the provisions of which are presently compiled as 71-5-1 to 71-5-17, 71-5-18 to 71-5-22, 71-5-24.
Law reviews. — For comment on geothermal energy and water law, see 19 Nat. Resources J. 445 (1979).

71-5-2. Purpose of act.

A. It is hereby found and determined that the people of the state of New Mexico have a direct and primary interest in the development of geothermal resources, and that this state should exercise its power and jurisdiction through its oil conservation commission and division to require that wells drilled in search of, development of, or incident to the production of geothermal resources be drilled, operated, maintained and abandoned in such a manner as to safeguard life, health, property, natural resources and the public welfare, and to encourage maximum economic recovery.

B. To these ends, it is the intent of the legislature that the power and jurisdiction of the commission and the division as given by the Geothermal Resource [Resources] Conservation Act shall be supplemental to the other powers and jurisdiction given the commission and the division by the statutes of this state.

History: 1953 Comp., § 65-11-2, enacted by Laws 1975, ch. 272, § 2; 1977, ch. 255, § 73.

Cross-references. — For provisions relating to energy resources generally, see Article 2 of this chapter. For provisions relating to energy research and development, see Article 4 of this chapter.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

Law reviews. — For comment on geothermal energy and water law, see 19 Nat. Resources J. 445 (1979).

Am. Jur. 2d, A.L.R. and C.J.S. references. — 1 Am. Jur. 2d Administrative Law §§ 24, 25.
81A C.J.S. States §§ 36, 120 to 123.

71-5-3. Definitions.

As used in the Geothermal Resources Conservation Act:

A. "geothermal resources" means the natural heat of the earth, or the energy, in whatever form, below the surface of the earth present in, resulting from, created by or which may be extracted from, this natural heat, and all minerals in solution or other products obtained from naturally heated fluids, brines, associated gases and steam, in whatever form, found below the surface of the earth, but excluding oil, hydrocarbon gas and other hydrocarbon substances;

B. "commission" means the oil conservation commission;

C. "correlative rights" means the opportunity afforded, insofar as is practicable to do so, to the owner of each property in a geothermal reservoir to produce his just and equitable share of the geothermal resources within such reservoir, being an amount, so far as can be practicably determined, and so far as can be practicably obtained without waste, substantially in the proportion that the recoverable geothermal resources under such property bears to the total recoverable geothermal resources in the reservoir, and for such purpose to use his just and equitable share of the natural heat or energy in the reservoir;

D. "division" means the oil conservation division of the energy and minerals department;

E. "geothermal reservoir" means an underground reservoir containing geothermal resources, whether the fluids in the reservoir are native to the reservoir or flow into or are injected into the reservoir;

F. "geothermal field" means the general area which is underlaid or reasonably appears to be underlaid by at least one geothermal reservoir;

G. "low-temperature thermal reservoir" means a geothermal reservoir containing low-temperature thermal water, which is defined as naturally heated water, the temperature of which is less than boiling at the altitude of occurrence, which has additional value by virtue of the heat contained therein, and is found below the surface of the earth, or in warm springs at the surface;

H. "person" means any natural person, firm, association or corporation, or any other group or combination acting as a unit, for the exploration, production, transportation, processing or utilization of geothermal resources;

I. "well" means any well dug or drilled for the discovery or development of geothermal resources or incident to the discovery or development of geothermal resources, or for the purpose of injecting or reinjecting geothermal resources or the residue thereof or other fluids into a geothermal reservoir or any well dug or drilled for any other purpose and reactivated or converted to any of the aforesaid uses; and

J. "potash" means the naturally occurring bedded deposits of the salts of the element potassium.

History: 1953 Comp., § 65-11-3, enacted by Laws 1975, ch. 272, § 3; 1977, ch. 255, § 74.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

Law reviews. — For comment on geothermal energy and water law, see 19 Nat. Resources J. 445 (1979).

For comment, "Protection of the Means of Groundwater Diversion," see 20 Nat. Resources J. 625 (1980).

71-5-4. Waste prohibited.

The production or handling of geothermal resources of any type or in any form, or the handling of products thereof, in such manner or under such conditions or in such amounts as to constitute waste is each hereby prohibited.

History: 1953 Comp., § 65-11-4, enacted by Laws 1975, ch. 272, § 4.

Am. Jur. 2d, A.L.R. and C.J.S. references. — 38 Am. Jur. 2d Gas and Oil § 157.

71-5-5. Waste definitions.

As used in this act, the term "waste," in addition to its ordinary meaning, shall include:

A. "underground waste" as those words are generally understood in the geothermal business, and in any event to embrace the inefficient, excessive or improper use or dissipation of the reservoir fluids or energy, including the natural energy of the heated fluids or the natural heat of the earth, and the locating, spacing, drilling, equipping, operating or producing of any well or wells in a manner that would reduce or tend to reduce the total quantity of geothermal resources ultimately recovered from any geothermal reservoir;

B. "surface waste" as those words are generally understood in the geothermal business, and in any event to embrace the unnecessary or excessive surface loss or destruction without beneficial use, however caused, of geothermal resources of any type or in any form, or any product thereof, and including the loss or destruction of geothermal resources resulting from leakage, evaporation or seepage, especially incident to or resulting from the manner of spacing, equipping, operating or producing of any well or wells, or incident to or resulting from the inefficient transportation, use or storage of geothermal resources;

C. the production from any well or wells in this state of geothermal resources in excess of the reasonable market demand therefor, in excess of the capacity of the geothermal transportation facility connected thereto to efficiently receive and transport such geothermal resources, or in excess of the capacity of a geothermal utilization facility to efficiently receive and utilize such geothermal resources;

D. the nonratable purchase or taking of geothermal resources within a geothermal reservoir in this state. Such nonratable taking or purchasing causes or results in excessive or improper dissipation of reservoir energy and results in waste, as defined in Subsection A of this section, and is in violation of Section 14 [71-5-14 NMSA 1978] of the Geothermal Resources Conservation Act; and

E. drilling or producing operations for geothermal resources within any area containing commercial deposits of potash where such operations would have the effect unduly to reduce the total quantity of such commercial deposits of potash which may reasonably be recovered in commercial quantities or where such operations would interfere unduly with the orderly development of such potash deposits.

History: 1953 Comp., § 65-11-5, enacted by Laws 1975, ch. 272, § 5.

Meaning of "this act". — The term "this act" refers to Laws 1975, ch. 272, the provisions of which are presently compiled as 71-5-1 to 71-5-17, 71-5-18 to 71-5-22, 71-5-24.

71-5-6. Commission's and division's powers and duties.

A. In addition to its other powers and duties, the division shall have, and is hereby given, jurisdiction over all matters relating to the conservation of geothermal resources and the prevention of waste of potash as a result of geothermal operations in this state. It shall have jurisdiction, authority and control of and over all persons, matters or things necessary or proper to enforce effectively the provisions of the Geothermal Resources Conservation Act or any other law of this state relating to the conservation of geothermal resources and the prevention of waste of potash as a result of geothermal operations. Provided, however, nothing in this section shall be construed to supersede the authority which any state department or agency has with respect to the management, protection and utilization of the state lands or resources under its jurisdiction.

B. The commission shall have concurrent jurisdiction and authority with the division to the extent necessary for the commission to perform its duties as required by the Geothermal Resources Conservation Act. In addition, any hearing on any matter may be held before the commission if the division director, in his discretion, determines that the commission shall hear the matter.

History: 1953 Comp., § 65-11-6, enacted by Laws 1975, ch. 272, § 6; 1977, ch. 255, § 75; 1979, ch. 175, § 2.

Cross-references. — As to powers and duties of the oil conservation commission, see 70-2-4 NMSA 1978.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

Law reviews. — For comment on geothermal energy and water law, see 19 Nat. Resources J. 445 (1979).

71-5-7. Power of commission and division to prevent waste and protect correlative rights.

The commission and division are hereby empowered, and it is their duty, to prevent the waste prohibited by the Geothermal Resources Conservation Act and to protect correlative rights, as in that act provided. To that end, the commission and division may make and enforce rules, regulations and orders relating to geothermal resources, and to do whatever may be reasonably necessary to carry out the purposes of that act whether or not indicated or specified in any section thereof.

History: 1953 Comp., § 65-11-7, enacted by Laws 1975, ch. 272, § 7; 1977, ch. 255, § 76.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

Am. Jur. 2d, A.L.R. and C.J.S. references. — 2 Am. Jur. 2d Administrative Law §§ 277 to 287.

73 C.J.S. Public Administrative Bodies and Procedure §§ 92 to 113.

71-5-8. Enumeration of powers.

Included in the power given to the division is the authority to collect data; to make investigations and inspections; to examine properties, leases, papers, books and records; to examine, check, test and gauge geothermal resources wells and geothermal resources transportation, storage and utilization facilities; to limit and allocate production of geothermal resources as provided in the Geothermal Resources Conservation Act; and to require certificates of clearance for the production or transportation of geothermal resources.

Apart from any authority, express or implied, elsewhere given to or existing in the division by virtue of the Geothermal Resources Conservation Act or the statutes of this state, the division may make rules, regulations and orders for the purposes and with respect to the subject matter stated herein, viz.:

A. to require noncommercial or abandoned wells to be plugged in such a way as to confine all fluids in the strata in which they are found, and to prevent them from escaping into other strata; the division may require a bond of not to exceed ten thousand dollars ($10,000) conditioned for the performance of such regulations;

B. to prevent geothermal resources, water or other fluids from escaping from the strata in which they are found into other strata;

C. to require reports showing locations of all geothermal resources wells, and to require the filing of logs and drilling records or reports and production reports;

D. to prevent the premature cooling of any geothermal stratum or strata by water encroachment, or otherwise, which reduces or tends to reduce the total ultimate recovery of geothermal resources from any geothermal reservoir;

E. to prevent "blowouts" and "caving" in the sense that such terms are generally understood in the geothermal drilling business;

F. to require wells to be drilled, operated and produced in such a manner as to prevent injury to neighboring leases or properties and to afford reasonable protection to human life and health and to the environment;

G. to identify the ownership of geothermal producing leases, properties, plants, structures, and transportation and utilization facilities;

H. to require the operation of wells efficiently;

I. to fix the spacing of wells;

J. to classify and from time to time as is necessary reclassify geothermal reservoirs and low-temperature thermal reservoirs;

K. to define and from time to time as is necessary redefine the horizontal and vertical limits of geothermal reservoirs and low-temperature thermal reservoirs;

L. to permit and regulate the injection of fluids into geothermal reservoirs and low-temperature thermal reservoirs;

M. to regulate the disposition of geothermal resources or the residue thereof, and to direct the surface or subsurface disposal of such in a manner that will afford reasonable protection against contamination of all fresh waters and waters of present or probable future value for domestic, commercial, agricultural or stock purposes, and will afford reasonable protection to human life and health and to the environment; and

N. to define and from time to time as is necessary redefine the limits of any area containing commercial deposits of potash, and to regulate and where necessary prohibit geothermal drilling or producing operations where such operations would have the effect unduly to reduce the total quantity of such commercial deposits of potash which may reasonably be recovered in commercial quantities.

History: 1953 Comp., § 65-11-8, enacted by Laws 1975, ch. 272, § 8; 1977, ch. 255, § 77.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

Law reviews. — For comment on geothermal energy and water law, see 19 Nat. Resources J. 445 (1979).

Am. Jur. 2d, A.L.R. and C.J.S. references. — 2 Am. Jur. 2d Administrative Law §§ 277 to 287; 38 Am. Jur. 2d Gas and Oil § 159.

58 C.J.S. Mines and Minerals § 230; 73 C.J.S. Public Administrative Bodies and Procedure §§ 92 to 113.

71-5-9. Regulation of geothermal resources production.

Upon determination by the division that geothermal resources production from a particular geothermal resources reservoir is causing waste or is about to result in waste, the division shall limit, allocate and distribute the total amount of geothermal resources which may be produced from that reservoir.

History: 1953 Comp., § 65-11-9, enacted by Laws 1975, ch. 272, § 9; 1977, ch. 255, § 78.

71-5-10. Allocation of production.

A. Whenever, to prevent waste, the total amount of geothermal resources which may be produced from a geothermal reservoir is limited, the division shall allocate and distribute the allowable production among the geothermal wells in the reservoir on a reasonable basis and recognizing correlative rights, including in the allocation schedule any well which it finds is being unreasonably discriminated against through denial of access to a geothermal resources transportation or utilization facility which is reasonably capable of handling the geothermal product of the well. In protecting correlative rights, the division may give equitable consideration to acreage, to the pressure, temperature, quantity and quality of the geothermal resources producible from the wells in the reservoir, and to such other pertinent factors as may from time to time exist, and, insofar as is practicable, shall prevent drainage between producing tracts in the reservoir which is not equalized by counterdrainage.

B. No order limiting, allocating and distributing production from any geothermal reservoir shall be issued except after notice and hearing. In entering such an order the division must find that waste is resulting or is about to result from the unratable taking of geothermal resources or from the production of geothermal resources from a reservoir in excess of the market demand therefor, in excess of the capacity of the available geothermal transportation facilities to efficiently receive and transport such geothermal resources, or in excess of the capacity of the available geothermal utilization facility to efficiently receive and utilize such geothermal resources. When limiting, allocating and distributing production from a geothermal reservoir, the division shall do so on the basis of three-month allocation periods and shall promulgate reasonable rules regarding production tolerances and overproduction and underproduction.

C. After the effective date of any rule, regulation or order fixing the allowable production and establishing permitted tolerances for overproduction, no person shall produce more than the allowable production and permitted tolerance applicable to him, his wells, leases or

properties determined as provided in the Geothermal Resources Conservation Act, and the allowable production shall be produced in accordance with the applicable rules, regulations and orders.

History: 1953 Comp., § 65-11-10, enacted by Laws 1975, ch. 272, § 10; 1977, ch. 255, § 79.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

Law reviews. — For comment on geothermal energy and water law, see 19 Nat. Resources J. 445 (1979).

Am. Jur. 2d, A.L.R. and C.J.S. references. — 2 Am. Jur. 2d Administrative Law §§ 397 to 426, 447; 38 Am. Jur. 2d Gas and Oil § 164.

73 C.J.S. Public Administrative Bodies and Procedure §§ 114, 115, 130 to 140.

71-5-11. Equitable allocation of production spacing; pooling.

A. The rules, regulations or orders of the division shall, so far as it is practicable to do so, afford to the owner of each property in a geothermal reservoir the opportunity to produce his just and equitable share of the geothermal resources in the reservoir, being an amount, so far as can be practically determined, and so far as such can be practicably obtained without waste, substantially in the proportion that the quantity of the recoverable geothermal resources under such property bears to the total recoverable geothermal resources in the reservoir, and for this purpose to use his just and equitable share of the reservoir energy.

B. The division may establish a spacing unit for each geothermal reservoir, such being the area that can be efficiently and economically drained and developed by one well, and in so doing the division shall consider the economic loss caused by the drilling of unnecessary wells, the protection of correlative rights, including those of royalty owners, the prevention of waste, the avoidance of the augmentation of risks arising from the drilling of an excessive number of wells and the prevention of reduced recovery which might result from the drilling of too few wells.

C. When two or more separately owned tracts of land are embraced within a spacing unit, or where there are owners of royalty interests or undivided interests in geothermal resources which are separately owned, or any combination thereof, embraced within such spacing unit, the owner or owners thereof may validly pool their interests and develop their lands as a unit. Where, however, such owner or owners have not agreed to pool their interests, and where one such separate owner, or owners, who has the right to drill has drilled or proposes to drill a well on said unit to a geothermal reservoir, the division, to avoid the drilling of unnecessary wells or to protect correlative rights, or to prevent waste, shall pool all or any part of such lands or interest or both in the spacing unit as a unit.

All orders effecting such pooling shall be made after notice and hearing, and shall be upon such terms and conditions as are just and reasonable and will afford to the owner or owners of each tract or interest in the unit the opportunity to recover or receive without unnecessary expense his just and fair share of the geothermal resources. Each order shall describe the lands included in the unit designated thereby, identify the reservoir or reservoirs to which it applies and designate an operator for the unit. All operations for the pooled geothermal resources which are conducted on any portion of the unit shall be deemed for all purposes to have been conducted upon each tract within the unit by the owner or owners of such tract. For the purpose of determining the portions of production owned by the persons owning interests in the pooled geothermal resources, such production shall be allocated to the respective tracts within the unit in the proportion that the number of surface acres included within each tract bears to the number of surface acres included in the entire unit. The portion of the production allocated to the owner or owners of each tract or interest included in a well spacing unit formed by a pooling order shall, when produced, be considered as if produced from the separately owned tract or interest by a well drilled thereon. Such pooling order of the division shall make definite provision as to any owner, or owners, who elects not to pay his proportionate share in advance for the pro rata reimbursement solely out of production to the parties advancing the costs of development and operation which shall be limited to the actual expenditures required for such purpose not in excess of what are reasonable, but which shall include a reasonable charge for supervision and may include a

charge for the risk involved in the drilling of such well, which charge for risk shall not exceed two hundred percent of the nonconsenting working interest owner's or owners' pro rata share of the cost of drilling and completing the well.

In the event of any dispute relative to such costs, the division shall determine the proper costs after due notice to interested parties and a hearing thereon. The division is specifically authorized to provide that the owner or owners drilling or paying for the drilling, or for the operation of a well for the benefit of all shall be entitled to all production from such well which would be received by the owner, or owners, for whose benefit the well was drilled or operated, after payment of royalty as provided in the lease, if any, applicable to each tract or interest, and obligations payable out of production, until the owner or owners drilling or operating the well or both have been paid the amount due under the terms of the pooling order or order settling such dispute. No part of the production or proceeds accruing to any owner or owners of a separate interest in such unit shall be applied toward the payment of any cost properly chargeable to any other interest in said unit.

If the interest of any owner or owners of any unleased mineral interest is pooled by virtue of the Geothermal Resources Conservation Act, seven-eighths of such interest shall be considered as a working interest and one-eighth shall be considered a royalty interest, and he shall in all events be paid one-eighth of all production from the unit and creditable to his interest.

D. Whenever it appears that the owners in any geothermal reservoir have agreed upon a plan for the spacing of wells, or upon a plan or method of distribution of production from the reservoir, or upon any other plan for the development or operation of such reservoir, which plan, in the judgment of the division, has the effect of preventing waste as prohibited by the Geothermal Resources Conservation Act and is fair to the royalty owners in such reservoir, then such plan shall be adopted by the division with respect to the reservoir; however, the division, upon hearing and after notice, may subsequently modify any such plan to the extent necessary to prevent waste as prohibited by the Geothermal Resources Conservation Act.

History: 1953 Comp., § 65-11-11, enacted by Laws 1975, ch. 272, § 11; 1977, ch. 255, § 80.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

Law reviews. — For comment on geothermal energy and water law, see 19 Nat. Resources J. 445 (1979).

Am. Jur. 2d, A.L.R. and C.J.S. references. — 2 Am. Jur. 2d Administrative Law §§ 397 to 426; 38 Am. Jur. 2d Gas and Oil §§ 164 to 172.

Compulsory pooling or unitization statute or ordinance requiring owners or lessees of oil and gas lands to develop their holdings as a single drilling unit and the like, 37 A.L.R.2d 434.

58 C.J.S. Mines and Minerals §§ 213, 230; 73 C.J.S. Public Administrative Bodies and Procedure §§ 114, 115, 130 to 138.

71-5-12. Court may authorize pooling or unitization by fiduciaries.

A. When an existing geothermal resources lease upon property owned by a decedent at the time of his death, by a minor or by an incompetent, does not authorize pooling or unitization thereof with other lands in the vicinity, the district court for the county in which any portion of the lands subject to said lease is situated can authorize the executor or administrator of the estate of the decedent, or the guardian of the minor or incompetent, to execute appropriate instruments authorizing or effectuating such pooling or unitization, or both, if the court finds it to be in the interest of the owners of such property.

B. An executor, administrator or guardian desiring authorization to execute such instruments shall file a verified petition in the appropriate district court setting forth a description of the lease, the lands subject thereto and the reason that the proposed action is in the interest of the owners of the affected real estate. A copy of the instrument by which such pooling or unitization is proposed to be authorized or effectuated shall be attached to the petition.

C. No notice of the hearing upon the petition shall be required; provided, however, that the court in its discretion may require such notice as it may direct to be given to affected parties.

D. Upon entry of an order of the court authorizing execution of the proposed instrument in the form attached to the petition, or with such modification as the court may direct, and execution thereof by the executor, administrator or guardian, the interest in the property owned by the decedent at the time of death, or by the ward, shall be subject in all respects to the terms of said instrument and the executor, administrator or guardian, without further order of the court, shall be authorized to execute division orders, transfer orders, correction instruments, receipts and other instruments made necessary or desirable by the pooling or unitization so effected.

History: 1953 Comp., § 65-11-12, enacted by Laws 1975, ch. 272, § 12.

Am. Jur. 2d, A.L.R. and C.J.S. references. — 38 Am. Jur. 2d Gas and Oil §§ 164 to 167, 172.

58 C.J.S. Mines and Minerals § 213.

71-5-13. Spacing unit with divided mineral ownership.

A. Whenever the operator of any geothermal resources well shall dedicate lands comprising a standard spacing unit to a geothermal resources well, it shall be the obligation of the operator, if two or more separately owned tracts of land are embraced within the spacing unit, or where there are owners or royalty interests or undivided interests in the geothermal resources which are separately owned or any combination thereof, embraced within such spacing unit, to obtain voluntary agreements pooling said lands or interests or an order of the division pooling said lands, which agreement or order shall be effective from the first production. Any division order that increases the size of a standard spacing unit for a geothermal reservoir, or extends the boundaries of such a reservoir, shall require dedication of acreage to existing wells in the reservoir in accordance with the acreage dedication requirements for said reservoir, and all interests in the spacing units that are dedicated to the affected wells shall share in production from the effective date of the said order.

B. Any operator failing to obtain voluntary pooling agreements, or failing to apply for an order of the division pooling the lands dedicated to the spacing unit as required by this section, shall nevertheless be liable to account to and pay each owner of geothermal interests, including owners of overriding royalty interests and other payments out of production, either the amount to which each interest would be entitled if pooling had occurred or the amount to which each interest is entitled in the absence of pooling, whichever is greater.

C. Nonstandard spacing units may be established by the division and all geothermal interests in any such nonstandard unit shall share in production from that unit from the date of the order establishing the said nonstandard unit.

History: 1953 Comp., § 65-11-13, enacted by Laws 1975, ch. 272, § 13; 1977, ch. 255, § 81.

Am. Jur. 2d, A.L.R. and C.J.S. references. — 38 Am. Jur. 2d Gas and Oil §§ 159, 164, 165, 172.

Compulsory pooling or unitization statute or ordinance requiring owners or lessees of oil and gas lands to develop their holdings as a single drilling unit and the like, 37 A.L.R.2d 434.

58 C.J.S. Mines and Minerals §§ 213, 230.

71-5-14. Common purchasers; discrimination in purchasing prohibited.

Any person now or hereafter engaged in the taking or purchasing of geothermal resources from one or more producers within a single geothermal reservoir shall be a common purchaser within that geothermal reservoir, and shall purchase geothermal resources of like quality, quantity and pressure lawfully produced from that geothermal reservoir and tendered to such common purchaser at a reasonable point. Such purchase shall be made without unreasonable discrimination in favor of one producer against another in the price paid, quantities taken, the bases of measurement or the facilities offered.

In the event such purchaser is also a producer, he is prohibited to the same extent from discriminating in favor of himself with respect to geothermal resources wells in which he has an interest, direct or indirect, as against other geothermal resources wells in the same geothermal reservoir.

For the purposes of the Geothermal Resources Conservation Act, reasonable differences in prices paid or facilities afforded, or both, shall not constitute unreasonable discrimination if such differences bear a fair relationship to difference in quality, quantity or pressure of the geothermal resources available or to the relative lengths of time during which such geothermal resources will be available to the purchaser.

Any common purchaser taking geothermal resources produced from wells within a geothermal reservoir shall take ratably under such rules, regulations and orders, concerning quantity, as may be promulgated by the division after due notice and public hearing. The division, in promulgating such rules, regulations and orders may consider the quality and the quantity of the geothermal resources available, the pressure and temperature of the product at the point of delivery, acreage attributable to the well, market requirements and other pertinent factors.

Nothing in the Geothermal Resources Conservation Act shall be construed or applied to require, directly or indirectly, any person to purchase geothermal resources of a quality or under a pressure or under any other condition by reason of which such geothermal resource cannot be economically and satisfactorily used by such purchaser by means of his geothermal utilization facilities then in service.

History: 1953 Comp., § 65-11-14, enacted by Laws 1975, ch. 272, § 14; 1977, ch. 255, § 82.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

71-5-15. Purchase, sale or handling of excess geothermal resources or products prohibited.

A. The sale or purchase or acquisition, or the transportation, utilization or processing, or handling in any other way, of geothermal resources in whole or in part produced in excess of the amount allowed by any statute of this state, or by any provision of the Geothermal Resources Conservation Act, or by any rule, regulation or order of the commission or division made hereunder, is hereby prohibited, and such geothermal resources are hereby referred to as "illegal geothermal resources."

B. The sale or purchase or acquisition, or the transportation, utilization or processing, or the handling in any other way, of any product of geothermal resources, which product is derived in whole or in part from geothermal resources produced in whole or in part in excess of the amount allowed by any statute of this state, or by any provision of the Geothermal Resources Conservation Act, or by any rule, regulation or order of the commission or division made thereunder, is hereby prohibited, and each such commodity or product is herein referred to as "illegal geothermal resources product."

History: 1953 Comp., § 65-11-15, enacted by Laws 1975, ch. 272, § 15; 1977, ch. 255, § 83.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

71-5-16. Rules and regulations to effectuate prohibitions against purchase or handling of illegal geothermal resources or illegal geothermal resources product.

A. The division is specifically authorized and directed to make such rules, regulations and orders, and may provide for such certificates of clearance or tenders, as may be necessary to make effective the prohibitions contained in Section 71-5-15 NMSA 1978.

B. Unless and until the division provides for certificates of clearance or tenders, or some other method, so that any person may have an opportunity to determine whether any contemplated transaction of sale or purchase or acquisition, or of transportation, refining, processing or handling in any other way, involves illegal geothermal resources, or illegal

geothermal resources product, no penalty shall be imposed for the sale or purchase or acquisition, or the transportation, refining, processing or handling in any other way, of illegal geothermal resources or illegal geothermal resources product, except under circumstances stated in the succeeding provisions of this subsection. Penalties shall be imposed for the division of each transaction prohibited in Section 71-5-15 NMSA 1978 when the person committing the same knows that illegal geothermal resources, or illegal geothermal resources product, are involved in such transaction, or when such person could have known or determined such fact by the exercise of reasonable diligence or from facts within his knowledge. However, regardless of lack of actual notice or knowledge, penalties as provided in the Geothermal Resources Conservation Act shall apply to any sale or purchase or acquisition, and to the transportation, refining, processing or handling in any other way, of illegal geothermal resources, or illegal geothermal resources product where administrative provision is made for identifying the character of the commodity as to its legality. It shall likewise be a violation for which penalties shall be imposed for any person to sell or purchase or acquire, or to transport, refine, process or handle in any way, any geothermal resources or any product thereof without complying with the rule, regulation or order of the commission or division relating thereto.

History: 1953 Comp., § 65-11-16, enacted by Laws 1975, ch. 272, § 16; 1977, ch. 255, § 84.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

Am. Jur. 2d, A.L.R. and C.J.S. references. — 2 Am. Jur. 2d Administrative Law §§ 92 to 97.

73 C.J.S. Public Administrative Bodies and Procedure §§ 156 to 159.

71-5-17. Hearings on rules, regulations and orders; notice; emergency rules.

A. Except as provided for herein, before any rule, regulation or order, including revocation, change, renewal or extension thereof, shall be made under the provisions of the Geothermal Resources Conservation Act, a public hearing shall be held at such time, place and manner as may be prescribed by the division. The division shall first give reasonable notice of such hearing (in no case less than ten days, except in an emergency) and at any such hearing any person having an interest in the subject matter of the hearing shall be entitled to be heard. Any member of the commission or division, or any employee of the commission or division, shall have power to administer oaths to any witness in any hearing, investigation or proceeding contemplated by the Geothermal Resources Conservation Act.

B. In case an emergency is found to exist by the division which in its judgment requires the making of a rule, regulation or order without first having a hearing, such emergency rule, regulation or order shall have the same validity as if a hearing with respect to the same had been held after due notice. The emergency rule, regulation or order permitted by this section shall remain in force no longer than fifteen days from its effective date, and, in any event, it shall expire when the rule, regulation or order made after due notice and hearing with respect to the subject matter of such emergency rule, regulation or order becomes effective.

History: 1953 Comp., § 65-11-17, enacted by Laws 1975, ch. 272, § 17; 1977, ch. 255, § 85.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

Am. Jur. 2d, A.L.R. and C.J.S. references. — 2 Am. Jur. 2d Administrative Law §§ 277 to 286.

73 C.J.S. Public Administrative Bodies and Procedure §§ 92 to 98, 130 to 138.

71-5-17.1. Rules of procedure in hearings; manner of giving notice; record of rules, regulations and orders.

The division shall prescribe its rules of order or procedure in hearings or other proceedings before it under the Geothermal Resources Conservation Act. Any notice required to be given under that act or under any rule, regulation or order prescribed by the commission or division shall be by personal service on the person affected, or by publication once in a newspaper of general circulation published at Santa Fe and once in a newspaper of general

circulation published in the county, or each of the counties if there is more than one, in which any land, geothermal resources or other property which may be affected shall be situated. The notice shall issue in the name of "the state of New Mexico" and shall be signed by the director of the division, and the seal of the commission shall be impressed thereon, and it shall specify the number and style of the case, and the time and place of hearing, shall briefly state the general nature of the order or regulation contemplated by the division on its own motion or sought in a proceeding brought before the commission or division, the name of the petitioner or applicant and, unless the order, rule or regulation is intended to apply to and affect the entire state, it shall specify or generally describe the common source or sources of supply that may be affected by such order, rule or regulation. Personal service thereof may be made by any agent of the division or by any person over the age of eighteen years in the same manner as is provided by law for the service of summons in civil actions in the district courts of this state. Such service shall be complete at the time of such personal service or on the date of such publication, as the case may be. Proof of service shall be the affidavit of the person making personal service or of the publisher of the newspaper in which publication is had, as the case may be. All rules, regulations and orders made by the commission or division shall be entered in full by the director thereof in a book to be kept for such purpose by the division, which shall be a public record and open to inspection at all times during reasonable office hours. A copy of any rule, regulation or order, certified by the director of the division under the seal of the commission, shall be received in evidence in all courts of the state with the same effect as the original.

History: 1978 Comp., § 71-5-17.1, enacted by Laws 1979, ch. 326, § 1.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

71-5-17.2. Subpoena power; immunity of natural persons required to testify.

The commission or any member thereof, or the director of the division or his authorized representative, may subpoena witnesses, require their attendance and giving of testimony before it and require the production of books, papers and records in any proceeding before the commission or the division. No person shall be excused from attending and testifying or from producing books, papers and records before the commission or the division, or from complying with a subpoena, in any hearing, investigation or proceeding held by or before the commission or division or in any cause or proceeding in any court by or against the commission or division, relative to matters within the jurisdiction of the commission or division, on the ground or for the reason that the testimony or evidence, documentary or otherwise, required of him may tend to incriminate him or subject him to a penalty or forfeiture; provided that nothing herein contained shall be construed as requiring any person to produce any books, papers or records, or to testify in response to any inquiry, not pertinent to some question lawfully before the commission or division or court for determination. No natural person shall be subjected to criminal prosecution or to any penalty or forfeiture for any transaction, matter or thing concerning which he may be required to testify or produce evidence, documentary or otherwise, before the commission or division, or in compliance with a subpoena or in any cause or proceeding; provided, that no person testifying shall be exempted from prosecution and punishment for perjury committed in so testifying.

History: 1978 Comp., § 71-5-17.2, enacted by Laws 1979, ch. 326, § 2.

71-5-17.3. Failure or refusal to comply with subpoena; refusal to testify; contempt.

In case of failure or refusal on the part of any person to comply with any subpoena issued by the commission or any member thereof, or the director of the division or his authorized representative, or on the refusal of any witness to testify or answer as to any matters regarding which he may be lawfully interrogated, any district court, on the application of the commission or division, may issue an order and compel the person to comply with the subpoena and to attend before the commission or division and produce such documents and give his testimony upon such matters as may be lawfully required.

History: 1978 Comp., § 71-5-17.3, enacted by Laws 1979, ch. 326, § 3.

71-5-17.4. Perjury; punishment.

If any person of whom an oath shall be required under the provisions of the Geothermal Resources Conservation Act, or by any rule, regulation or order of the commission or division, shall willfully swear falsely in regard to any matter or thing respecting which such oath is required, or shall willfully make any false report or affidavit required or authorized by the provisions of the Geothermal Resources Conservation Act or by any rule, regulation or order of the commission or division, such person shall be guilty of a felony and, upon conviction, shall be imprisoned for not more than five years nor less than six months.

History: 1978 Comp., § 71-5-17.4, enacted by Laws 1979, ch. 326, § 4.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

71-5-17.5. Additional powers of commission or division; hearings before examiner; hearings de novo.

In addition to the powers and authority, either express or implied, granted to the oil conservation commission or division, the division may, in prescribing its rules of order or procedure in connection with hearings or other proceedings before the division, provide for the appointment of one or more examiners to be members of the staff of the division to conduct hearings with respect to matters properly coming before the division and to make reports and recommendations to the director of the division with respect thereto. Any member of the commission or the director of the division or his authorized representative may serve as an examiner. The division shall promulgate rules and regulations with regard to hearings to be conducted before examiners, and the powers and duties of the examiners in any particular case may be limited by order of the division to particular issues or to the performance of particular acts. In the absence of any limiting order, an examiner appointed to hear any particular case may regulate all proceedings before him and perform all acts and take all measures necessary or proper for the efficient and orderly conduct of the hearing, including the swearing of witnesses, [and] receiving of testimony and exhibits offered in evidence subject to objections as may be imposed, and shall cause a complete record of the proceeding to be made and transcribed and shall certify the same to the director of the division for consideration together with the report of the examiner and his recommendations in connection therewith. The director of the division shall base the decision rendered in any matter or proceeding heard by an examiner upon the transcript of testimony and record made by or under the supervision of the examiner in connection with the proceeding, and the decision shall have the same force and effect as if the hearing had been conducted before the director of the division. When any matter or proceeding is referred to an examiner and a decision is rendered thereon, any party of record adversely affected may have the matter heard de novo before the commission upon application filed with the division within thirty days from the time the decision is rendered.

History: 1978 Comp., § 71-5-17.5, enacted by Laws 1979, ch. 326, § 5; 1981, ch. 63, § 3.

The 1981 amendment inserted "of record" following "party" near the middle of the last sentence.

Effective dates. — Laws 1981, ch. 63, contains no effective date provision, but was enacted at the session which adjourned on March 21, 1981. See N.M. Const., art. IV, § 23.

71-5-18. Rehearings; appeals.

A. Within twenty days after entry of any order or decision of the division, any party of record adversely affected thereby may file with the commission an application for rehearing in respect of any matter determined by such order or decision, setting forth the respect in which such order or decision is believed to be erroneous. The commission shall grant or refuse any such application in whole or in part within ten days after the same is filed, and failure to act thereon within such period shall be deemed a refusal thereof and a final disposition of such application. In the event the rehearing is granted, the commission may enter such new order or decision after rehearing as may be required under the circumstances.

B. Any party of record to such rehearing proceeding dissatisfied with the disposition of the application for rehearing may appeal therefrom to the district court of the county wherein is located any property of such party affected by the decision by filing a petition for the review of the action of the commission within twenty days after the entry of the order following rehearing or after the refusal of rehearing as the case may be. Such petition shall state briefly the nature of the proceedings before the commission or division and shall set forth the order or decision of the commission or division complained of and the grounds in invalidity thereof upon which the applicant will rely; provided, however, that the questions reviewed on appeal shall be only questions presented to the commission by the application for rehearing. Notice of such appeal shall be served upon the adverse party or parties and the commission in the manner provided for the service of summons in civil proceedings. The trial upon appeal shall be without a jury, and the transcript of proceedings before the commission or division, including the evidence taken in hearings by the commission or division, shall be received in evidence by the court in whole or in part upon offer by either party, subject to legal objections to evidence. The commission or division action complained of shall be prima facie valid and the burden shall be upon the party or parties seeking review to establish the invalidity of such action of the commission or division. The court shall determine the issues of fact and of law and shall enter its order either affirming or vacating the order of the commission or division. Appeals may be taken from the judgment or decision of the district court to the supreme court in the same manner as provided for appeals from any other final judgment entered by a district court in this state. The trial of such application for relief from action of the commission or division and the hearing of any appeal to the supreme court from the action of the district court shall be expedited to the fullest possible extent.

C. The pendency of proceedings to review shall not of itself stay or suspend operation of the order or decision being reviewed, but during the pendency of such proceedings, the district court in its discretion may, upon its own motion or upon proper application of any party thereto, stay or suspend, in whole or in part, operation of the order or decision pending review thereof, on such terms as the court deems just and proper and in accordance with the practice of courts exercising equity jurisdiction; provided, that the court, as a condition to any such staying or suspension of operation of any order or decision, may require that one or more parties secure, in such form and amount as the court may deem just and proper, one or more other parties against loss or damage due to the staying or suspension of the commission's or division's order or decision, in the event that the action of the commission or division shall be affirmed.

D. The applicable rules of practice and procedure in civil cases for the courts of this state shall govern the proceedings for review and any appeal therefrom to the supreme court of this state to the extent such rules are consistent with provisions of the Geothermal Resources Conservation Act.

History: 1953 Comp., § 65-11-18, enacted by Laws 1975, ch. 272, § 18; 1977, ch. 255, § 86; 1981, ch. 63, § 4.

The 1981 amendment substituted "party of record adversely" for "person" near the beginning of the first sentence of Subsection A, inserted "of record" near the beginning of the first sentence of Subsection B, substituted "the" for "said" preceding "order or decision pending review thereof" near the middle of Subsection C and inserted "and" preceding "any appeal therefrom" near the middle of Subsection D.

Effective dates. — Laws 1981, ch. 63, contains no effective date provision, but was enacted at the session which adjourned on March 21, 1981. See N.M. Const., art. IV, § 23.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

Am. Jur. 2d, A.L.R. and C.J.S. references. — 2 Am. Jur. 2d Administrative Law §§ 520, 535 to 538, 553 to 556, 717 to 720, 738.

Effect of court review of administrative decisions, 79 A.L.R.2d 1141.

73 C.J.S. Public Administrative Bodies and Procedure §§ 156 to 159, 160 to 173.

71-5-19. Temporary restraining order or injunction; grounds; hearing; bond.

A. No temporary restraining order or injunction of any kind shall be granted against the commission or the members thereof, or against the attorney general, or against any agent, employee or representative of the division restraining the commission, or any of its members, or the division or any of its agents, employees or representatives, or the attorney general, from enforcing any statute of this state relating to conservation of geothermal resources, or any of the provisions of the Geothermal Resources Conservation Act, or any rule, regulation or order made thereunder, except after due notice to the director of the division, and to all other defendants, and after a hearing at which it shall be clearly shown to the court that the act done or threatened is without sanction of law, or that the provision of the Geothermal Resources Conservation Act, or the rule, regulation or order complained of, is invalid, and that, if enforced against the complaining party, will cause an irreparable injury. With respect to an order or decree granting temporary injunctive relief, the nature and extent of the probable invalidity of the statute, or of any provision of the Geothermal Resources Conservation Act, or of any rule, regulation or order hereunder involved in such suit, must be recited in the order or decree granting the temporary relief, as well as a clear statement of the probable damage relied upon by the court as justifying temporary injunctive relief.

B. No temporary injunction of any kind, including a temporary restraining order against the commission or the members thereof, or the division or its agents, employees or representatives, or the attorney general, shall become effective until the plaintiff shall execute a bond to the state with sufficient surety in an amount to be fixed by the court reasonably sufficient to indemnify all persons who may suffer damage by reason of the violation pendente lite by the complaining party of the statute or the provisions of the Geothermal Resources Conservation Act or of any rule, regulation or order complained of. Any person so suffering damage may bring suit thereon before the expiration of six months after the statute, provision, rule, regulation or order complained of shall be finally held to be valid, in whole or in part, or such suit against the commission, or the members thereof, or the division, shall be finally dismissed. Such bond shall be approved by the judge of the court in which the suit is pending, and shall be for the use and benefit of all persons who may suffer damage by reason of the violation pendente lite of the statute, provision, rule, regulation or order complained of in such suit, and who may bring suit within the time prescribed by this section; and such bond shall be so conditioned. From time to time, on motion and with notice to the parties, the court may increase or decrease the amount of the bond and may require new or additional sureties, as the facts may warrant.

History: 1953 Comp., § 65-11-19, enacted by Laws 1975, ch. 272, § 19; 1977, ch. 255, § 87.

Cross-references. — As to injunctions and temporary restraining orders, see Rule 66, N.M.R. Civ. P.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

Am. Jur. 2d, A.L.R. and C.J.S. references. — 42 Am. Jur. 2d Injunctions §§ 186, 187, 189, 194, 310, 311, 314, 315.

Bond as prerequisite to issuance of temporary restraining order, 73 A.L.R.2d 854.

43A C.J.S. Injunctions §§ 114, 116, 126 to 129, 168 to 174, 241.

71-5-20. Actions for violations.

Whenever it shall appear that any person is violating, or threatening to violate, any statute of this state with respect to the conservation of geothermal resources, or any provision of the Geothermal Resources Conservation Act, or any rule, regulation or order made thereunder, the division through the attorney general, shall bring suit against such person in the county of the residence of the defendant, or in the county of the residence of any defendant if there be more than one defendant, or in the county where the violation is alleged to have occurred, for penalties, if any are applicable, and to restrain such person from continuing such violation or from carrying out the threat of violation. In such suit the division may obtain injunction, prohibitory and mandatory, including temporary restraining orders and temporary injunctions, as the facts may warrant, including, when appropriate, an injunction restraining any person from moving or disposing of illegal geothermal resources, or illegal geothermal resources product, and any or all such commodities, or funds derived from the sale thereof, may be ordered to be impounded or placed under the control of an agent appointed by the court if, in the judgment of the court, such action is advisable.

History: 1953 Comp., § 65-11-20, enacted by Laws 1975, ch. 272, § 20; 1977, ch. 255, § 88.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

71-5-21. Actions for damages; institution of actions for injunctions by private parties.

Nothing in the Geothermal Resources Conservation Act, contained or authorized, and no suit by or against the division, and no penalties imposed or claimed against any person for violating any statute of this state with respect to conservation of geothermal resources, or any provision of that act, or any rule, regulation or order issued hereunder, shall impair or abridge or delay any cause of action for damages which any person may have or assert against any person violating any statute of this state with respect to conservation of geothermal resources, or any provision of the Geothermal Resources Conservation Act, or any rule, regulation or order issued hereunder. Any person so damaged by the violation may sue for and recover such damages as he may be entitled to receive. In the event the division should fail to bring suit to enjoin any actual or threatened violation of any statute of this state with respect to the conservation of geothermal resources, or of any provision of this act [71-5-1 to 71-5-17, 71-5-18 to 71-5-22, 71-5-24 NMSA 1978], or of any rule, regulation or order made hereunder, then any person or party in interest adversely affected by such violation, and who has notified the division in writing of such violation or threat thereof and has requested the division to sue, may, to prevent any or further violation, bring suit for that purpose in the district court of any county in which the division could have brought suit. If, in such suit, the court holds that injunctive relief should be granted, then the division shall be made a party and shall be substituted for the person who brought the suit, and the injunction shall be issued as if the division had at all times been the complaining party.

History: 1953 Comp., § 65-11-21, enacted by Laws 1975, ch. 272, § 21; 1977, ch. 255, § 89.

Cross-references. — As to injunctions, see Rule 66, N.M.R. Civ. P.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

Am. Jur. 2d, A.L.R. and C.J.S. references. — 43A C.J.S. Injunctions § 129.

71-5-22. Violation of court order grounds for appointment of receiver.

The violation by any person of an order of the court relating to the operation of any geothermal resources well or wells, or of any geothermal transportation, storage or utilization facility, shall be sufficient ground for the appointment of a receiver with power to conduct operations in accordance with the order of the court.

History: 1953 Comp., § 65-11-22, enacted by Laws 1975, ch. 272, § 22.

Cross-references. — As to receivers, see Rule 66, N.M.R. Civ. P.

Am. Jur. 2d, A.L.R. and C.J.S. references. — 66 Am. Jur. 2d Receivers §§ 3 to 5.

75 C.J.S. Receivers § 7.

71-5-23. Violations of the Geothermal Resources Conservation Act; penalties.

A. Any person who knowingly and willfully violates any provision of the Geothermal Resources Conservation Act or any provision of any rule or order issued pursuant to that act shall be subject to a civil penalty of not more than two thousand five hundred dollars ($2,500) for each violation. For purposes of this subsection, in the case of a continuing violation, each day of violation shall constitute a separate violation. The penalties provided in this subsection shall be recoverable by a civil suit filed by the attorney general in the name and on behalf of the commission or the division in the district court of the county in which the defendant resides or in which any defendant resides if there be more than one defendant or in the district court of any county in which the violation occurred. The payment to [of] such penalty shall not operate to legalize any illegal geothermal resources or illegal product involved in the violation for which the penalty is imposed or relieve a person on whom the penalty is imposed from liability to any other person for damages arising out of such violation.

B. It is unlawful, subject to a criminal penalty of a fine of not more than five thousand dollars ($5,000) or imprisonment for a term not exceeding three years or both such fine and imprisonment, for any person to knowingly and willfully:

(1) violate any provision of the Geothermal Resources Conservation Act or any rule, regulation or order of the commission or the division issued pursuant to that act; or

(2) do any of the following for the purpose of evading or violating the Geothermal Resources Conservation Act or any rule, regulation or order of the commission or the division issued pursuant to that act:

(a) make any false entry or statement in a report required by the Geothermal Resources Conservation Act or by any rule, regulation or order of the commission or division issued pursuant to that act;

(b) make or cause to be made any false entry in any record, account or memorandum required by the Geothermal Resources Conservation Act or by any rule, regulation or order of the commission or division issued pursuant to that act;

(c) omit or cause to be omitted from any such record, account or memorandum full, true and correct entries; or

(d) remove from this state or destroy, mutilate, alter or falsify any such record, account or memorandum.

C. For the purposes of Subsection B of this section, each day of violation shall constitute a separate offense.

D. Any person who knowingly and willfully procures, counsels, aids or abets the commission of any act described in Subsection A or B of this section shall be subject to the same penalties as are prescribed therein.

History: 1978 Comp., § 71-5-23, enacted by Laws 1981, ch. 362, § 2.

Repeals and reenactments. — Laws 1981, ch. 362, § 2, repeals former 71-5-23 NMSA 1978 and enacts the above section, relating to the same subject matter.

Effective dates. — Laws 1981, ch. 362, contains no effective date provision, but was enacted at the session which adjourned on March 21, 1981. See N.M. Const., art. IV, § 23.

Repealing clauses. — Laws 1981, ch. 362, § 3, repeals 70-2-20 NMSA 1978.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

Am. Jur. 2d, A.L.R. and C.J.S. references. — 21 Am. Jur. 2d Criminal Law §§ 120 to 126.

23 C.J.S. Criminal Law §§ 786, 787.

71-5-24. Seizure and sale of illegal geothermal resources or illegal geothermal resources product; procedure.

A. Apart from, and in addition to, any other remedy or procedure which may be available to the division, or any penalty which may be sought against or imposed upon any person, with respect to violations relating to illegal geothermal resources or illegal geothermal resources product, [such resources] shall, exept [except] under such circumstances as are stated herein, be contraband and shall be seized and sold, and the proceeds applied as herein provided. Such sale shall not take place unless the court shall find in the proceeding provided in this section that the owner of such illegal geothermal resources or illegal geothermal resources product is liable, or in some proceeding authorized by the Geothermal Resources Conservation Act such owner has already been held to be liable, for penalty for having produced such illegal geothermal resources, or for having purchased or acquired such illegal geothermal resources or illegal geothermal resources product. Whenever the division believes that illegal geothermal resources or illegal geothermal resources product is subject to seizure and sale, as provided herein, it shall, through the attorney general, bring a civil action in rem for that purpose in the district court of the county where the commodity is found, or the action may be maintained in connection with any suit or cross-action for injunction or for penalty relating to any prohibited transaction involving such illegal geothermal resources or illegal geothermal resources product. Notice of the action in rem shall be given in conformity with the law or rule applicable to such proceeding. Any person or party in interest who may show himself to be adversely affected by any such seizure and sale shall have the right to intervene in said suit to protect his rights.

B. Whenever the pleading with respect to the forfeiture of illegal geothermal resources or illegal geothermal resources product shows ground for seizure and sale, and such pleading is verified or is supported by affidavit or affidavits, or by testimony under oath, the court shall order such commodity to be impounded or placed under the control, actual or constructive, of the court through an agent appointed by the court.

C. The judgment effecting the forfeiture shall provide that the commodity be seized, if not already under the control of the court, and that a sale be had in similar manner and with similar notice as provided by law or rule with respect to the sale of personal property under execution; provided, however, the court may order that the commodity be sold in specified lots or portions, and at specified intervals, instead of being sold at one time. Title to the amount sold shall pass as of the date of the seizure. The judgment shall provide for payment of the proceeds of the sale into the common school fund, after first deducting the costs in connection with the proceedings and the sale. The amount sold shall be treated as legal geothermal resources or legal geothermal resources product, as the case may be, in the hands of the purchaser, but the purchaser and the commodity shall be subject to all applicable laws and rules, regulations and orders with respect to further sale or purchase or acquisition, and with respect to the transportation, refining, processing or handling in any other way, of the commodity purchased.

D. Nothing in this section shall deny or abridge any cause of action a royalty owner, or any lien holder, or any other claimant, may have, because of the forfeiture of the illegal geothermal resources or illegal geothermal resources product, against the person whose act resulted in such forfeiture.

History: 1953 Comp., § 65-11-24, enacted by Laws 1975, ch. 272, § 24; 1977, ch. 255, § 91.

Cross-references. — As to service of process, see Rule 4, N.M.R. Civ. P. As to intervention, see Rule 24, N.M.R. Civ. P.

Emergency clauses. — Laws 1975, ch. 272, § 27, makes the act effective immediately. Approved April 10, 1975.

Severability clauses. — Laws 1975, ch. 272, § 26, provides for the severability of the act if any part or application thereof is held invalid.

Repealing clauses. — Laws 1975, ch. 272, § 25, repeals 65-3-11.2, 1953 Comp.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

Am. Jur. 2d, A.L.R. and C.J.S. references. — 36 Am. Jur. 2d Forfeitures and Penalties §§ 15 to 20, 36.

Conviction in criminal prosecution as bar to action for seizure, condemnation or forfeiture of property, 27 A.L.R.2d 1137.

Lawfulness of seizure of property as prerequisite to forfeiture action or proceeding, 8 A.L.R.3d 473.

79 C.J.S. Searches and Seizures §§ 115 to 117.

resources board," "taxation and revenue department" for "bureau of revenue" and "environmental improvement division of the health and environmental department" for "environmental improvement agency" in the second sentence; inserted "appointed for two-year terms" following "three members" in the last sentence; added "and shall serve at the pleasure of the governor" at the end of the last sentence; substituted "energy and minerals department" for "energy resources board" at the end of Subsection B and added Subsection D.

71-3-3. Federal lands action group; staff work.

The staff and research work shall be done under the supervision of the group, and shall be done by the energy and minerals department or by consultants selected by the group.

History: 1953 Comp., § 7-2A-3, enacted by Laws 1977, ch. 268, § 3; 1978, ch. 86, § 2.

The 1978 amendment substituted "energy and minerals department" for "energy resources board."

Effective date. — Laws 1978, ch. 86, § 3, makes the act effective on March 31, 1978.

Emergency clause. — Laws 1978, ch. 86, § 4, makes the act effective immediately. Approved February 27, 1978.

ARTICLE 4

Energy Research and Development

Sec.

71-4-5. Special fund created.

71-4-5. Special fund created.

There is created a special fund to be known as the "energy research and development fund." No money appropriated to this fund or accruing to it through gifts, grants or bequests, and no income earned on the fund, shall be transferred to another fund or encumbered or disbursed in any manner except as provided in the Energy Research and Development Act. The fund shall not revert at the end of a fiscal year. The energy research and development fund is appropriated to the department. Disbursements from the fund shall be made only upon warrant drawn by the secretary of the department of finance and administration pursuant to vouchers signed by the secretary of the energy and minerals department or his designated representative for paying the cost of research or development projects of merit and potential benefit to the state approved by the department.

History: 1953 Comp., § 65-12-3, enacted by Laws 1978, ch. 60, § 1.

Repeal and reenactment. — Laws 1978, ch. 60, § 1, repeals 65-12-3, 1953 Comp. (71-4-5 NMSA 1978), relating to the creation of a special fund, and enacts the above section.

Effective date. — Laws 1978, ch. 60, § 2, makes the act effective on March 31, 1978.

Emergency clause. — Laws 1978, ch. 60, § 3, makes the act effective immediately. Approved February 24, 1978.

Appropriation. — Laws 1978, ch. 111, § 1, appropriates $2,000,000 from the severance tax income fund to the energy research and development fund for expenditure pursuant to the Energy Research and Development Act and appropriates $500,000 from the severance tax income fund to the energy and minerals department, to be disbursed to the board of regents of New Mexico state university, for certain enumerated purposes relating to solar energy and provides that the unencumbered and unexpended balances shall not revert.

Laws 1980, ch. 30, § 1, appropriates $1,000,000 from the severance tax income fund to the energy research and development fund, for expenditure in the sixty-ninth and following fiscal years pursuant to the provisions of the Energy Research and Development Act, at least 75% of the expenditures to be expended for development and demonstration of projects having a practical application in New Mexico, and $600,000 to the energy and minerals department for disbursement to the board of regents of New Mexico state university for the development and coordination of solar research within the state. Any unencumbered or unexpended balances are not to revert.

Energy Research and Development Act. — See 71-4-1 NMSA 1978 and notes thereto.

ARTICLE 5

Geothermal Resources Conservation

Sec.

71-5-6. Commission's and division's powers and duties.

Sec.

71-5-17.1. Rules of procedure in hearings; manner of giving notice; record of rules, regulations

71-5-1. Short title.

Meaning of "this act". — Laws 1975, ch. 272, is presently compiled as 71-5-1 to 71-5-17, 71-5-18 to 71-5-24 NMSA 1978.

Law review. — For comment on geothermal energy and water law, see 19 Nat. Resources J. 445 (1979).

71-5-2. Purpose of act.

Law review. — For comment on geothermal energy and water law, see 19 Nat. Resources J. 445 (1979).

71-5-3. Definitions.

Law review. — For comment on geothermal energy and water law, see 19 Nat. Resources J. 445 (1979).

71-5-6. Commission's and division's powers and duties.

A. In addition to its other powers and duties, the division shall have, and is hereby given, jurisdiction over all matters relating to the conservation of geothermal resources and the prevention of waste of potash as a result of geothermal operations in this state. It shall have jurisdiction, authority and control of and over all persons, matters or things necessary or proper to enforce effectively the provisions of the Geothermal Resources Conservation Act or any other law of this state relating to the conservation of geothermal resources and the prevention of waste of potash as a result of geothermal operations. Provided, however, nothing in this section shall be construed to supersede the authority which any state department or agency has with respect to the management, protection and utilization of the state lands or resources under its jurisdiction.

B. The commission shall have concurrent jurisdiction and authority with the division to the extent necessary for the commission to perform its duties as required by the Geothermal Resources Conservation Act. In addition, any hearing on any matter may be held before the commission if the division director, in his discretion, determines that the commission shall hear the matter.

History: 1953 Comp., § 65-11-6, enacted by Laws 1975, ch. 272, § 6; 1977, ch. 255, § 75; 1979, ch. 175, § 2.

The 1979 amendment added the second sentence in Subsection B.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

Law review. — For comment on geothermal energy and water law, see 19 Nat. Resources J. 445 (1979).

71-5-8. Enumeration of powers.

Law review. — For comment on geothermal energy and water law, see 19 Nat. Resources J. 445 (1979).

71-5-10. Allocation of production.

Law review. — For comment on geothermal energy and water law, see 19 Nat. Resources J. 445 (1979).

71-5-11. Equitable allocation of production spacing; pooling.

Law review. — For comment on geothermal energy and water law, see 19 Nat. Resources J. 445 (1979).

71-5-17.1. Rules of procedure in hearings; manner of giving notice; record of rules, regulations and orders.

The division shall prescribe its rules of order or procedure in hearings or other proceedings before it under the Geothermal Resources Conservation Act. Any notice required to be given under that act or under any rule, regulation or order prescribed by the commission or division shall be by personal service on the person affected, or by publication once in a newspaper of general circulation published at Santa Fe and once in a newspaper of general circulation published in the county, or each of the counties if there is more than one, in which any land, geothermal resources or other property which may be affected shall be situated. The notice shall issue in the name of "the state of New Mexico" and shall be signed by the director of the division, and the seal of the commission shall be impressed thereon, and it shall specify the number and style of the case, and the time and place of hearing, shall briefly state the general nature of the order or regulation contemplated by the division on its own motion or sought in a proceeding brought before the commission or division, the name of the petitioner or applicant and, unless the order, rule or regulation is intended to apply to and affect the entire state, it shall specify or generally describe the common source or sources of supply that may be affected by such order, rule or regulation. Personal service thereof may be made by any agent of the division or by any person over the age of eighteen years in the same manner as is provided by law for the service of summons in civil actions in the district courts of this state. Such service shall be complete at the time of such personal service or on the date of such publication, as the case may be. Proof of service shall be the affidavit of the person making personal service or of the publisher of the newspaper in which publication is had, as the case may be. All rules, regulations and orders made by the commission or division shall be entered in full by the director thereof in a book to be kept for such purpose by the division, which shall be a public record and open to inspection at all times during reasonable office hours. A copy of any rule, regulation or order, certified by the director of the division under the seal of the commission, shall be received in evidence in all courts of the state with the same effect as the original.

History: 1978 Comp., § 71-5-17.1, enacted by Laws 1979, ch. 326, § 1.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

71-5-17.2. Subpoena power; immunity of natural persons required to testify.

The commission or any member thereof, or the director of the division or his authorized representative, may subpoena witnesses, require their attendance and giving of testimony before it and require the production of books, papers and records in any proceeding before the commission or the division. No person shall be excused from attending and testifying or from producing books, papers and records before the commission or the division, or from complying with a subpoena, in any hearing, investigation or proceeding held by or before the commission or division or in any cause or proceeding in any court by or against the commission or division, relative to matters within the jurisdiction of the commission or division, on the ground or for the reason that the testimony or evidence, documentary or otherwise, required of him may tend to incriminate him or subject him to a penalty or forfeiture; provided that nothing herein contained shall be construed as requiring any person to produce any books, papers or records, or to testify in response to any inquiry, not pertinent to some question lawfully before the commission or division or court for determination. No natural person shall be subjected to criminal prosecution or to any penalty or forfeiture for any transaction, matter or thing concerning which he may be required to testify or produce evidence, documentary or otherwise, before the commission or division, or in compliance with a subpoena or in any cause or proceeding; provided, that

no person testifying shall be exempted from prosecution and punishment for perjury committed in so testifying.

History: 1978 Comp., § 71-5-17.2, enacted by Laws 1979, ch. 326, § 2.

71-5-17.3. Failure or refusal to comply with subpoena; refusal to testify; contempt.

In case of failure or refusal on the part of any person to comply with any subpoena issued by the commission or any member thereof, or the director of the division or his authorized representative, or on the refusal of any witness to testify or answer as to any matters regarding which he may be lawfully interrogated, any district court, on the application of the commission or division, may issue an order and compel the person to comply with the subpoena and to attend before the commission or division and produce such documents and give his testimony upon such matters as may be lawfully required.

History: 1978 Comp., § 71-5-17.3, enacted by Laws 1979, ch. 326, § 3.

71-5-17.4. Perjury; punishment.

If any person of whom an oath shall be required under the provisions of the Geothermal Resources Conservation Act, or by any rule, regulation or order of the commission or division, shall willfully swear falsely in regard to any matter or thing respecting which such oath is required, or shall willfully make any false report or affidavit required or authorized by the provisions of the Geothermal Resources Conservation Act or by any rule, regulation or order of the commission or division, such person shall be guilty of a felony and, upon conviction, shall be imprisoned for not more than five years nor less than six months.

History: 1978 Comp., § 71-5-17.4, enacted by Laws 1979, ch. 326, § 4.

Geothermal Resources Conservation Act. — See 71-5-1 NMSA 1978 and notes thereto.

71-5-17.5. Additional powers of commission or division; hearings before examiner; hearings de novo.

In addition to the powers and authority, either express or implied, granted to the oil conservation commission or division, the division may, in prescribing its rules of order or procedure in connection with hearings or other proceedings before the division, provide for the appointment of one or more examiners to be members of the staff of the division to conduct hearings with respect to matters properly coming before the division and to make reports and recommendations to the director of the division with respect thereto. Any member of the commission or the director of the division or his authorized representative may serve as an examiner. The division shall promulgate rules and regulations with regard to hearings to be conducted before examiners, and the powers and duties of the examiners in any particular case may be limited by order of the division to particular issues or to the performance of particular acts. In the absence of any limiting order, an examiner appointed to hear any particular case may regulate all proceedings before him and perform all acts and take all measures necessary or proper for the efficient and orderly conduct of the hearing, including the swearing of witnesses, receiving of testimony and exhibits offered in evidence subject to objections as may be imposed, and shall cause a complete record of the proceeding to be made and transcribed and shall certify the same to the director of the division for consideration together with the report of the examiner and his recommendations in connection therewith. The director of the division shall base the decision rendered in any matter or proceeding heard by an examiner, upon the transcript of testimony and record made by or under the supervision of the examiner in connection with the proceeding, and the decision shall have the same force and effect as if the hearing had been conducted before the director of the division. When any matter or proceeding is

referred to an examiner and a decision is rendered thereon, any party adversely affected may have the matter heard de novo before the commission upon application filed with the division within thirty days from the time the decision is rendered.

History: 1978 Comp., § 71-5-17.5, enacted by Laws 1979, ch. 326, § 5.

ARTICLE 25

Coal Surfacemining

(Repealed by Laws 1979, ch. 291, § 38.)

69-25-1 to 69-25-21. Repealed.

Repeal. — Laws 1979, ch. 291, § 38, repeals 69-25-1 to 69-25-21 NMSA 1978, relating to coal surface mining. For present provisions, see 69-25A-1 to 69-25A-35 NMSA 1978.

ARTICLE 25A

Surface Mining

69-25A-1. Short title.

This act [69-25A-1 to 69-25A-35 NMSA 1978] may be cited as the "Surface Mining Act."

History: Laws 1979, ch. 291, § 1.

69-25A-2. Purpose of act.

It is the purpose of the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] to:

A. establish a program to protect society and the environment from the adverse effects of surface coal mining operations;

B. assure that the rights of surface landowners and other persons with a legal interest in the land or appurtenances thereto are fully protected against losses resulting from the improper conduct of such operations;

C. assure that surface mining operations are not conducted where reclamation as required by the Surface Mining Act is not feasible;

D. assure that surface coal mining operations are conducted in a manner which will protect the environment;

E. assure that adequate procedures are undertaken to reclaim surface areas as contemporaneously as possible with the surface coal mining operations;

F. assure that the coal supply essential to the nation's energy requirements and to its economic and social well-being is provided, and to strike a balance between protection of the environment and agricultural productivity and the nation's need for coal as an essential source of energy;

G. assure that appropriate procedures are provided for public participation in the development, revision and enforcement of regulations, standards, reclamation plans or programs established under the Surface Mining Act; and

H. establish a regulatory program appropriate to the terrain, climate, biologic, chemical and other physical conditions in areas subject to mining operations within New Mexico so that the primary governmental responsibility for developing, authorizing, issuing and enforcing regulations for surface mining and reclamation operations shall rest with the state, and so that New Mexico may assume exclusive jurisdiction over the regulation of surface coal mining and reclamation operations within this state, as contemplated by the federal Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. Sections 1201 - 1328 (1977).

History: Laws 1979, ch. 291, § 2.

69-25A-3. Definitions.

As used in the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978]:

A. "commission" means the coal surface mining commission;

B. "director," when used without further qualification, means the director of the mining and minerals division of the energy and minerals department or his designee;

C. "alluvial valley floors" means the unconsolidated stream-laid deposits holding streams where water availability is sufficient for subirrigation or flood irrigation agricultural activities, but does not include upland areas which are generally overlain by a thin veneer of colluvial deposits composed chiefly of debris from sheet erosion, deposits by unconcentrated runoff or slope wash, together with talus, other mass movement accumulation and windblown deposits;

D. "approximate original contour" means that surface configuration achieved by backfilling and grading of the mined area so that the reclaimed area, including any terracing or access roads, closely resembles the general surface configuration of the land prior to mining, and blends into and complements the drainage pattern of the surrounding terrain with all highwalls and spoil piles eliminated; water impoundments may be permitted where the director determines that they are in compliance with Paragraph (8) of Subsection B of Section 19 [69-25A-19 B(8) NMSA 1978] of the Surface Mining Act;

E. "imminent danger to the health and safety of the public" means the existence of any condition or practice, or any violation of a permit or other requirement of the Surface Mining Act, in a surface coal mining and reclamation operation, which condition, practice or violation could reasonably be expected to cause substantial physical harm to persons outside the permit area before such condition, practice or violation can be abated. A reasonable expectation of death or serious injury before abatement exists if a rational person, subjected to the same conditions or practices giving rise to the peril, would not expose himself to the danger during the time necessary for abatement;

F. "operator" means any person engaged in coal mining who removes or intends to remove more than two hundred fifty tons of coal from the earth by coal mining within twelve consecutive calendar months in any one location;

G. "other minerals" means clay, stone, sand, gravel, metalliferous and nonmetalliferous ores, and any other solid material or substances of commercial value excavated in solid form from natural deposits on or in the earth, exclusive of coal and those minerals which occur naturally in liquid or gaseous form;

H. "permit" means a permit to conduct surface coal mining and reclamation operations issued by the director pursuant to the Surface Mining Act;

I. "permit applicant" or "applicant" means a person applying for a permit;

J. "permit area" means the area of land indicated on the approved map submitted by the operator with his application, which area of land shall be covered by the operator's bond as required by Section 13 [69-25A-13 NMSA 1978] of the Surface Mining Act, and shall be readily identifiable by appropriate markers on the site;

K. "permittee" means a person holding a permit;

L. "person" means an individual, partnership, association, society, joint stock company, firm, company, corporation or other business organization;

M. the term "prime farmland" shall be defined by regulation of the commission after considering such factors as moisture availability, temperature regime, chemical balance, permeability, surface layer composition, susceptibility to flooding, erosion characteristics, history of use for intensive agricultural purposes and regulations issued by the United States secretary of agriculture;

N. "reclamation plan" means a plan submitted by an applicant for a permit which sets forth a plan for reclamation of the proposed surface coal mining operations pursuant to Section 12 [69-25A-12 NMSA 1978] of the Surface Mining Act;

O. "surface coal mining and reclamation operations" means surface coal mining operations and all activities necessary and incident to the reclamation of such operations after the date of enactment of the Surface Mining Act;

P. "surface coal mining operations" means:

(1) activities conducted on the surface of lands in connection with a surface coal mine or activities subject to the requirements of Section 20 [69-25A-20 NMSA 1978] of the Surface Mining Act relating to surface operations and surface impacts incident to an underground coal mine. Such activities include excavation for the purpose of obtaining coal, including such common methods as contour, strip, auger, mountaintop removal, box cut, open pit and area mining. These activities also include uses of explosives and blasting and in situ distillation or retorting, leaching or other chemical or physical processing, and the cleaning, concentrating or other processing or preparation, including loading of coal at or near the mine site. Provided, however, that such activities do not include the extraction of coal incidental to the extraction of other minerals where coal does not exceed sixteen and two-thirds percent of the tonnage of minerals removed for purposes of commercial use or sale or coal exploration subject to Section 16 [69-25A-16 NMSA 1978] of that act; and

(2) the areas upon which such activities occur or where such activities disturb the natural land surface. Such areas shall also include any adjacent land, the use of which is incidental to any such activities, all lands affected by the construction of new roads or the improvement or use of existing roads to gain access to the site of such activities and for haulage and excavations, workings, impoundments, dams, ventilation shafts, entryways, refuse banks, dumps, stockpiles, overburden piles, spoil banks, culm banks, tailings, holes or depressions, repair areas, storage areas, processing areas, shipping areas and other areas upon which are sited structures, facilities or other property or materials on the surface, resulting from or incident to such activities;

Q. "unwarranted failure to comply" means the failure of a permittee to prevent the occurrence of any violation of his permit or any requirement of the Surface Mining Act due to indifference, lack of diligence or lack of reasonable care, or the failure to abate any violation of such permit or the Surface Mining Act due to indifference, lack of diligence or lack of reasonable care; and

R. "lignite coal" means consolidated lignitic coal having less than eight thousand three hundred BTU's per pound, moisture and mineral matter free.

History: Laws 1979, ch. 291, § 3.
A.L.R. reference. — Validity and construction of statutes regulating strip mining, 86 A.L.R.3d 27.

69-25A-4. Coal surface mining commission; duties.

A. The "coal surface mining commission" is created. The commission shall consist of:

(1) the director of the bureau of mines and mineral resources or a member of his staff designated by him;

(2) the director of the department of game and fish or a member of his staff designated by him;

(3) the director of the environmental improvement division or a member of his staff designated by him;

(4) the chairman of the soil and water conservation commission or a member of his staff designated by him;

(5) the director of the agricultural experiment station of New Mexico state university or a member of his staff designated by him;

(6) the state engineer or a member of his staff designated by him; and

(7) the commissioner of public lands or a member of his staff designated by him.

B. The commission shall elect a chairman and other necessary officers and keep records of its proceedings.

C. The commission shall convene upon the call of the chairman or a majority of its members.

D. A majority of the commission is a quorum for the transaction of business. However, no action of the commission is valid unless concurred in by at least three of the members present.

E. The commission shall perform those duties as specified in the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] relating to the promulgation of regulations and as specified in Section 29 [69-25A-29 NMSA 1978] of that act relating to appeals from the decisions of the director.

History: Laws 1979, ch. 291, § 4.

Effective date. — Laws 1979, ch. 291, contains no effective date provision, but was enacted at a session which adjourned on March 17, 1979. See N.M. Const., art. IV, § 23.

State engineer. — The "state engineer" is the director of the water resources division of the natural resources department. See 72-2-1 NMSA 1978.

Am. Jur. 2d and C.J.S. references. — 54 Am. Jur. 2d Mines and Minerals § 173.

58 C.J.S. Mines and Minerals § 229.

69-25A-5. Regulations.

A. The commission shall adopt and file such reasonable regulations as are necessary to implement the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] and as are consistent with that act. Such regulations shall be concise and written in plain, understandable language and shall include regulations governing surface coal mining and the issuance of permits during the interim period following the effective date of that act and preceding the date which occurs eight months following the date upon which that act is approved as a part of a state program within the meaning of Section 503 of the federal Surface Mining Control and Reclamation Act of 1977, 30 U.S.C., Section 1253 (1977). In promulgating the interim regulations, the commission shall consider existing federal law relating to surface coal mining operations. The interim regulations shall govern surface coal mining operations of applicants and permittees during the interim period or until a permittee receives a permit issued pursuant to the Surface Mining Act which shall be valid beyond the interim period. Such regulations shall provide that permits issued during such interim period may be permits either as defined in Section 3 [69-25A-3 NMSA 1978] of the Surface Mining Act or as were previously issued pursuant to Laws 1972, Chapter 68, as amended, and regulations issued pursuant to such laws. Such permits shall be subject to performance standard regulations promulgated pursuant to the Surface Mining Act.

B. Except for the persons having a permit to which Section 9 [69-25A-9 NMSA 1978] of the Surface Mining Act is applicable, no person shall engage in or carry out any surface coal mining operations during the interim period unless such person has first obtained a permit issued by the director pursuant to regulations promulgated for the interim period under Subsection A of this section.

History: Laws 1979, ch. 291, § 5.

Effective date. — Laws 1979, ch. 291, contains no effective date provision, but was enacted at the session which adjourned on March 17, 1979. See N.M. Const., art. IV, § 23.

Compiler's note. — Laws 1972, Chapter 68, referred to in the fifth sentence in Subsection A, was formerly compiled as 69-25-1, 69-25-3 to 69-25-21 NMSA 1978 and was repealed by Laws 1979, ch. 291, § 38.

Am. Jur. 2d and C.J.S. references. — 54 Am. Jur. 2d Mines and Minerals §§ 172, 173.

58 C.J.S. Mines and Minerals § 229.

69-25A-6. Procedure for adopting regulations.

A. No regulation may be adopted, amended or repealed without a public hearing before the commission or a hearing officer designated by the commission.

B. The public hearing shall be held in Santa Fe and a verbatim record shall be maintained of all proceedings. Notice of the subject, time and place of the hearing, the manner in which interested persons may present their views, and the method by which copies of the proposed regulation or amendment may be obtained shall be:

(1) published at least thirty days prior to the hearing date in a newspaper of general circulation in the state; and

(2) mailed at least thirty days prior to the hearing date to all persons who have made a written request for advance notice of hearings.

C. The commission shall allow all interested persons a reasonable opportunity to submit arguments and to examine witnesses testifying at the hearing.

D. The commission may designate a hearing officer to take evidence at the hearing.

E. Any person appearing or represented at the hearing shall, upon written request, be given written notice of the commission's action on the proposed adoption, amendment or repeal of a regulation.

F. No regulation, its amendment or repeal shall be effective until thirty days after it is filed, as required under the State Rules Act [14-3-24, 14-3-25, 14-4-1 to 14-4-9 NMSA 1978].

History: Laws 1979, ch. 291, § 6.

69-25A-7. Petition to initiate regulations.

A. After the commission has adopted the regulations required by the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978], any person may petition the commission to initiate a proceeding for the issuance, amendment or repeal of a rule under that act.

B. Such petitions shall be filed with the chairman of the commission and shall set forth the facts which it is claimed establish that it is necessary to issue, amend or repeal a regulation under the Surface Mining Act.

C. The commission may hold a public hearing or may conduct such investigation or proceeding as the commission deems appropriate in order to determine whether or not such petition should be granted.

D. Within ninety days after the filing of a petition described in Subsection A of this section, the commission shall either grant or deny the petition. If the commission grants such petition, the commission shall promptly commence an appropriate proceeding in accordance with the provisions of the Surface Mining Act. If the commission denies such petition, the commission shall so notify the petitioner in writing setting forth the reasons for such denial.

History: Laws 1979, ch. 291, § 7.

69-25A-8. Director; duties.

The director shall perform all duties specified in the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] to be performed by the director and shall exercise all powers of enforcement and administration arising under that act not otherwise expressly delegated to the commission. The director shall execute and administer the commission's regulations. The director shall coordinate his review and issuance of permits for surface coal mining

and reclamation with any other state or federal permit process applicable to the proposed operations. Provided, that nothing in that act shall be construed to supersede the authority which any state department or agency has with respect to the management, protection and utilization of the state lands and resources under its jurisdiction.

History: Laws 1979, ch. 291, § 8.
Am. Jur. 2d and C.J.S. references. — 54 Am. Jur. 2d Mines and Minerals § 173.
58 C.J.S. Mines and Minerals § 229.

69-25A-9. General provisions pertaining to permits.

A. No later than eight months from the date on which the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] is approved as part of a state program within the meaning of Section 503 of the federal Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. Section 1253 (1977), no person shall engage in or carry out any surface coal mining operations unless such person has first obtained a permit issued by the director pursuant to Section 14 [69-25A-14 NMSA 1978] of the Surface Mining Act; provided, that a person conducting surface coal mining operations under a permit issued pursuant to Laws 1972, Chapter 68, as amended in effect upon the effective date of the Surface Mining Act or issued prior to the approval of a state program may conduct such operations beyond such period if an application for a permit has been filed in accordance with the provisions of that act, and the initial administrative decision has not been rendered.

B. All permits issued pursuant to the requirements of the Surface Mining Act shall be issued for a term not to exceed five years; provided, that if the applicant demonstrates that a specified longer term is reasonably needed to allow the applicant to obtain necessary financing for equipment and the opening of the operation and if the application is full and complete for such specified longer term, the director may grant a permit for the longer term. A successor in interest to a permittee who applies for a new permit within thirty days of succeeding to such interest and who is able to obtain the bond coverage of the original permittee may continue surface coal mining and reclamation operations according to the approved mining and reclamation plan of the original permittee until the successor's application is granted or denied.

C. A permit shall terminate if the permittee has not commenced the surface coal mining operations covered by such permit within three years of the issuance of the permit; provided, that the director may grant reasonable extensions of time upon a showing that such extensions are necessary by reason of litigation precluding such commencement or threatening substantial economic loss to the permittee, or by reason of conditions beyond the control and without the fault or negligence of the permittee. Provided further, that with respect to coal to be mined for use in a synthetic fuel facility or specific major electric generating facility, the permittee shall be deemed to have commenced surface coal mining operations at such time as the construction of the synthetic fuel or generating facility is initiated.

D. Any valid permit issued pursuant to the Surface Mining Act shall carry with it the right of successive renewal upon expiration with respect to areas within the boundaries of the existing permit. The permittee may apply for renewal and the renewal shall be issued (provided that on application for renewal the burden shall be on the opponents of renewal), subsequent to fulfillment of the public notice requirements of Sections 17 and 18 [69-25A-17 and 69-25A-18 NMSA 1978] of that act unless it is established that and [any] written findings by the director are made that:

(1) the terms and conditions of the existing permit are not being satisfactorily met;

(2) the present surface coal mining and reclamation operation is not in compliance with the environmental protection standards of the Surface Mining Act or regulations promulgated thereunder;

(3) the renewal requested substantially jeopardizes the operator's continuing responsibility on existing permit areas;

(4) the operator has not provided evidence that the performance bond in effect for the operation will continue in full force and effect for any renewal requested in the application as well as any additional bond the director might require pursuant to Section 13 [69-25A-13 NMSA 1978] of the Surface Mining Act; or

(5) any additional revised or updated information required by the director has not been provided. Prior to the approval of any renewal of permit, the director shall provide notice to the appropriate public authorities.

E. If an application for renewal of a valid permit includes a proposal to extend the mining operation beyond the boundaries authorized in the existing permit, the portion of the application for renewal of a valid permit which addresses any new land areas shall be subject to the full standards applicable to new applications under the Surface Mining Act. Provided, that if the surface coal mining operations authorized by a permit issued pursuant to that act were not subject to the standards contained in Subparagraphs (a) and (b) of Paragraph (5) of Subsection B of Section 14 [69-25A-14 B(5)(a) and (b) NMSA 1978] of that act by reason of complying with the proviso of Paragraph (5) of Subsection B of Section 14 [69-25A-14 B(5) NMSA 1978] of that act, then the portion of the application for renewal of the permit which addresses any new land areas previously identified in the reclamation plan submitted pursuant to Section 12 [69-25A-12 NMSA 1978] of that act shall not be subject to the standards contained in such subparagraphs.

F. Any permit renewal shall be for a term not to exceed the period of the original permit established by the Surface Mining Act. Application for permit renewal shall be made at least one hundred twenty days prior to the expiration of the valid permit.

History: Laws 1979, ch. 291, § 9.

Effective date. — Laws 1979, ch. 291, contains no effective date provision, but was enacted at the session which adjourned on March 17, 1979. See N.M. Const., art. IV, § 23.

Compiler's note. — Laws 1972, Chapter 68, referred to in Subsection A, was formerly compiled as 69-25-1, 69-25-3 to 69-25-21 NMSA 1978 and was repealed by Laws 1979, ch. 291, § 38.

Am. Jur. 2d and C.J.S. references. — 54 Am. Jur. 2d Mines and Minerals § 173.

58 C.J.S. Mines and Minerals § 229.

69-25A-10. Permit application requirements.

A. Each application for a surface coal mining and reclamation permit pursuant to the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] shall be accompanied by a fee as determined by regulation of the commission. Such fee may be less than but shall not exceed the actual or anticipated cost of reviewing, administering and enforcing the permit. All fees collected by the director shall be deposited with the state treasurer to be placed in a special fund and are appropriated for expenditure by the director in administering that act. The director may develop procedures so as to enable the cost of the fee to be paid over the term of the permit.

B. The permit application shall be submitted in a manner satisfactory to the director and shall contain, among other things:

(1) the names and addresses of the permit applicant, every legal owner of record of the property (surface and mineral) to be mined, the holders of record of any leasehold interest in the property, any purchaser of record of the property under a real estate contract, the operator, if he is a person different from the applicant, and, if any of these are business entities other than a single proprietor, the names and addresses of the principals, officers and resident agent;

(2) the names and addresses of the owners of record of all surface and subsurface areas adjacent to any part of the permit area;

(3) a statement of any current or previous surface coal mining permits in the United States held by the applicant and the permit identification and each pending application;

(4) if the applicant is a partnership, corporation, association or other business entity, the following where applicable: the names and addresses of every officer, partner, director or person performing a function similar to a director of the applicant, together with the name and address of any person owning, of record, ten percent or more of any class of voting

stock of the applicant, and a list of all names under which the applicant, partner or principal shareholder previously operated a surface coal mining operation within the United States within the five-year period preceding the date of submission of the application;

(5) a statement of whether the applicant, any subsidiary, affiliate or persons controlled by or under common control with the applicant, has ever held a federal or state mining permit which, in the five-year period prior to the date of submission of the application, has been suspended or revoked or has had a mining bond or similar security deposited in lieu of bond forfeited and, if so, a brief explanation of the facts involved;

(6) a copy of the applicant's advertisement to be published in a newspaper of general circulation in the locality of the proposed site at least once a week for four successive weeks, and which includes the ownership, a description of the exact location and boundaries of the proposed site sufficient so that the proposed operation is readily locatable by local residents, and the location of where the application is available for public inspection;

(7) a description of the type and method of coal mining operation that exists or is proposed, the engineering techniques proposed or used and the equipment used or proposed to be used;

(8) the anticipated or actual starting and termination dates of each phase of the mining operation and number of acres of land to be affected;

(9) an accurate map or plan, to an appropriate scale, clearly showing the land to be affected as of the date of the application, the area of land within the permit area upon which the applicant has the legal right to enter and commence surface mining operations, and a statement of those documents upon which the applicant bases his legal right to enter and commence surface mining operations on the area affected and whether that right is the subject of pending court litigation. Provided, that nothing in the Surface Mining Act shall be construed as vesting in the director or the commission the jurisdiction to adjudicate property title disputes;

(10) the name of the watershed and location of any surface stream or tributary into which surface and pit drainage will be discharged;

(11) a determination of the probable hydrologic consequences of the mining and reclamation operations, both on and off the mine site, with respect to the hydrologic regime, quantity and quality of water in surface and ground water systems, including the dissolved and suspended solids under seasonal flow conditions, and the collection of sufficient data for the mine site and surrounding areas so that an assessment can be made by the director of the probable cumulative impacts of all anticipated mining in the area upon the hydrology of the area and particularly upon water availability. Provided, that this determination shall not be required until such time as hydrologic information on the general area prior to mining is made available from an appropriate federal or state agency. Provided, that the permit shall not be approved until such information or comparable information developed by either a professional engineer registered in New Mexico or a professional hydrologist is available and is incorporated into the application;

(12) when requested by the director, the climatological factors that are peculiar to the locality of the land to be affected, including the average seasonal precipitation, the average direction and velocity of prevailing winds and the seasonal temperature ranges;

(13) accurate maps to an appropriate scale clearly showing the land to be affected as of the date of application and all types of information set forth on topographical maps of the United States geological survey of a scale of 1:24,000 or 1:25,000 or larger, including all manmade features and significant known archaeological sites existing on the date of application. Such a map or plan shall, among other things specified by the director, show all boundaries of the land to be affected, the boundary lines and names of present owners of record of all surface areas abutting the permit area, and the location of all buildings within one thousand feet of the permit area;

(14) cross-section maps or plans of the land to be affected, including the actual area to be mined, prepared by or under the direction of and certified by a qualified professional engineer registered in New Mexico, with assistance from experts in related fields such as

geology, land surveying and landscape architecture, showing pertinent elevation and location of test borings or core samplings and depicting the following information:

(a) the nature and depth of the various strata of overburden;

(b) the location of subsurface water, if encountered, and its quality;

(c) the nature and thickness of any coal or rider seam above the coal seam to be mined;

(d) the nature of stratum immediately beneath the coal seam to be mined;

(e) all mineral crop lines and the strike and dip of the coal to be mined within the area of land to be affected;

(f) existing or previous surface mining limits;

(g) the location and extent of known workings of any underground mines, including mine openings to the surface;

(h) the location of aquifers;

(i) the estimated elevation of the water table;

(j) the location of spoil, waste or refuse areas and topsoil preservation areas;

(k) the location of all impoundments for waste or erosion control;

(l) any settling or water treatment facility; constructed or natural drainways and the location of any discharges to any surface body of water on the area of land to be affected or adjacent thereto; and

(m) profiles at appropriate cross sections of the anticipated final surface configuration that will be achieved pursuant to the operator's proposed reclamation plan;

(15) a statement of the result of test borings or core samplings from the permit area, including logs of the drill holes; the thickness of the coal seam found and analysis of the chemical properties of such coal; the sulfur content of any coal seam; chemical analysis of potentially acid or toxic forming sections of the overburden; and chemical analysis of the stratum lying immediately underneath the coal to be mined, except that the provisions of this paragraph may be waived by the director with respect to the specific application by a written determination that such requirements are unnecessary;

(16) for those lands in the permit application which a reconnaissance inspection suggests may be prime farmlands, a soil survey shall be made or obtained according to regulations of the commission promulgated after consideration of standards established by the United States secretary of agriculture in order to confirm the exact location of such prime farmlands, if any; and

(17) information pertaining to coal seams, test borings, core samplings or soil samples as required by this section shall be made available to any person with an interest which is or may be adversely affected. Provided, that information which pertains only to the analysis of the chemical and physical properties of the coal (excepting information regarding such mineral or elemental content which is potentially toxic in the environment) shall be kept confidential and not made a matter of public record.

C. Upon a determination by the director that the anticipated annual production from all coal mining activities of an applicant will not exceed one hundred thousand tons, the determination of probable hydrologic consequences required by Paragraph (11) of Subsection B of this section and the statement of the result of test borings or core samplings required by Paragraph (15) of Subsection B of this section shall, upon the written request of the applicant, be performed by a qualified public or private laboratory designated by the director and the cost of the preparation of the determination and statement shall be paid for by [the] energy and minerals department.

D. Each applicant for a permit shall submit to the director as part of the permit application a reclamation plan which shall meet the requirements of Section 12 [69-25A-12 NMSA 1978] of the Surface Mining Act.

E. Each applicant for a permit shall file a copy of his application for public inspection with the county clerk of the county or an appropriate public office approved by the director where the mining is proposed to occur, except for that information pertaining to the coal seam itself.

F. Each applicant for a permit shall submit to the director as part of the permit application a blasting plan which shall outline the procedures and standards by which the operator will meet the provisions of Paragraph (15) of Subsection B of Section 19 [69-25A-19 B (15) NMSA 1978] of the Surface Mining Act.

G. Each applicant for a permit shall submit to the director a certificate of insurance or evidence of self-insurance as required by Section 11 [69-25A-11 NMSA 1978] of the Surface Mining Act.

History: Laws 1979, ch. 291, § 10.

Am. Jur. 2d, A.L.R. and C.J.S. references. — 54 Am. Jur. 2d Mines and Minerals §§ 172, 173.

Statutory or contractual obligation to restore surface after strip or surface mining, 1 A.L.R.2d 575.

58 C.J.S. Mines and Minerals § 229.

69-25A-11. Public liability and self-insurance requirements.

A. Each applicant for a permit shall submit to the director as part of the permit application a certificate issued by an insurance company authorized to do business in the United States certifying that the applicant has a public liability policy in force for the surface coal mining and reclamation operations for which the permit is sought. The policy shall provide for personal injury and property damage protection in the amount required by Subsection C of this section.

B. The director may waive the requirement of Subsection A of this section, or may reduce the amount of such insurance, if the applicant demonstrates to the satisfaction of the director the existence of a suitable agent to receive service of process in New Mexico and a history of financial solvency and continuous operation, within or without New Mexico, sufficient for authorization to self-insure all or part of the amount required by Subsection C of this section; or the existence of other insurance maintained by the applicant and arising from an insurance exchange such as Lloyd's of London, a mutual insurance association or a reciprocal insurance association, provided that such other insurance coverage be legally enforceable within New Mexico, notwithstanding that some or all member companies of such associations or exchanges may not be companies authorized to do business in the United States within the meaning of Subsection A of this section. The director may require periodic review of the coverage maintained by the applicant pursuant to this subsection following issuance of a permit involving a waiver of the requirements of Subsection A of this section.

C. The policy or undertaking of self-insurance or other coverage, or the total of such coverage, shall be in an amount determined by the director to be an amount adequate to compensate any persons damaged as a result of surface coal mining and reclamation operations, including use of explosives, and entitled to compensation under state law. In determining such amount, the director shall take into account the liability record of the applicant, the nature and size of the applicant's proposed operation and the location of the permit area relative to areas of public access. Such coverage shall be maintained in full force and effect during the terms of the permit and any renewal, including the length of all reclamation operations. A certificate of such insurance, if any, shall be submitted to the director with the application.

D. This section shall have no effect upon the New Mexico Occupational Disease Disablement Law and the Workmen's Compensation Act [52-1-1 to 52-1-69 NMSA 1978] and shall not be construed to give to workmen any cause of action barred by such laws, it being the intent of this section to compensate persons not employed by the applicant.

History: Laws 1979, ch. 291, § 11.

Occupational Disease Disablement Law. — See 52-3-1 NMSA 1978 and notes thereto.

Am. Jur. 2d and A.L.R. references. — 54 Am. Jur. 2d Mines and Minerals § 172.

Statutory or contractual obligation to restore surface after strip or surface mining, 1 A.L.R.2d 575.

69-25A-12. Reclamation plan requirements.

A. Each reclamation plan submitted as part of a permit application shall include, in the degree of detail necessary to demonstrate that reclamation required by the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] can be accomplished, a statement of:

(1) the identification of the lands subject to surface coal mining operations over the estimated life of those operations and the size, sequence and timing of the subareas for which it is anticipated that individual permits for mining will be sought;

(2) the condition of the land to be covered by the permit prior to any mining including:

(a) the uses existing at the time of the application, and if the land has a history of previous mining, the uses which preceded any mining;

(b) the capability of the land prior to any mining to support a variety of uses giving consideration to soil and foundation characteristics, topography and vegetative cover, and, if applicable, a soil survey prepared pursuant to Section 10 [69-25A-10 NMSA 1978] of the Surface Mining Act; and

(c) the productivity of the land prior to mining, including appropriate classification as prime farmlands, as well as the average yield of food, fiber, forage or wood products from such lands obtained under high levels of management;

(3) the use which is proposed to be made of the land following reclamation, including a discussion of the utility and capacity of the reclaimed land to support a variety of alternative uses and the relationship of such use to existing land use policies and plans, and the comments of any owner of the surface, state and local governments or agencies thereof which would have to initiate, implement, approve or authorize the proposed use of the land following reclamation;

(4) a detailed description of how the proposed post-mining land use is to be achieved and the necessary support activities which may be needed to achieve the proposed land use;

(5) the engineering techniques proposed to be used in mining and reclamation and a description of the major equipment; a plan for the control of surface water drainage and of water accumulation; a plan, where appropriate, for backfilling, soil stabilization and compacting, grading and appropriate revegetation; a plan for soil reconstruction, replacement and stabilization, pursuant to the performance standards in Section 19 [69-25A-19 NMSA 1978] of the Surface Mining Act, for those food, forage and forest lands identified in Section 19 [69-25A-19 NMSA 1978] of the Surface Mining Act; an estimate of the cost per acre of the reclamation, including a statement as to how the permittee plans to comply with each of the requirements set out in Section 19 [69-25A-19 NMSA 1978] of the Surface Mining Act;

(6) the consideration which has been given to maximize the utilization and conservation of the solid fuel resource being recovered so that reaffecting the land in the future can be minimized;

(7) a detailed estimated timetable for the accomplishment of each major step in the reclamation plan;

(8) the consideration which has been given to making the surface mining and reclamation operations consistent with surface owner plans and applicable state and local land use plans and programs;

(9) the steps to be taken to comply with applicable air and water quality laws and regulations and any applicable health and safety standards;

(10) the consideration which has been given to developing the reclamation plan in a manner consistent with local physical environmental and climatological conditions;

(11) all lands, interests in lands or options on such interests held by the applicant or pending bids on interests in lands by the applicant, which lands are contiguous to the area to be covered by the permit;

(12) the results of test boring which the applicant has made at the area to be covered by the permit, or other equivalent information and data in a form satisfactory to the director, including the location of subsurface water and an analysis of the chemical properties, including acid forming properties of the mineral and overburden. Provided, that

information which pertains only to the analysis of the chemical and physical properties of the coal (excepting information regarding such mineral or elemental contents which are potentially toxic in the environment) shall be kept confidential and not made a matter of public record;

(13) a detailed description of the measures to be taken during the mining and reclamation process to assure the protection of:

(a) the quality of surface and ground water systems, both on- and off-site, from adverse effects of the mining and reclamation process;

(b) the rights of present users to such water; and

(c) the quantity of surface and ground water systems, both on- and off-site, from adverse effects of the mining and reclamation process or to provide alternative sources of water where such protection of quantity cannot be assured; and

(14) such other requirements as the commission shall prescribe by regulations.

B. Any information required by this section which is not on public file pursuant to state law shall be held in confidence by the director.

History: Laws 1979, ch. 291, § 12.

69-25A-13. Performance bonds.

A. After a surface coal mining and reclamation permit application has been approved but before the permit is issued, the applicant shall file with the director, on a form prescribed and furnished by the director, a bond for performance payable to the state, and conditioned upon faithful performance of all the requirements of the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] and the permit. The bond shall cover that area of land within the permit area upon which the operator will initiate and conduct surface coal mining and reclamation operations within the initial term of the permit. As succeeding increments of surface coal mining and reclamation operations are to be initiated and conducted within the permit area, the permittee shall file with the director an additional bond or bonds to cover such increments in accordance with this section. The amount of the bond required for each bonded area shall depend upon the reclamation requirements of the approved permit; shall reflect the probable difficulty of reclamation giving consideration of such factors as topography, geology of the site, hydrology and revegetation potential, and shall be determined by the director. The amount of the bond shall be sufficient to assure the completion of the reclamation plan if the work had to be performed by the director in the event of forfeiture, and in no case shall the bond for the entire area under one permit be less than ten thousand dollars ($10,000).

B. Liability under the bond shall be for the duration of the surface coal mining and reclamation operation and for a period coincident with the operator's responsibility for revegetation requirements in Section 19 [69-25A-19 NMSA 1978] of the Surface Mining Act. The bond shall be executed by the operator and a corporate surety licensed to do business in the state, except that the operator may elect to deposit cash, negotiable bonds of the United States government or the state or negotiable certificates of deposit of any bank organized or transacting business in the United States. The cash deposit or market value of such securities shall be equal to or greater than the amount of the bond required for the bonded area.

C. The director may accept the bond of the applicant itself without separate surety when the applicant demonstrates to the satisfaction of the director the existence of a suitable agent to receive service of process in New Mexico, and:

(1) a history of financial solvency and continuous operation within or without New Mexico sufficient for authorization to self-insure such amount;

(2) the existence of other corporate bond coverage maintained by the applicant and arising from an insurance exchange such as Lloyd's of London, a mutual insurance association or a reciprocal insurance association, provided that such other corporate coverage be legally enforceable within New Mexico, notwithstanding that some or all

member companies of such associations or exchanges may not be companies authorized to do business in the United States, provided that the director may require periodic review of the coverage maintained by the applicant pursuant to this provision following the issuance of a permit; or

(3) the existence of a letter of credit constituting a binding commitment to extend credit in such amount, issued by a national or state bank chartered to do business within the United States or within any one of the states. The letter of credit shall provide for payment to the state upon such conditions as the director shall make at the time of the granting of the permit, provided that no payment pursuant to such letter of credit shall be required prior to a hearing before the commission at which the operator shall have an opportunity to contest the requirement of payment, which hearing shall be held pursuant to the requirements of Section 29 [69-25A-29 NMSA 1978] of the Surface Mining Act.

D. Cash or securities so deposited shall be deposited upon the same terms as the terms upon which surety bonds may be deposited.

E. The amount of the bond or deposit required and the terms of each acceptance of the applicant's bond shall be adjusted by the director from time to time as affected land acreages are increased or decreased or where the cost of future reclamation changes.

History: Laws 1979, ch. 291, § 13.

69-25A-14. Permit approval or denial.

A. Upon the basis of a complete mining application and reclamation plan or a revision or a renewal thereof, as required by the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978], including public notification and an opportunity for a public hearing as required by Section 17 [69-25A-17 NMSA 1978] of that act, the director shall grant, require modification of or deny the application for a permit in a reasonable time not to exceed the time limitations set forth in Section 18 [69-25A-18 NMSA 1978] of that act and notify the applicant in writing. The applicant for a permit, or revision of a permit, shall have the burden of establishing that his application is in compliance with all the requirements of that act. Within ten days after the granting of a permit, the director shall notify the local governmental officials in the municipality, if any, and county, in which the area of land to be affected is located that a permit has been issued and shall describe the location of the land.

B. No permit or revision application shall be approved unless the application affirmatively demonstrates and the director finds in writing on the basis of the information set forth in the application or from information otherwise available which will be documented in the approval, and made available to the applicant, that:

(1) the permit application is accurate and complete and that all the requirements of the Surface Mining Act have been complied with;

(2) the applicant has demonstrated that reclamation as required by the Surface Mining Act can be accomplished under the reclamation plan contained in the permit application;

(3) the assessment of the probable cumulative impact of all anticipated mining in the area on the hydrologic regime specified in Subsection B of Section 10 [69-25A-10 B NMSA 1978] of the Surface Mining Act has been made by the director and the proposed operation thereof has been designed to prevent material damage to the water supply outside the permit area;

(4) the area proposed to be mined is not included within an area designated unsuitable for surface coal mining pursuant to Section 26 [69-25A-26 NMSA 1978] of the Surface Mining Act or is not within an area under study for such designation in an administrative proceeding commenced pursuant to that section (unless in such an area as to which an administrative proceeding has commenced pursuant to Section 26 [69-25A-26 NMSA 1978] of that act, the operator making the permit application demonstrates that prior to January 1, 1977, he has made substantial legal and financial commitments in relation to the operation for which he is applying for a permit);

(5) the proposed surface coal mining operation would:

(a) not interrupt, discontinue or preclude farming on alluvial valley floors that are irrigated or naturally subirrigated, but, excluding undeveloped range lands which are not significant to farming on such alluvial valley floors and those lands as to which the director finds that if the farming that will be interrupted, discontinued or precluded is of such small acreage as to be of negligible impact on the farm's agricultural production; or

(b) not materially damage the quantity or quality of water in surface or underground water systems that supply these valley floors in Subparagraph (a) of this paragraph. Provided, that this paragraph shall not affect those surface coal mining operations which, in the twelve-month period immediately preceding August 3, 1977: (1) produced coal in commercial quantities, and were located within or adjacent to alluvial valley floors; or (2) had obtained specific permit approval to conduct surface coal mining operations within the alluvial valley floors; and

(6) in cases where the private mineral estate has been severed from the private surface estate, the applicant has submitted to the director:

(a) the written consent of the surface owner to the extraction of coal by surface mining methods; or

(b) a conveyance that expressly grants or reserves the right to extract the coal by surface mining methods; or if the conveyance does not expressly grant the right to extract coal by surface mining methods, the surface-subsurface legal relationship shall be determined in accordance with state law. Provided, that nothing in the Surface Mining Act shall be construed to authorize the director or the commission to adjudicate property rights disputes.

C. The applicant shall file with his permit application a schedule listing any and all notices of violations of the Surface Mining Act and any law, rule or regulation of the United States, or of any department or agency in the United States, pertaining to air or water environmental protection incurred by the applicant in connection with any surface coal mining operation during the three-year period prior to the date of application. The schedule shall also indicate the final resolution of any such notice of violation. Where the schedule or other information available to the director indicates that any surface coal mining operation owned or controlled by the applicant is currently in violation of that act or such other laws, rules or regulations referred to in this subsection, the permit shall not be issued until the applicant submits proof that such violation has been corrected or is in the process of being corrected to the satisfaction of the director, department or agency which has jurisdiction over such violation and no permit shall be issued to an applicant after finding by the director, after opportunity for hearing, that the applicant, or the operator specified in the application, controls or has controlled mining operations with a demonstrated pattern of willful violations of the Surface Mining Act of such nature and duration with such resulting irreparable damage to the environment as to indicate an intent not to comply with the provisions of that act.

D. In addition to finding the application in compliance with Subsection B of this section, if the area proposed to be mined contains prime farmland pursuant to Section 10 [69-25A-10 NMSA 1978] of the Surface Mining Act, the director shall, after consultation with the United States secretary of agriculture, and pursuant to regulations issued by the United States secretary of interior with the concurrence of the United States secretary of agriculture, grant a permit to mine on prime farmland if the director finds in writing that the operator has the technological capability to restore such mined area, within a reasonable time, to equivalent or higher levels of yield as nonmined prime farmland in the surrounding area under equivalent levels of management and can meet the soil reconstruction standards in Section 19 [69-25A-19 NMSA 1978] of that act. Except for compliance with Subsection B of this section, the requirements of this subsection shall apply to all permits issued after August 3, 1977. Nothing in this subsection shall apply to any permit issued prior to August 3, 1977, or to any revisions or renewals thereof, or to any existing surface coal mining operations for which a permit was issued prior to August 3, 1977.

History: Laws 1979, ch. 291, § 14.
Am. Jur. 2d and C.J.S. references. — 54 Am. Jur. 2d Mines and Minerals § 173.
58 C.J.S. Mines and Minerals § 229.

69-25A-15. Revision of permits.

A. During the term of the permit the permittee may submit an application for a revision of the permit, together with a revised reclamation plan, to the director. An application for a revision of a permit shall not be approved unless the director finds that reclamation as required by the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] can be accomplished under the revised reclamation plan. The revision shall be approved or disapproved within the period of time established in Section 14 [69-25A-14 NMSA 1978] of that act. The director shall establish guidelines for a determination of the scale or extent of a revision request for which all permit application information requirements and procedures, including notice and hearings, shall apply. Provided, that any revisions which propose significant alterations in the reclamation plan shall, at a minimum, be subject to notice and hearing requirements. Any extensions to the area covered by the permit, except incidental boundary revisions, must be made by application for another permit.

B. No transfer, assignment or sale of the rights granted under any permit issued pursuant to the Surface Mining Act shall be made without the written approval of the director.

C. The director shall, within a time limit prescribed in regulations promulgated by the commission, review outstanding permits and may require reasonable revision or modification of the permit provisions during the term of such permit. Provided, that such revision or modification shall be based upon a written finding and subject to notice and hearing requirements established by the Surface Mining Act.

History: Laws 1979, ch. 291, § 15.

69-25A-16. Coal exploration.

A. Coal exploration operations which substantially disturb the natural land surface shall be conducted in accordance with exploration regulations issued by the commission. Such regulations shall include, at a minimum: the requirement that prior to conducting any exploration under this section, any person must file with the director notice of intention to explore and such notice shall include a description of the exploration area and the period of supposed exploration; and provisions for reclamation in accordance with the performance standards in Section 19 [69-25A-19 NMSA 1978] of the Surface Mining Act of all lands disturbed in exploration, including excavations, roads, drill holes and the removal of necessary facilities and equipment.

B. Information submitted to the director pursuant to this section as confidential concerning trade secrets or privileged commercial or financial information which relates to the competitive rights of the person or entity intended to explore the described area shall not be available for public examination.

C. Any person who conducts any coal exploration activities which substantially disturb the natural land surface in violation of this section or regulations issued pursuant thereto shall be subject to the provisions of Section 22 [69-25A-22 NMSA 1978] of the Surface Mining Act.

D. No operator shall remove more than two hundred fifty tons of coal without the specific written approval of the director.

History: Laws 1979, ch. 291, § 16.

69-25A-17. Public notice and public hearings.

A. At the time of submission of an application for a surface coal mining and reclamation permit, or revision of an existing permit, pursuant to the provisions of the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978], the applicant shall submit to the director a copy

of his advertisement of the ownership, precise location and boundaries of the land to be affected. At the time of submission, such advertisement shall be placed by the applicant in a local newspaper of general circulation in the county of the proposed surface mine at least once a week for four consecutive weeks. The director shall notify various local governmental bodies, planning agencies and sewage and water treatment authorities, and water companies in the locality in which the proposed surface mining will take place, of the operator's intention to surface mine a particularly described tract of land and indicating the application number, if any, and where a copy of the proposed mining and reclamation plan may be inspected. These local bodies, agencies, authorities or companies may submit written comments with respect to the effects of the proposed operation on the environment which are within their area of responsibility within thirty days following the last publication of the above notice. Such comments shall immediately be transmitted to the applicant by the director and shall be made available to the public at the same locations as are the mining applications.

B. Any person having an interest which is or may be adversely affected or the officer or head of any federal, state or local governmental agency or authority may file written objections to the proposed initial or revised application for a permit for surface coal mining and reclamation operations with the director within thirty days after the last publication of the notice as provided in Subsection A of this section. Such objections shall immediately be transmitted to the applicant by the director and shall be made available to the public. If written objections are filed and an informal conference requested by the objector within the thirty-day period, the director shall then designate a hearing officer who shall preside at an informal conference in the locality of the proposed mining within a reasonable time after the receipt of such objections and request. The informal conference shall also be held if requested at any time by the applicant, or upon the director's own motion. The date, time and location of the informal conference shall be advertised by the director in a newspaper of general circulation in the locality at least two weeks prior to the scheduled conference date. The hearing officer may arrange with the applicant, upon request by any party to the administrative proceeding, access to the proposed mining area for the purpose of gathering information relevant to the proceeding. An electronic or stenographic record shall be made of the conference proceeding, unless waived by all parties. Such record shall be maintained and shall be accessible to the parties until final release of the applicant's performance bond. In the event all parties requesting the informal conference stipulate agreement prior to the requested informal conference and withdraw their request, the informal conference need not be held.

History: Laws 1979, ch. 291, § 17.

69-25A-18. Decisions of director and appeals.

A. If an informal conference has been held pursuant to Section 17 [69-25A-17 NMSA 1978] of the Surface Mining Act, the director, after receiving the recommendation of the hearing officer, shall issue and furnish the applicant for a permit and persons who are parties to the administrative proceedings with the written finding of the director, granting or denying the permit in whole or in part and stating the reasons therefor, within sixty days of the informal conference.

B. If there has been no informal conference held pursuant to Section 17 [69-25A-17 NMSA 1978] of the Surface Mining Act, the director shall notify the applicant for a permit within ninety days of the last publication required by Subsection A of Section 17 [69-25A-17 A NMSA 1978] of that act, whether the application has been approved or disapproved in whole or in part. Upon good cause shown, the time may be extended an additional ninety days.

C. If the application is approved, the permit shall be issued. If the application is disapproved, specific reasons therefor must be set forth in the notification. Within thirty days after the applicant is notified of the final decision of the director on the permit application, the applicant or any person with an interest which is or may be adversely

affected may request a hearing on the reasons for the final determination. The director shall hold a hearing within thirty days of such request and provide notification to all interested parties at the time that the applicant is so notified. Such hearing shall be of record, adjudicatory in nature and no person who presided at a conference under Section 17 [69-25A-17 NMSA 1978] of the Surface Mining Act shall either preside at the hearing or participate in the decision thereon or in any administrative appeal therefrom. Within thirty days after the hearing the director shall issue and furnish the applicant, and all persons who participated in the hearing, with the written decision of the director granting or denying the permit in whole or in part and stating the reasons therefor.

D. Where a hearing is requested pursuant to Subsection C of this section, the director may, under such conditions as he may prescribe, grant such temporary relief as he deems appropriate pending final determination of the proceeding if:

(1) all parties to the proceeding have been notified and given an opportunity to be heard on a request for temporary relief;

(2) the person requesting such relief shows that there is a substantial likelihood that he will prevail on the merits of the final determination of the proceeding; and

(3) such relief will not adversely affect the public health or safety or cause significant imminent environmental harm to land, air or water resources.

E. For the purpose of such hearing, the director may administer oaths, subpoena witnesses or written or printed materials, compel attendance of the witnesses or production of the materials and take evidence including but not limited to site inspections of the land to be affected and other surface coal mining operations carried on by the applicant in the general vicinity of the proposed operation. A verbatim record of each public hearing required by the Surface Mining Act shall be made, and a transcript made available on the motion of any party or by order of the director.

F. Any applicant or any person with an interest which is or may be adversely affected who has participated in the administrative proceedings as an objector, and who is aggrieved by the decision of the director or the director's failure to act within the time limits specified in the Surface Mining Act, shall have the right to seek administrative review in accordance with Subsection G of Section 29 [69-25A-29 G NMSA 1978] of that act.

History: Laws 1979, ch. 291, § 18.
Am. Jur. 2d and C.J.S. references. — 54 Am. Jur. 2d Mines and Minerals § 173.
58 C.J.S. Mines and Minerals § 229.

69-25A-19. Environmental protection performance standards; surface coal mining operations.

A. Any permit issued under the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] to conduct surface coal mining operations shall require that the surface coal mining operations meet all applicable performance standards of that act, and such other requirements as the commission shall promulgate by regulation.

B. General performance standards shall be promulgated by regulation of the commission and shall be applicable to all surface coal mining and reclamation operations and shall require the operator as a minimum to:

(1) conduct surface coal mining operations so as to maximize the utilization and conservation of the solid fuel resource being recovered so that reaffecting the land in the future through surface coal mining can be minimized;

(2) restore the land affected to a condition capable of supporting the uses which it was capable of supporting prior to any mining, or higher or better uses of which there is reasonable likelihood, so long as such use or uses do not present any actual or probable hazard to public health or safety or pose any actual or probable threat of water dimunition or pollution, and the permit applicant's declared proposed land use following reclamation is not deemed to be impractical or unreasonable, to be inconsistent with applicable land use policies and plans promulgated by the legislature or any political subdivision, or planning

districts established by the legislature, to involve unreasonable delay in implementation, or to be violative of federal, state or local law;

(3) except as provided in Subsection C of this section with respect to all surface coal mining operations, backfill, compact (where advisable to insure stability or to prevent leaching of toxic materials), and grade in order to restore the approximate original contour of the land with all highwalls, spoil piles and depressions eliminated (unless small depressions are needed in order to retain moisture to assist revegetation or as otherwise authorized pursuant to the Surface Mining Act). Provided, that in surface coal mining which is carried out at the same location over a substantial period of time where the operation transects the coal deposit, and the thickness of the coal deposits relative to the volume of the overburden is large and where the operator demonstrates that the overburden and other spoil and waste materials at a particular point in the permit area or otherwise available from the entire permit area is insufficient, giving due consideration to volumetric expansion, to restore the approximate original contour, the operator, at a minimim, shall backfill, grade and compact, where advisable, using all available overburden and other spoil and waste materials to attain the lowest practicable grade but not more than the angle of repose, to provide adequate drainage and to cover all acid-forming and other toxic materials, in order to achieve an ecologically sound land use compatible with the surrounding region; and provided further, that in surface coal mining where the volume of overburden is large relative to the thickness of the coal deposit and where the operator demonstrates that due to volumetric expansion the amount of overburden and other spoil and waste materials removed in the course of the mining operation is more than sufficient to restore the approximate original contour, the operator shall, after restoring the approximate contour, backfill, grade and compact, where advisable, the excess overburden and other spoil and waste materials to attain the lowest grade but not more than the angle of repose, and to cover all acid-forming and other toxic materials, in order to achieve an ecologically sound land use compatible with the surrounding region. Such overburden or spoil shall be shaped and graded in such a way as to prevent slides, erosion and water pollution and shall be revegetated in accordance with the requirements of the Surface Mining Act;

(4) stabilize and protect all surface areas including spoil piles affected by the surface coal mining and reclamation operation to effectively control erosion and attendant air and water pollution;

(5) remove the topsoil from the land in a separate layer, replace it on the backfill area, or, if not utilized immediately, segregate it in a separate pile from other spoil and when the topsoil is not replaced on a backfill area within a time short enough to avoid deterioration of the topsoil, maintain a successful cover by quick growing plant or other means thereafter so that the topsoil is preserved from wind and water erosion, remains free of any contamination by other acid or toxic material and is in a usable condition for sustaining vegetation when restored during reclamation, except if topsoil is of insufficient quantity or of poor quality for sustaining vegetation, or if other strata can be shown to be more suitable for vegetation requirements, then the operator shall remove, segregate and preserve in a like manner such other strata which are best able to support vegetation;

(6) restore the topsoil or the best available subsoil which is best able to support vegetation;

(7) for all prime farmlands to be mined and reclaimed, specifications for soil removal, storage, replacement and reconstruction shall be established by regulation of the commission after considering specifications established by the secretary of the United States department of agriculture, and the operator shall, as a minimum be required to:

(a) segregate the A horizon of the natural soil, except where it can be shown that other available soil materials will create a final soil having a greater productive capacity; and if not utilized immediately, stockpile this material separately from other soil and provide needed protection from wind and water erosion contamination by other acid or toxic material;

(b) segregate the B horizon of the natural soil, or underlying C horizons or other strata, or a combination of such horizons or other strata that are shown to be both texturally

and chemically suitable for plant growth and that can be shown to be equally or more favorable for plant growth than the B horizon, in sufficient quantities to create in the regraded final soil a root zone of comparable depth and quality to that which existed in the natural soil; and if not utilized immediately, stockpile this material separately from other spoil and provide needed protection from wind and water erosion or contamination by other acid or toxic material;

(c) replace and regrade the root zone material described in Subparagraph (b) of this paragraph with proper compaction and uniform depth over the regraded spoil material; and

(d) redistribute and grade in a uniform manner the surface soil horizon described in Subparagraph (a) of this paragraph;

(8) create, if authorized in the approved mining and reclamation plan and permit and by the state engineer, permanent impoundments of water on mining sites as part of reclamation activities only when it is adequately demonstrated that:

(a) the size of the impoundment is adequate for its intended purposes;

(b) the impoundment dam construction will be so designed as to achieve necessary stability with an adequate margin of safety compatible with that of structures constructed under 16 U.S.C. § 1006;

(c) the quality of impounded water will be suitable on a permanent basis for its intended use and that discharges from the impoundment will not degrade the water quality below water quality standards established pursuant to applicable federal and state law in the receiving stream;

(d) the level of water will be reasonably stable if necessary for the intended use;

(e) final grading will provide adequate safety and access for proposed water users; and

(f) such water impoundments will not result in the diminution of the quality or quantity of water utilized by adjacent or surrounding landowners for agricultural, industrial, recreational or domestic uses;

(9) conduct any augering operation associated with surface mining in a manner to maximize recoverability of mineral reserves remaining after the operation and reclamation are complete, and seal all auger holes with an impervious and noncombustible material in order to prevent drainage, unless the director determines that the resulting impoundment of water in such auger holes may create a hazard to the environment or the public health or safety. Provided, that the director may prohibit augering if necessary to maximize the utilization, recoverability or conservation of the solid fuel resources or to protect against adverse water quality impacts;

(10) minimize the disturbances to the prevailing hydrologic regime specified in Subsection B of Section 14 [69-25A-14 B NMSA 1978] of the Surface Mining Act at the mine site and in associated off-site areas and to the quality and quantity of water in surface and ground water systems both during and after surface coal mining operations and during reclamation by:

(a) avoiding acid or other toxic mine drainage by such measures as, but not limited to: 1) preventing or removing water from contact with toxic producing deposits; 2) treating drainage to reduce toxic content which adversely affects downstream water upon being released to water courses; and 3) casing, sealing or otherwise managing boreholes, shafts and wells to keep acid or other toxic drainage from entering ground and surface waters;

(b) conducting surface coal mining operations so as to prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow, or runoff outside the permit area, but in no event shall contributions be in excess of requirements set by state or federal law;

(c) constructing any siltation structures pursuant to Subparagraph (b) of this paragraph prior to commencement of surface coal mining operations, such structures to be certified by a qualified professional engineer registered in New Mexico, to be constructed

as designed and as approved in the reclamation plan; provided that such siltation structure shall, if otherwise required by state law, be approved by the state engineer;

(d) cleaning out and removing temporary or large settling ponds or other siltation structures from drainways after disturbed areas are revegetated and stabilized, and depositing the silt and debris at a site and in a manner approved by the director;

(e) restoring recharge capacity of the mined area to approximate premining conditions;

(f) avoiding channel deepening or enlargement in operations requiring the discharge of water from mines;

(g) preserving throughout the mining and reclamation process the essential hydrologic functions of alluvial valley floors in the arid and semiarid areas of New Mexico; and

(h) such other actions as promulgated by regulation of the commission;

(11) with respect to surface disposal of mine wastes, tailings, coal processing wastes and other wastes in areas other than the mine workings or excavations, stabilize all waste piles in designated areas through construction in compacted layers including the use of incombustible and impervious materials if necessary and assure that the final contour of the waste pile will be compatible with natural surroundings and that the site can and will be stabilized and revegetated according to the provisions of the Surface Mining Act;

(12) refrain from surface coal mining within five hundred feet from active and abandoned underground mines in order to prevent breakthroughs and to protect health and safety of miners. Provided, that the director shall permit an operator to mine near, through or partially through an abandoned underground mine or closer to an active underground mine if: the nature, timing and sequencing of the approximate coincidence of specific surface mine activities with specific underground mine activities are jointly approved by the director and the state mine inspector; and such operations will result in improved resource recovery, abatement of water pollution or elimination of hazards to the health and safety of the public;

(13) design, locate, construct, operate, maintain, enlarge, modify and remove or abandon, in accordance with the standards and criteria established by regulation of the commission, all existing and new coal mine waste piles consisting of mine wastes, tailings, coal processing wastes or other liquid and solid wastes, and used either temporarily or permanently as dams or embankments;

(14) insure that all debris, acid-forming materials, toxic materials, or materials constituting a fire hazard are treated or buried and compacted or otherwise disposed of in a manner designed to prevent contamination of ground or surface waters and that contingency plans are developed to prevent sustained combustion;

(15) insure that explosives are used only in accordance with existing state and federal law and the regulations promulgated by the commission, which shall include provisions to:

(a) provide adequate advance written notice to local governments and residents who might be affected by the use of such explosives by publication of the planned blasting schedule in a newspaper of general circulation in the locality and by mailing a copy of the proposed blasting schedule to every resident living within one-half mile of the proposed blasting site and by providing daily notice to resident/occupiers in such areas prior to any blasting;

(b) maintain for a period of at least three years and make available for public inspection upon request a log detailing the location of the blasts, the pattern and depth of the drill holes, the amount of explosives used per hole, and the order and length of delay in the blasts;

(c) limit the type of explosives and detonating equipment and the size, timing and frequency of blasts based upon the physical conditions of the site so as to prevent: injury to persons; damage to public and private property outside the permit area; adverse impacts on any underground mine; and change in the course, channel or availability of ground or surface water outside the permit area;

(d) require that all blasting operations be conducted by trained and competent persons as certified and examined by the director pursuant to regulations promulgated by the commission with the written concurrence of the state mine inspector;

(e) provide that upon the request of a resident or owner of a man-made dwelling or structure within one-half mile of any portion of the permitted area the applicant or permittee shall conduct a preblasting survey of such structures and submit the survey to the director and a copy to the resident or owner making the request. The area of the survey shall be decided by the director;

(16) insure that all reclamation efforts proceed in an environmentally sound manner and as contemporaneously as practicable with the surface coal mining operations. Provided, that where the applicant proposes to combine surface mining operations with underground mining operations to assure maximum practical recovery of the mineral resource, the director may grant a variance for specific areas within the reclamation plan from the requirement that reclamation efforts proceed as contemporaneously as practicable to permit underground mining operations prior to reclamation:

(a) if the director finds in writing that: 1) the applicant has presented, as a part of the permit application, specific, feasible plans for the proposed underground mining operations; 2) the proposed underground mining operations are necessary or desirable to assure maximum practical recovery of the mineral resource and will avoid multiple disturbance of the surface; 3) the applicant has satisfactorily demonstrated that the plan for the underground mining operation conforms to requirements for underground mining in New Mexico and that permits necessary for the underground mining operations have been or will be issued by the director as a condition precedent to commencement of underground mining; 4) the areas proposed for the variance have been shown by the applicant to be necessary for the implementing of the proposed underground mining operations; 5) no substantial adverse environmental damage, either on-site or off-site, will result from the delay in completion of reclamation as required by the Surface Mining Act; and 6) provisions for the off-site storage of spoil will comply with Paragraph (22) of this subsection;

(b) if the commission has promulgated specific regulations to govern the granting of such variances in accordance with the provisions of this paragraph and the director has imposed such additional requirements as he deems necessary;

(c) if variances granted under the provisions of this subsection are to be reviewed by the director not more than three years from either the date of issuance of the permit or the date of approval of the variance; and

(d) if liability under the bond filed by the applicant with the director pursuant to Section 13 [69-25A-13 NMSA 1978] of the Surface Mining Act shall be for the duration of the underground mining operations and until the requirements of Paragraph (13) of this subsection and Section 23 [69-25A-23 NMSA 1978] of the Surface Mining Act have been fully complied with;

(17) insure that the construction, maintenance and postmining conditions of access roads into and across the site of operations will control or prevent erosion and siltation, pollution of water or damage to fish or wildlife or their habitat or public or private property;

(18) refrain from the construction of roads or other access ways up a stream bed or drainage channel or in such proximity to such channel so as to seriously alter the normal flow of water;

(19) establish on the regraded areas, and all other lands affected, a diverse, effective and permanent vegetative cover of the same seasonal variety native to the area of land to be affected and capable of self-regeneration and plant succession at least equal in extent of cover to the natural vegetation of the area; except that introduced species may be used in the revegetation process where desirable and necessary to achieve the approved postmining land use plan;

(20) assume the responsibility for successful revegetation as required by Paragraph (19) of this subsection, for a period of five full years after the last year of augmented seeding, fertilizing, irrigation or other work in order to assure compliance with Paragraph (19) of

this subsection, except in those areas or regions of New Mexico where the annual average precipitation is twenty-six inches or less, then the operator's assumption of responsibility and liability will extend for a period of ten full years after the last year of augmented seeding, fertilizing, irrigation or other work. Provided, that when the director approves a long-term intensive agricultural postmining land use, the applicable five- or ten-year period of responsibility for revegetation shall commence at the date of initial planting for such long-term intensive agricultural postmining land use. Provided further, that when the director issues a written finding approving a long-term, intensive, agricultural postmining land use as part of the mining and reclamation plan, the director may grant exception to the provisions of Paragraph (19) of this subsection;

(21) protect off-site areas from slides or damage occurring during the surface coal mining and reclamation operations, and not deposit spoil material or locate any part of the operations or waste accumulations outside the permit area;

(22) place all excess spoil material resulting from surface coal mining and reclamation activities in such a manner that:

(a) spoil is transported and placed in a controlled manner in position for concurrent compaction and in such a way to assure mass stability and to prevent mass movement;

(b) the areas of disposal are within the bonded permit areas and all organic matter shall be removed immediately prior to spoil placement;

(c) appropriate surface and internal drainage systems and diversion ditches are used so as to prevent spoil erosion and movement;

(d) the disposal area does not contain springs, natural water courses or wet weather seeps unless lateral drains are constructed from the wet areas to the main underdrains in such a manner that filtration of the water into the spoil pile will be prevented;

(e) if placed on a slope, the spoil is placed upon the most moderate slope among those upon which, in the judgment of the director, the spoil could be placed in compliance with all the requirements of the Surface Mining Act, and shall be placed, where possible, upon, or above, a natural terrace, bench or berm, if such placement provides additional stability and prevents mass movement;

(f) where the toe of the spoil rests on a downslope, a rock toe buttress, of sufficient size to prevent mass movement, is constructed;

(g) the final configuration is compatible with the natural drainage pattern and surroundings and suitable for intended uses;

(h) design of the spoil disposal area is certified by a qualified professional engineer registered in New Mexico to be in conformance with professional standards; and

(i) all other provisions of the Surface Mining Act are met;

(23) meet such other criteria as are necessary to achieve reclamation in accordance with the purposes of the Surface Mining Act, taking into consideration the physical, climatological and other characteristics of the site;

(24) to the extent possible using the best technology currently available, minimize disturbances and adverse impacts of the operation on fish, wildlife and related environmental values, and achieve enhancement of such resources where practicable; and

(25) provide for an undisturbed natural barrier beginning at the elevation of the lowest coal seam to be mined and extending from the outslope for such distance as the director shall determine to be necessary to be retained in place as a barrier to slides and erosion.

C. (1) Where an applicant meets the requirements of Paragraphs (2) and (3) of this subsection a permit without regard to the requirement to restore to approximate original contour set forth in Paragraph (3) of Subsection B or Paragraphs (2) and (3) of Subsection D of this section may be granted for the surface mining of coal where the mining operation will remove an entire coal seam or seams running through the upper fraction of a mountain, ridge or hill (except as provided in Subparagraph (a) of Paragraph (3) of this subsection) by removing all of the overburden and creating a level plateau or a gently rolling contour with

no highwalls remaining, and capable of supporting postmining uses in accord with the requirements of this subsection.

(2) In cases where an industrial, commercial, agricultural, residential or public facility (including recreational facilities) use is proposed for the postmining use of the affected land, the director may grant a permit for a surface mining operation of the nature described in Paragraph (1) of this subsection where:

(a) after consultation with the appropriate land use planning agencies, if any, the proposed postmining land use is deemed to constitute an equal or better economic or public use of the affected land, as compared with premining use;

(b) the applicant presents specific plans for the proposed postmining land use and appropriate assurances that such use will be: 1) compatible with adjacent land uses; 2) obtainable according to data regarding expected need and market; 3) assured of investment in necessary public facilities; 4) supported by commitments from public agencies where appropriate; 5) practicable with respect to private financial capability for completion of the proposed use; 6) planned pursuant to a schedule attached to the reclamation plan so as to integrate the mining operation and reclamation with the postmining land use; and 7) designed by a professional engineer registered in New Mexico in conformance with professional standards established to assure the stability, drainage and configuration necessary for the intended use of the site;

(c) the proposed use would be consistent with adjacent land uses, and existing state and local land use plans and programs promulgated by the legislature or any political subdivision, or planning districts established by the legislature;

(d) the director provides the governing bodies of the municipality and county in which the land is located and any state or federal agency which the director, in his discretion, determines to have an interest in the proposed use, an opportunity of not more than sixty days to review and comment on the proposed use; and

(e) all other requirements of the Surface Mining Act will be met.

(3) In granting any permit pursuant to this subsection the director shall require that:

(a) the toe of the lowest coal seam and the overburden associated with it are retained in place as a barrier to slides and erosion;

(b) the reclaimed area is stable;

(c) the resulting plateau or rolling contour drains inward from the outslopes except at specified points;

(d) no damage will be done to natural water courses;

(e) spoil will be placed on the mountaintop bench as is necessary to achieve the planned postmining land use. Provided, that all excess spoil material not retained on the mountaintop shall be placed in accordance with the provisions of Paragraph (22) of Subsection B of this section; and

(f) insure stability of the spoil retained on the mountaintop and meet the other requirements of the Surface Mining Act.

(4) The commission shall promulgate specific regulations to govern the granting of permits in accord with the provisions of this subsection, and may impose such additional requirements as it deems necessary consistent with the purposes of [the] Surface Mining Act.

(5) All permits granted under the provisions of this subsection shall be reviewed not more than three years from the date of issuance of the permit, unless the applicant affirmatively demonstrates that the proposed development is proceeding in accordance with the terms of the approved schedule and reclamation plan.

D. The following performance standards shall be applicable to steep-slope surface coal mining and shall be in addition to those general performance standards required by this section. Provided, that the provisions of this subsection shall not apply to those situations in which an operator is mining on flat or gently rolling terrain, on which an occasional steep slope is encountered through which the mining operation is to proceed, leaving a plain or predominantly flat area or where an operator is in compliance with provisions of Subsection C of this section:

(1) insure that when performing surface coal mining on steep slopes, no debris, abandoned or disabled equipment, spoil material or waste mineral matter be placed on the downslope below the bench or mining cut. Provided, that the spoil material in excess of that required for the reconstruction of the approximate original contour under the provisions of Paragraph (3) of Subsection B of this section or Paragraph (2) of this subsection shall be permanently stored pursuant to Paragraph (22) of Subsection B of this section;

(2) complete backfilling with spoil material shall be required to cover completely the highwall and return the site to the approximate original contour, which material will maintain stability following mining and reclamation;

(3) the operator may not disturb land above the top of the highwall unless the director finds that such disturbance will facilitate compliance with the environmental protection standards of this section. Provided, that the land disturbed above the highwall shall be limited to that amount necessary to facilitate the compliance;

(4) for the purposes of this subsection, the term "steep slope" is any slope above twenty degrees or such lesser slope as may be defined by the director after consideration of soil, climate and other characteristics of the region or the state.

E. (1) The director may permit variances for the purposes set forth in Paragraph (3) of this subsection, provided that the watershed control of the area is improved; and further provided complete backfilling with spoil material shall be required to cover completely the highwall which material will maintain stability following mining and reclamation.

(2) Where an applicant meets the requirements of Paragraphs (3) and (4) of this subsection a variance from the requirement to restore to approximate original contour set forth in Paragraph (2) of Subsection D of this section may be granted for the surface mining of coal where the owner of the surface knowingly requests in writing, as a part of the permit application that such a variance be granted so as to render the land, after reclamation, suitable for an industrial commercial, residential or public use, including recreational facilities, in accord with the further provisions of Paragraphs (3) and (4) of this subsection.

(3) (a) After consultation with the appropriate land use planning agencies of the municipality, if any, and the county in which mining is to occur, the potential use of the affected land is deemed to constitute an equal or better economic or public use;

(b) is designed and certified by a qualified professional engineer registered in New Mexico in conformance with professional standards established to assure the stability, drainage and configuration necessary for the intended use of the site; and

(c) after approval of the soil and water conservation division of the natural resources department the watershed of the affected land is deemed to be improved.

(4) In granting a variance pursuant to this subsection, the director shall require that only such amount of spoil will be placed off the mine bench as is necessary to achieve the planned postmining land use, insure stability of the spoil retained on the bench, meet all other requirements of the Surface Mining Act, and all spoil placement off the mine bench must comply with Paragraph (22) of Subsection B of this section.

(5) The commission shall promulgate specific regulations to govern the granting of variances in accord with the provisions of this subsection, and may impose such additional requirements as it deems necessary.

(6) All exceptions granted under the provisions of this subsection shall be reviewed not more than three years from the date of issuance of the permit, unless the permittee affirmatively demonstrates that the proposed development is proceeding in accordance with the terms of the reclamation plan.

History: Laws 1979, ch. 291, § 19.

69-25A-20. Environmental protection performance standards; surface effects of underground coal mining operations.

A. The commission shall promulgate rules and regulations directed toward the surface effects of underground coal mining operations, embodying the following requirements and

in accordance with the procedures established under Section 6 [69-25A-6 NMSA 1978] of the Surface Mining Act. Provided, that in adopting any rules and regulations, the commission shall consider the distinct difference between surface coal mining and underground coal mining.

B. Each permit issued pursuant to the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] and relating to underground coal mining shall require the operator to:

(1) adopt measures consistent with known technology in order to prevent subsidence causing material damage to the extent technologically and economically feasible; maximize mine stability; and maintain the value and reasonably foreseeable use of such surface lands, except in those instances where the mining technology used requires planned subsidence in a predictable and controlled manner. Provided, that nothing in this subsection shall be construed to prohibit the standard method of room and pillar mining;

(2) seal all portals, entryways, drifts, shafts or other openings between the surface and underground mine working when no longer needed for the conduct of the mining operations;

(3) fill or seal exploratory holes no longer necessary for mining, maximizing to the extent technologically and economically feasible return of mine and processing waste, tailings and any other waste incident to the mining operation, to the mine workings or excavations;

(4) with respect to surface disposal of mine wastes, tailings, coal processing wastes and other wastes in areas other than the mine workings or excavations, stabilize all waste piles created by the permittee from current operations through construction in compacted layers including the use of incombustible and impervious materials if necessary and assure that any leachate will not degrade surface or ground waters below water quality standards established pursuant to applicable federal and state law, and that the final contour of the waste accumulation will be compatible with natural surroundings and that the site is stabilized and revegetated according to the provisions of this section;

(5) design, locate, construct, operate, maintain, enlarge, modify and remove or abandon, in accordance with the standards and criteria established by regulation pursuant to Section 19 [69-25A-19 NMSA 1978] of the Surface Mining Act, all existing and new coal mine waste piles consisting of mine wastes, tailings, coal processing wastes or other liquid and solid wastes and used either temporarily or permanently as dams or embankments;

(6) establish on regraded areas and all other lands affected, a diverse and permanent vegetative cover capable of self-regeneration and plant succession and at least equal in extent of cover to the natural vegetation of the area;

(7) protect off-site areas from damages which may result from such mining operations;

(8) eliminate fire hazards and otherwise eliminate conditions which constitute a hazard to health and safety of the public;

(9) minimize the disturbances of the prevailing hydrologic regime at the mine site and in associated off-site areas and to the quantity of water in surface and ground water systems both during and after coal mining operations and during reclamation by:

(a) avoiding acid or other toxic mine drainage by such measures as, but not limited to: 1) preventing or removing water from contact with toxic producing deposits; 2) treating drainage to reduce toxic content which adversely affects downstream water upon being released to water courses; and 3) casing, sealing or otherwise managing boreholes, shafts and wells to keep acid or other toxic drainage from entering ground and surface waters; and

(b) conducting surface coal mining operations so as to prevent to the extent possible, using the best technology currently available, additional contributions of suspended solids to streamflow or runoff outside the permit area (but in no event shall such contributions be in excess of limits set by applicable state or federal law), and avoiding channel deepening or enlargement in operations requiring the discharge of water from mines;

(10) with respect to other surface impacts not specified in this subsection including the construction of new roads or the improvement or use of existing roads to gain access to the site of such activities and for haulage, repair areas, storage areas, processing areas, shipping areas and other areas upon which are sited structures, facilities or other property or materials on the surface, resulting from or incident to such activities, operate in accordance with the standards established under Section 19 [69-25A-19 NMSA 1978] of the Surface Mining Act for such effects which result from surface coal mining operations. Provided that the commission shall make such modifications in the requirements imposed by this paragraph as are necessary to accommodate the distinct difference between surface and underground coal mining;

(11) to the extent possible using the best technology currently available, minimize disturbances and adverse impacts of the operation on fish, wildlife and related environmental values, and achieve enhancement of such resources where practicable; and

(12) locate openings for all new drift mines working acid-producing or iron-producing coal seams in such a manner as to prevent a gravity discharge of water from the mine.

C. In order to protect the stability of the land, the director shall suspend underground coal mining under urbanized areas, cities, towns and communities and adjacent to industrial or commercial buildings, major impoundments or permanent streams if he finds imminent danger to inhabitants of the urbanized areas, cities, towns and communities.

D. The provisions of the Surface Mining Act relating to permits, bonds, inspections and enforcement, public review and administrative and judicial review shall be applicable to surface operations and surface impacts incident to an underground coal mine with such modifications to the permit application requirements, permit approval or denial procedures and bond requirements as are necessary to accommodate the distinct difference between surface and underground coal mining. The commission shall promulgate such modifications in accordance with the rule-making procedure established in Section 6 [69-25A-6 NMSA 1978] of the Surface Mining Act.

History: Laws 1979, ch. 291, § 20.

69-25A-21. Inspection and monitoring.

A. The commission, by regulation, shall require any permittee to:

(1) establish and maintain appropriate records;

(2) make monthly reports to the director;

(3) install, use and maintain any necessary monitoring equipment or methods;

(4) evaluate results in accordance with such manner as the commission shall prescribe by regulation; and

(5) provide such other information relative to surface coal mining and reclamation operations as the commission, by regulation, deems reasonable and necessary.

B. For those surface coal mining and reclamation operations which remove or disturb strata that serve as aquifers which significantly insure the water supply for water users either on or off the mining site, the director shall specify:

(1) monitoring sites to record the quantity and quality of surface drainage above and below the mine site as well as in the potential zone of influence;

(2) monitoring sites to record level, amount and samples of ground water and aquifers potentially affected by the mining and also directly below the lowermost (deepest) coal seam to be mined;

(3) records of well logs and borehole data to be maintained; and

(4) monitoring sites to record precipitation.

C. The monitoring data collection and analysis required by this section shall be conducted according to standards and procedures set forth by regulation of the commission in order to assure their reliability and validity.

D. The authorized representatives of the director without advance notice and upon presentation of appropriate credentials:

(1) shall have the right of entry to, upon or through any surface coal mining and reclamation operations or any premises in which any records required to be maintained under Subsection A of this section are located; and

(2) may at reasonable times, and without delay, have access to and copy any records, inspect any monitoring equipment or method of operation required under the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978].

E. The inspections by the director shall:

(1) occur on an irregular basis averaging not less than one partial inspection per month and one complete inspection per calendar quarter for the surface coal mining and reclamation operation covered by each permit;

(2) occur without prior notice to the permittee or his agents or employees except for necessary on-site meetings with the permittee; and

(3) include the filing of inspection reports adequate to enforce the requirements of and to carry out the terms and purposes of the Surface Mining Act.

F. Each permittee shall conspicuously maintain at the entrances to the surface coal mining and reclamation operations a clearly visible sign which sets forth the name, business address and phone number of the permittee and the permit number of the surface coal mining and reclamation operation.

G. Each inspector, upon detection of each violation of any requirement of the Surface Mining Act, or regulation issued thereunder, shall forthwith inform the operator in writing, and shall report in writing any such violation to the director.

H. Copies of any records, reports, inspection materials or information obtained under the Surface Mining Act by the director, except for material required by law to be kept confidential, shall be made immediately available to the public at central and sufficient locations in the county, multicounty and state area of mining so that they are conveniently available to residents in the areas of mining.

History: Laws 1979, ch. 291, § 21.

69-25A-22. Penalties and sanctions.

A. Any permittee who violates any permit condition or any person who violates any provision of the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] may be assessed a civil penalty by the director, except that if such violation leads to the issuance of a cessation order under Section 25 [69-25A-25 NMSA 1978] of the Surface Mining Act, the civil penalty shall be assessed. Such penalty shall not exceed five thousand dollars ($5,000) for each violation. Each day of continuing violation may be deemed a separate violation for purposes of penalty assessments. In determining the amount of the penalty, consideration shall be given to:

(1) the permittee's history of previous violations at the particular surface coal mining operation;

(2) the seriousness of the violation, including any irreparable harm to the environment and any hazard to the health or safety of the public;

(3) whether the permittee was negligent; and

(4) the demonstrated good faith of the permittee charged in attempting to achieve rapid compliance after notification of the violation.

B. A civil penalty shall be assessed by the director only after the person charged with a violation described under Subsection A of this section has been given an opportunity for a public hearing. Where such a public hearing has been held, the director shall make findings of fact, and shall issue a written decision as to the occurrence of the violation and the amount of the penalty which is warranted, incorporating, when appropriate, an order therein requiring that the penalty be paid. When appropriate, the director shall consolidate such hearings with other proceedings under Section 25 [69-25A-25 NMSA 1978] of the Surface Mining Act. Any hearing under this section shall be of record and adjudicatory in accordance with commission regulations. Where the person charged with such a violation

fails to avail himself of the opportunity for a public hearing, a civil penalty shall be assessed by the director after the director has determined that a violation did occur, and the amount of the penalty which is warranted, and has issued an order requiring that the penalty be paid.

C. Upon the issuance of a notice or order charging that a violation of the Surface Mining Act has occurred, the director shall inform the operator within thirty days of the proposed amount of the penalty. The person charged with the penalty shall then have thirty days to pay the proposed penalty in full or, if the person wishes to contest either the amount of the penalty or the fact of the violation, forward the proposed amount to the director for placement in an escrow account. If through administrative or judicial review of the proposed penalty, it is determined that no violation occurred, or that the amount of the penalty should be reduced, the director shall within thirty days remit the appropriate amount to the person, with interest at the rate of six percent per annum, or at the prevailing United States department of the treasury rate, whichever is greater. Failure to forward the money to the director within thirty days shall result in a waiver of all legal rights to contest the violation or the amount of the penalty.

D. Civil penalties owed under the Surface Mining Act may be recovered in a civil action brought by the attorney general at the request of the director in the district court of the county where the violation occurred.

E. Any person who willfully and knowingly violates a condition of a permit issued pursuant to the Surface Mining Act or fails or refuses to comply with any order issued under Section 25 [69-25A-25 NMSA 1978] or Section 30 [69-25A-30 NMSA 1979] of that act, or any order incorporated in a final decision issued by the director or the commission with respect to which the time for appeal has expired or with respect to which the right of appeal has been exhausted, except an order incorporated in a decision issued under Subsection B of this section, shall, upon conviction, be punished by a fine of not more than ten thousand dollars ($10,000) or by imprisonment for not more than one year, or both.

F. Whenever a corporate permittee commits a violation as specified in Subsection E of this section, any director, officer or agent or [of] such corporation who willfully and knowingly authorized, ordered or carried out such violation, failure or refusal shall be subject to the same civil penalties, fines and imprisonment that may be imposed upon a person under Subsections A and E of this section.

G. Whoever knowingly makes any false statement, representation or certification or knowingly fails to make any statement, representation or certification in any application, record, report, plan or other document filed or required to be maintained pursuant to the Surface Mining Act or any final order or decision issued by the director or the commission, with respect to which the time for appeal has expired or with respect to which the right of appeal has been exhausted shall upon conviction, be punished by a fine of not more than ten thousand dollars ($10,000), or by imprisonment for not more than one year or both.

H. Any operator who fails to correct a violation for which a citation has been issued under Section 25 [69-25A-25 NMSA 1978] of the Surface Mining Act within the period permitted for its correction, (which period shall not end until the last to occur of:

(1) the entry of a final order by the director, in the case of any review proceedings under Section 29 [69-25A-29 NMSA 1978] of that act initiated by the operator wherein the director orders, after an expedited hearing, the suspension of the abatement requirements of the citation after determining that the operator will suffer irreparable loss or damage from the application of those requirements;

(2) the commission's decision, in the case of an appeal initiated by the operator pursuant to Subsection G of Section 29 [69-25A-29G NMSA 1978] of the Surface Mining Act; or

(3) until the entry of an order of the court, in the case of any review proceedings under Section 30 [69-25A-30 NMSA 1978] of that act initiated by the operator wherein the court orders the suspension of the abatement requirements of the citation)

shall be assessed a civil penalty of not less than seven hundred fifty dollars ($750) for each day during which such failure or violation continues.

History: Laws 1979, ch. 291, § 22.
Am. Jur. 2d and C.J.S. references. — 54 Am. Jur. 2d Mines and Minerals §§ 172, 173.
58 C.J.S. Mines and Minerals § 229.

69-25A-23. Release of performance bonds.

A. The permittee may file a request with the director for the release of all or part of a performance bond or deposit. Within thirty days after any application for bond or deposit release has been filed with the director, the operator shall submit a copy of an advertisement placed at least once a week for four successive weeks in a newspaper of general circulation in the locality of the surface coal mining operation. Such advertisement shall be considered part of any bond release application and shall contain a notification of the precise location of the land affected, the number of acres, the permit and the date approved, the amount of the bond filed and the portion sought to be released, and the type and appropriate dates of reclamation work performed, and a description of the results achieved as they relate to the operator's approved reclamation plan. In addition, as part of any bond release application, the applicant shall submit copies of letters which he has sent to adjoining property owners, local governmental bodies, planning agencies and sewage and water treatment authorities or water companies in the locality in which the surface coal mining and reclamation activities took place, notifying them of his intention to seek release from the bond.

B. Upon receipt of the notification and request, the director shall within thirty days conduct an inspection and evaluation of the reclamation work involved. Such evaluation shall consider, among other things, the degree of difficulty to complete any remaining reclamation, whether pollution of surface and subsurface water is occurring, the probability of continuance or future occurrence of such pollution and the estimated cost of abating such pollution. The director shall notify the permittee in writing of his decision to release or not to release all or part of the performance bond or deposit within sixty days from the filing of the request, if no public hearing is held pursuant to Subsection F of this section, and if there has been a public hearing held pursuant thereto, within thirty days thereafter.

C. The director may release in whole or in part the bond or deposit if he is satisfied the reclamation covered by the bond or deposit or portion thereof has been accomplished as required by the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] according to the following schedule:

(1) when the operator completes the backfilling, regrading and drainage control of a bonded area in accordance with his approved reclamation plan, the release of sixty percent of the bond or collateral for the applicable permit area;

(2) after revegetation has been established on the regraded mined lands in accordance with the approved reclamation plan. When determining the amount of bond to be released after successful revegetation has been established, the director shall retain that amount of the bond for the revegetated area which would be sufficient for a third party to cover the cost of reestablishing revegetation and for the period specified for operator responsibility in Section 19 [69-25A-19 NMSA 1978] of the Surface Mining Act for reestablishing revegetation. No part of the bond or deposit shall be released under this paragraph so long as the lands to which the release would be applicable are contributing suspended solids to streamflow or runoff outside the permit area in excess of the requirements set by Section 19 [69-25A-19 NMSA 1978] of that act or until soil productivity for prime farmlands has returned to equivalent levels of yield as non-mined land of the same soil type in the surrounding area under equivalent management practices as determined from the soil survey performed pursuant to Section 10 [69-25A-10 NMSA 1978] of that act. Where a silt dam is to be retained as a permanent impoundment pursuant to Section 19 [69-25A-19 NMSA 1978] of that act, the portion of bond which relates to reclamation of the silt dam may be released under this section so long as provisions for sound future maintenance by the operator or the landowner have been made with the director;

(3) when the operator has completed successfully all surface coal mining and reclamation activities, the release of the remaining portion of the bond, but not before the

expiration of the period specified for operator responsibility in Section 19 [69-25A-19 NMSA 1978] of the Surface Mining Act. Provided, that no bond shall be fully released until all reclamation requirements of that act are fully met.

D. If the director disapproves the application for release of the bond or portion thereof, the director shall notify the permittee, in writing, stating the reasons for disapproval and recommending corrective actions necessary to secure the release and allowing opportunity for a public hearing.

E. When any application for total or partial bond release is filed with the director, the director shall notify the municipality, if any, in which the surface coal mining operation is located by certified mail at least thirty days prior to the release of all or a portion of the bond.

F. Any person with a valid legal interest which might be adversely affected by release of the bond or the responsible officer or head of any federal, state or local governmental agency which has jurisdiction by law or special expertise with respect to any environmental, social or economic impact involved in the operation, or is authorized to develop and enforce environmental standards with respect to such operations shall have the right to file written objections to the proposed release from bond to the director within thirty days after the last publication of the notice pursuant to Subsection A of this section. If written objections are filed and a hearing is requested, the director shall inform all the interested parties of the time and place of the hearing, and hold a public hearing in the locality of the surface coal mining operation proposed for bond release within thirty days of the request for such hearing. The date, time and location of such public hearing shall be advertised by the director in a newspaper of general circulation in the locality for two consecutive weeks, and shall hold a public hearing in the locality of the surface coal mining operation proposed for bond release or at Santa Fe at the option of the objector, within thirty days of the request for such hearing.

G. Without prejudice to the rights of the objectors, the applicant or the responsibilities of the director pursuant to this section, the director may establish an informal conference as provided in Section 17 [69-25A-17 NMSA 1978] of the Surface Mining Act to resolve such written objections.

H. For the purpose of such hearing, the director shall have the authority and is hereby empowered to administer oaths, subpoena witnesses or written or printed materials, compel the attendance of witnesses or production of the materials and take evidence including but not limited to inspections of the land affected and other surface coal mining operations carried on by the applicant in the general vicinity. A verbatim record of each public hearing required by the Surface Mining Act shall be made, and a transcript made available on the motion of any party or by order of the director.

History: Laws 1979, ch. 291, § 23.

69-25A-24. Citizen suits.

A. Any person having an interest which is or may be adversely affected may commence a civil action on his own behalf to compel compliance with the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978]. Such action may be brought against:

(1) the director or the commission alleging a violation of the Surface Mining Act or of any rule, regulation, order or permit issued pursuant thereto;

(2) any person who is alleged to be in violation of any rule, regulation, order or permit issued pursuant to the Surface Mining Act; or

(3) the director or commission alleging a failure to perform any nondiscretionary act or duty under the Surface Mining Act. Provided, however, that no action may be commenced if the director or the commission has commenced and is diligently prosecuting a civil action in a court of this state to require compliance with that act, but in any such action any person whose interest may be adversely affected may intervene as a matter of right.

B. No action may be commenced under this section prior to sixty days after the plaintiff has given written notice to the director, the commission, the attorney general and to any alleged violator of the Surface Mining Act. However, where the violation or order complained of constitutes an immediate threat to the health or safety of the plaintiff or would immediately and irreversibly impair a legal interest of the plaintiff, an action under this section may be brought immediately after notification of the proper parties.

C. Any action brought under this section alleging a violation of the Surface Mining Act or the regulations thereunder other than suits against the director or the commission shall be brought in the judicial district in which the surface mining operation complained of is located. Suits against the director or the commission shall be brought in the district court of Santa Fe.

D. In any action under this section, the director or commission, if not a party, may intervene as a matter of right.

E. The court in issuing any final order in any action brought pursuant to this section, may award costs of litigation, including attorney and expert witness fees, to any party, whenever the court determines such award is appropriate. The court may, if a temporary injunction or preliminary injunction is sought, require the filing of a bond or equivalent security in accordance with the rules of civil procedure.

F. Any person who is injured in his person or property through a violation, by any operator, of any rule, regulation, order or permit under the Surface Mining Act may bring an action for damages, including reasonable attorney and expert witness fees, only in the judicial district in which the surface mining operation complained of is located. Nothing in this subsection shall affect the rights established by or limits imposed under the New Mexico Occupational Disease Disablement Law and the Workmen's Compensation Act [52-1-1 to 52-1-69 NMSA 1978].

G. Nothing in this section shall restrict any right which any person or class of persons may have under any statute or common law to seek enforcement of the Surface Mining Act and the regulations thereunder, or to seek any other relief.

History: Laws 1979, ch. 291, § 24.

Occupational Disease Disablement Law. — See 52-3-1 NMSA 1978 and notes thereto.

69-25A-25. Enforcement.

A. When the director determines that any condition or practices exist, or that any permittee is in violation of any requirements of the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] or any permit condition required by that act, which condition, practice or violation also creates an imminent danger to the health or safety of the public, or is causing or can reasonably be expected to cause significant, imminent environmental harm to land, air or water resources, the director shall immediately order a cessation of surface coal mining and reclamation operations or the portion thereof relevant to the condition, practice or violation. Such cessation order shall remain in effect until the director determines that the condition, practice or violation has been abated or until modified, vacated or terminated by the director, pursuant to Subsection D of this section. Where the director finds that the ordered cessation of surface coal mining and reclamation operations, or any portion thereof, will not completely abate the imminent danger to the health or safety of the public or the significant imminent environmental harm to land, air or water resources, the director shall, in addition to the cessation order, impose affirmative obligations on the operator requiring him to take whatever steps the director deems necessary to abate the imminent danger or the significant, imminent environmental harm.

B. When, on the basis of an inspection, the director determines that any permittee is in violation of any requirement of the Surface Mining Act or any permit condition required by that act, but such violation does not create an imminent danger to the health or safety of the public, or cannot be reasonably expected to cause significant, imminent environmental harm to land, air or water resources, the director shall issue a notice to the

permittee or his agent fixing a reasonable time but not more than ninety days for the abatement of the violation and providing opportunity for public hearing. If, upon expiration of the period of time as originally fixed or subsequently extended for good cause shown and upon the written finding of the director, the director finds that the violation has not been abated, he shall immediately order a cessation of surface coal mining and reclamation operations or the portion thereof relevant to the violation. Such cessation order shall remain in effect until the director determines that the violation has been abated or until modified, vacated or terminated by the director pursuant to Subsection D of this section. In the order of cessation issued by the director under this subsection, the director shall determine the steps necessary to abate the violation in the most expeditious manner possible, and shall include the necessary measures in the order.

C. When, on the basis of an inspection, the director determines that a pattern of violations of any requirements of the Surface Mining Act or any permit conditions required by that act exists or has existed, and if the director also finds that such violations are caused by the unwarranted failure of the permittee to comply with any requirements of that act or any permit conditions, or that such violations are willfully caused by the permittee, the director shall forthwith issue an order to the permittee to show cause as to why the permit should not be suspended or revoked and shall hold a public hearing pursuant to the provisions of Subsection E of Section 29 [69-25A-29 E NMSA 1978] of that act.

D. Notices and orders issued pursuant to this section shall set forth with reasonable specificity, the nature of the violation and the remedial action required, the period of time established for abatement and a reasonable description of the portion of the surface coal mining and reclamation operation to which the notice or order applies. Each notice or order issued under this section shall be given promptly to the permittee or his agent by the director who issues such notice or order, and all such notices and orders shall be in writing and shall be signed by the director. Any notice or order issued pursuant to this section may be modified, vacated or terminated by the director. Any notice or order issued pursuant to this section which requires cessation of mining by the operator shall expire within thirty days of actual notice to the operator unless a public hearing is held at the site or within such reasonable proximity to the site that any viewings of the site can be conducted during the course of the public hearing.

E. The director may request the attorney general to institute a civil action for relief, including a permanent or temporary injunction, restraining order or any other appropriate order in the district court for the county in which the surface coal mining and reclamation operation is located or in which the permittee thereof has his principal New Mexico office, whenever such permittee or his agent:

(1) violates or fails or refuses to comply with any order or decision issued by the director under the Surfacing [Surface] Mining Act;

(2) interferes with, hinders or delays the director or his authorized representatives in carrying out the provisions of that act;

(3) refuses to admit such authorized representative to the mine;

(4) refuses to permit inspection of the mine by such authorized representative;

(5) refuses to furnish any information or report requested by the director in furtherance of the provisions of that act; or

(6) refuses to permit access to, and copying of, such records as the director determines necessary in carrying out the provisions of that act. The court shall have jurisdiction to provide such relief as may be appropriate. Temporary restraining orders shall be issued in accordance with the New Mexico Rules of Civil Procedure, as amended. Any relief granted by the court to enforce an order under Paragraph (1) of this subsection shall continue in effect until the completion or final termination of all proceedings for review of such order unless, prior thereto, the district court granting such relief sets it aside or modifies it.

History: Laws 1979, ch. 291, § 25.

69-25A-26. Areas unsuitable for surface coal mining; petitions; exclusions.

A. Subject to valid existing rights, no surface coal mining operations except those which existed on August 3, 1977, shall be permitted:

(1) which will adversely affect any publicly owned park or place included in the national register of historic sites unless approved jointly by the director and the federal, state or local agency with jurisdiction over the park or the historic site;

(2) within one hundred feet of the outside right-of-way line of any public road, except where mine access roads or haulage roads join such right-of-way line and except that the director may permit such roads to be relocated or the area affected to lie within one hundred feet of such road if, after public notice and opportunity for public hearing in the locality, a written finding is made that the interests of the public and the landowners affected thereby will be protected;

(3) within three hundred feet from any occupied dwelling, unless waived by the owner thereof;

(4) within three hundred feet of any public building, school, church, community or institutional building or public park; or

(5) within one hundred feet of a cemetery as defined in Section 58-17-3 NMSA 1978.

B. By regulation, the commission shall establish a planning process for objectively determining which, if any, additional land areas are unsuitable for all or certain types of surface coal mining, based upon competent and scientifically sound data and information. The process shall include:

(1) a data base and an inventory system which will permit proper evaluation of the capacity of different land areas of the state to support and permit reclamation of surface coal mining operations;

(2) a method for implementing land use planning decisions concerning surface coal mining operations so that determinations of the unsuitability of land for surface coal mining will be integrated as closely as possible with present and future land use planning and regulation processes at the federal, state and local levels; and

(3) proper notice and opportunities for public participation, including a public hearing prior to making any designation or redesignation.

C. Any person having an interest which is or may be adversely affected may petition the director to have an area designated as unsuitable for surface coal mining operations, or to have such a designation terminated. The petition shall contain allegations of facts with supporting evidence which would tend to establish the allegations. Within ten months after receipt of the petition, the director shall hold a public hearing in the locality of the affected area, after appropriate notice and publication of the date, time and location of the hearing. After an interested person has filed a petition and before the hearing, any person may intervene by filing allegations of facts with supporting evidence which would tend to establish the allegations. Within sixty days after the hearing, the director shall issue and furnish to the petitioner and any other party to the hearing, a written decision regarding the petition, and the reasons therefor. In the event that all the petitioners stipulate agreement prior to the requested hearing and withdraw their request, the hearing need not be held.

D. Prior to designating any land areas as unsuitable for surface coal mining operations, the director shall prepare a detailed statement on:

(1) the potential coal resources of the area;

(2) the demand for coal resources; and

(3) the impact of such designation on the environment, the economy and the supply of coal.

E. Upon petition pursuant to Subsection C of this section, the director, pursuant to the commission's regulations:

(1) shall designate an area as unsuitable for all or certain types of surface coal mining operations if he determines that reclamation pursuant to the requirements of the Surface

Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] is not technologically and economically feasible; and

(2) may designate an area as unsuitable for certain types of surface coal mining operations if he determines that such operations will:

(a) be incompatible with existing state or local land use plans or programs;

(b) affect fragile or historic lands in which such operations could result in significant damage to important historic, cultural, scientific and esthetic values and natural systems;

(c) affect renewable resource lands in which such operations could result in a substantial loss or reduction of long-range productivity of water supply or of food or fiber products, and such lands to include aquifers and aquifer recharge areas; or

(d) affect natural hazard lands in which such operations could substantially endanger life and property, such lands to include areas subject to frequent flooding and areas of unstable geology.

F. The requirements of this section do not apply:

(1) to lands on which surface coal mining operations were being conducted on August 3, 1977;

(2) to lands on which surface coal mining operations are being conducted under a permit issued pursuant to the Surface Mining Act; or

(3) where substantial legal and financial commitments in surface coal mining operations were in existence prior to January 4, 1977.

G. The designation of lands as unsuitable for mining pursuant to this section shall not prevent the mineral exploration pursuant to the Surface Mining Act of any area so designated.

History: Laws 1979, ch. 291, § 26.

69-25A-27. Cooperative agreement between the state of New Mexico and the United States.

The governor is authorized to enter into a cooperative agreement with the secretary of the United States department of the interior for regulation by New Mexico of surface coal mining and reclamation operations on federal lands within New Mexico. Such cooperative agreement shall be on such terms as the governor deems appropriate, consistent with applicable state and federal law.

History: Laws 1979, ch. 291, § 27.

69-25A-28. Applicability to public agencies, public utilities and public corporations.

Any agency, unit or instrumentality of federal, state or local government, including any publicly owned utility or publicly owned corporation of federal, state or local government, which proposes to engage in surface coal mining operations which are subject to the requirements of the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] shall comply with the provisions of that act.

History: Laws 1979, ch. 291, § 28.

69-25A-29. Administrative review.

A. A permittee issued a notice or order by the director pursuant to the provisions of Section 25 [69-25A-25 NMSA 1978] of the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978], or any person having an interest which is or may be adversely affected by such notice or order or by any modification, vacation or termination of such notice or order, may apply to the director for review of the notice or order within thirty days of receipt thereof or within

thirty days of its modification, vacation or termination. Upon receipt of such application, the director shall cause such investigation to be made as he deems appropriate. Such investigation shall provide an opportunity for a public hearing, at the request of the permittee or the person having an interest which is or may be adversely affected, to enable the permittee or such person to present information relating to the issuance and continuance of such notice or order or the modification, vacation or termination thereof. The filing of an application for review under this subsection shall not operate as a stay of any order or notice.

B. The permittee and other interested persons shall be given written notice of the time and place of the hearing at least five days prior thereto. Any such hearing shall be of record and adjudicatory in nature in accordance with the commission's regulations.

C. Upon receiving the report of such investigation, the director shall make findings of fact, and shall issue a written decision, incorporating therein an order vacating, affirming, modifying or terminating the notice or order, or the modification, vacation or termination of such notice or order complained of and incorporate his findings therein. Where the application for review concerns an order for cessation of surface coal mining and reclamation operations issued pursuant to the provisions of Section 25 [69-25A-25 NMSA 1978] of the Surface Mining Act, the director shall issue the written decision within thirty days of the receipt of the application for review, unless temporary relief has been granted by the director pursuant to Subsection D of this section or by the court pursuant to Section 30 [69-25A-30 NMSA 1978] of that act.

D. Pending completion of the investigation and hearing required by this section, the applicant may file with the director a written request that the director grant temporary relief from any notice or order issued under Section 25 [69-25A-25 NMSA 1978] of the Surface Mining Act together with a detailed statement giving reasons for granting such relief. The director shall issue an order or decision granting or denying such relief expeditiously. Provided, that where the applicant requests relief from an order for cessation of coal mining and reclamation operations issued pursuant to Section 25 [69-25A-25 NMSA 1978] of that act, the order or decision on such a request shall be issued within five days of its receipt. The director may grant such relief, under such conditions as he may prescribe, if:

(1) a hearing has been held in the locality of the permit area on the request for temporary relief in which all parties were given an opportunity to be heard;

(2) the applicant shows that there is substantial likelihood that the findings of the director will be favorable to him; and

(3) such relief will not adversely affect the health or safety of the public or cause significant, imminent environmental harm to land, air or water resources.

E. Following the issuance of an order to show cause as to why a permit should not be suspended or revoked pursuant to Section 25 [69-25A-25 NMSA 1978] of the Surface Mining Act, the director shall hold a public hearing after giving written notice of the time, place and date thereof. Any such hearing shall be of record and adjudicatory in nature in accordance with the commission's regulations. Within sixty days following the public hearing, the director shall issue and furnish to the permittee and all other parties to the hearing a written decision, and the reasons therefor, concerning suspension or revocation of the permit. If the director revokes the permit, the permittee shall immediately cease surface coal mining operations on the permit area and shall complete reclamation within a period specified by the director, or the director shall declare as forfeited the performance bonds for the operation. Any order issued pursuant to this subsection shall be appealable directly to the commission pursuant to Subsection G of this section without further review by the director.

F. Whenever an order is issued under this section, or as a result of any administrative proceeding under the Surface Mining Act, at the request of any person, a sum equal to the aggregate amount of all costs and expenses, including attorney fees, as determined by the director or the commission to have been reasonably incurred by such person for or in connection with his participation in such proceedings, including any judicial review of

agency actions, may be assessed against either party as the director, the commission or the court deems proper; provided that no such assessment shall be imposed upon the director or commission.

G. Any person who is aggrieved by a decision of the director may appeal to the commission for relief. In order to perfect such appeal, a notice of appeal must be filed with the commission and the director within thirty days of the director's decision. A hearing limited to the record compiled before the director shall be conducted by the commission in accordance with commission regulations. The commission shall consider and weigh all of the evidence contained in the record and shall make independent findings upon which to base its decision. The commission shall not be bound by findings of the director, notwithstanding such findings may be supported in the record by substantial evidence. If before the date set for hearing application is made to the commission for leave to present additional evidence, and it is shown to the satisfaction of the commission that the additional evidence is material and that there was good reason for failure to present it in the initial proceeding, the commission may order that the additional evidence be taken by the director. The director may modify his findings and decision by reason of the additional evidence and shall file with the commission a transcript of the additional evidence, together with any modified or new findings or decision.

History: Laws 1979, ch. 291, § 29.

69-25A-30. Judicial review.

A. Any party to a proceeding before the commission who is aggrieved by a decision of the commission issued after a hearing may obtain a review of that decision, other than a promulgation of a regulation, in the district court of Santa Fe county. In order to obtain a review such party must, within thirty days after the decision is rendered, file with the court a petition for review, a copy of which shall be served upon the chairman of the commission and the attorney general. The petition shall state all exceptions to the decision, and the court shall not consider any exceptions not contained in the petition. Failure to file such petition in the manner and within the time specified shall operate as a waiver of the right to judicial review.

B. Within thirty days after service of the copy of the petition for review, the commission shall prepare, certify and file with the clerk of the district court the record of the case, comprising a copy of the complete transcript of the testimony taken at the hearing; copies of all pertinent documents and other written evidence introduced at the hearing; a copy of the decision of the commission and a copy of the petition for review containing the exceptions filed to the decision. For good cause shown within the time stated, the judge of the district court may issue an order granting one extension of time not to exceed sixty days. With permission of the court, the record may be shortened by stipulation of all parties to the review proceeding. The court may require or permit subsequent corrections to the record when deemed desirable. At any time before or during the review proceeding the aggrieved party may apply to the reviewing court for an order staying the operation of the commission's decision pending the outcome of the review. The court may grant such relief, under such conditions as it may prescribe, if:

(1) a hearing has been held on the request for temporary relief in which all parties were given an opportunity to be heard;

(2) the applicant shows that there is substantial likelihood that the findings of the director will be favorable to him; and

(3) such relief will not adversely affect the health or safety of the public or cause significant, imminent environmental harm to land, air or water resources.

C. Upon the review of any commission decision, the judge shall sit without a jury, and may hear oral arguments and receive written briefs, but no evidence not offered at the hearing shall be taken, except that in cases of alleged omissions or errors in the record, testimony thereon may be taken by the court. The court may affirm the decision of the

commission or remand the case for further proceedings; or it may reverse the decision, if the substantial rights of the petitioner have been prejudiced because the administrative findings, inferences, conclusions or decisions are:

(1) in violation of constitutional provisions;

(2) in excess of the statutory authority or jurisdiction of the commission, or made upon unlawful procedure;

(3) affected by other error of law;

(4) unsupported by substantial evidence on the entire record as submitted; or

(5) unlawful, arbitrary or capricious.

If the court reverses or remands the decision of the commission, the judge shall set out in writing, which writing shall become a part of the record, the reasons for such reversal or remand.

D. Any party to the review proceeding in district court, including the commission, may appeal to the supreme court under the rules of procedure applicable in other civil cases.

E. Any person who is or may be aggrieved by any regulation, or any amendment or repeal of a regulation, adopted by the commission may appeal to the court of appeals for relief. All appeals shall be based upon the record made at the hearing before the commission, and shall be filed with the court of appeals within thirty days after filing of the regulation under the State Rules Act [14-3-24, 14-3-25, 14-4-1 to 14-4-9 NMSA 1978]. An appeal to the court of appeals under this subsection is perfected by the timely filing of a notice of appeal with the court of appeals, with a copy attached of the regulation from which the appeal is taken. Appellant shall certify in his notice of appeal that satisfactory arrangements have been made with the commission for preparation of transcripts of the record of the hearing at the expense of the appellant for filing with the court. Upon appeal, the court of appeals shall set aside the regulation only if determined to be:

(1) arbitrary, capricious or an abuse of discretion;

(2) contrary to law; or

(3) unsupported by substantial evidence on the entire record as submitted.

History: Laws 1979, ch. 291, § 30.

Am. Jur. 2d and C.J.S. references. — 54 Am. Jur. 2d Mines and Minerals § 173.

58 C.J.S. Mines and Minerals § 229.

69-25A-31. Exclusions.

The provisions of the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] do not apply to the extraction of coal:

A. by a landowner for his own noncommercial use from land owned or leased by him;

B. for commercial purposes where the surface mining operation affects two acres or less; or

C. as an incidental part of federal, state or local government-financed highway or other construction under regulations established by the commission.

History: Laws 1979, ch. 291, § 31.

69-25A-32. Conflict of interest; penalty; disclosure.

A. It is unlawful for a state employee who performs any function or duty under the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] to have a direct or indirect financial interest in any underground or surface coal mining operation.

B. Whoever knowingly violates the provisions of Subsection A of this section shall be guilty of a misdemeanor and, upon conviction, shall be punished by a fine of not more than two thousand five hundred dollars ($2,500) or by imprisonment of not more than one year, or both.

C. The commission shall promulgate regulations to establish methods by which the provisions of this section shall be monitored and enforced, including appropriate provisions

for the filing by such employees and the review of statements and supplements thereto concerning any financial interest which may be affected by this section.

History: Laws 1979, ch. 291, § 32.

69-25A-33. Experimental practices or other use.

To encourage advances in mining and reclamation practices or to allow post-mining land use for industrial, commercial, residential or public use, including recreational facilities, the director may, with the approval by the secretary of the United States department of the interior, authorize departures in individual cases on an experimental basis from the environmental protection standards established under Sections 19 and 20 [69-25A-19 and 69-25A-20 NMSA 1978] of the Surface Mining Act. Such departures may be authorized if:

A. the experimental practices are potentially at least as environmentally protective, during and after mining operations, as the performance standards of Sections 19 and 20 [69-25A-19 and 69-25A-20 NMSA 1978] of the Surface Mining Act;

B. the mining operations approved for particular land use or other purposes are not larger or more numerous than necessary to determine the effectiveness and economic feasibility of the experimental practices; and

C. the experimental practices do not reduce the protection afforded public health and safety below that provided by the performance standards of Sections 19 and 20 [69-25A-19 and 69-25A-20 NMSA 1978] of the Surface Mining Act.

History: Laws 1979, ch. 291, § 33.

69-25A-34. Termination of act.

In the event a state program within the meaning of Section 503 of the Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. Section 1253 (1977), is not approved by the last day of the second session of the thirty-fourth legislature, the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] shall be automatically repealed.

History: Laws 1979, ch. 291, § 34.

69-25A-35. Administrative procedures; applicability.

The administrative procedures provided in the Surface Mining Act [69-25A-1 to 69-25A-35 NMSA 1978] are exclusive. The director and commission, when performing any function under the Surface Mining Act, are exempt from the provisions of the Administrative Procedures Act.

History: Laws 1979, ch. 291, § 35.

Separability clause. — Laws 1979, ch. 291, § 39, provides for the severability of the act if any part or application thereof is held invalid.

Temporary provision. — Laws 1979, ch. 291, § 36, read: "All regulations issued pursuant to any act repealed by the Surface Mining Act shall continue in full force and effect until replaced by regulations issued pursuant to the Surface Mining Act.

Appropriation. — Laws 1979, ch. 291, § 37, appropriates $30,000 from the oil conservation fund to the energy and minerals department to administer the act in the sixty-eighth fiscal year and provides that any unexpended or unencumbered balance remaining at the end of the sixty-eighth fiscal year shall revert to the oil conservation fund.

Repealing clause. — Laws 1979, ch. 291. § 38, repeals 69-25-1 to 69-25-21 NMSA 1978.

Administrative Procedures Act. — See 12-8-1 NMSA 1978 and notes thereto.

Appendix C

Underground Injection Control Budget

COST PRICE SUMMARY FORMAT FOR SUBAGREEMENTS UNDER U.S. EPA GRANTS

(See accompanying instructions before completing this form)

Form Approved
OMB No. 158-R0144

PART I - GENERAL

1. GRANTEE: NEW MEXICO ENERGY AND MINERALS DEPARTMENT

2. GRANT NUMBER:

3. NAME OF CONTRACTOR OR SUBCONTRACTOR: Environmental Improvement Division

4. DATE OF PROPOSAL: FY '82

5. ADDRESS OF CONTRACTOR OR SUBCONTRACTOR *(Include ZIP code)*:
Environmental Improvement Division, H.E.D.
Post Office Box 968 -- Crown Building
Santa Fe, New Mexico 87503
ATTENTION: WATER POLLUTION CONTROL BUREAU

6. TYPE OF SERVICE TO BE FURNISHED:
Joint participation with grantee in developing and implementing and underground injection control program.

PART II - COST SUMMARY

7. DIRECT LABOR *(Specify labor categories)*	ESTIMATED HOURS	HOURLY RATE	ESTIMATED COST	TOTALS
1 Water Resource Specialist 3	12 mo	$	$ 24,423	
1 Water Resource Specialist 2	12 mo		23,075	
1 Secretary 2	12 mo		11,507	
DIRECT LABOR TOTAL:				$ 59,005

8. INDIRECT COSTS *(Specify indirect cost pools)*	RATE	× BASE =	ESTIMATED COST	
Fringe Benefits	16.99%	$ 59,005	$ 10,025	
INDIRECT COSTS TOTAL:				$ 10,025

9. OTHER DIRECT COSTS

a. TRAVEL	ESTIMATED COST	
Out of State Travel	$ 2,500	
(90 days @ $36/day) + mileage and Fares	$ 4,500	
TRAVEL SUBTOTAL:	$ 7,000	

b. EQUIPMENT, MATERIALS, SUPPLIES *(Specify categories)*	QTY	COST	ESTIMATED COST	
Rent of Equipment (UIC share of Word Processor)	3 mo	$ 2,250	$	
Office, Field and UIC Reference Supplies		2,500		
Laboratory Analyses		2,500		
EQUIPMENT SUBTOTAL:			7,250	

c. SUBCONTRACTS	ESTIMATED COST	
Class V Well Assessment (Data Compilation)	$ 7,000	
SUBCONTRACTS SUBTOTAL:	$ 7,000	

d. OTHER *(Specify categories)*	ESTIMATED COST	
EID Matching	$ 30,093	
OTHER SUBTOTAL:	$ 30,093	
e. OTHER DIRECT COSTS TOTAL:		$ 51,343

10. TOTAL ESTIMATED COST	$ 120,373
11. PROFIT	$
12. TOTAL PRICE	$ 120,373

COST OR PRICE SUMMARY FORMAT FOR SUBAGREEMENTS UNDER U.S. EPA GRANTS
(See accompanying instructions before completing this form.)

Form Approved
OMB No. 158-R0144

PART I - GENERAL

1. GRANTEE	2. GRANT NUMBER
NEW MEXICO ENERGY AND MINERALS DEPARTMENT	
3. NAME OF CONTRACTOR OR SUBCONTRACTOR	**4. DATE OF PROPOSAL**
Environmental Improvement Division	FY '83
5. ADDRESS OF CONTRACTOR OR SUBCONTRACTOR *(Include ZIP code)*	**6. TYPE OF SERVICE TO BE FURNISHED**
Environmental Improvement Division - H.E.D. Post Office Box 968 -- Crown Building Santa Fe, New Mexico 87504-0968 ATTENTION: WATER POLLUTION CONTROL BUREAU	Joint participation with grantee in developing and implementing an underground water source protection program (Underground Injection Control).

PART II - COST SUMMARY

7. DIRECT LABOR *(Specify labor categories)*	ESTIMATED HOURS	HOURLY RATE	ESTIMATED COST	TOTALS
1 Water Resource Specialist 3	12 mos	$	$ 26,500	
1 Water Resource Specialist 2	12 mos		23,150	
1 Secretary 2	12 mos		11,550	
DIRECT LABOR TOTAL:				$ 61,200

8. INDIRECT COSTS *(Specify indirect cost pools)*	RATE	× BASE =	ESTIMATED COST	
Fringe Benefits	16.99%	$ 61,200	$ 10,400	
INDIRECT COSTS TOTAL:				$ 10,400

9. OTHER DIRECT COSTS

a. TRAVEL	ESTIMATED COST	
Out-of-State Travel	$ 3,300	
In-State Travel (75 days @ $36/day) + mileage & fares	$ 4,400	
TRAVEL SUBTOTAL:	$ 7,700	

b. EQUIPMENT, MATERIALS, SUPPLIES *(Specify categories)*	QTY	COST	ESTIMATED COST	
Office, Field and UIC Reference Supplies		$	$ 2,700	
Laboratory Analyses			2,000	
EQUIPMENT SUBTOTAL:			4,700	

c. SUBCONTRACTS	ESTIMATED COST	
	$	
SUBCONTRACTS SUBTOTAL:	$	

d. OTHER *(Specify categories)*	ESTIMATED COST	
EID Matching	$ 28,000	
OTHER SUBTOTAL:	$ 28,000	
e. OTHER DIRECT COSTS TOTAL:		$ 40,400

10. TOTAL ESTIMATED COST	$112,000
11. PROFIT	$
12. TOTAL PRICE	$112,000

Appendix D

Job Descriptions of Underground Injection Control Staff

SPB-212
REV 3/78

NE MEXICO STATE PERSONNEL BOAR

JOB DESCRIPTION QUESTIONNAIRE

AGENCY: Health and Environment Department	DIVISION: Environmental Improvement Division	AGENCY CODE: 01,665,51	POSITION NO:
NATURE OF REQUEST: ☐ NEW POSITION ☒ RECLASSIFICATION OF EXISTING POSITION		CURRENT CLASSIFICATION: Water Resource Specialist 2 TERM	
NAME OF INCUMBENT (If any): David G. Boyer	NAME OF IMMEDIATE SUPERVISOR: Maxine S. Goad	PROPOSED CLASSIFICATION: Water Resource Specialist 3 TERM	

FOR SPO USE ONLY

PMS SIGNATURE:	DATE:	CODE:	APPROVED CLASSIFICATION:

TO BE COMPLETED BY INCUMBENT OR, IF NEW OR VACANT POSITION, BY IMMEDIATE SUPERVISOR

DESCRIPTION OF WORK: Using your own words, describe below the work performed. Avoid indefinite expressions such as "I assist in...". Instead, explain exactly what you do and how you assist. For example: "I receive, open, time-stamp, and route incoming mail." List each duty and responsibility. Do not tell us what your department does, tell us what you do. Don't be afraid to list specific tasks merely because you believe everyone knows what a person in your job does. List the most important duties first. In the column at the left, indicate the approximate percentage of time spent on each assignment. If certain duties have recently been added or changed, indicate in parentheses the approximate dates when you began performing the duties as you have described them.

% OF TIME	WORK PERFORMED
	Under general direction, using laws, agency rules, regulations, policies and procedures as guidelines:
15	Develops and implements a technical program for control of liquid waste discharges to the subsurface through injection wells. Activities in this regard include writing specific program methodologies that consider program objectives and goals and that consider program budget and personnel constraints. (4/1/80)
10	Reviews and evaluates federal and state ground water policies, programs, and regulations, to determine their relationship and identify areas in state regulations needing revision in order to be compatible with federal regulations and supervises participation by Water Resource Specialist 2 in this activity. (4/1/80)
10	Prepares reports to Environmental Protection Agency on status of Underground Injection Control program as required to fulfill conditions of federal grant. (4/1/80)
5	Drafts technical language for new regulations needed for ground water quality protection and presents testimony as an expert witness at public hearings and Water Quality Control Commission meetings. (4/1/80)
15	Critically reviews discharge plan applications for subsurface waste disposal sites and wells to ensure adequacy of protection of ground water quality as required by state and federal regulations. Performs site reviews which include examination of hydrologic, geologic, and geochemical parameters to determine susceptibility of ground waters to contamination and contaminant transport. Performs review of disposal well design to insure mechanical integrity, proper construction and operation to prevent fluid migration to areas of good water quality. (4/1/80)
5	Writes and edits staff memos and letters for the Director's signature and offers critical evaluations which form the basis of the Director's decisions on discharge plans submitted to comply with State Regulations. (4/1/80)

CONTINUED ON REVERSE SIDE

SPB-212
REV 3/78

NEW MEXICO STATE PERSONNEL BOARD

JOB DESCRIPTION QUESTIONNAIRE

AGENCY: Health and Environment Department	DIVISION: Environmental Improvement Division	AGENCY CODE: 01.665.51	POSITION NO:
NATURE OF REQUEST: ☐ NEW POSITION XXX RECLASSIFICATION OF EXISTING POSITION		CURRENT CLASSIFICATION: Water Resource Specialist 2 TERM	
NAME OF INCUMBENT (If any): David G. Boyer	NAME OF IMMEDIATE SUPERVISOR: Maxine S. Goad	PROPOSED CLASSIFICATION: Water Resource Specialist 3 TERM	

FOR SPO USE ONLY

PMS SIGNATURE:	DATE:	CODE:	APPROVED CLASSIFICATION:

TO BE COMPLETED BY INCUMBENT OR, IF NEW OR VACANT POSITION, BY IMMEDIATE SUPERVISOR

DESCRIPTION OF WORK: Using your own words, describe below the work performed. Avoid indefinite expressions such as "I assist in...". Instead, explain exactly what you do and how you assist. For example: "I receive, open, time-stamp, and route incoming mail." List each duty and responsibility. Do not tell us what your department does, tell us what you do. Don't be afraid to list specific tasks merely because you believe everyone knows what a person in your job does. List the most important duties first. In the column at the left, indicate the approximate percentage of time spent on each assignment. If certain duties have recently been added or changed, indicate in parentheses the approximate dates when you began performing the duties as you have described them.

% OF TIME	WORK PERFORMED
3	Prepares and presents written and oral testimony for hearings, litigation and court proceedings on adjudication matters relating to waste disposal applications. (4/1/80)
3	Reviews periodic monitoring reports of disposal site operation to ensure continued compliance with regulations. Examines disposal site water quality data and applies statistical techniques to detect trends in water quality and significance of changes. Makes recommendations for enforcement of other necessary action.
6	Confers and corresponds with professional geologic, hydrologic, and engineering consultants, attorneys, industrial representatives and the public on technical and regulatory matters relating to ground water quality.
5	Makes detailed investigations of hydrology and geology at subsurface liquid waste disposal sites that may include the use of mathematical and analytical data reduction techniques, and prepares written interpretative reports with conclusions and recommendations.
3	Coordinates design and implementation of field investigations to quantify ground water quality impacts at subsurface waste disposal sites, using expertise in hydrology, geology, and subsurface contaminant transport.
15	Supervises and trains other technical staff in the implementation of field investigations and surveys, in discharge plan review and evaluation procedures, and in other assigned duties. (4/1/80)
5	Interviews, hires and evaluates staff personnel as necessary.

CONTINUED ON REVERSE SIDE

If any machinery, special tools or equipment are used, list here and indicate whether they are used frequently, occasionally or once in a while.

Operate field vehicles, occasionally; installs and operates sampling and flow measurement, once in a while; operates core drilling machinery, once in a while.

[X] If an incumbent supervises other employees — i.e. effectively recommends hiring or disciplinary actions and prepares performance evaluations — list the names and job titles of those supervised.

[ ] If an incumbent does not supervise but checks or assigns the work of other employees, list their names and job titles.

(Vacant) Environmental Scientist 2 (Proposed reclassification to Water Resource Specialist 2)

Judy Scallorn, Secretary 2

List the names and job titles of other employees performing the same tasks as this position.

Bruce Gallaher, Water Resource Specialist 3, Surveillance Section, Water Pollution Control Bureau

(Vacant) Water Resource Specialist 3, Ground Water Section, Water Pollution Control Bureau

SIGNATURE OF INCUMBENT:

I certify that the above statements are true.

David E Boyer — Incumbent (If any) — 10/30/80 — Date

SIGNATURE OF SUPERVISOR AND APPOINTING AUTHORITY:

I certify that the above statements, with the exceptions, comments and additions noted below, are correct and that the incumbent has been performing essentially the same duties since _____.

Maxine S. Good — Immediate Supervisor — 10/31/80 — Date

_____ — Appointing Authority — _____ — Date

FOR SPO USE ONLY

POSITION IS:
- [ ] NON-SUPERVISORY
- [ ] SUPERVISORY

NUMBER SUPERVISED:

POSITION REVIEWED:
- [ ] By itself
- [ ] In comparison to similar positions in agency
- [ ] In comparison to similar positions in other agencies
- [ ] By on-site desk audit (attached)
- [ ] By discussion with supervisor

DUTIES OF PRIMARY IMPORTANCE (i.e. class controlling)	% OF TIME	CLASS & LEVEL

REASON FOR APPROVED CLASSIFICATION:

SPB-212
REV 3/78

NEW MEXICO STATE PERSONNEL BOARD

JOB DESCRIPTION QUESTIONNAIRE

AGENCY: Health and Environment Department	DIVISION: Environmental Improvement Division	AGENCY CODE: 01,665,51	POSITION NO:
NATURE OF REQUEST: ☐ NEW POSITION XXX RECLASSIFICATION OF EXISTING POSITION		CURRENT CLASSIFICATION: Environmental Scientist 2 TERM	
NAME OF INCUMBENT (If any): Vacant	NAME OF IMMEDIATE SUPERVISOR: David G. Boyer	PROPOSED CLASSIFICATION: Water Resource Specialist 2 TERM	

FOR SPO USE ONLY

PMS SIGNATURE:	DATE:	CODE:	APPROVED CLASSIFICATION:

TO BE COMPLETED BY INCUMBENT OR, IF NEW OR VACANT POSITION, BY IMMEDIATE SUPERVISOR

DESCRIPTION OF WORK: Using your own words, describe below the work performed. Avoid indefinite expressions such as "I assist in...". Instead, explain exactly what you do and how you assist. For example: "I receive, open, time-stamp, and route incoming mail." List each duty and responsibility. Do not tell us what your department does, tell us what you do. Don't be afraid to list specific tasks merely because you believe everyone knows what a person in your job does. List the most important duties first. In the column at the left, indicate the approximate percentage of time spent on each assignment. If certain duties have recently been added or changed, indicate in parentheses the approximate dates when you began performing the duties as you have described them.

% OF TIME	WORK PERFORMED
	Under direction of Water Resource Specialist 3:
10	Using State and Federal laws and regulations as guidelines, assists in development and implementation of a technical program for control of liquid waste discharges to the subsurface through injection wells. Activities in this regard include such things as: writing specific program methodologies, developing questionnaires and inventory forms, and using same to compile information on discharges. (4/1/80)
10	Reviews Federal and State ground water policies, programs, and regulations, to determine their relationship and identify areas in State regulations needing revision in order to be compatible with Federal requirements. (4/1/80)
5	Together with the Water Resource Specialist 3, prepares reports to Environmental Protection Agency on status of Underground Injection Control program as required to fulfill Federal grant conditions. (4/1/80)
5	Writes preliminary drafts of new regulations needed for ground water quality protection. (4/1/80)
10	Locates and inventories sources of liquid waste discharges to the subsurface including injection wells. This is accomplished through oral and written communication, review of files, and on-site inspections. (4/1/80)
5	Using a knowledge of current computer techniques, prepares and processes critical water quality monitoring data collected in the Underground Injection Control Program for entry in the EID ground water data management system. (4/1/80)
10	Critically reviews discharge plan applications for subsurface waste disposal sites and wells to ensure adequacy for protection of ground water quality as required by State and Federal Regulations. Performs site reviews which include examination of hydrologic, geologic, and chemical parameters to assess susceptibility of ground waters to contamination and contaminant transport. Performs review of disposal well design to insure mechanical integrity, proper construction and operation to prevent fluid migration to areas of good water quality. (10/1/80)

CONTINUED ON REVERSE SIDE

SPF-212
REV 3/78

NEW MEXICO STATE PERSONNEL BOARD

JOB DESCRIPTION QUESTIONNAIRE

AGENCY: Health and Environment Department	DIVISION: Environmental Improvement Division	AGENCY CODE: 01 665 51	POSITION NO:
NATURE OF REQUEST: ☐ NEW POSITION X ☒ RECLASSIFICATION OF EXISTING POSITION		CURRENT CLASSIFICATION: Environmental Scientist 2 TERM	
NAME OF INCUMBENT (If any): Vacant	NAME OF IMMEDIATE SUPERVISOR: David G. Boyer	PROPOSED CLASSIFICATION: Water Resource Specialist 2	TERM

FOR SPO USE ONLY

PMS SIGNATURE:	DATE:	CODE:	APPROVED CLASSIFICATION:

TO BE COMPLETED BY INCUMBENT OR, IF NEW OR VACANT POSITION, BY IMMEDIATE SUPERVISOR

DESCRIPTION OF WORK: Using your own words, describe below the work performed. Avoid indefinite expressions such as "I assist in...". Instead, explain exactly what you do and how you assist. For example: "I receive, open, time-stamp, and route incoming mail." List each duty and responsibility. Do not tell us what your department does, tell us what you do. Don't be afraid to list specific tasks merely because you believe everyone knows what a person in your job does. List the most important duties first. In the column at the left, indicate the approximate percentage of time spent on each assignment. If certain duties have recently been added or changed, indicate in parentheses the approximate dates when you began performing the duties as you have described them.

% OF TIME	WORK PERFORMED
5	Writes and edits staff memos and letters for the Director's signature and offers critical evaluations which form the basis of the Director's decisions on discharge plans submitted to comply with State regulations. (10/1/80)
5	Prepares and presents written and oral testimony for public hearings, litigation, and court proceedings on adjudication matters relating to waste disposal application. (10/1/80)
10	Reviews periodic monitoring reports of disposal site operation to ensure continued compliance with regulations. Examines disposal site water quality data and applies statistical techniques to detect trends in water quality and significance of changes. Makes recommendations for enforcement or other necessary action.
5	Confers and corresponds with professional geologic, hydrologic and engineering consultants, attorneys, industrial representatives and the public on technical and legal matters relating to ground water quality.
5	Inventories published information on the lithology, water quality, and hydrologic characteristics of the State's aquifers to aid in the delineation for protection of underground sources of drinking water.
5	Makes investigations of varying detail in hydrology and geology at subsurface liquid waste disposal sites that may include the use of mathematical and analytical data reduction techniques, and prepares written interpretative reports with conclusions and recommendations.
5	Participates in sampling procedures and operates ground and surface water monitoring equipment to measure quality and quantity of effluents and ground and surface water.
5	Together with other staff, designs and implements field investigations to quantify ground water quality impacts at subsurface waste disposal sites, using expertise in hydrology, geology, and subsurface contaminant transport.

CONTINUED ON REVERSE SIDE

If any machinery, special tools or equipment are used, list here and indicate whether they are used frequently, occasionally or once in a while.

Operates field vehicles, frequently; operates computer terminal equipment, occasionally; installs and operates sampling and flow measurement equipment, occasionally; operates drilling and core machinery, once in a while.

☐ If an incumbent supervises other employees -- i.e. effectively recommends hiring or disciplinary actions and prepares performance evaluations -- list the names and job titles of those supervised.

☒ If an incumbent does not supervise but checks or assigns the work of other employees, list their names and job titles.

Judy Scallorn, Secretary 2

List the names and job titles of other employees performing the same tasks as this position.

Ron Conrad, Water Resource Specialist 2, Ground Water Section, Water Pollution Control Bureau, (WPCB)
Doug Jones, Water Resource Specialist 2, Ground Water Section, WPCB
Richard Raymondi, Water Resource Specialist 2, Ground Water Section, WPCB
Dennis McQuillan, Water Resource Spec 1 (underfilling Water Resource Spec 2), Surveillance Section, WPCB

SIGNATURE OF INCUMBENT:

I certify that the above statements are true.

Incumbent (If any) _____ Date _____

SIGNATURE OF SUPERVISOR AND APPOINTING AUTHORITY:

I certify that the above statements, with the exceptions, comments and additions noted below, are correct and that the incumbent has been performing essentially the same duties since _____.

David H. Boyer 10/30/80
Immediate Supervisor Date

Appointing Authority _____ Date _____

FOR SPO USE ONLY

POSITION IS:
☐ NON-SUPERVISORY
☐ SUPERVISORY →

NUMBER SUPERVISED:

POSITION REVIEWED:
☐ By itself
☐ In comparison to similar positions in agency
☐ In comparison to similar positions in other agencies
☐ By on-site desk audit (attached)
☐ By discussion with supervisor

DUTIES OF PRIMARY IMPORTANCE (i.e. class controlling)	% OF TIME	CLASS & LEVEL

REASON FOR APPROVED CLASSIFICATION:

WATER RESOURCE SPECIALIST III
(WATER RESOURCE SPEC 3)

DEFINITION:

Performs specialized water resource program tasks.

SUPERVISION AND GUIDELINES:

Work is under general direction. Guidelines are laws, agency rules, regulations, policies and procedures.

EXAMPLES OF WORK PERFORMED:

For Assignment with the Natural Resources Department:

Prepares plans to conserve, control, and distribute water resources; makes field and office investigations of water resources for administration and adjudication of water rights and water resource development; determines the effects of apprpriations of water on surface and ground water sources; solves hydrologic problems; computes schedules and actual deliveries of water pursuant to interstate water compacts and court decrees; identifies past and present uses of water in river basins and underground basins for use in interstate stream compact litigation, other court proceedings and water right administration; advises legal staff on technical matters in agency hearings or court proceedings; prepares technical papers and reports on water and land resources, uses and status; prepares and edits technical, basic-data and biennial reports; confers and corresponds with water users, consultants, attorneys, and the public in technical water resource related matters; supervises, directs and trains subordinate personnel; performs related duties as required.

For Assignment with the Health & Environment Department:

Designs and implements technical elements of ground water quality monitoring programs including well design and placement, parameter selection data collection frequencies and sampling procedures; critically reviews hydrogeologic and geochemical aspects of discharge plans to determine compliance with state and federal water quality laws, regulations and standards; writes and edits staff memos and letters for the Director's signature and offers critical evaluations which form the basis of the Director's decisions on discharge plans submitted to comply with state regulations; evaluates complex mechanisms of contaminant transport through earth materials and fluvial systems; supervises and trains other technical staff in the implementation of monitoring programs and in discharge plan evaluation procedures; supervises the implementation and maintenance of a computerized ground water data management system for New Mexico ground water data; evaluates and identifies the need for developing new regulatory controls, drafts technical language for new regulations and presents testimony as an expert witness at public hearings and Water Quality Control Commission meetings; writes and edits interpretive technical reports incorporating statistical data reduction techniques to present the results of monitoring and other basic data collection programs; confers with other technical, legal and planning staff on a variety of water resource policy issues, enforcement matters and program activities relating to ground water quality.

DISTINGUISHING CHARACTERISTICS:

At this level of the series, incumbents are involved in the planning and monitoring of water resource program activities and the solution of technical problems.

MINIMUM QUALIFICATIONS:

1. Any combination of education, training or experience in water resource program activities, hydrology, engineering, mathematics, agriculture, agronomy, surveying or the physical sciences totaling eight (8) years.

2. Good knowledge of water resource laws, agency policies, procedures, rules and regulations, state water resources, mathematics, hydraulics, hydrology, basic statistics, engineering principles and supervisory techniques.

3. Ability to communicate verbally and in writing; to accurately perform mathematical computations; to prepare, read and analyze technical data; to supervise.

WORKING CONDITIONS:

Work may be performed in the field. May be required to accept change of geographical assignment. Travel will be required.

Approved: 8/1/79
Revised: 10/3/79

WATER RESOURCE SPECIALIST II
(WATER RESOURCE SPEC 2)

DEFINITION:

Performs specialized water resource program tasks.

SUPERVISION AND GUIDELINES:

Work is under direction. Guidelines are laws, agency rules, regulations, policies and procedures.

EXAMPLES OF WORK PERFORMED:

For Assignment with the Natural Resources Department:

Advises state, federal and local agencies and the public on location and availability of water and existing water rights; makes aquifer tests and analyzes data to determine aquifer characteristics; analyzes hydrological and climatological data for river and reservoir operations, water resource planning, water use determination and administration of water rights and interstate compacts; coordinates the collection of field data on water-use for water rights administration, court proceedings and development of water resources; makes recommendations on water use requirements; drafts hydrological surveys and/or technical papers and reports on water and land resources, uses and status; prepares information for and testifies at agency hearings or court proceedings on water related matters; confers and corresponds with water users and the public on water resource related duties as required.

For Assignment with the Health & Environment Department:

Locates and inventories sources of liquid waste discharges to the subsurface; collects and evaluates geologic, hydrologic and chemical data to assess the ground water pollution potential resulting from industrial, municipal and agrigultural waste disposal practices; critically reviews hydrogeologic and geochemical aspects of discharge permit applications to determine compliance with state and federal water quality laws, regulations and standards; maintains and expands ground water quality monitoring programs by servicing and supervising construction of field instrumentation, and coordinating data collection activities; prepares and presents oral testimony at court proceedings and public hearings; writes and edits interpretive technical reports incorporating statistical data reduction techniques to present the results of monitoring and other basic data collection programs; confers and corresponds with professional consultants, attorneys, representatives of industry and the public on matters relating to wastewater discharges and ground water quality.

DISTINGUISHING CHARACTERISTICS:

At this journeyman level of the specialist series, incumbents independently analyze water resource data. Incumbents are also involved in the administration of water resource activities.

MINIMUM QUALIFICATIONS:

1. Any combination of education, training or experience in water resource program activities, hydrology, engineering, mathematics,

agriculture, agronomy, surveying or the physical sciences totaling six (6) years.

2. Good knowledge of mathematics, hydraulics, hydrology, basic statistics, engineering principles and supervisory techniques; some knowledge of water resource laws, agency policies, procedures, rules and regulations, and state water resources.

3. Ability to communicate verbally and in writing; to accurately perform mathematical computations; to supervise.

WORKING CONDITIONS:

Work may be performed in the field. Some assignments may require manual labor and work in inclement weather. May be required to accept change of geographical assignment. Travel will be required.

Approved: 8/1/79
Revised: 10/3/79

Appendix E

Demonstration of Compliance with Public Participation Requirements of 40 CFR 123.54

PRIMACY SCHEDULE FOR NEW MEXICO UNDERGROUND INJECTION CONTROL PROGRAM
(other than Class II wells)

EID proposed Technical Standards and Criteria for Injection Wells (First Draft to EPA, Industry, and Interested Citizens)	July 13, 1981
Proposed Regulation Changes for UIC, Presented to WQCC by EID	July 21, 1981 WQCC Meeting
Public Meeting to Discuss UIC Program and Proposed Regulations	September 15, 1981
Public Meeting to Redraft Proposed Regulations	October 2, 1981
Public Meetings to Receive Additional Input on Draft Regulations	October 29, 1981; November 15, 1981; December 8, 1981
Revised Draft UIC Regulations Presented to WQCC with the Request to WQCC for Public Hearing on Proposed UIC Regulations	January 12, 1982 WQCC Meeting
Draft #1 State Primacy Application to EPA	January 15, 1982
WQCC Public Hearing on Proposed Regulation Changes for UIC (Provided Opportunity for Further Public Discussion & Comments)	March 3, 1982
Draft #2 State Primacy Application to EPA	April 16, 1982
Discussion by WQCC on UIC Changes to Regulations presented at Public Hearing	June 8, 1982
Action by WQCC on UIC Changes to Regulations Presented at Public Hearing	July 21, 1982
Public Notice of State UIC Primacy Application Hearing	Week of August 16, 1982
New Mexico UIC Regulations Effective	September 20, 1982
Joint WQCC-EID-OCD Public Hearing on State UIC Primacy Application (Other than Class II Wells)	September 20, 1982
Action by WQCC on Memorandum of Agreement and Primacy Application	October 12, 1982
Response to Comments and Final State UIC Primacy Application to EPA	Week of Nov. 8, 1982
EPA Public Hearing on NM State Primacy Application (other than Class II Wells)	Mid-December, 1982
Action by EPA on State Primacy Application	February, 1983

ABBREVIATIONS:

EID: New Mexico Environmental Improvement Division
EPA: United Stated Environmental Protection Agency
OCD: New Mexico Oil Conservation Division
UIC: Underground Injection Control
WQCC: New Mexico Water Quality Control Commission

NEW MEXICO WATER QUALITY CONTROL COMMISSION

NOTICE OF PUBLIC HEARING ON PROPOSED REGULATION AMENDMENTS

The New Mexico Water Quality Control Commission will hold a public hearing starting at 9 a.m. on March 3, 1982 in Apodaca Hall (Second Floor Auditorium), PERA Building, Capitol Complex, Santa Fe, New Mexico, and continuing for as many days as necessary to complete the hearing.

The hearing is to consider proposed additions and amendments to the Water Quality Control Commission Regulations pertaining to the following:

1. Section 1-101.H. (Change in the definition of "Director")
2. Section 1-101 (New definitions for Underground Injection Control)
3. Subsection 3-106.C.8. (Additional language for Underground Injection Control)
4. Subsection 3-107.E. (Additional language for Underground Injection Control)
5. Subsection 3-109.E.3. (Additional language for Underground Injection Control)
6. Proposed new Part 5 (Regulations, technical criteria, and performance standards for discharge to the subsurface through certain types of injection wells, "Underground Injection Control")

One set of proposed Underground Injection Control regulations to be considered at this hearing was presented to the Commission jointly by the Environmental Improvement Division (EID) and the Oil Conservation Division (OCD) at the January 12, 1982 Commission meeting. These regulations were developed over the past 9 months at announced public meetings attended by EID, OCD, and U.S. EPA staff, industry representatives, citizens groups, and other interested members of the public. Alternative proposals, presented at the January 12 Commission meeting by Kerr-McGee Nuclear Corporation for Sections 5-103 and 5-202 of proposed Part 5, and by Homestake Mining Company for the Section 1-101 definition of "effluent disposal well", will also be considered at this public hearing.

Copies of the proposed additions and amendments will be available for public review during regular business hours at the Water Pollution Control Bureau, Crown Building, 725 St. Michael's Drive, and the Oil Conservation Division, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, N.M., and at the following Environmental Improvement Division and Oil Conservation Division offices:

Albuquerque (EID)
4159 Montgomery Blvd., NE
Albuquerque, New Mexico 87109

Artesia (OCD)
324 W. Main
Petroleum Building
Artesia, New Mexico 88210

Aztec (OCD)
1000 Rio Brazos
Aztec, New Mexico 87410

Farmington (EID)
724 West Animas
Farmington, New Mexico 87401

Gallup (EID)
106 West Hill
Gallup, New Mexico 87301

Hobbs (OCD)
1000 W. Broadway
Hobbs, New Mexico 88240

Las Cruces (EID)
1001 North Solano Drive
Las Cruces, New Mexico 88001

Roswell (EID)
200 E. Fifth Street
Roswell, New Mexico 88201

Requests for copies of the proposed additions and amendments and other inquiries should be sent to Joseph A. Pierce, Chief, Water Pollution Control Bureau, P. O. Box 968, Santa Fe, New Mexico 87504-0968, telephone (505) 827-5271, or R.L. Stamets, Technical Support Chief, Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87503, (505) 827-2434.

The hearing shall be limited to the proposed language changes, amendments thereto, and only those changes in other Subsections which are necessitated to maintain consistency in the Regulations pursuant to the proposed additions and amendments.

All interested persons will be given a reasonable opportunity at the hearing to submit relevant evidence, data, views or arguments, orally or in writing, and to examine persons who testify at the hearing. Written statements to be incorporated into the public record will also be accepted before and at the hearing. Statements to be incorporated into the public record should be addressed to:

Joseph A. Pierce, Chief
Water Pollution Control Bureau
Environmental Improvement Division
P. O. Box 968
Santa Fe, New Mexico 87504-0968

Statements should be titled as follows: "Statements for the Public Record of the Water Quality Control Commission Regulation Hearing on March 3, 1982." Any persons desiring an interpreter for the deaf at the hearing should submit a written request to the EID at least 10 days prior to the hearing. Upon request, a taped transcript of the hearing will be made to be available for listening by the blind.

ss/ Cubia L. Clayton, Chairman
NM Water Quality Control Commission

TO BE PUBLISHED ON OR BEFORE AUGUST 21, 1982

STATE OF NEW MEXICO

NOTICE OF PUBLIC HEARING TO PROVIDE OPPORTUNITY FOR PUBLIC COMMENT

A public hearing before the Environmental Improvement Division of the Health & Environment Department and the Oil Conservation Division of the Energy and Minerals Department has been scheduled for 10 a.m., September 20, 1982 in Apodaca Hall (second floor auditorium) PERA Building, Capitol Complex, Santa Fe, New Mexico, to obtain public comment on the draft State application to the U.S. Environmental Protection Agency (EPA) for Primary Enforcement Authority (Primacy) to administer the Federal Underground Injection Control (UIC) program in New Mexico. Underground injection is the emplacement into wells of fluids for disposal or other purposes. The improper injection of such fluids can cause ground water used for drinking or other purposes to be contaminated.

Since 1979 the state of New Mexico has received grants from the EPA to develop and submit for EPA approval a program that would allow the state of New Mexico to administer directly the UIC provisions of the Federal Safe Drinking Water Act (PL 93-523 as amended). In February of this year New Mexico received EPA approval to administer those portions of the Federal UIC program dealing with underground injections that relate to the production of oil and natural gas. Comments at this hearing will therefore be limited to New Mexico's program to control fluid injection practices other than those related to oil and natural gas production.

The principal part of the New Mexico program to protect ground water from contamination by non-oil and gas underground injection has been the New Mexico Water Quality Control Commission Regulations first adopted in 1977 under the authority of the New Mexico Water Quality Act. Additional UIC amendments were adopted by the Commission July 21, 1982. Additional ground water protection from underground injection is provided by the New Mexico Geothermal Resources Conservation Act and the Surface Mining Act and the regulations adopted thereunder.

Copies of the UIC Primacy Application will be available for public review during regular business hours at the Water Pollution Control Bureau, Environmental Improvement Division, Crown Building, 725 St. Michael's Drive and the Oil Conservation Division, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico and at the following Environmental Improvement Division and Oil Conservation Division offices:

Albuquerque (EID)
4219 Montgomery Blvd., NE
Albuquerque, New Mexico 87109

Artesia (OCD)
324 W. Main
Petroleum Building
Artesia, New Mexico 88210

Grants-Milan (EID)
708 Uranium Avenue
Milan, New Mexico 87020

Hobbs (EID)
414 W. Taylor
Hobbs, New Mexico 88240

Farmington (EID)
724 West Animas
Farmington, New Mexico 87401

Las Cruces (EID)
1001 North Solano Drive
Las Cruces, New Mexico 88001

Gallup (EID)
106 West Hill
Gallup, New Mexico 87301

Roswell (EID)
200 E. Fifth Street
Roswell, New Mexico 88201

One copy at each location will be available to individuals for photocopying at their own expense. Inquiries regarding the applications should be addressed to Roy D. McKeag, Chief, Water Pollution Control Bureau, Post Office Box 968, Santa Fe, New Mexico 87504-0968, telephone (505) 984-0020, or R.L. Stamets, Technical Support Chief, Oil Conservation Division, Post Office Box 2088, Santa Fe, New Mexico 87503, (505) 827-2434.

All interested persons will be given a reasonable opportunity at the hearing to submit relevant oral and written statements and data. A written transcript of the hearing will be made. Written statements to be incorporated into the public record will be accepted before and during the hearing. Statements to be incorporated into the public record should be addressed to:

Roy D. McKeag, Chief
Water Pollution Control Bureau
Environmental Improvement Division
Health & Environment Department
P.O. Box 968
Santa Fe, New Mexico 87504-0968

Statements should be titled as follows: "Statements for the Public Record of the UIC Public Hearing of September 20, 1982." Any person desiring an interpreter for the deaf at the hearing should submit a written request to the EID at least ten (10) days prior to the hearing. Upon request, a taped transcript of the hearing will be made to be available for listening by the blind.

Appendix F

Court of Appeals Decision Relating to the Water Quality Control Commission Regulations

File - Regulations (green) Jan 14, 1981 Hearing

IN THE COURT OF APPEALS OF THE STATE OF NEW MEXICO

KERR-McGEE NUCLEAR CORPORATION,
HOMESTAKE MINING COMPANY,
PHILLIPS URANIUM CORPORATION,
and UNITED NUCLEAR CORPORATION,

Appellants,

v. No. 5232

NEW MEXICO WATER QUALITY
CONTROL COMMISSION,

Appellee.

COURT OF APPEALS OF NEW MEXICO
FILED
JAN 19 1982

ADMINISTRATIVE APPEAL

PETER J. NICKLES
CHARLES H. MONTANGE
KENNETH CARROLL
COVINGTON & BURLING
Washington, D.C.

and

BRUCE G. BLACK
CAMPBELL, BYRD & BLACK
Santa Fe, New Mexico

Attorneys for Kerr-McGee Nuclear Corporation

JAMES G. WILLIAMS
SUSAN L. EDWARDS
PHILLIPS PETROLEUM COMPANY
Englewood, Colorado

Attorneys for Phillips Uranium Corporation

G. STANLEY CROUT
SUNNY J. NIXON
C. MOTT WOOLLEY
MICHAEL S. YESLEY
BIGBEE, STEPHENSON, CARPENTER, CROUT & OLMSTED
Santa Fe, New Mexico

Attorneys for Homestake Mining Company, Phillips Uranium Corporation, and United Nuclear Corporation

JEFF BINGAMAN, Attorney General
BRUCE S. GARBER, Assistant Attorney General
WELDON L. MERRITT, Assistant Attorney General
ALLISON G. KARSLAKE, Assistant Attorney General
Santa Fe, New Mexico

Attorneys for Appellee

O P I N I O N

HENDLEY, Judge.

On October 14, 1980, the New Mexico Water Quality Control Commission (Commission) approved the Environmental Improvement Division's (EID) request to hold a public hearing on proposed regulations concerning toxic water pollutants. The public hearings, conducted by a hearing officer pursuant to § 74-6-6, N.M.S.A. 1978 (Repl. 1981), were held on January 14 and 15, 1981. The Commission adopted the following regulation setting forth a new definition of toxic pollutants (Water Quality Control Commission Regulation 1-101.X), and amended several other regulations (Regulations 1-101.N, 3-105.A, 3-106, 3-109.C, 3-312.B):

> X. "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, histiopathologic 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 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 1,000,000 exposed persons is a toxic pollutant.
>
> acrolein
> acrylonitrile
> aldrin
> benzene
> . . . .

Regulation 1-101.X and the other amended regulations were filed with the State Records Center on June 2, 1981, and with the Supreme Court Law Librarian on June 4, 1981. Kerr-McGee, Homestake, Phillips, and United Nuclear (the Companies) appeal these regulations pursuant to § 74-6-7, N.M.S.A. 1978 (Repl. 1981), which permits an appeal to this Court by "[a]ny person who is or may be affected by a regulation". The issues on appeal are: 1) whether Regulation 1-101.X is constitutional; 2) whether the second paragraph of Regulation 1-101.X is supported by substantial evidence and is in accordance with law; 3) whether the appellant Companies received a fair and impartial hearing; and 4) whether the Commission unlawfully delegated its authority and functions to the EID.

We hold the regulations are constitutional, the second paragraph of Regulation 1-101.X is supported by substantial evidence, the Companies received a fair hearing, and the Commission did not unlawfully delegate its authority.

Constitutionality of the Regulations

Section 74-6-7(C), N.M.S.A. 1978 (Repl. 1981), states:

> Upon appeal, the court of appeals shall set aside . . . [a regulation adopted by the commission] only if found to be:
>
> (1) arbitrary, capricious or an abuse of discretion;
>
> (2) not supported by substantial evidence in the record or reasonably related to the prevention or abatement of water pollution; or
>
> (3) otherwise not in accordance with law.

The Companies contend Regulation 1-101.X defining toxic pollutants and all other regulations making reference to that definition are unconstitutionally vague and, therefore, arbitrary, capricious, an abuse of discretion, and not in accordance with

law. The gist of the Companies' argument is that the regulation is so uncertain that they do not have fair notice of what concentration of compounds falls within the definition of toxic pollutants. The Companies state that they will incur penalties for discharging compounds that they, in good faith, believe are not toxic.

The Companies also claim the regulation is an ex post facto law and, therefore, unconstitutional because the determination by the Director of the EID of what is a toxic pollutant will be made after a discharger is already discharging.

Both of the Companies' constitutional arguments are based on a misperception of the regulations and how they are applied. The Companies interpret the regulations as placing the burden on them to determine whether the discharge contains toxic pollutants and, therefore, whether they need a discharge plan. They contend there are many unknowns in this area: such as, whether to extrapolate the data from animal experiments to humans; whether the linear, non-threshold hypothesis should be applied;[1] how sensitive a population to use to determine standards; and, the Companies do not know what standards to use. They assert if they incorrectly determine whether a toxic pollutant is present, they will later be punished. This is an incorrect interpretation of the procedures provided in the regulations. The following is a summary of the applicable procedures.

Any person intending to make a new water contaminant discharge or intending to alter the character or location of an existing one must file a notice with the EID. The notice must contain the name and address of the discharger, the quantity

---

[1] This theory states that if adverse effects occur at high concentrations, adverse effects will also occur at lower concentrations, in a linear proportion.

and location of the discharge, and an estimate of the concentration of water contaminants present in the discharge. Regulation 1-201.

Regulation 3-104 is entitled "Discharge Plan Required" and describes those dischargers who must have a plan approved by the Director of the EID (Director). Any person causing or allowing effluent[2] or leachate[3] to be discharged directly or indirectly into ground water must have a discharge plan approved by the Director. The next regulation, 3-105, describes "Exemptions From Discharge Plan Requirement". In thirteen different instances set out in this regulation, no discharge plan will be required. The Companies assume they have the authority to determine that they are exempt under this regulation and that they, therefore, need not apply for a discharge plan every time they come to the conclusion that they are exempt. It is upon this assumption that they base part of their constitutional attack on the regulations. For example, Regulation 3-105.A provides that a discharger is exempt if the discharge is composed of "[e]ffluent or leachate which conforms to all the listed numerical standards of Section 3-103 and has a total nitrogen concentration of 10 mg/l or less, and does not contain any toxic pollutant." The Companies contend they might, in good faith, determine they are exempt under this section, but the Director might later decide one of the compounds they are discharging is at a concentration that brings it within the definition of toxic pollutant. The Companies would, therefore, be fined for discharging a toxic pollutant.

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[2] Defined as liquid discharged as waste. Webster's Third International Dictionary (1961).

[3] Defined as liquid that has percolated through soil or other medium. Id.

The flaw in this argument stems from the fact that nowhere in the regulations is the discharger himself given the authority to decide whether he is exempt and to act accordingly. The regulations state that it is the Director who makes that determination. It is the Director who informs the discharger whether he qualifies for an exemption under Regulation 3-105. The language of the regulations supports this conclusion. "To determine conformance [to Regulation 3-103 and the toxic pollutant standards], samples may be taken by the agency [EID] before the effluent or leachate is discharged . . . . If for any reason the agency [EID] does not have access to obtain the appropriate samples, this exemption shall not apply." Regulation 3-105.A. (Emphasis added.) "If the director determines that a discharger is not exempt from filing a discharge plan pursuant to Section 3-105, or that the material to be discharged contains any toxic pollutant as defined in Section 1-101.X., which is not included in the numerical standards of 3-103, the discharger may appeal such determination . . . ." Regulation 3-112.B. (Emphasis added.)

The procedure for applying for approval of a discharge plan under certain circumstances is set out in Regulation 3-106. Anyone who was already discharging before or within 120 days of the effective date of the regulations will be notified by the Director if a discharge plan is required. Even if the Director notifies the discharger that he needs to submit a plan, he may discharge up to 240 days without a plan, or longer if the Director allows. Regulation 3-106. If a person plans to begin discharging a contaminant listed in Regulation 3-103 or a toxic pollutant more than 120 days after the effective date of the regulations, he must inform the Director of his name and address, the location and quantity of the discharge, and an estimate of the concentration of water contaminants in the discharge. (This

is the same information all dischargers submit to the EID under Regulation 1-201.) The Director must then notify the person if a discharge plan is required. If a plan is required, a proposed plan must be submitted, and it must include the information set out in Regulation 3-106.C. Within 30 days of the submission of a proposed plan, the Director must notify the public, any affected government agencies, and anyone else who has requested notification. Regulation 3-108. During the 30 days following public notice, comments may be made, a public hearing may be requested and shall be held if the Director determines there is significant public interest. Regulation 3-108.

If no public hearing is held, the Director must either approve or disapprove the proposed plan within 60 days after the necessary information was made available to him. Regulation 3-109.A. If a hearing was held, the Director must either approve or disapprove the plan within 60 days of the hearing, or the time the necessary information was made available to him, whichever is later. Regulation 3-109.B. Regulation 3-109.C sets out the criteria the Director must use in determining whether to approve or disapprove a discharge plan. If the Director disapproves a proposed discharge plan or approves a plan subject to condition, the discharger has the right to a hearing de novo by the Commission. Regulation 3-112. The Commission's decisions may be appealed to the Court of Appeals. Regulation 3-113; see generally, § 74-6-5, N.M.S.A. 1978 (Repl. 1981).

A statute or regulation is unconstitutional if it defines a prohibited act in terms so vague that men of common intelligence must guess at the meaning and would differ in its application. Bokum Resources v. N.M. Water Quality Cont., 93 N.M. 546, 603 P.2d 285 (1979). We hold this regulation is not unconstitutionally

vague under the above definition. The regulations describe the process each discharger must undertake before it discharges. Once the discharger decides when, where, what, and how much it will discharge, it must submit that information to the EID. It must then apply for a discharge plan, no matter what the content of the discharge. If a toxic pollutant is present, the Director will inform the discharger. If the exemption statute applies, the Director will inform the discharger. The only way the discharger can be fined is if he discharges without a plan in violation of the Director's determination that one is required, or where he discharges in violation of an existing approved plan. This is not vague. Each step is set out in the regulations and each regulation is clearly labeled. 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 will make those determinations before a discharge plan is approved or disapproved, and the discharger will be notified.[4] The lack of numerical standards is, therefore, not a basis for finding the statute unconstitutional.

In State v. Dority, 55 N.M. 12, 225 P.2d 1007 (1950), our Supreme Court stated: "Legislative enactments may be declared void for uncertainty if their meaning is so uncertain that the court is unable, by the application of known and accepted rules of construction, to determine what the legislature intended with any reasonable degree of certainty. But absolute or mathematical certainty is not required in the framing of a statute." In

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[4] Although the Supreme Court in Bokum, supra, stated that the discharge of a toxic pollutant is a criminal act, we do not believe that is what they meant. We believe they meant essentially what we have described above, that is, that the discharge of a toxic pollutant in violation of a discharge plan is the prohibited act.

deciding whether a regulation is void for vagueness, the same standards are used as for statutes. See, Bokum, supra. Since we are able to interpret the regulations in question with reasonable certainty, and for the reasons set out above, we hold the regulations are constitutional.

Substantial Evidence

The Companies contend that the second paragraph of the definition of toxic pollutant in Regulation 1-101.X is not supported by substantial evidence in the record, as required by § 74-6-7(C), N.M.S.A. 1978 (Repl. 1981). That part of the definition provides: "Any water contaminant or combination of the water contaminants in the list below creating a lifetime risk of more than one cancer per 1,000,000 exposed persons is a toxic pollutant.

acrolein
acrylonitrile
. . . ."

We find there was substantial evidence in the record to support the adoption of the above paragraph of Regulation 1-101.X.[5] One of the exhibits offered by the EID at the hearing was a summary of Ambient Water Quality Criteria for the protection of human health published by the Environmental Protection Agency (EPA) in 1980. For potential carcinogens (cancer producing agents), a water concentration of zero was recommended by the EPA. However, if a zero level is not obtainable, the EPA recommended three other concentrations, one of which is the one in 1,000,000 level incorporated into the second paragraph of

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5 The standard to be used here is the same as for findings by a court: If there is substantial evidence, the finding or regulation must be upheld. In determining whether there is substantial evidence, this Court must view the evidence in the most favorable light to support the finding, and only favorable inferences will be drawn. United Veterans Org. v. New Mexico Prop. App. Dept., 84 N.M. 114, 500 P.2d 199 (Ct.App. 1972).

Regulation 1-101.K. This exhibit is substantial evidence for the adoption of the cancer standard in Regulation 1-101.K.

Fair Hearing

The Companies rely on Kerr-McGee Nuclear Corporation v. New Mexico Environmental Improvement Board, 20 N.M. St. B. Bull. 316 (Ct.App. 1981) (Wood, Specially Concurring), for their argument that the regulations are invalid because the Companies were not given a fair and impartial hearing. We hold the hearing was fair and impartial.

In Kerr-McGee, supra, regulations adopted by the Environmental Improvement Board (Board) were held to be invalid because the EID participated in drafting the regulations, counseled the Board, and also acted as an interested party at the regulation hearings. These factors were held to be indicative of an unfair hearing vis-a-vis the Companies. The Companies here contend that the statutes for Commission hearings are identical to those in the Kerr-McGee, supra, case and, since the EID prepared the regulations in this case and then acted as an interested party, the regulations are invalid.

This case differs from Kerr-McGee, supra, in one major aspect. Unlike the Environmental Improvement Board, the Water Quality Control Commission is comprised of members of eight environmental or other state agencies, plus a representative of the public. Section 74-6-3, N.M.S.A. 1978 (Repl. 1981), provides that the members of the Commission shall be the director of the environmental improvement division, the director of the New Mexico department of game and fish, the state engineer, the secretary of the oil conservation commission, the director of state park and recreation, the director of the department of agriculture, executive secretary of the state natural resource conservation commission, the director of the bureau of mines, and a representative of the public appointed by the governor.

Each agency head may then designate a member of his staff to represent him if desired. Section 74-6-3, supra. This serves the purpose of having expertise on the Commission which deals with highly technical and complicated matters. See, § 74-6-4, N.M.S.A. 1978 (Repl. 1981). The agency members of the Commission are also the same as the constituent agencies. Section 74-6-2(J) N.M.S.A. 1978 (Repl. 1981). These constituent agencies are granted certain powers (§ 74-6-9, N.M.S.A. 1978 (Repl. 1981)), among which is to recommend regulations for adoption by the Commission. It is not difficult to see the wisdom behind this section. Agencies which deal with certain technical aspects of water quality and quantity are better able to keep a continuing study of their particular duties as are charged by law. They have the expertise. By contrast, the New Mexico Environmental Improvement Board consists simply of "five members appointed by the governor". Section 74-1-4, N.M.S.A. 1978 (Repl. 1981). In light of the fact that the Legislature has seen fit to have the Director of the EID sit as a member of the Commission, we decline to hold that because the EID proposed regulations to the Commission and then acted as an interested party at the hearings, that the Companies were denied a fair and impartial hearing. The legislative scheme does not support the Companies' position.

Delegation of Authority

The Companies contend the Commission, in adopting the regulations in question, unlawfully delegated its authority and functions to the EID and the Director. They argue it is unlawful delegation for two reasons. First, the Director is allowed to determine at what concentration a compound constitutes a toxic pollutant. Second, the preparation of the regulations was delegated to the EID, which also appeared as an interested party at the hearings. The Commission responds that there is no delegation and, even if there were, it is lawful.

Section 74-6-4(D), supra, provides the Commission "shall adopt, promulgate and publish regulations to prevent or abate water pollution in the state . . . ."

Under the regulations, there has been no delegation. The Commission set the standards when it adopted the regulations pursuant to § 74-6-4(D), supra. The Director merely applies those standards, as allowed in § 74-6-8, N.M.S.A. 1978 (Repl. 1981): "Each constituent agency shall administer regulations adopted pursuant to . . . [74-6-4, N.M.S.A. 1978], responsibility for the administration of which has been assigned to it by the commission." Since the Commission gave the EID the authority to administer certain regulations, we hold there has been no delegation.

Even if there were delegation of authority in this instance, it would be lawful. In National Labor Relations Bd. v. Duval Jewelry Co., 357 U.S. 1, 78 S.Ct. 1024, 2 L.Ed.2d 1097 (1958), the United States Supreme Court held where the ultimate decision on the merits of the issue does not rest with the delegate, the delegation is permissible. In that case, the National Labor Relations Board delegated its statutory power to issue and revoke subpoenas to hearing officers. Rulings of the hearing officer could be appealed to the National Labor Relations Board if special permission was granted. The court, expressing sympathy for an administrative agency's need for assistance in matters of this sort, held "[w]hile there is delegation here, the ultimate decision on a motion to revoke is reserved to the Board [NLRB], not to a subordinate. All that the Board has delegated is the preliminary ruling on the motion to revoke. It retains the final decision on the merits. . . . The fact that special permission of the Board is required for the appeal is not important."

Under Duval, supra, any delegation of authority from the

Commission to the EID is lawful. Instead of an appeal from the decisions of the Director of the EID, § 74-6-5(L) and (M), N.M.S.A. 1978 (Repl. 1981), provide for a de novo hearing before the Commission. The petitioner may submit evidence orally or in writing. The fact that the burden of proof is on the petitioner at the hearing does not invalidate the delegation as suggested by the Companies. Since the appellant has the burden where the only recourse is a traditional appeal, and that did not invalidate the procedures in Duval, supra, we cannot hold that the regulation in the case at bar are invalid because the discharger has the burden of proof at the trial de novo. Accordingly, any reliance by appellants on Kerr-McGee Nuclear Corporation, supra, is misplaced.

We hold the Commission's regulations are valid.

IT IS SO ORDERED.

William R Hendley
Judge

WE CONCUR:

_____ J.

_____ J.

Appendix G

Pre-Hearing Ground Water Discharge Plan Analysis

PRE-HEARING
GROUND WATER DISCHARGE PLAN ANALYSIS

for

MT. TAYLOR URANIUM MILL PROJECT
GULF MINERAL RESOURCES COMPANY

Prepared by:

Ground Water Section
Water Pollution Control Bureau
New Mexico Environmental Improvement Division

Bruce M. Gallaher
Principal Investigator

September, 1980

George S. Goldstein, Ph. D.
Secretary, Health and Environment

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Deputary Secretary

Thomas E. Baca, M.P.H.
Director
Environmental Improvement Division

SUMMARY AND CONCLUSIONS

A technical analysis of Gulf Mineral Resources Company's proposed ground water discharge plan (DP-117) for its Mt. Taylor Uranium Mill Project has been conducted by the staff and consultants of the New Mexico Environmental Improvement Division's Water Pollution Control Bureau. The Plan presents the potential impacts to ground-water quality which may result from the proposed project. During the analysis an attempt was made to determine whether the proposed plan satisfies the technical requirements of the New Mexico Water Quality Act and the New Mexico Water Quality Control Commission Regulations.

Specifically Gulf's plan was analyzed from the perspective of whether Gulf has sufficiently demonstrated that discharges (planned or accidental releases) will not result in ground water contamination beyond standards at a place of withdrawal of water for present or reasonably forseeable future use?

There are three main features of the project, the operation of which have the potential to affect ground-water quality. These features are the mill impoundment and containment pond at the mill site, the tailings and liquid waste pipelines, and the tailings and liquid waste disposal facilities. Each potential source of contamination was examined separately by the staff to assess its possible affect on ground water. Based upon an analysis of available information, the following conclusions and recommendations were developed.

A. A mill impoundment and containment pond are planned to be constructed approximately one-half mile downstream of the Mt. Taylor Uranium Mill. The lined containment pond is provided to contain any major process spill from the mill as well as process area runoff, washdown water, and treated sewage water. The mill impoundment will hold any storm water that exceeds the capacity of the containment pond.

Routine discharges to the lined containment pond will be relatively low in volume; sufficient freeboard should exist in the pond to contain any major process spillage. Contaminated releases to the mill impoundment area, therefore, are seen to be infrequent. The containment pond liner and the geologic conditions at the mill impoundment should prevent significant seepage of contaminated fluids into underlying water bearings fromations.

The staff's analysis of the site's geology and hydrology and of the engineering concepts and designs incorporated into the containment pond and mill impoundment supports Gulf's conclusion that minimal impacts to ground water should result from these structures.

B. A waste transport pipeline system approximately six miles in length, will transport solid wastes in a slurry from the mill to the tailings disposal area and mill carry decant water back to the mill. The transport system consists of a pump station located within the mill, one slurry pipeline, and a mill liquor pipeline for carrying

decant water from the evaporation pond to the mill. The liquor decant pipeline can also be utilized as an emergency slurry line.

The design of the transport system incorporates features that minimize the potential for release of waste material from the pipeline. The features include redundant instrumentation and daily inspection schedules. In addition, the pipelines are placed within a lined pipeway that will act to contain spills or leakage if required, and catchment basins will be provided at low points along the route.

It is the staff's opinion that the applicant's proposed pipeline system design is acceptable. It is believed that the redundant instrumentation and inspection schedules will virtually eliminate any possibility of accidental spills adversely affecting groundwater quality. Assuming a major release of tailings or decant liquid via pipeline rupture, it is unlikely that ground water standards would be violated at a place of forseeable future use.

A deficiency in the applicant's proposed discharge plan, is the lack of a detailed contingency plan describing the administrative, procedural and technical procedures to be used for responding to unanticipated releases of contaminated materials via a pipeline rupture. Such a detailed contingency plan should be prepared by the applicant and approved by EID before any discharge of tailings takes place.

C. The proposed tailings disposal area is in La Polvadera Canyon, approximately four miles north-northwest of the mill site. Approximately 1400 gallons per minute of tailings slurry, consisting of 20-40 percent by weight solids, is proposed to be discharged into a parallel series of dragline excavated trenches. Fluids draining from the solids will be collected and pumped to a lined settling pond(s) and thence to a lined evaporation pond which will be contained by a zoned earthfill dam. The facilities are designed so that all tailings will be sequentially buried below the existing ground surface as each of the trenches are filled to capacity, and so that most of the liquid wastes will be disposed of by evaporation. Provisions are made for burial of evaporites and for reclamation of all disturbed ground.

The proposed tailings and liquid disposal facilities were designed to take advantage of the available pore storage in the extremely dry native foundation materials which underlie the La Polvadera Canyon area. Laboratory analysis of core samples from both the Gallup Sandstone and Dilco Coal Member indicate water contents far below specific retention for these foundation materials. Therefore, the dry porous media has the potential to store water and bind it by capillary forces which are strong enough to prevent significant free drainage.

Seepage calculations indicate that significant saturation will not occur beneath the disposal trenches, the settling pond, or the evaporation pond. A monitoring system will be provided to verify seepage predictions during operations and provide data for development of contingency plans, if necessary, to solve unanticipated problems.

Seepage analyses conducted by Gulf were based on assumptions of flow through porous media having minor fracture related permeability. A deficiency in the applicant's discharge plan is the lack of information on fracture location, density, or related hydraulic conductivities. A staff evaluation of available literature and on-site conditions concluded that fracture permeability may exist in the Gallup Sandstone beneath portions of the site and that a possibility exists in which underground fluids may move easterly at relatively higher rates than assumed for the seepage analyses along pathways formed by joints and fractures in the sandstone. Given the absence of extensive outcropping of the Gallup Sandstone at the dispoal site, it is difficult to totally assess the degree of fracture related permeability prior to construction. Upon implementation of construction and monitoring activities, additional field data will become available for consideration. If site conditions are then found to reflect greater fracture related permeability than has been calculated for, the seepage projections should be revised.

Shallow monitoring wells will be installed around the evaporation pond perimeter to allow for detection of seepage front advance. The bore holes will be aired-drilled and cored; in situ moisture content measurements of the cores will be performed. If the information from the tests suggest the presence of significantly higher rock moisture contents than considered in the seepage analyses, the applicant should be obligated to quantify the effects of the increased in situ moisture.

A deficiency in the applicant's proposed discharge plan is the lack of detailed emergency response procedures to be implemented in the event of a dam failure. The probability of such an event transpiring is considered to be quite low. Nevertheless, with proper response procedures in effect, the ultimate insult of the failure could be greatly reduced. It is recommended that the application be required to develop a realistic response plan prior to any tailings discharge.

D. On the basis of the evaluation of the discharge plan and the analysis summarized in this Pre-Hearing Ground Water Discharge Plan Analysis, it is recommended by the staff that any discharge plan approval be subject to, but not limited to, the proposed conditions listed bleow. It must be emphasized that these conditions were developed without the benefit of the discussions and testimony to be presented during the forthcoming public hearing on the plan. As such, these conditions should be viewed as preliminary, subject to change as a result of new evidence presented at the hearing.

(1) Within six months of the approval date of the discharge plan, the discharger shall submit to the Division a detailed contingency plan describing the administrative, procedural and technical procedures to be used for responding to unanticipated releases of contaminated materials in the event of a dam failure or a major tailings pipeline failure. The contaminated material release will be assumed to result from realistic accident scenarios that are based on actual and hypothetical accidents at uranium mills of design and capacity similar to the discharger's.

(2) Prior to construction of the La Polvadera tailings and liquid disposal facilities, Gulf shall submit to the Division the following detailed technical specifications and procedures for review and approval:

(a) Procedures to be followed during preparation of areas within the trenches and evaporation pond. This should include a thorough inspection of impoundment bottom during excavation to identify large zones of high porosity or high hydraulic conductivity. Steps to line or seal such zones should be specified to ensure that, to the maximum degree possible, solutions are disposed of by evaporation rather than by seepage.

(b) Procedures/Technical sepcifications to be used to control installation of the liners to ensure installed properties are as specified.

(c) Procedure which ensures that the tailings will drain to the maximum extent practicable by removal of solutions from the trenches to lined ponds.

(d) Procedures to enable a determination that the system is behaving as predicted with respect to seepage. This should include checks of the overall water balance, of seepage collected in cutoff trenches in monitor wells, of drainage of and moisture content in deposited tailings, of slimes settlement. This should include annual review of operations by qualified engineers, geologists and/or hydrologists to determine whether operations are being conducted as proposed and to make recommendations for necessary design changes, changes in operating procdures, and/or changes in monitoring programs.

(3) A minimum of five (5) measurements shall be made of infiltration rates on surficial soils which overlie the tailings trench disposal area. Such tests shall be conducted at locations uniformily distributed over the disposal area. The results of the infiltration studies shall be used in designing reclamation plans. Such tests shall be made prior to commencement of any further construction in the tailings disposal area. The results of the tests shall be reported to the Division as soon as they become available.

(4) High resolution vertical aerial photographs of scale 1" = 200' or 1 to 2400 shall be made of the area within a one (1) mile radius of the proposed liquid and solid waste disposal facilities perimeter. Such photographs shall be made prior to commencement of any further construction in the La Polvadera Canyon area, and once every year thereafter following commencement of discharge in the area. Area of coverage for each set of photographs shall be identical. Photographs shall be certified by the photographer and submitted to EID as soon as prints are available.

(5) The discharger shall notify the EID in writing within a week when a trench excavation is complete. After excavation of any trench and prior to any tailings being discharged thereto, there shall be an EID inspection of the trench for fractures, unplugged drill holes, or any other features which could provide avenues of excursion from the trench. If such features are found, effective corrective action and/or additional monitoring as approved by EID shall be accomplished by the discharger before any discharge of tailings to the trench.

(6) The discharger shall notify the EID in writing within one week of the excavation of the alluvium from the evaporation pond bottom. Before installation of the pond lining there shall be an EID inspection of the pond bottom, and the discharger shall perform a detailed examination of the joint and fracture systems present on the exhumed rock surface. If the examination by EID or by the discharger reveals significantly greater fracture related permeability than therefore considered in the seepage analyses, seepage assessment shall be revised to consider the effects of the enhanced permeabilities. If the revised seepage assessments suggest that discharges to the evaporation pond may cause the standards of Section 3-103 of the regulations to be exceeded in ground water at any place of present or reasonably forseeable future use, then effective corrective action as approved by EID shall be accomplished by the discharger before any discharge of wastes to the pond. If the Director determines that the proposed corrective action constitutes a modification to the discharge plan, an amendment to the plan shall be sought.

(7) The discharger shall measure in situ moisture contents in the cores obtained during the installation of shallow monitor wells in the La Polvadera Canyon area. The results of the tests shall be submitted to the EID as soon as they become available. If the measured moisture contents are significantly higher than theretofore considered in the seepage analyses, the discharger shall revise the seepage assessments to consider the effects of the increased in situ moisture.

If the revised seepage assessments suggest that discharges to the La Polvadera Canyon disposal facilities may cause the standards of Section 3-103 of the regulations to be exceeded in ground water at any place of present or reasonably forseeable future use, then effective corrective action as approved by EID shall be accomplished by the discharger before any discharge of wastes to the pond. If the Director determines that the proposed corrective action constitutes a modification to the discharge plan, an amendment to the plan shall be sought.

(8) Prior to discharge of any waste products in La Polvadera Canyon, the discharger shall develop and submit for EID approval a revised monitoring system, and shall have received EID approval thereon. The information obtained from carrying out conditions (6) and (7) detailed above shall be used in developing the revised monitoring system.

(9) The discharger shall on a quarterly basis, collect representative samples of the evaporation pond liquid and by measurement suitable to EID estimate the total volume of liquid in the pond. The liquid samples shall be analyzed for the standard consitiuents tabulated in section 3-103 of the regulations and for total suspended solids.

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1. INTRODUCTION

Background Information

On February 18, 1980, Gulf Mineral Resources Company (Gulf) submitted a proposed ground water discharge plan (DP-117) for its Mt. Taylor Uranium Mill Project, located near the town of San Mateo, in McKinley County, approximately 30 miles northeast of Grants. The proposed discharge plan was submitted pursuant to requirements set forth in the amended New Mexico Water Quality Control Commission Regulations, adopted January 11, 1977. The plan presents the potential impacts to ground water which may result from the proposed project.

This paper highlights the results of an analysis of the proposal, conducted by the technical staff and consultants, of the New Mexico Environmental Improvement Division's Water Pollution Control Bureau. The comments/discussions herein are based upon a review of the initial submission of February 18, 1980, additional information supplied by Gulf pursuant to EID request, on-site investigations, and independent literature and laboratory sources. An attempt was made to determine whether Gulf's proposed plan satisfies the technical requirements of the New Mexico Water Quality Control Commission Regulations. Specifically, "Has Gulf sufficiently demonstrated that discharges (planned or accidental releases) will not result in ground water contamination beyond standards at a place of withdrawal during the present or foreseeable future?" (Section 3-109.C3).

For the reader to properly understand the scope of this review, some general comments regarding the Regulations seem in order. Major provisions of the NMWQCC Regulations include the following requirements:

*Ground water having an existing total dissolved solids concentration of 10,000 milligrams per liter (mg/l) is to be protected from contamination resulting from discharges onto or below the surface of the ground. Maximum concentration levels are established at the point of use for arsenic, barium, cadmium, chromium, cyanide, fluoride, lead, total mercury, nitrate, selenium, silver, uranium, and combined radium-226 and radium-228 radioactivity, based on human health criteria. There are additional standards based on other domestic use criteria and criteria for irrigation use.

*A proposed discharge plan shall set forth in detail the methods or techniques the discharger proposes to use or processes expected to naturally occur wthich will ensure ground water protection. The discharger must demonstrate that approval of the discharge plan will not result in concentrations in excess of the standards at any place of withdrawal of water for present or reasonably future use. Detailed information on site geologic and hydrologic conditions may be required for a technical evaluation of the applicant's proposed discharge plan.

*Provided that the other requirements of these Regulations are met, the EID director shall approve a proposed discharge plan if the discharge will not result in standards being violated at the place of use in the present or reasonably foreseeable future.

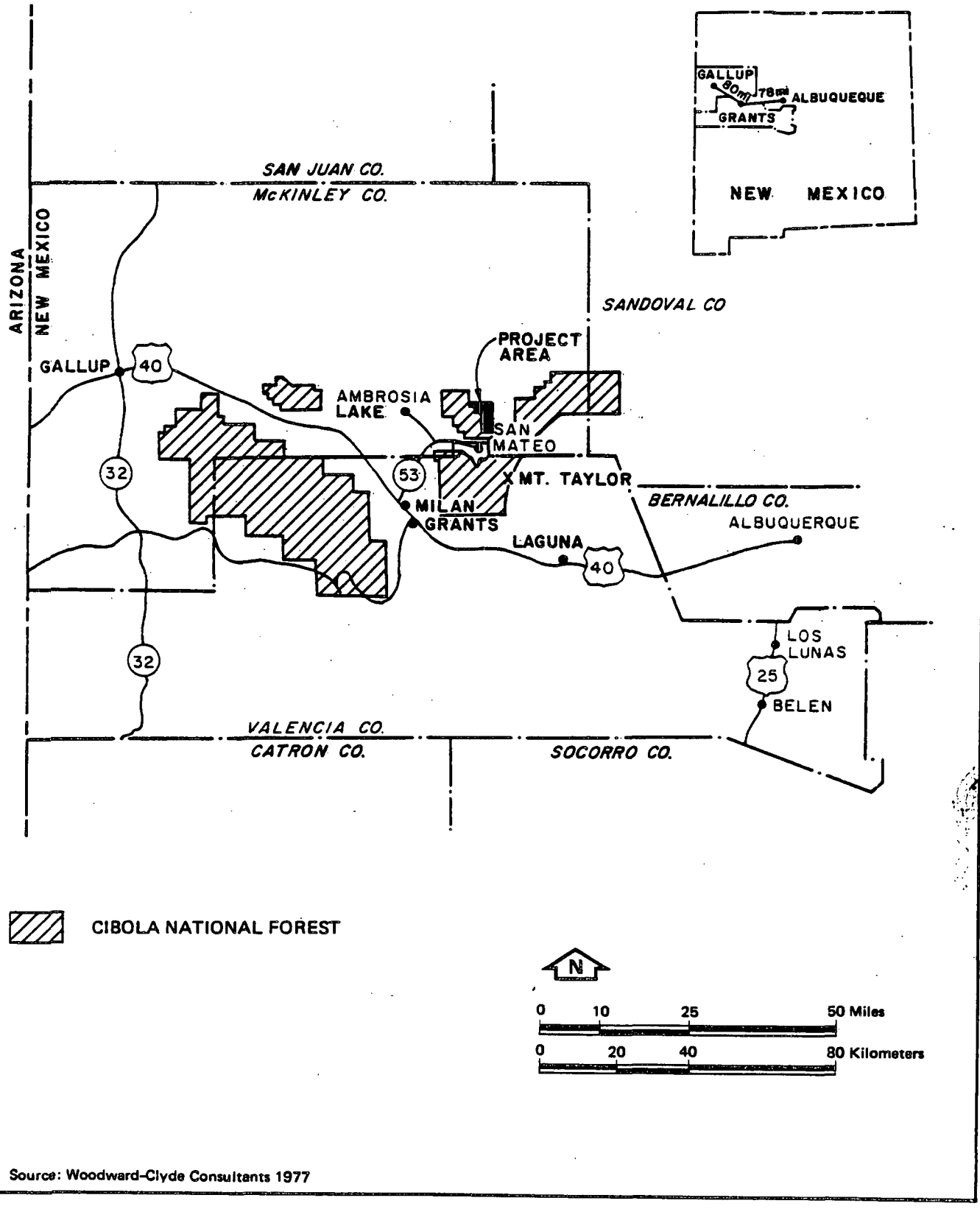
Principal investigator for this review was Bruce Gallaher, Water Pollution Control Bureau geohydrologist. Principal Water Pollutcion Control Bureau Consultants utilized for this review included: Dr. Jonathan F. Callender, structural geologist; Dr. Ronald D. Runnells, geochemist; Dr. David L. Schreiber, hydraulic engineer consulting for the Radiation Protection Bureau; Dr. Daniel B. Stephens, hydrogeologist; and Dr. Stephen G. Wells, geomorphologist. Additional discussion were held with John S. McLean and Elmer S. Santos of the United States Geological Survey, and with Dr. Edward Kelley, reclamation specialist with the New Mexico Surface Mining Bureau; their assistance is gratefully acknowledged. The United States Nuclear Regulatory Commission also performed an analysis of portions of the proposed ground water discharge plan at the request of the EID director.

It must be emphasized that this evaluation was developed without the benefit of the discussions and testimony to be presented during the forthcoming public hearing on the plan. As such, this document should be viewed as a preliminary assessment, subject to change as a result of new evidence presented at the hearing.

Major Features of the Project and of the Discharge Plan

The Mt. Taylor project consists of a processing mill for extracting uranium ore from sandstone rock, and a disposal system for liquid and solid waste products generated by the milling operations. The ore will be removed from the Mr. Taylor mine by conventional mining techniques and then trucked three miles to the proposed mill site. (Discharges associated with the Mt. Taylor Mine are regulated by other approved discharge plans and will not be directly considered in this analysis.) The mill facility is proposed to be located in Lower San Lucas Canyon, Section 1, T13N, R8W, McKinley County, New Mexico, approximately 3.5 miles north of the town of San Mateo. Within the mill, the rock material will be crushed, and the uranium removed by acidic chemical extraction. A tailings pipeline, approximately six miles in length, will transport wastes from the mill process to the tailings disposal area. Figures 1 and 2 show the project location and its relation to critical populations:

The applicant proposes to dispose of tailings in Sections 14, 15, 23, T14 N, R8W, McKinley County, in La Polvadera Canyon approximately 4 miles northwest of the mill site. Approximately 1,400 gallons per minute of the tailings slurry, consisting of 20-40 percent by weight solids, is proposed to be discharged into a parallel series of dragline excavated trenches. Fluids draining from the solids will be collected and pumped to a settling pond(s) and thence to an evaporation pond. During the planned project life from 1982 through year 2003, approximately 12.6 million tons of solid tailings will be buried. This tonnage represents one-half of the mine ore production



Source: Woodward-Clyde Consultants 1977

Figure 1
PROJECT LOCATION

Source: Gulf Mineral Resources Company.

Figure 2
POPULATION DISTRIBUTION
WITHIN 5 MILE RADIUS OF MILL

minus five percent for dissolution during processing. The remaining 50 percent of the mill tailings is proposed to be returned to the Mt. Taylor Mine for use as backfill material. (Such a backfilling operation will involve a separate discharge plan analysis, and will not be further considered in this review.)

The proposed ground water discharge plan separately addresses potential ground water quality impacts from the three main features of the project: the mill site; the tailings and liquid waste pipelines; and the tailings and liquid waste disposal facilities. Our comments will similarly focus on the separate features of the project.

2. PROJECTED GROUND-WATER QUALITY IMPACTS FROM THE MILL FACILITY

Approximately one-half mile downstream (northeast) of the Mt. Taylor Uranium Mill, a lined containment pond is provided to contain any major spillage from the mill, process area runoff and treated sewage water. An impoundment to hold storm water that exceeds the capacity of the containment pond is also provided. These features are shown in Figure 3.

The containment pond, with a capacity of 2 million gallons, is sized to contain the spillage that would result if the largest process vessel in the mill, containing approximately 1.5 million gallons, failed. The pond is lined with 20 mil PVC plastic and covered with a 12-inch compacted earth and rock blanket. An automatic diversion system will divert storm runoff past the lined containment and into the mill impoundment when the pond's capacity is exceeded. The containment will be provided with pump back facilities for returning liquids to the mill process.

The mill impoundment, with a capacity of approximately 75 million gallons, will be created by a 565-foot long catch dam. The dam will be a earth-filled reservoir type structure which will be positively keyed five feet into bedrock at its base. To reduce seepage beneath the structure, grout will be injected into the bedrock along the dam centerline. An open cut spillway is incorporated to preclude dam overtopping.

The proposed containment pond and mill impoundment will stratigraphically overlie twenty to forty feet of fine-grained alluvium which, in turn, overlies the Menefee formation of Cretaceous age. Figure 4 shows a generalized stratigraphic section for the rocks found in the project area. The Menefee is predominately comprised of relatively impervious siltstones, sandstones, and shales. Geotechnical-related exploratory drilling conducted at the site indicates the presence of zones of saturation within the alluvium and the Menefee. Ground water encountered in the alluvium is felt by Gulf to be of a discontinuous perched nature and of insufficient volume to be used for supply. It is the applicant's position that the only potential aquifer in the mill site area is a thin resistant sandstone bed within the Menefee. Based upon a series of bailer and injection tests, low rates of production and injection (about 1 gallon per minute) were achieved by Gulf's contractors from that sandstone bed.

No water quality monitoring of the surficial alluvium is felt to be necessary by Gulf. A piezometer will be emplaced in the alluvium near the containment basin though and monitored for fluids on a quarterly basis. If seepage is indicated, an alluvial water sampling program may be initiated. Additionally, a hydrologic test well completed in the sandstone bed discussed above will be monitored on a semi-annual basis for water quantity and quality changes resulting from the operations. The monitoring instrumentation for the mill impoundment dam will consist of open-well piezometers and surface displacement monuments. The piezometers will be monitored for water levels quarterly and provide quantitative data on the effectiveness of the underseepage control measures. The surface displacement monuments will be used to monitor horizontal and vertical displacements within the dam structure, and will be read semi-annually.

FIGURE 3
MILL PLOT PLAN

PLAN

SYSTEM	ROCK UNITS		LITHOLOGY	
QUATERNARY	ALLUVIUM		Qal	sand and gravel, poorly sorted and cemented
TERTIARY	VOLCANICS		Tb	basalt, andesite, rhyolite, lava flows and dikes
CRETACEOUS	MESA-VERDE GROUP	MENEFEE FORMATION	Kmf	gray, brown claystone and shale, sandstone, limestone and coal
		POINT LOOKOUT SANDSTONE	Kpl	dark orange to yellowish gray arkosic sandstone
		CREVASSE CANYON FORMATION Gibson Coal Member Dalton Sandstone Member Mulatto Tongue (Mancos Shale) Dilco Coal Member	Kcc Kcda Kmm Kcdi	sandstone, claystone, shale
		GALLUP SANDSTONE	Kg	brown sandstone
	MANCOS SHALE Tres Hermanos Member		Km	dark gray shale with interbedded sandstone
	DAKOTA SANDSTONE		Kd	tan to gray quartz sandstone
JURASSIC	MORRISON FORMATION Brushy Basin Member Jackpile sandstone Poison Canyon sandstone Westwater Canyon Member Recapture Member		Jm	sandstone mudstone and sandstone sandstone and mudstone sandstone and siltstone
	BLUFF SANDSTONE		Jb	pale red to brown sandstone
	SAN RAFAEL GROUP	SUMMERVILLE FORMATION	Js	pale brown sandstone and siltstone
		TODILTO LIMESTONE	Jt	limestone
		ENTRADA SANDSTONE	Je	fine-grained sandstone
		CARMEL FORMATION		red, fine-grained silty sandstone
		WINGATE FORMATION		red to tan sandstone
TRIASSIC	CHINLE FORMATION		Rc	red shale with interbedded red siltstone and sandstone
PERMIAN	SAN ANDRES FORMATION Glorieta Member		Pg	limestone white to tan fine-grained, cross-bedded sandstone

Source: Modified from Hazlett and Kreek 1963

Figure 4
STRATIGRAPHIC COLUMN

Our analysis of the site's geology and hydrology and of the engineering concepts and designs incorporated into the containment pond and mill impoundment generally supports Gulf's conclusion that minimal impacts to ground water should result from these structures. This is based upon the following key factors:

1. Planned discharges at the mill site, e.g., process area washdown water and sewage water, will be relatively low in volume. Except during periods of extraordinary precipitation, sufficient freeboard should exist in the containment pond to contain any major process spillage. Contaminated releases to the mill impoundment area, therefore, are seen to be infrequent.

2. The containment basin is proposed to be lined with 20 mil PVC plus 12 inches of earth and basin so that migration of liquid from the pond into the underlying strata will be minimized. The PVC is chemically compatible with the acidic mill waste, while the earth cover will greatly reduce ozone and ultraviolet radiation weathering effects on the lining.

3. Any major process spill which drains to the basin will be pumped back to the mill circuit, thereby limiting the retention time of such liquids in the basin to a relatively short period.

4. Examination of available drilling information and of on-site hydrogeologic features supports the applicant's interpretation that a limited perched zone of saturation exists in the alluvium near the mill site. Monitoring of the perched zone, however, seems appropriate because surficial features suggest that the alluvial ground water system becomes more extensive north of the mill impoundment. This is being accomplished via an open-well piezometer near the containment pond. Seepage into the alluvium from the mill impoundment should be minimal due to the positive cutoff trench and grout curtain within the dam. Open-well piezometers within the dam should allow for detection of significant seepage to the alluvium from the impoundment.

5. Water levels established within the Menefee formation indicate extensive local saturation of the mill site bedrock. Pump test data obtained from the mill site, from Gulf installed wells in nearby San Lucas Canyon, and from other areas within the San Juan Basin, however, show the hydraulic conductivity of the formation to be relatively low. The formation is highly stratified; vertical hydraulic conductivities will therefore be even lower than reflected by pump test data. The potential for vertical excursions of seepage into the Menefee is thus considered to be slight from the containment pond or from the mill impoundment.

In summary, the applicant's proposed ground water pollution protection design for the mill facility is considered to be satisfactory to meet the NMWQCC Regulations.

3. PROJECTED GROUND WATER QUALITY IMPACTS FROM THE TAILINGS PIPELINE

Tailings and waste fluids from the milling process, are to be transported through a pipeline to the La Polvadera disposal site. The tailings pipeline system consists of two pumping facilities at the mill (one operational and one standby), one slurry pipeline from the mill to the tailings impoundment and one decant return line from the evaporation pond to the mill which, if the need arises, can also be utilized as a slurry line.

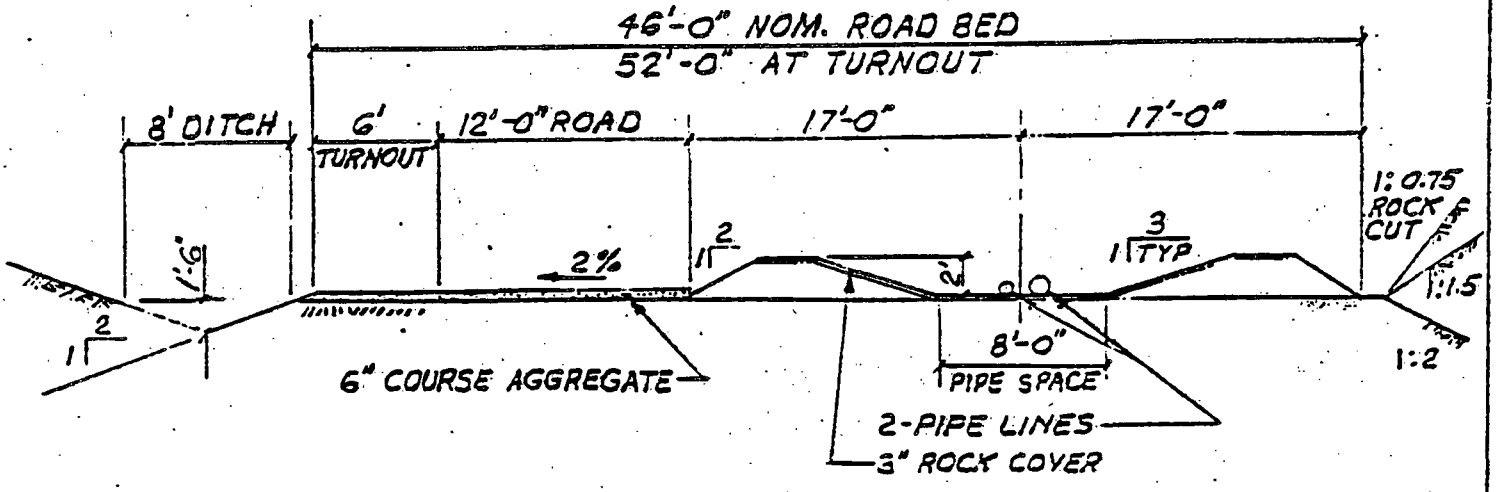
Critical Design Features

The tailings pipeline parallels San Lucas Canyon from the mill site to the La Polvadera tailings disposal area, a distance of approximately six miles. The pipeline would consist of eight-inch, rubber lined carbon-steel, schedule 30 pipe for transport of the tailings slurry and an identical pipe in the six-inch size for returning decant liquid. The entire length of the pipeline would lie within a rock faced pipeway with two-foot-high dikes. The pipeline system would be elevated above the 100-year floodplain, contain nine spill containment basins, located at low points along the pipeway, and be paralleled by a service road and security fencing. Each catchment basin is sized to hold with freeboard the full volume contained between adjacent high points in the pipeline plus an additional ten minutes flow in the two pipelines, and precipitation from a hundred year storm. The basins will be lined with 20 mil PVC plastic and covered with earth and rock. Figure 5 presents typical cross sections of the pipeway and catchment basin.

Significant statistics associated with the design of the pipeline are listed below:

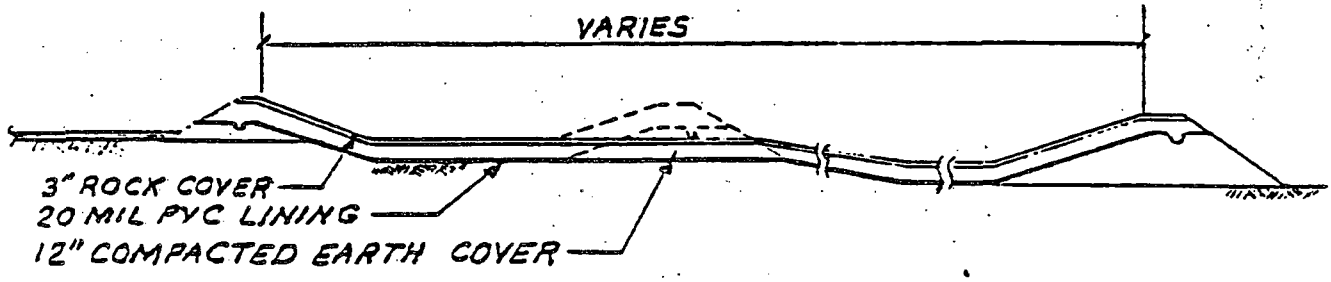
* length	6 miles
* flow	500 - 1,500 gallons per minute
* velocity	6 - 10 feet per second
* weight % solids	21 - 55%
* pipe sizes	1-8 inch; and 1-6 inch
* pipe wall thickness	1/4 inch carbon steel
* pipe liner thickness	1/4 inch rubber
* pipeline couplings	victaulic
* design pressure ratings	
pipeline	1,200 psig
fittings and couplings	800 psig

Due to the low pH of the tailings, an acid resistant piping is required. Of the two primary alternatives, rubber-lined steel piping and acid resistant plastic piping, the plastic piping was rejected because the length of the pipeline would have required multiple pump stations along the pipeway route. Multiple pump stations would not only have increased the complexity of the pipeline operation, but would greatly increase the risk of accidental spills



TYPICAL SECTION

SERVICE ROAD & TAILINGS PIPEWAY



TYPICAL SECTION

TAILINGS PIPEWAY @ CATCHMENT BASIN

1" = 10'-0"

FIGURE 5
TAILINGS PIPELINE CROSS SECTION

along the route. For safety and ease of maintenance, it was decided to transport the tailings slurry using a single lift pump station located within the mill. Utilization of a single lift to transport the tailings a distance of six miles necessitates the use of steel pipe.

The tailings pipeline is to be constructed of rubber-lined carbon steel, schedule 30 pipe. The pipeline will have a design pressure rating of 1,200 psig with fittings and couplings rated for 800 psig. The pipe sections will be joined by victaulic type couplings for ease of maintenance. The pipeline will be constructed of standard length sections so that an inventory of replacement sections can be maintained. Test spools of shorter lengths will be placed at appropriate locations for ease of inspection.

Pipeline security and spills will be controlled by redundant control and interlock flow metering systems, a round trip visual inspection of the pipeline twice per shift, and a maintenance and inspection program. Automatic shutdown of the pipeline pumping station will occur if a flow differential of ten (10) percent within the ends of the pipeline is detected by the flowmeters.

A single pump station is provided for tailings transport and is located within the mill. Any spills or releases of tailings within the pump station will be contained within sumps and the containment basin within the mill exclusion area. Pumping of tailings is accomplished by multi-stages of centrifugal pumps operating in series, that is, each pump will feed the suction of the following pump. The last pump in the train feeds the tailings pipeline. The first and last pump in the series is provided with a variable speed drive for process control. A complete series of spare pumps is provided. The pumps are sized such that they will have a maximum shutoff pressure of 650 psig, which is well below the design pressure rating of the pipeline.

The primary feature of the pipeline control system is flowmeters placed on both the inlet and outlet of each pipeline. The flowmeters on each end of a pipeline will be calibrated at frequent intervals to ensure the integrity of the instrumentation.

Flow differential of five percent between the flowmeters at the inlet and outlet of the pipeline will trigger an alarm. The operator will make an immediate inspection of the pipeline to assess the problem. Automatic shutdown of the pump train will occur if flow differential reaches 10 percent.

The pipeline operator can utilize the spare pump train and spare pipeline, but cannot stop the shutdown procedure of the affected line. Shutdown of the pumps will occur simultaneously with the detection of the 10 percent flow difference; however, it is estimated by Gulf that the momentum of the flow of fluids within the pipeline will continue flow for a period of about ten minutes. It is conservatively estimated that the flowmeters will detect flow differentials of two percent of the flow within the pipeline.

The drain and vent valves are provided with alarms displayed in the central control room. This will alert the operator to flow through the valves so that corrective action can be initiated. The vent valves are small valves atop the pipeline at the high points to allow for release of air. The drain valves are located at the low points of the pipeline immediately adjacent to the low point catchment basins.

Of critical importance to maintaining the integrity of the pipeline are the planned maintenance and inspection schedules. Physical inspection of the entire length of the pipeline will be accomplished by having a pipeline inspector traverse the round trip distance from the mill to the tailings impoundment twice per shift, or in accordance with good engineering practice. Clock stations will be installed at both ends of the pipeline route to provide records of the inspection schedule. The pipeline inspector will be equipped with a radio for alerting the mill operators to any conditions requiring immediate attention. Therefore, in case any leak is detected, repair of the pipeline, and the removal of tailings accumulated within the catchment basin will be initiated, minimizing any potential adverse impacts to the environment.

At locations that will experience the most critical wearing of the rubber lining, short spool sections will be installed that can be easily removed for detailed inspection. The results of the inspection of the test spools will dictate when pipeline sections should be replaced. Ultrasonic testing of sections most susceptible to wear will be conducted quarterly by a qualified technician.

Analysis of Potential Discharges to Ground Water

Gulf's Evaluation

The tailings pipeline obviously should not be a source of seepage except under accident conditions. Gulf has presented arguments that even under the most severe of accidents, ground water will not be degraded beyond the standards set forth in the New Mexico Water Quality Control Commission Regulations.

The tailings pipeline generally lays directly west of San Lucas Wash, an arroyo in the San Lucas Canyon, for approximately the first four miles of its six mile length. At three points along the pipeline route, the tailings pipelines will cross major drainage channels. At these crossings, a concrete pipeway of the same dimension of the rip-rapped pipeway and supported by a concrete trestle will contain the pipelines. Corrugated metal pipe culverts will provide drainage for minor channels beneath the pipeway. For the remainder of the pipeline route, the pipeline varies in distance from the wash, but is generally greater than 150 feet.

The water bearing unit in San Lucas Canyon most likely to be impacted from an accidental rupture in the pipeline is judged to be the alluvium in which the arroyo is dissected. The alluvium is underlain by the relatively impervious Point Lookout and Menefee sandstone and siltstone formations; the bedrock essentially forms a bathtub-type containment vessel beneath the alluvium. The alluvium has an estimated maximum thickness within the Canyon of approximately 100 feet. With the exceptions of slight thinning of the surficial alluvium and slight reduction in channel gradient, geologic conditions remain similar for about the next 30 miles downstream.

Gulf estimates that the maximum potential release which would occur in the event of a pipeline rupture would be 74,000 gallons of tailings slurry. Under the "worst case scenario" presented, none of the liquid portion of the

slurry would infiltrate into the alluvium along the arroyo bank, and all of the slurry water would enter the San Lucas Wash within sixty minutes. The slurry would immediately commingle with about 5,000 gallons per minute of treated mine water which is discharged continuously into the wash from the Mt. Taylor mine. Dilution of the contaminated stream is anticipated to occur relatively rapidly and any stream bottom recharge to the shallow ground water system would be essentially undetectable.

An additional safety factor, applicable in the case of either a pipeline or evaporation pond dam failure, is the capability of Gulf to divert dewatering pipeline flow to Marquez Canyon. Using a large valve installed for this purpose, this diversion could be accomplished within minutes of the spill alarm, thereby eliminating the transport medium north in San Lucas Canyon.

Independent Evaluation

In conducting our analysis of the tailings pipeline system, we have reviewed the applicant's proposed engineering design and specifications for the pipeline system as well as the hypothetical rupture scenario. The designs and conclusions reached by Gulf are generally supported by the staff. It is felt that the applicant has developed and used acceptable engineering design criteria. These criteria were based on the design and operating experience of other similar slurry pipelines at several locations around the world. Safety, reliability, and maintainability were primary considerations in selecting the pipeline materials, pumps, controls, etc. The pipeline system design incorporates features that minimize the potential for undesirable release of tailings slurry. These features include multiple and redundant instrumentation and frequent inspection schedules.

The possibility of spills from the pipeline is minimized by the redundant control systems. Automatic shutdown will occur if the flow differential between the inlet and outlet of the pipeline reaches 10 percent. Drain and vent valves provided with alarms are also included in the pipeline design. The vent valves are located on top of each pipeline at the high points to allow for release of air. If the flow differential reaches 10 percent triggering a shutdown of the tailings pumping system, an interlock system will begin opening the vent valves. This feature will prevent siphoning of the slurry from beyond adjacent high points. The system cannot start up until all vent valves are closed. Furthermore, the pipelines are to be placed in a rip-rapped pipeway that will include nine catchment basins at low points along the pipeline route. The pipeway and catchment basins will act to contain spills or leakage, if required.

Regarding the discussion of a possible tailings pipeline rupture, the applicant has presented a generally realistic, albeit oversimplified, evaluation of the resulting water quality impacts. The discussion focuses on three processes to reduce the contaminant levels to acceptable limits: dilution of the contaminant stream by mine water conducted in San Lucas Wash; moisture deficits in the surficial soils which would impede rapid infiltration of the waste to the water table; and geochemical attenuation of the percolate, principally by pH change and adsorption. The staff feels

that dilution provides a reliable attenuation mechanism for the waste discharge. Complete transverse and vertical mixing would occur quickly in the stream. Geologic conditions downstream would tend to encourage relatively uniform stream bottom recharge rates; this should result in recharge of a thin, narrow and elongate, horizontal tabular slug of the diluted waste stream. Continual recharge of treated mine water into the shallow ground water system will provide for further moderation of the contamination. Primary reliance should not be placed on moisture deficits or on geochemical processes for attenuation of the spillage, as their potentials remain speculative without further quantification.

The closest community along the drainage system which could be affected by a tailings release is the small village of Guadalupe which is located approximately 40 miles below the northern segment of the pipeline. Localized pockets of slightly contaminated ground water may result from the hypothetical spillage, but immediate withdrawal of that water downstream cannot be reasonably anticipated.

In summary, it is our opinion that the applicant's proposed pipeline system design is acceptable. It is believed that the redundant instrumentation and frequent inspection schedules will virtually eliminate any possibility of accidental spills adversely affecting ground water quality. Assuming a major release of tailings via pipeline rupture, it is unlikely that ground water standards would be violated at a place of foreseeable use.

4. PROJECTED GROUND WATER QUALITY IMPACTS FROM TAILINGS AND LIQUID WASTE DISPOSAL FACILITIES

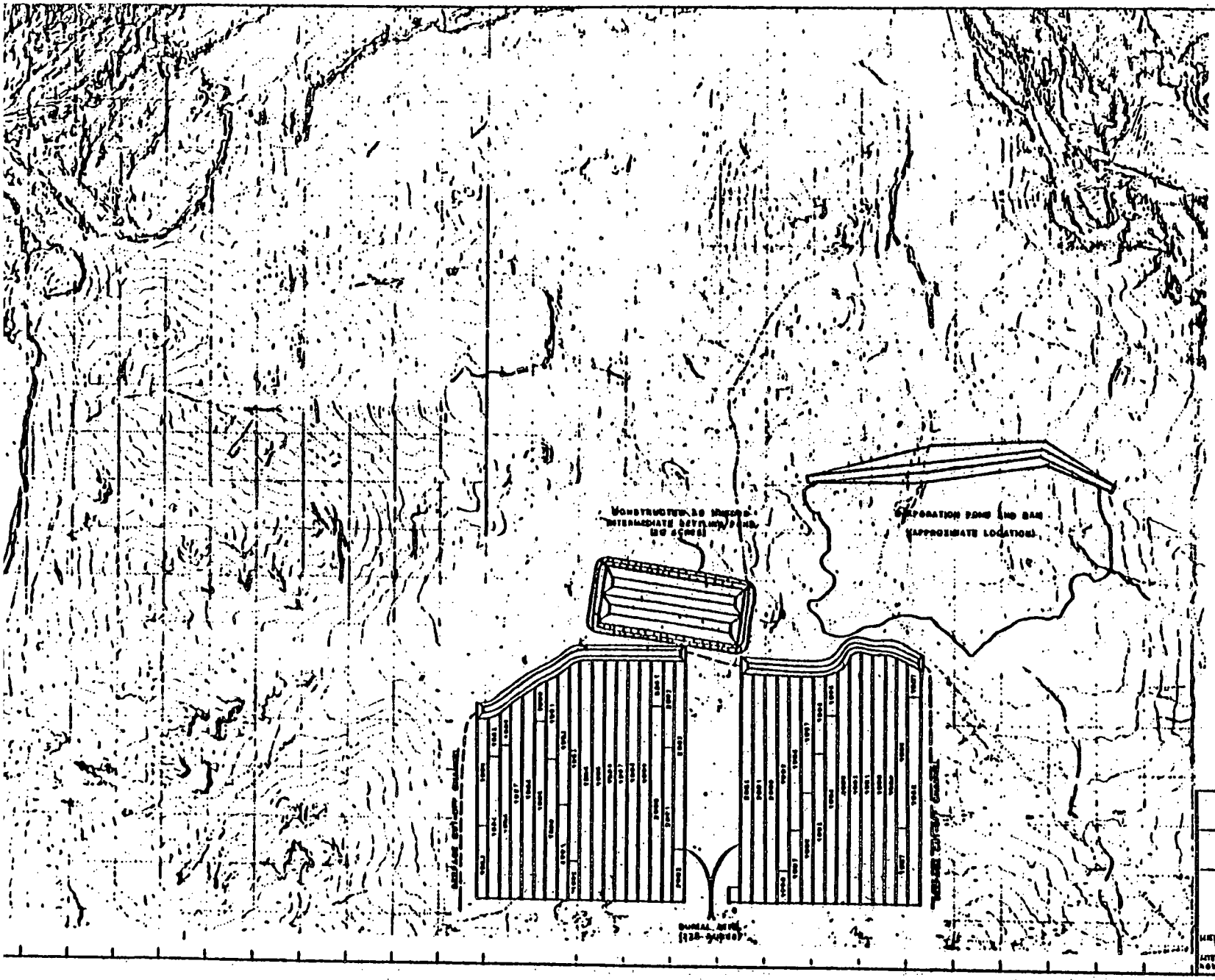
Gulf proposes to dispose of liquid and solid wastes from the Mt. Taylor Uranium Mill in La Polvadera Canyon, approximately 4 1/2 miles north northwest of San Mateo, New Mexico. The La Polvadera Canyon area is a broad, rolling, bowl-shaped basin drained by several washes that converge and drain through a series of low hogback ridges into San Lucas Canyon. At the crest of the basin where the tailings disposal area would be located, rock units are horizontal to gently dipping; at the flank of the basin, they are steeply dipping 20 to 30 degrees. The La Polvadera Canyon facility will consist of a parallel series of dragline excavated trenches for burial of tailings, a slimes settling pong and an evaporation pond. The La Polvadera Canyon burial system is illustrated in Figure 6.

The Tailings Disposal Trenches

Critical Design Features

The first trench would be excavated by the dragline to the limits of the project boundary and the excavated material (spoil) would be stock-piled beside the box cut. Each trench will be approximately one-half mile in length, 75 feet wide at the bottom, 125 feet wide at the surface, and 50 feet deep. The trenches would be excavated into the Mulatto Tongue Member of the Mancos Shale and the Dilco Coal Member of the Crevasse Canyon Formation, which are relatively tight bedrock units of predominantly shales and siltstones. The depth of excavation would be controlled such that the top of the underlying, more permeable, Gallup Sandstone would be at least ten feet below the trench bottom. Prior to excavation, the overburden rock would have to be blasted, but the shot holes would not be placed closer than five feet above the final grade to prevent fracturing the rocks forming the trench bottom. A bulldozer would be used to establish the final trench bottom configuration.

The tailings slurry would be discharged from the pipeline at the elevated end of a trench, forming a sand beach and causing deposition of the more clayey portion of the slurry (slimes) along the trench bottom. (The trenches would have a gradual longitudinal slope at the bottom of less than one percent.) Berms would be constructed at intervals along the trench bottom to promote pooling and settling of slimes. In this manner, sand beaches will eventually cover the slimes. The slimes would be concentrated at or near the bottom of the trench and would tend to seal open fractures or more permeable areas on the trench bottom and sides. Liquid which drains from the solid portion of the tailings would be pooled downslope and pumped to the slimes settling pond. When the area behind the berm is filled, tailings deposition will continue in the same manner behind a new berm constructed downstream within the trench.



ROCKY MOUNTAIN DIVISION
THE PACE COMPANY
CONSULTANTS & ENGINEERS, INC.

FOR: GULF MINERAL RESOURCES Co.

URANIUM MILL TAILINGS
BURIAL SYSTEM LAYOUT
LA POLVADERA CANYON

SCALE: 1" = 800'
DATE: NOVEMBER 1979

FIGURE 6

As each succeeding parallel cut is made, the spoil would be deposited on top of the dewatered tailings that had been placed in the previous trench. The trenches would be filled with tailings to within five feet of existing ground level. Reclamation of the tailings burial area would begin after a trench is filled and covered with spoil. The spoil would be graded to slope, covered with previously stockpiled topsoil, and revegetated.

To intercept lateral horizontal seepage along rock bedding planes, sandstone layers and shallow fractures, Gulf proposes to construct an open trench drain along the periphery of the disposal trench area. Similarly, adjacent trenches would act as drains as they are opened next to an active trench. Sump pumps would be used to collect seepage if it appears in the drains or adjacent trenches and route it to a settling pond.

Over the life of the disposal operation, approximately 225 acres of land would be required to dispose of the tailings.

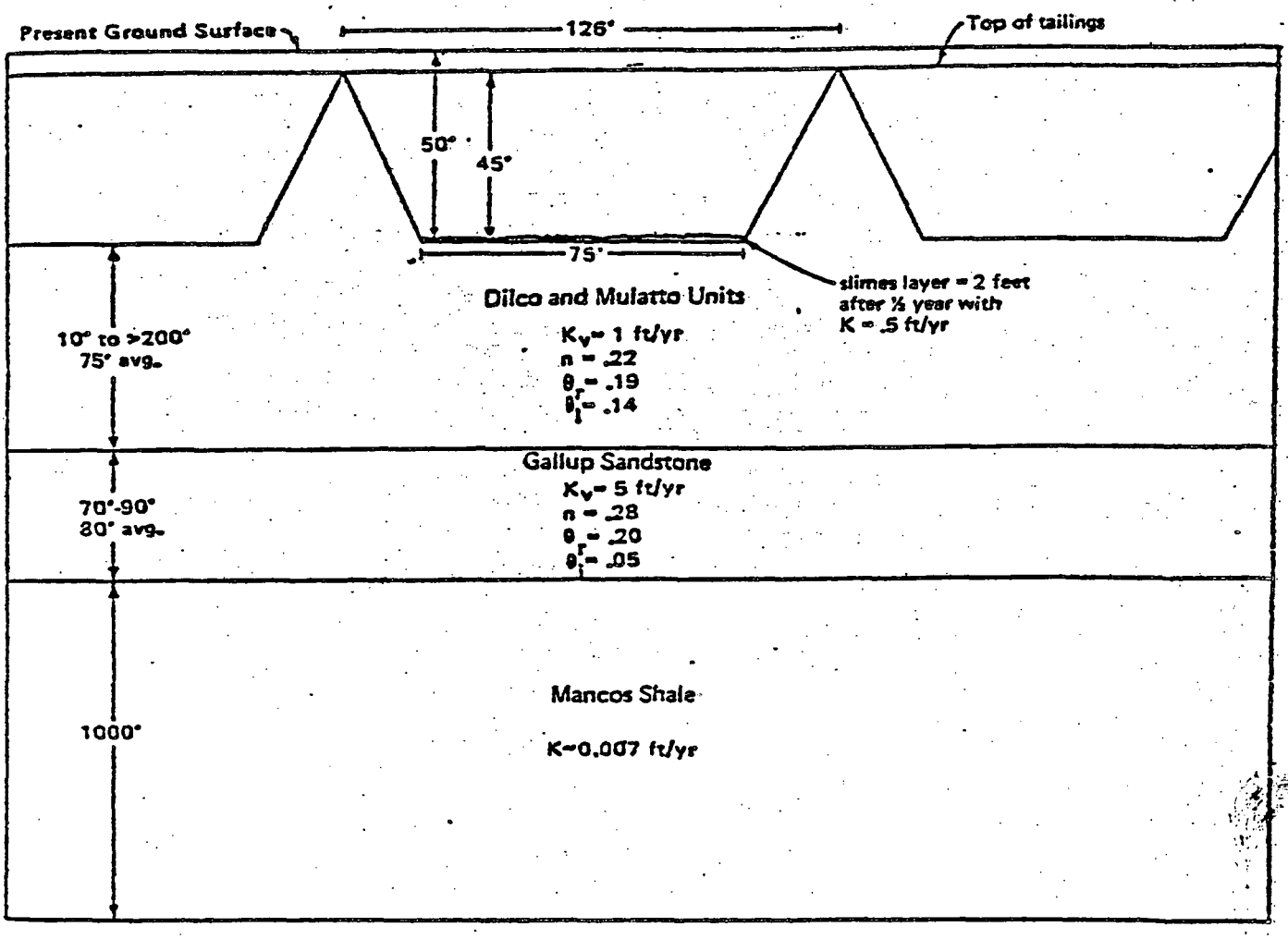
Analysis of Potential Discharges to Ground Water

Gulf's Evaluation

To investigate the seepage potential of the trench disposal scheme, the applicant used the McWhorter and Nelson computational procedure which takes into account the hydraulic conductivity and thickness of tailings, liner and foundation rocks. The seepage model used for computations is shown by Figure 7. Computations were done by 1/4-year periods, assuming that trenches would be sized for filling in one year. Slimes permeability was estimated to reach 5×10^{-7} cm/sec (0.5 feet/year) after 0.5 year. Two conditions were analyzed: a worst case condition where the Dilco unit thickness beneath the trench bottom was 10 feet; and an average condition, where the Dilco unit beneath the trench bottom was 75 feet thick. The thickness of the Dilco units, which varies beneath the disposal trenches as a result of both geological structure and topographic relief ranges from 10 to more than 200 feet, averaging about 75 feet over the 225-acre disposal area. The trenches have been sited so that at least 10 feet of Dilco siltstone and shale are present between the trench bottom and the top of the Gallup Sandstone.

For the two cases (10 feet and 75 feet of Dilco), seepage and drainage amounts (specific yield estimated at eight percent for tailings) were computed. These were compared with available retained pore water storage capacity of the underlying Gallup Sandstone, computed as (80 feet) (0.15) (126 feet wide trench) = 1,512 ft^3 per linear foot of trench. For the worst case, seepage plus drainage would equal 798 ft^3 per linear foot of trench. For the average case, seepage plus drainage would be 518.3 ft^3 per linear foot of trench. Neither of these estimates is as great as available storage retention, so that saturation of the Gallup is not expected to occur, even in the areas where the Dilco is relatively thin. Total estimated seepage (including drainage) is 919 acre-feet, assuming 77,290 linear feet of trench. Retained storage capacity in the Gallup Sandstone for this length of trench is estimated at 3,521 acre-feet, or more than three times estimated seepage. Therefore, it was concluded by Gulf that the foundation rocks will not reach field capacity, and saturation will not occur in the Gallup Sandstone. Minor

Dragline Disposal Trench
Diagrammatic Cross Section
Not to Scale



GULF MINERAL RESOURCES CO. Mt. Taylor Uranium Mill Project	
Earth Sciences Associates Palo Alto, California	
SEEPAGE MODEL– DRAGLINE TRENCH TAILINGS DISPOSAL	
Checked by S. L. Turner Date 2/14/79 Approved by HC Date 2/14/79	Project No. 2150

Fig. 7

perched saturated zones are expected to occur within the Dilco unit, but if they spread, they should be intercepted by the open peripheral drains or result in retained storage over a wider area. As a result, contaminants that escape the trenches by seepage were calculated to be retained in storage in the vadose zone beneath the disposal area and not reach saturated rocks that are potential aquifers.

Independent Evaluation

An independent evaluation of seepage from the unlined trenches was performed, considering higher hydraulic conductivity values than the values used by the applicant. This is appropriate, given that the rate of seepage migration will normally be controlled by fractures and zones of materials with high hydraulic conductivities. In the calculations which were performed, hydraulic conductivities were obtained by arithmetically averaging the values from each drill hole, then using the 80 percentile value, i.e., the value greater than 80% of the values for all holes. This gave vertical hydraulic conductivities of 10 and 25 feet/year for the Dilco and Gallup units, respectively (and horizontal hydraulic conductivities of 20 and 50 feet/year, respectively).

Less than the highest hydraulic conductivities were used because the geology is such that it is unlikely that the zones of measured higher hydraulic conductivities will be completely interconnected. It appears as though the higher observed hydraulic conductivities are horizontal hydraulic conductivities occurring in relatively porous zones (such as sandstones) between more impermeable, flat lying strata. While such impermeable strata will not be continuous under the entire site, they can be expected to retard vertical flow, and thus seepage from the impoundment, to some degree.

Calculations were performed to check the reasonableness of the applicant's prediction that the quantity of seepage from the trenches would be no greater than that which would be stored in the retained storage volume directly beneath the trench area. These calculations used a vertical permeability of 10 feet/year (10^{-5} cm/sec) and a thickness of 10 feet in the underlying Dilco unit and did not consider a low permeability bottom layer of slimes. The resulting seepage amounted to approximately 13 cu. ft/yr - sq. ft. versus an available retained storage volume of 12 cu. ft/sq ft. beneath the trenches and above the Mancos Shale. Seepage for one year would result in a slight saturation mound, assuming behavior according to the model. The effect of channeling through zones of even higher permeability is unknown, but would not be expected to be a problem if the source for seepage was limited to the area of a single trench during a one-year period. As operations progress and trenches move into areas with greater thicknesses of the Dilco and Mulatto Tongue units, the thickness of the underlying Dilco layer would increase and seepage would decrease under the currently planned trench layout.

The quantity of liquid in a trench which would be available for seepage is conservative in that it is assumed that a trench would be filled with water to a 45-foot depth, i.e., a phreatic surface at the top of the tailings in a filled trench. The driving force for seepage also considers the suction provided by the Dilco Coal Member, i.e., the total hydrostatic head

is taken as (45 ft + 20 ft suction =) 65 feet. Even under worst case conditions, it would be expected that there would be some drainage of the tailings to below the fully saturated level.

The actual retained storage volume available for seepage directly beneath the trench area (5% and 15% by volume in the Dilco and Gallup units, respectively) is not unreasonable.

The applicant's proposed seepage control plan for the tailings trenches is considered adequate, because significant mounding of seepage beneath the trench area is not expected to occur.

Reclamation Potential

Reclamation of the tailings burial area will begin after a trench is filled and covered with spoil. A dozer will be used to flatten the spoil ridges and to grade the side slopes. Topsoil previously stripped from the area and stockpiled will be spread over the graded surface. Plowing and revegetation will then be initiated. The reclaimed surface will be protected against erosion with drainage ditches and rock protection. All slopes will be 6:1 or shallower.

An independent evaluation of the reclamation potential of the mill waste disposal site has been conducted by the staff and is discussed below.

The general geomorphic (landscape) setting of the La Polvadera Canyon tailings disposal site is:

1. Rounded, upland ridges composed of weathered mantle resting on the Dilco Coal Member of the Crevasse Canyon Formation and on the Mulatto Tongue Member of the Mancos shale,

2. broad, shallow alluvial valleys filled with Quaternary alluvium.

The site is just east of San Mateo Mesa which displays a steep (vertical in places) cliff face. The regional slope of the landscape is to the east. In the tailings disposal site, slopes of the bedrock ridges are approximately 1:20 (vertical:horizontal); whereas, slopes in the intervening alluvial valleys are approximately 1:30.

The alluvium, colluvium (hillslope debris) and weathered mantle in the trench area of La Polvadera Canyon is undissected by deep arroyos or gully systems. Shallow swales and poorly integrated drainage lines are typical.

The mill waste disposal site is judged to be relatively stable in terms of base level changes (base level refers to the level to which a stream will erode). The lack of deeply incised arroyos or gullies, multiple fill or strath terraces and integrated drainage systems suggests relative base level stability over the Holocene (past 10,000 to 12,000 years). The late Quaternary geomorphic history of the site may be generalized as follows:

1. formation of a pediment (erosion surface cut on dipping bedrock) as a continuous surface along the base of the San Mateo Mesa,

2. dissection of the pediment after a period of base level stability and the formation of the alluvial valleys,

3. base level stability and lateral migration of the streams forming the broad (750 to 1,000 feet) wide valleys,

4. and slow aggradation as the valleys filled with sediment.

The amount of base level change is 50 to 60 feet as measured from the average ridge top to the base of the alluvium in the valley. The amount of time this change in stream level has occurred over is not known and may vary from a few thousand years to tens of thousands of years. The deep weathering mantle on the ridges suggests that it has been a relatively long time period since dramatic base level fluctuations.

The lack of headward cutting and incising arroyo systems suggests base level stability over the past tens of years. It appears that runoff from the trench area is dominated by sheetwash (unchannelized flow) rather than channelized flow. Since the trench area is dominated by pediment surfaces (erosional) rather than depositional surfaces (e.g., alluvial fans) and runoff is unchannelized, valley oversteepening and subsequent arroyo incision would not be expected to occur naturally.

It is important to note, however, that a presently stable landscape can be made unstable by oversteepening slopes, reducing vegetation or channelizing flow. Gulf should consider these operational and post-operational conditions in designing the ultimate reclamation plan. It is recommended that prior to initiating major construction in the trench area, measurements should be made of infiltration rates on the present landscape cover. These would provide guidelines for the top soil cover to be used in reclamation.

Capillary rise of residual tailings salts from the entrenched tailings into the overburden material should not present a problem to ultimate reclamation and revegetation activities. The amount of overburden placed on top of the deposited tailings (approximately 50 feet) is so great that capillary rise through the overburden to a level which plant roots would be expected to penetrate is highly unlikely. Maintaining the integrity of the tailings cover, of course, remains crucial.

In summary, the trench area appears to be in a relatively stable regime with respect to erosion. With proper care and design, Gulf should be able to maintain equivalent stability on the reclaimed surface. Revegetation of the reclaimed surface may occur, but is not essential for the long-term stability of the trench area.

Settling Pond

Critical Design Features

A slimes settling pond would be constructed to the east of the proposed tailings disposal area. Similar excavation methods will be used as in the trench area, except that the excavation will be 30 feet deep, 75 feet wide at the bottom, and have 4:1 side slopes and end slopes. The layout for the settling pond shown on Figure 8 is the maximum size considered necessary for the life of the project. Initially, a settling pond 100 feet long at the bottom will be constructed. This initial pond will accommodate approximately two years of operation assuming that one-third of the slimes remain in suspension and are pumped out of the trenches with the waste water. Additional settling ponds will be constructed as needed based on observations during the first two years of operations.

The slime settling pond is basically a backup facility in case some of the slimes remain in suspension in the waste water. The settling pond(s) will result in below-grade disposal of any slimes that escape from deposition in the trenches. Both the bottom and the sides of the settling pond will be lined with a compacted clay liner three feet thick to control seepage.

Seepage Potential

The settling pond has been designed by Gulf to have a three-foot thick clay liner in order to limit seepage to a volume less than that of storage available in the underlying bedrock. Storage was computed by the applicant for the Dilco and Gallup units by calculating the rock volume immediately underlying the settling pond, and multiplying by the percentage of available pore storage ($\theta_r - \theta_i$) for each rock type. For the Dilco, available storage was estimated at five percent, and for the Gallup, 15 percent was used, as shown in Figure 8.

Because of the geologic structure, and the topographic relief at the settling pond site, the thickness of Dilco beneath the pond bottom is highly variable. The thickness of 23 feet used in Gulf's computations represents an approximate average over the whole settling pond area, with an assumed pond level of about 7,160 feet. The Dilco below the pond bottom is thinnest at the northeastern end, and thickest in the west, near the ridge crest. A mean Gallup thickness of 85 feet was used for storage calculations, based on boring data. Total available storage beneath the 2.46-acre settling pond is 35.56 acre-feet.

Seepage during the assumed 22-year life was estimated using the same computational procedure utilized for the tailings disposal trenches, modified to eliminate the slime and coarse tailings layers. If slimes are deposited on the pond bottom and sides, they should significantly reduce seepage rates and total seepage. Since slimes deposition was ignored in the analysis, an additional safety factor is provided. Seepage rates for the pond bottom were computed using a total head of: 30 feet of water in pond + 20.1 feet of suction from the Dilco bedrock = 50.1 feet. For the side slopes, total average head used was: 15 feet

of water in pond + 20.1 feet of suction from the Dilco = 35.1 feet. A clay liner three feet thick (measured perpendicular to the trench bottom and sides) was used in all calculations. The seepage estimates for a 22-year pond life are as follows:

1. Seepage through pond bottom = 3.35 acre-feet

2. Seepage through pond sides = 31.03 acre-feet

Total Seepage = 33.38 acre-feet

Since the estimated seepage is less than available storage, the Gallup beneath the pond should not become saturated. If the pond is located above elevation 7,160, additional storage in the Dilco will be available.

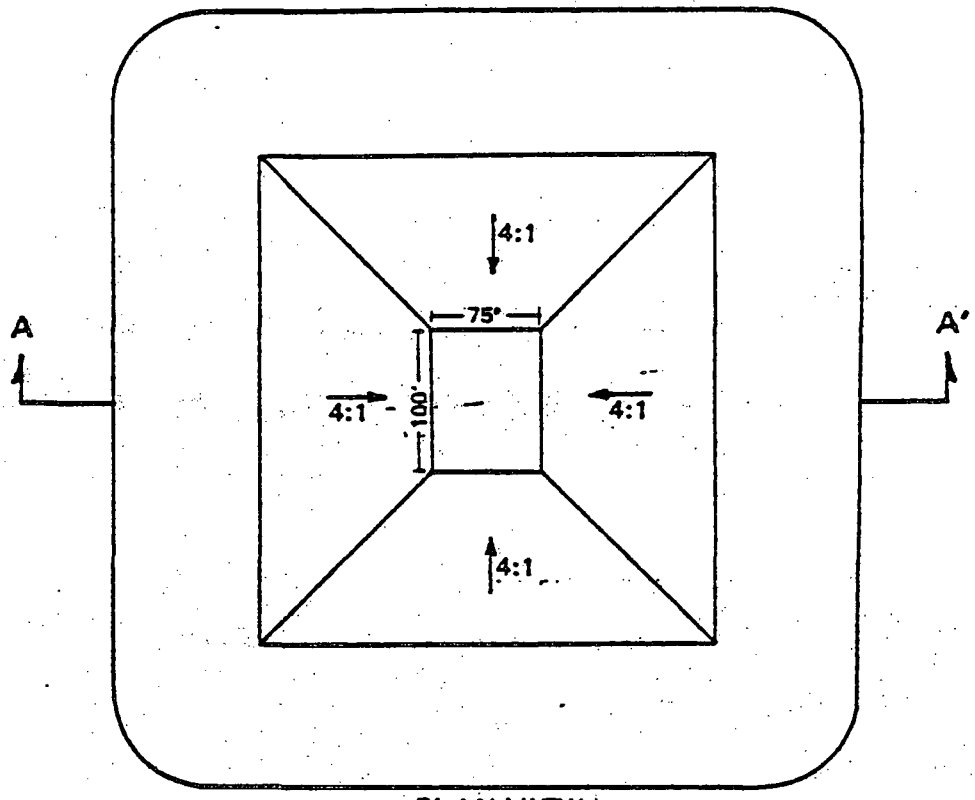
In summary, the settling pond is not considered by the staff to be a major source of seepage. The pond is underlain by and seepage is controlled by both a minimum three-foot compacted clay liner and a minimum thickness of 10 feet of the Dilco unit. The ultimate pond was sized assuming a carryover of one-third of the slimes from the tailings trenches, which is probably conservative, although the seepage period should be greater than that which was considered by the applicant, because it should take into account the drying period following operations.

The applicant's proposed seepage control plan for the sedimentation pond is considered adequate because significant mounding of seepage beneath the pond area is not expected to occur.

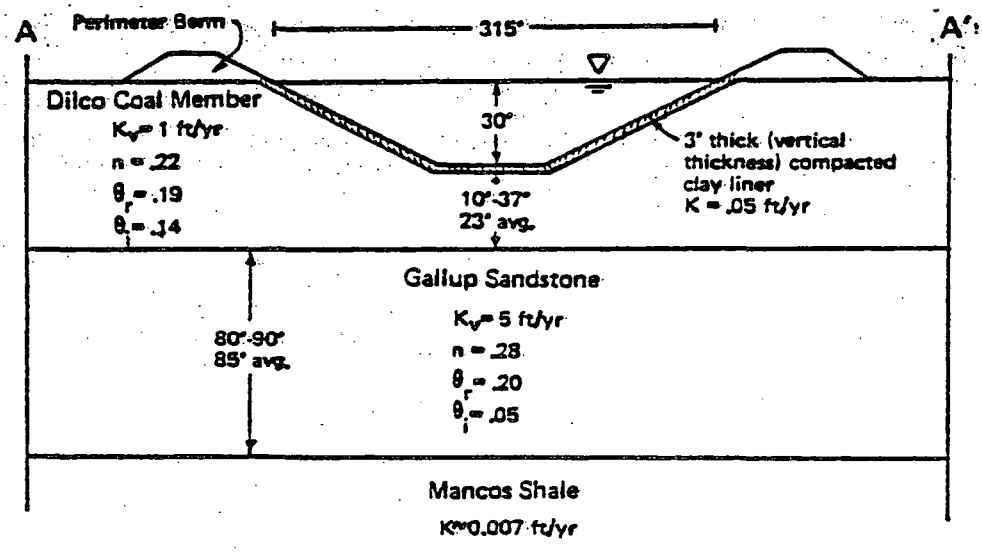
Evaporation Pond

Waste water from the disposal area will be routed through the settling pond(s), allowed to clarify, decanted and transported to the evaporation pond by pipeline. The evaporation pond will be contained by an impervious core embankment with an initial height of about 40 feet and an ultimate height of about 80 feet. The crest elevation of this dam will be approximately 7,145 feet. The embankment will have appropriate internal drains to control phreatic levels and collect seepage for discharge back to the pond. The quantities involved in embankment seepage will be negligible with respect to the overall pond water balance. The dam will be designed to meet all safety requirements for a fluid retention structure. Approval by the New Mexico State Engineer will be required.

The evaporation pond required may be larger than the one shown on Figure 6. Figure 9 shows the area-capacity curve with unconsolidated soils removed. The maximum storage capacity will be determined during final design. The projected time-volume filling and recession curve for disposal of liquid wastes is shown on Figure 10. The maximum projected storage requirement is 5,400 acre-feet which will cover a surface area of about 200 acres and have a maximum surface elevation of about 7,135 feet. The time-volume curve and associated surface areas were used for seepage analyses and design criteria for the pond lining system.



PLAN VIEW
Scale: 1"≈70'



TYPICAL CROSS SECTION
Scale: 1"≈70'

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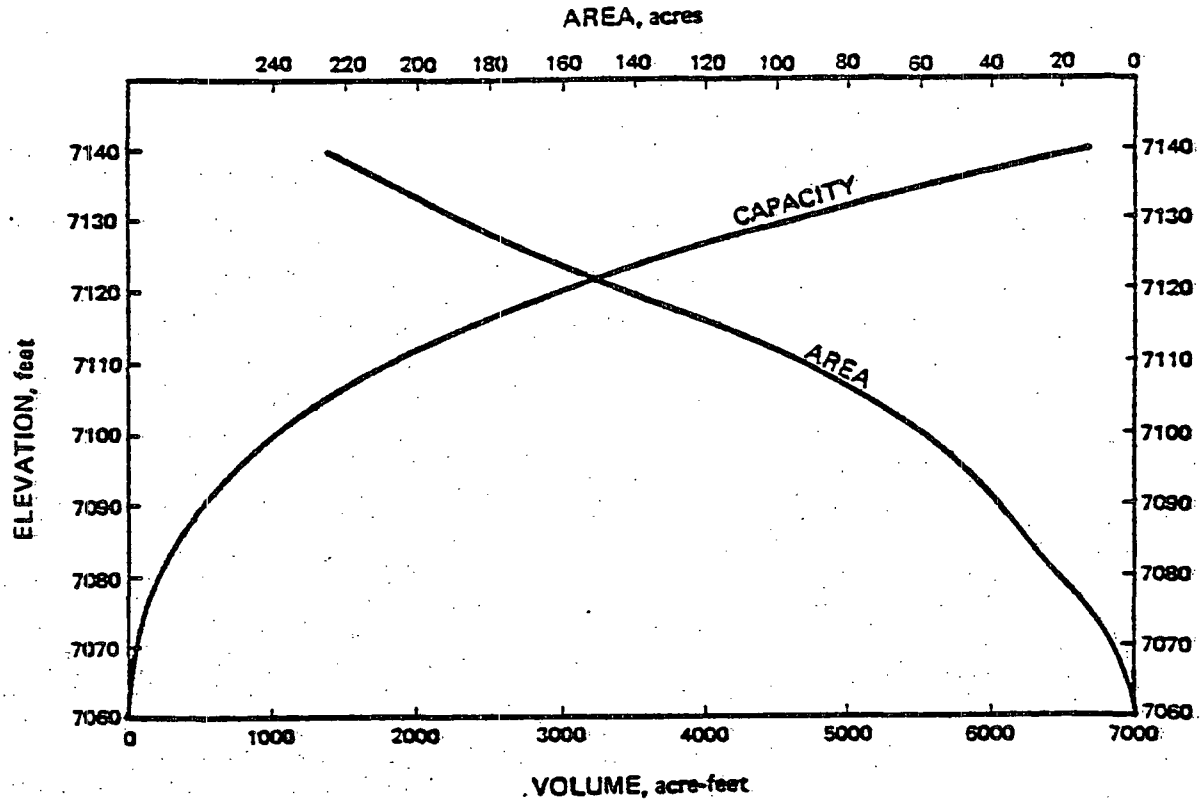
Earth Sciences Associates
Palo Alto, California

SEEPAGE MODEL—
SETTLING POND

Checked by [illegible] Date 2/ 4/79
Approved by [illegible] Date 12/10/79
Project No. 2150
Fig 8



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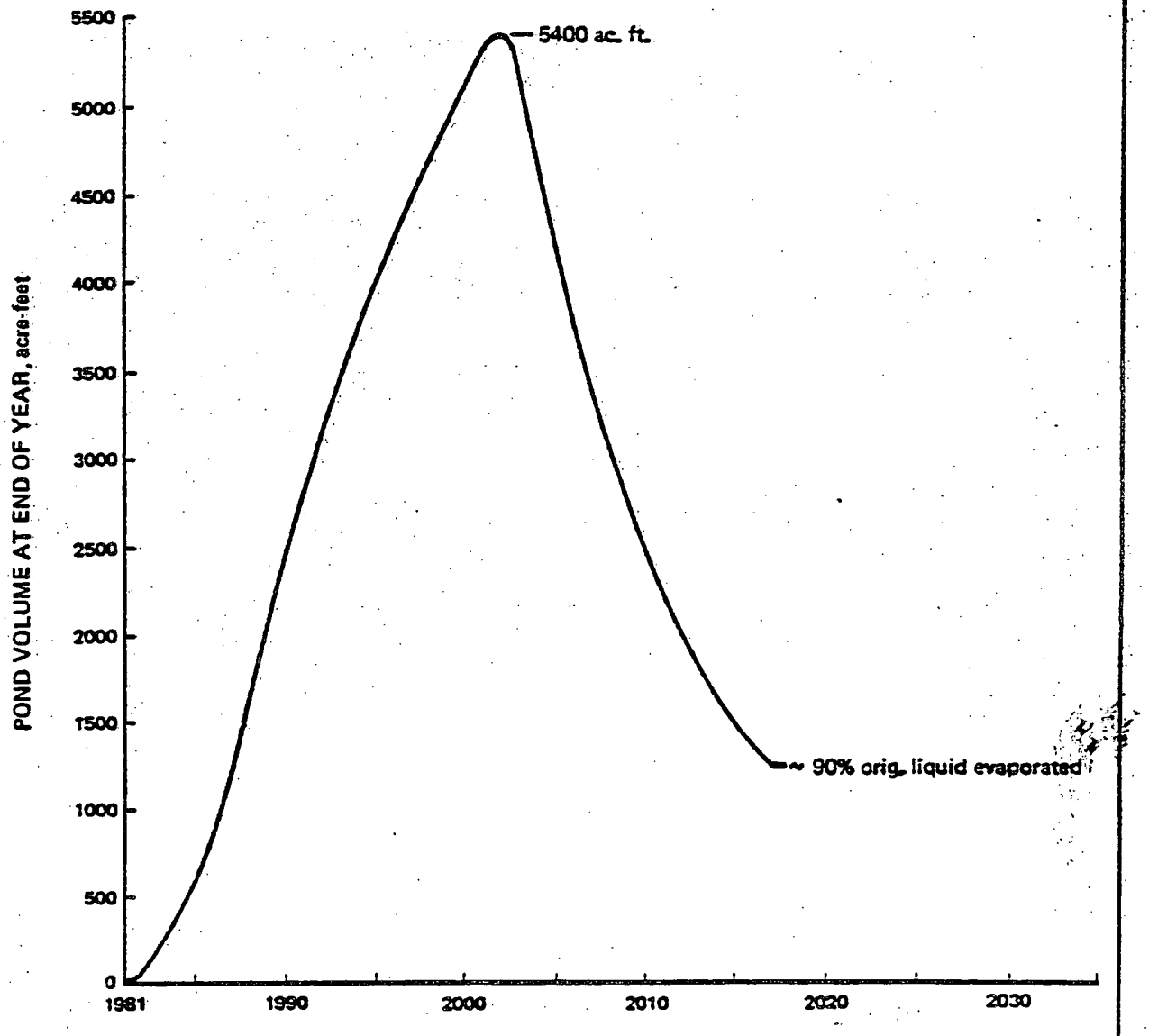
AREA CAPACITY CURVE
LA POLVADERA EVAPORATION POND

Checked by B.S. Thomas Date 2/14/79
Approved by W.L. Date 2/14/79
Project No. 2150
Fig 9



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Earth Sciences Associates
Palo Alto, California

TIME–VOLUME RELATIONS
LA POLVADERA EVAPORATION POND

Checked by L. L. Turner Date 12/14/79 | Project No. 2150 | Fig. 10
Approved by [illegible] Date 12/14/79

The entire pond area will be stripped to bedrock and a liner will be placed on this surface, as needed, to control seepage. The lining system will consist of a compacted clay liner three feet thick over less than 200 acres of pond bottom, and will have an estimated permeability of 5×10^{-8} cm/sec (0.05 feet/year). The liner will completely cover that portion of the pond underlain by the Gallup Sandstone and areas of Dilco having a thickness of less than 10 feet. Field conditions permitting, where the Dilco is exposed, scarification and recompaction of clay shales in the Dilco may be substituted for a borrowed clay liner.

The dam and pond lining will be constructed in stages using a downstream embankment construction method. Upstream diversion facilities will be provided that will prevent runoff into the pond. This will minimize the amount of water to be evaporated and minimize the interception of natural run-off in the watershed. Suitable clay lining and embankment materials are available in La Polvadera Canyon. Soils stripped from the embankment foundation and pond areas will be used for dam construction, clay lining and/or reclamation.

Analysis of Potential Discharges to Ground Water by Seepage

Gulf's Calculations

The La Polvadera evaporation pond was designed to take advantage of the available pore storage in the extremely dry native foundation materials which underlie the La Polvadera Canyon area. Laboratory analysis of core samples from both the Gallup Sandstone and Dilco Coal Member indicate water contents far below specific retention for these foundation materials. Therefore, the excessively dry porous media has the potential to store water and bind it by capillary forces which are strong enough to prevent significant free drainage. This retained storage capacity is measured by the difference between the water content at specific retention and the natural in-situ water content. Laboratory testing and field observations suggest that this difference is up to 20 percent by volume for the native materials in La Polvadera Canyon.

Evaporation pond seepage calculations were performed by the applicant which depict vertical seepage from the reservoir through a low permeability liner to the underlying unsaturated foundation material, with subsequent spread of the seepage. Two separate calculational methods were employed for this analysis. The initial seepage analysis was performed using the McWhorter and Nelson one-dimensional empirical mathematical method designed to analytically approximate the complex seepage phenomena. That analysis was subsequently complimented by a more rigorous method using two-dimensional computer numerical simulation. The results of both modeling efforts are presented below.

In the one-dimensional approach, seepage is divided into four stages: Stage I - vertical seepage to the existing water table or to an impervious boundary (in this case, the Mancos Shale); Stage II - buildup of a seepage

mound beneath the pond; Stage III - mound spreading; and Stage IV - mound dissipation. Figure 11 illustrates the seepage model used for the analysis. Seepage computations were performed for each of seven zones based on proposed pond excavation contours. The steps used in estimating liner requirements were as follows:

1. Pond zones were established between 10-foot contours, for purposes of simplifying the calculations.

2. For each zone, the following were determined:

   * Thickness of underlying rock units.

   * Safe pore water storage capacity = (water content at specific retention - present water content) x (zone area) x (average thickness between pond bottom and base of Gallup Sandstone).

   * Using time-volume and area-capacity relations for the pond, the mean head for each zone was determined for two-year periods throughout the project life.

   * Seepage through each zone was calculated using the proposed clay lining and appropriate thickness of Gallup Sandstones or Dilco. Table 1 shows the results of these calculations.

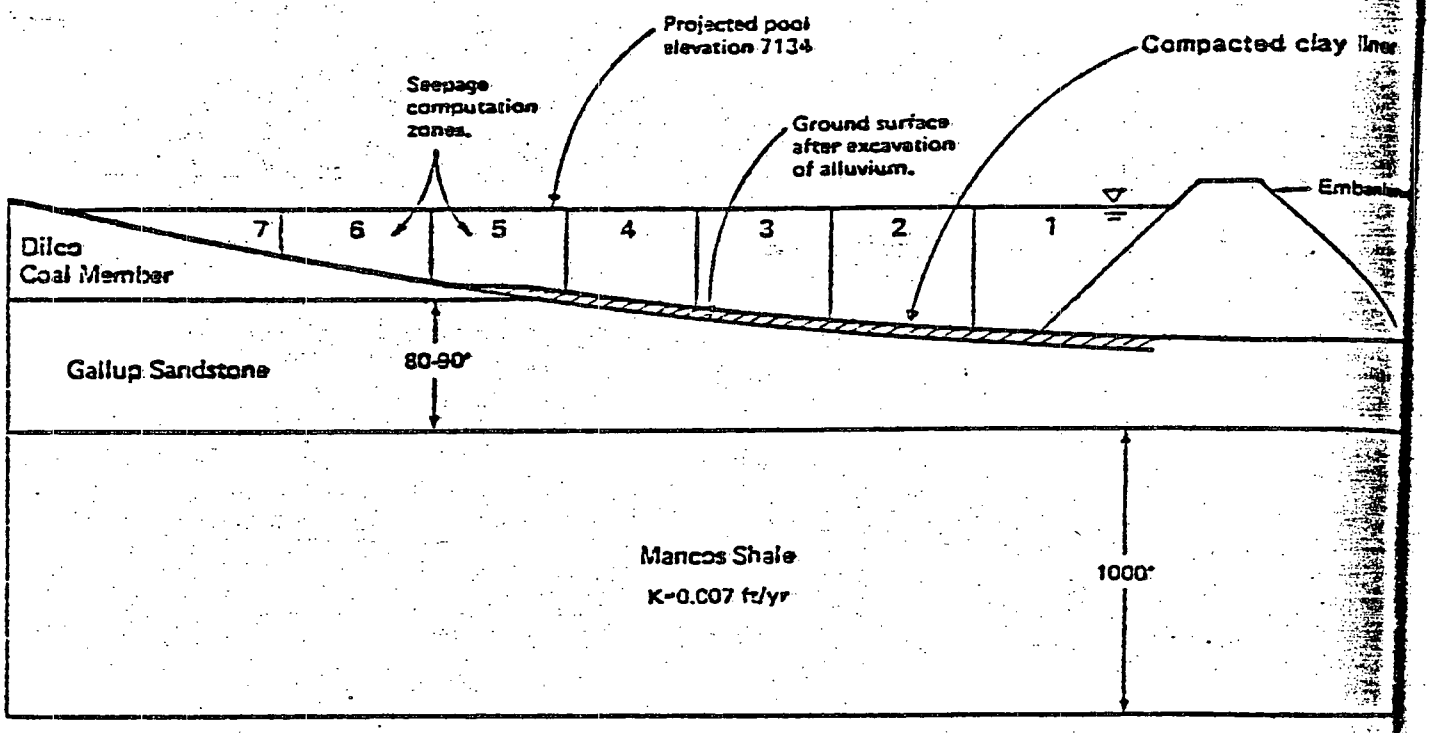
As shown in Table 1, saturation of the Gallup Sandstone beneath the pond is calculated to occur in Zones 1 through 5, where the heads are greatest, and inundation periods are longest. Seepage in Zones 6 through 7 will be less than available retained storage in the Dilco and Gallup rocks underlying these zones. In practice, lateral spreading of the seepage will cause partial saturation of other zones as well. However, because of the low natural moisture of the bedrock materials, movement of a saturation front to the saturated zone of the Gallup (more than a mile distant) should not occur.

Gulf's analyses indicate that Stage I will not be complete until 13 years of pond operation, and Stage II will take an additional 1.5 years to complete. Assuming behavior according to the model, a saturation mound will start to develop after 13 years and will reach the pond bottom after 14.5 years. As soon as the mount starts developing, it will slowly spread laterally, but it probably will not reach the pond margin before 16 to 18 years or more.

The applicant's calculations show total seepage of 3,167 acre-feet would occur over 204 acres versus 2,673.4 acre-feet retained storage capacity, and that this is due to seepage exceeding storage capacity by 1,049 acre-feet in the 118 acres closest to the embankment. Because seepage from the evaporation pond is controlled by the compacted-clay liner, increasing the assumed permeability of the Dilco unit would not have a significant effect on seepage estimates.

The one-dimensional approach used in this initial analysis is felt to provide a reasonable initial estimate of vertical seepage volumes and rates. This calculational procedure, however, has limitations in its ability to estimate lateral seepage components or long-term water movement characteristics.

Evaporation Pond
Diagrammatic Cross Section
Looking North
Not to Scale



Hydraulic Parameters

Dilco	Clay liner	Gallup
K_v = 1 ft/yr	K = .05 ft/yr	K_v = 5 ft/yr
n = .22		n = .28
θ_r = .19		θ_r = .20
θ_i = .14		θ_i = .05

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SEEPAGE MODEL-
EVAPORATION POND

Checked by _____ Date _____ Project No. 2150 Fig. 11
Approved by _____ Date _____

TABLE 1

EVAPORATION POND SEEPAGE

Zone	Zone Elevation Boundaries (feet)	Retained Storage Capacity (acre-feet)	Inundation Period (years)	Approximate Area (acres)	Total Zonal Seepage (acre-feet)
1	7,060-7,075	126.0	36	14	314
2	7,075-7,085	178.5	34	17	418
3	7,085-7,095	216.0	32	18	448
4	7,095-7105	337.9	30.5	27	573
5	7,105-7115	556.5	25	42	711
6	7,115-7125	696.0	17	48	530
7	7,125-7234	562.5	7.5	38	173
Totals		2,673.4		204	3,167

Note: Seepage from Zones 1 through 5 exceed the retained storage capacities by 1,049 acre-feet.

To more precisely examine these seepage characteristics, the applicant chose to perform a two-dimensional water movement simulation, via computer. The model mathematically simulates two-phase, gas-water, flow through the porous medium. Gravity and capillarity effects are considered in both the vertical and radial directions. Special features of the model that make it suitable for predicting water movement from the evaporation pond area are:

* The model can mathematically consider the heterogeneous and anisotropic geologic features of the pond area,

* The simulator is a two-phase model; it provides a consideration of the effect of saturation of each phase on their flow properties through the use of relative permeability data,

* The mathematical consideration of gravity and capillary forces is particularly important in this application where the water from the pond seeps into the underlying moisture-deficient rocks.

Figure 12 illustrates the evaporation pond configuration and cross-section of the surrounding rocks assumed for the initial two-dimensional modeling effort and illustrates the calculated seepage front movement. The total 204 acres of the pond bottom was assumed to overlie the Gallup Sandstone with only a three-feet thick liner between them. In reality, only 118 acres of the Gallup form part of the pond base with the remainder being formed by the less permeable Dilco unit. Other assumptions which should favor a high seepage, compared to the actual physical system, included: the assumption of a constant water depth throughout the year, as specified for the end of the year; and the assumption of a flat bottom for the pond, instead of the actual sloping bottom which would increase the seepage area and the potential difference between the pond and the underlying formations. Rock properties assumed for the simulation are presented in Table 2.

Using those properties and assumptions, the simulator calculated that approximately 7,254 acre-feet of water would seep into the formations from the pond, more than double the volume predicted by the one-dimensional model. In Figure 12, the seepage front movement is tracked by plotting the zero saturation-change contours. The right-hand side of the seepage front contours represent rock formations that undergo no change in water saturation or no contamination by seepage water at the time indicated on the contour. These contours indicate that the rate of advance of the seepage fronts significantly decreases after about 400 years of simulation and is essentially stationary at the end of 1,000 years. The calculated seepage front has become essentially immobile 3,800 feet radially from the center of the pond and thus should not impact ground water.

To provide for a more thorough consideration of the wide range in physical properties naturally found within rock units, the applicant performed additional two-dimensional seepage simulations wherein the representative coefficients were accordingly adjusted. Those simulations produced generally similar results and support the conclusions derived from the initial simulation presented above. They will be examined further in the next section of this paper.

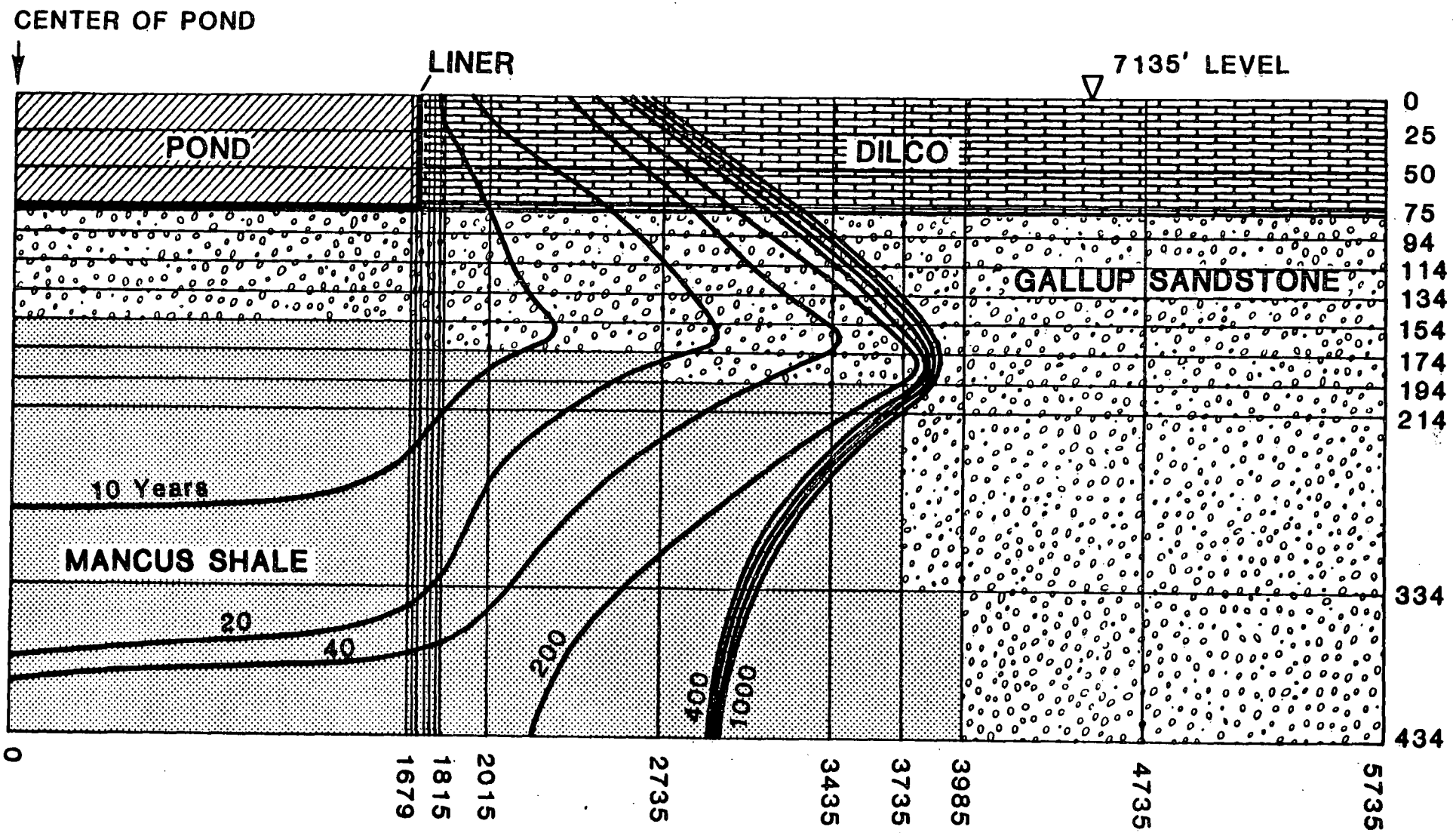


FIGURE 12

CONTOUR MAP OF SEEPAGE FRONTS WITH TIME

TABLE 2

PROPERTIES OF ROCKS UNDERLYING EVAPORATION POND
ASSUMED FOR INITIAL COMPUTER SIMULATION

Geol. Unit	Porosity ϕ	Specific Retention S_r (%)	In-Situ Water Sat. S_w (%)	Permeability K_h (ft/yr)	Permeability K_v (ft/yr)
Liner	0.34	97.00	72.00	0.050	0.050
Dilco	0.22	86.4	63.6	2.000	1.000
Gallup (SST)	0.28	71.4	17.9	10.000	5.000
Mancos Sh	0.13	97.0	60.0	0.007	0.007

Independent Evaluation

Predicting the potential magnitude of ground water pollution associated with the land disposal of wastes (solid or liquid) is a complex technological undertaking. The simultaneous presence of numerous interactive mechanisms (physical, chemical, and biological) makes it difficult to obtain a description in advance of a potential pollution by a given waste for a specific hydrogeological setting. Consequently, many investigators have resorted to the construction of "models" for evaluating the performance of a certain waste disposal site. A waste disposal model may be considered to be a simplified representation of a real system. Proper care must be employed during a modeling effort to consider what are conservative, but reasonable, parameters to represent the real system.

An extensive staff review of the applicant's seepage modeling effort evaluated the conservatism of the simulated results. We have attempted to evaluate whether the model selected for the simulations and associated input coefficients can be relied upon as a reasonable representation of the physical system at La Polvadera Canyon. The review focused on the accuracy of the particular computer model used (e.g., whether the model had been verified to accurately simulate actual field or laboratory data), the reliability of the hydrogeologic data input into the model, and the conclusions drawn from the simulated results.

Accuracy of the Model

Data supplied by the Gulf Research and Development Company has supported the validity of the two-dimensional, two-phase simulator. Water content data collected during an experiment in which a 13-foot high core was drained to gravity-capillary pressure equilibrium, were accurately predicted by the simulator. The mathematical veracity of the computer code is therefore judged to be reliable for saturated-unsaturated flow system simulation.

An important consideration in the use of a two-dimensional computer model is how one discretizes the area of condern. The discretized cross-section of the pond and of the surrounding rocks used in the initial simulation is shown in Figure 12. Each of the rectangular blocks shown in this figure are ring-shaped and are extended over 360^{0} around the vertical axis through the center of the pond. The rings are assumed to have uniform rock and fluid properties. However, each of these blocks are assigned a fixed value for porosity and permeability according to the geologic formations they represent. Considering the complexities in mathematical simulations and in the variabilities in rock properties, it follows that the finer the discretization (mesh) used, the more accurate will be the results.

Our review of the initial simulation raised questions regarding the mesh size chosen, and regarding the dimensions of the cross-section chosen for discretization. Our particular concerns were:

* Gulf arbitrarily placed an impermeable boundary beneath the pond at a depth of 434 feet. It is believed that this may have induced water to flow horizontally which otherwise may

have percolated downward. The staff felt that it would have been much more realistic to lower this boundary to the top of the first aquifer beneath the site. By doing so, the lateral spread would have been more limited, but would have been more physically representative.

* For the complexity of the problem, Gulf may have chosen too coarse a mesh to represent the critical areas for seepage, e.g., near the clay liner. Subsequent seepage simulations by Gulf incorporated revisions in the mesh dimensions and have greatly reduced our concerns in this area.

The accuracy of the model is judged to be sufficient, given the revised grid mesh.

Reliability of the Hydrogeologic Input Data

Hydraulic conductivity data obtained from field tests conducted by the applicant showed a significant range of values for both the Dilco and Gallup formations. Hydraulic conductivity data obtained from field tests in the Dilco (29 values from 10 drill holes) varied from 0.0 to 69.4 feet/year with a log normal mean of 1.3 feet/year from which average vertical and horizontal hydraulic conductivities of 1 foot/year and 2 feet/year, respctively, were estimated. Similarly, hydraulic conductivity data obtained from field tests in the Gallup (38 values from 14 drill holes) varied from 0.0 feet/year to 3,580 feet/year with a log normal mean of 6.6 feet/year from which average vertical and horizontal hydraulic conductivities of 5 feet/year and 10 feet/year were estimated. The Mancos Shale was found to have a mean hydraulic conductivity of 0.007 feet/year based on field tests (7 values from 5 drill holes).

The range in hydraulic conductivity values obtained from the testing, in itself, is not particularly surprising. By the nature of the processes by which such sedimentary formations are laid down, these zones are unlikely to be uniform throughout. The coefficient of hydraulic conductivity found in natural soil deposits ranges from millions of feet per year to less than one-thousandth of a foot per year. In many soil deposits, the hydraulic conductivity parallel to the bedding planes may be 100 or even 1,000 times larger than the permeability perpendicular to the bedding plane. Hydraulic conductivity in some soils is very sensitive to small changes in density, water content, or gradation. In certain ranges, a few percent variation in any one of these factors may result in a thousand percent variation in hydraulic conductivity. Because of the wide variation in hydraulic conductivity that is possible, measurement of great accuracy is not required for most engineering designs; rather, the order of magnitude of the hydraulic conductivity is of importance.

Methods used to compute saturated hydraulic conductivities above the water table (in unsaturated material) are approximate. For the different types of tests in the same material, computed values could differ by perhaps 25 to 100%. None of these borehole methods, however, may be reliable in fractured rock, as they are based on assumptions of flow through

homogeneous, isotropic porous media. A major deficiency in the applicant's discharge plan and initial seepage simulation is the lack of information on fracture location, density, or related hydraulic conductivities.

The staff examined available literature and conducted on-site investigations to more fully analyze the fracture related permeability displayed in the Cretaceous rocks found at the site. Our review highlighted the following critical points:

1. The Gallup sandstone contains well-defined joints with a spacing of 30 centimeters to 3 meters or more. These joints are preferential pathways for fluid movement in the sandstone. It is clear from outcrop studies in the area that joint planes have been the locus of fluid movement in the Gallup (and in other Cretaceous rocks of the region) in the past and are presently the site of differential weathering. Similar features are observed in core samples.

2. Joint patterns apparently control faulting at the proposed site. East-, northeast- and north-trending joint sets are characteristic of this area; similar trends are seen in the faults mapped by Santos (USGS, GQ-516) and Gulf. According to Gulf, faults are characterized by zones of high permeability and structural distortion.

3. Where the Gallup sandstone is exposed at the surface, joints are opened by stress release at the free surface. This is clearly demonstrated in the outcrops of Cretaceous sandstone bounding the site and specifically in outcrops of Gallup and Dilco at or very near the site. Where the overburden has been stripped and Gallup exposed, this phenomenon yields zones of fissuring; subsequent alluvial cover may hide the fissured Gallup, but does not change its character. Therefore, Gallup below alluvium can be expected to have significantly higher permeability than that buried within the Cretaceous stratigraphic section.

4. An east-trending joint set is pervasive in the Gallup of this region. This joint set parallels the direction of expected subsurface water movement from the tailings disposal area to potential aquifers.

It was concluded from this data that fracture permeability may exist in the Gallup sandstone beneath the site and that possibility exists in which underground fluids may move eastward at relatively higher rates than assumed for the seepage analyses along pathways formed by joints and fractures in the Gallup sandstone. In situ measurements of permeability at the site did not test the potnetial for fracture permeability in the Gallup. Without these tests, a conservative estimate of rates of underground fluid flow can not be considered to have been made. On this basis, the staff believed that the values assigned to the permeability of the Gallup sandstone in the initial simulation were too low.

The applicant subsequently performed additional computer seepage simulations to investigate the sensitivity of the water saturation profile advancement to the presence of fractures and zones of relative high hydraulic conductivity in the underlying formations. Figure 13 shows the results of the fracture sensitivity study. A single vertical fracture occurring in the Gallup sandstone is assumed in the simulation to extend from the center of the pond to the top of the Mancos Shale. A single horizontal fracture intersects the vertical fracture at a 124 foot depth and extends from the pond center to the outside radius of the system. The fractures are 1/8-inch thick and have a 100 darcy (81,433 feet/year) hydraulic conductivity. This resulted in an equivalent horizontal hydraulic conductivity for the blocks surrounding the fractures of 115 md (94 feet/year). Comparing the results from this simulation to those on Figure 12 suggests that the presence of the fractures effects the advance of the wetting front for the first 40 years, but the ultimate advance of the front has not dramatically changed. The fracture induced advanced position of the seepage front is dispersed via capillary and gravity forces, indicating the presence of minor fractures beneath the pond should not dramatically alter the initial simulation results.

An additional computer simulation considered staff-suggested saturated and unsaturated hydraulic conductivity values. Table 3 shows the saturated hydraulic conductivities employed for this simulation. Adjustments in both horizontal and vertical hydraulic conductivities were made to consider probable vertical stratification in hydraulic conductivities and bedding plane induced anisotropy (horizontal hydraulic conductivity: vertical hydraulic conductivity = 20:1). Hydraulic conductivities of the liner were increased by a factor of 10. Figure 14 shows the results of the later simulation. The seepage front has not advanced as far as the front in the original work at a comparable time.

The staff feels that the hydrogeologic data considered in the later simulations to be of adequate reliability for the long term seepage analysis.

Conclusions Drawn From the Simulated Results

Based upon the information referenced above, the staff supports Gulf's conclusion that the seepage front will not invade the water table. This interpretation, of course, must be predicated upon proper quantification of the hydrologic properties of the site. Upon implementation of construction and monitoring activities, additional field data will become available for consideration. If site conditions are then found to be significantly different than present data suggests, the seepage projectsions should be revised.

The following are judged to be the most critical data which should be collected during these activities:

1. The applicant will remove all alluvium from the evaporation pond bottom, exposing the underlying Gallup formation. On-site inspections of the rock material should be conducted; specifically, a

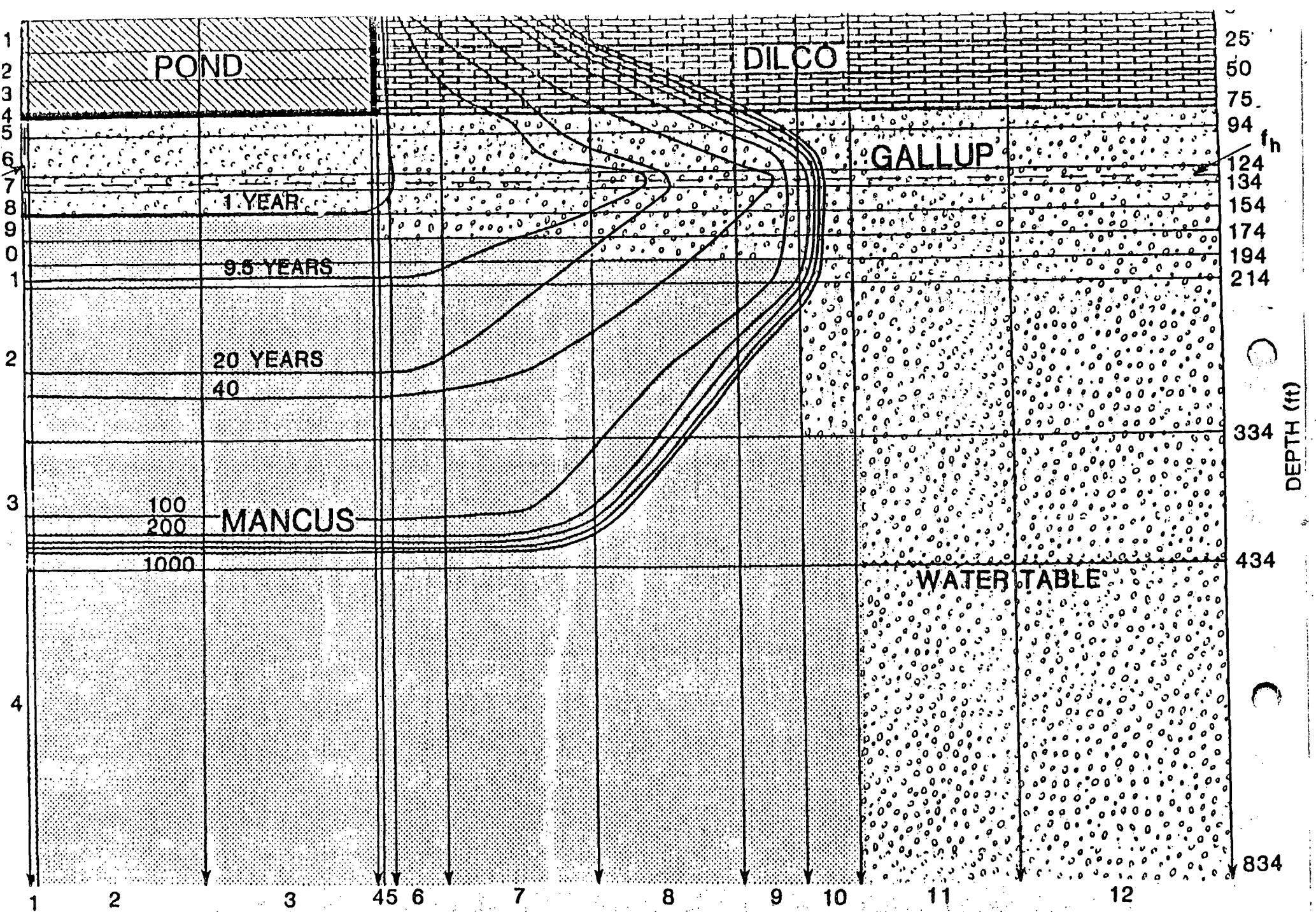
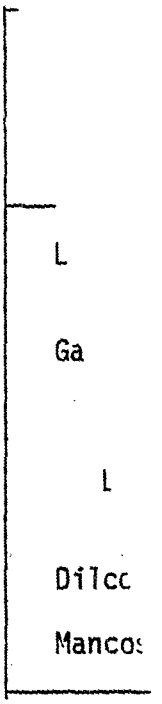


FIGURE 13

REVISED RADIAL GRID SYSTEM - MT. TAYLOR POND SEEPAGE STUDY

(Note Presence of Vertical and Horizontal Fractures Imposed On Grid)



Density

Net evap

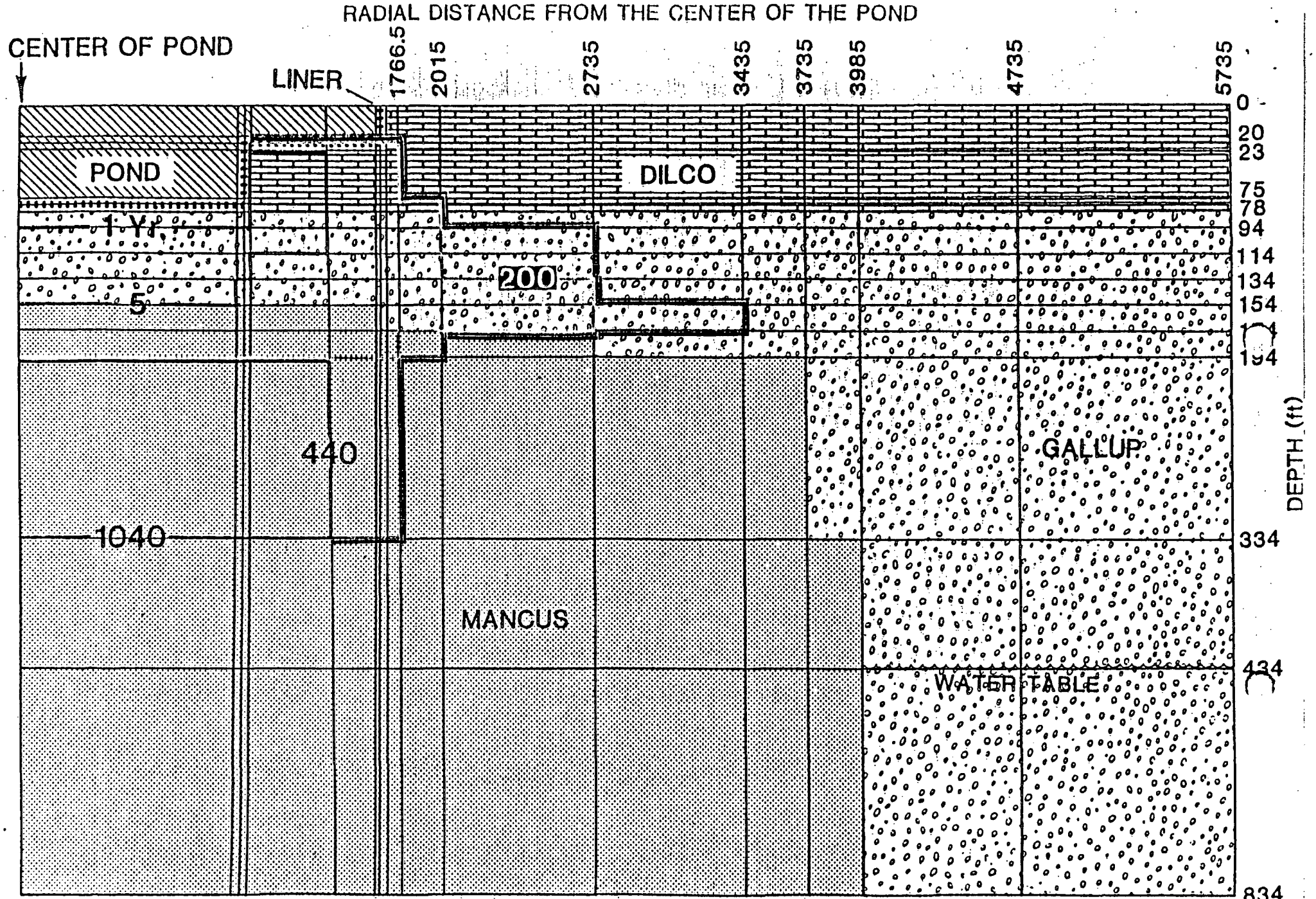


FIGURE 14

SEEPAGE FRONT AT END OF TIMES LABELED

(Properties Used In Simulation Are Presented in Table 3)

detailed examination of the joint and fracture systems present on the exhumed rock surface. As discussed earlier, the Gallup below alluvium can be expected to have significantly higher permeability than that buried beneath the Dilco formation. If the examination reveals major fissure-type features, rather than typical minor fracturing (e.g., 1/8-inch width), the applicant should be obligated to quantify the effects of the enhanced permeabilities.

2. Shallow monitoring wells will be installed around the pond perimeter to allow for detection of seepage front advance. The bore holes will be air drilled and cored; in situ moisture content measurements of the cores will be performed. If the information from the tests suggest the presence of significantly higher rock moisture contents than considered in the seepage analyses, the applicant should be obligated to quantify the effects of the increased in situ moisture.

With the above concerns recognized, the applicant's seepage assessment for the evaporation pond is considered adequate to demonstrate that ground water should not be degraded beyond standards by evaporation pond seepage.

Evaporation Pond Dam Failure

The Mt. Taylor site is said to be in the Zone 2, "moderate damage," seismic risk category (intensity VII on the Modified Mercalli Scale). Available seismograph records for the project area were insufficient to permit the applicant from performing statistical forecasting of the occurrence of large-magnitude earthquakes. Based on the historical record, a Gulf analysis indicates that an earthquake of Intensity VIII could occur at the Rio Grande Rift Zone about 60 miles east of the site. This earthquake would probably be felt at the project site with an intensity of VI. An earthquake with a maximum intensity greater than VIII at the site cannot reasonably be expected. Such an earthquake is said to correspond to an effective acceleration of 0.07g. The evaporation pond dam is designed to be constructed to withstand an effective acceleration of 0.1 g.

The maximum liquor impounded by the dam will be 5,400 acre-feet. The peak rate of flow in the event of a failure cannot be reasonably estimated since this flow rate would be dependent upon the rate of failure of the dam. However, the drainage network downstream of the dam traverses approximately 100 miles through relatively unpopulated regions before reaching a major stream course (Rio Grande). Consequently, the peak outflow, although relevant, is not a major cause for concern. These areas concerned could be treated or removed once the degree of contamination was assessed. The closest community along the drainage system which could be affected by a tailings release is the small village of Guadalupe which is located approximately 40 miles below the dam. By the time the release reached that area, it would probably be contained within the natural channels due to channel storage and friction.

The consequences of such a failure, although difficult to quantify, potentially could be severe. It is the staff's opinion that local ground water contamination beyond the New Mexico Water Quality Control Commission Regulations standards probably would occur. The probability of such an event occurring, however, must be similarly considered. The applicant's proposed dam design must meet or exceed New Mexico State Engineer Office and Nuclear Regulatory Commission requirements prior to its construction. At the time of this writing, the dam is still under review by the State Engineer.

A deficiency in the applicant's proposed discharge plan is the lack of detailed emergency response procudures to be implemented in the event of a dam failure or a major tailings pipeline failure. The probabilities of such events transpiring are considered to be quite low. Nevertheless, with proper response procedures in effect, the ultimate insult of the failures could be greatly reduced. It is recommended that the applicant be required to develop a realistic response plan prior to any tailings discharge.

Disposal Facility Monitoring

Liquid and solid mill waste disposal facilities in La Polvadera Canyon are designed to minimize saturation of rock units in the vadose zone beneath the facilities and to preclude deep percolation to the saturated deeper units. Fluid is expected to seep beneath the evaporation pond, but this seepage water will be contained within the presently unsaturated Gallup Sandstone. A network of shallow and deep monitoring wells will be constructed to detect seepage amounts exceeding design values. The location of the applicant's proposed network of deep and shallow monitoring wells are shown on Figure 15.

Shallow Monitoring System

The proposed shallow monitoring system consists of a series of wells designed to detect development of saturated zones within the Gallup Sandstone and Dilco-Mulatto units. Only minor saturation is expected beneath the disposal trenches in the Dilco Unit and beneath the evaporation pond. Monitoring the rates of in situ moisture change along with water quality if saturation occurs, will provide data to determine if existing aquifers are threatened.

The shallow monitoring system will consist of two groups of neutron-moisture monitoring wells. One group will consist of clusters of two wells each: one well penetrating only the Dilco Unit and another well drilled to the base of the Gallup Sandstone with the overlying Dilco Unit sealed off. The other group of shallow monitoring wells will consist of single wells open only to the Gallup Sandstone or alluvium. All of the cluster wells and the single wells will be air-drilled wells.

Deep Monitoring System (Saturated Zone)

The deep groundwater monitoring network will include two wells that will penetrate to the base of the Dakota Sandstone beneath the main body of the Mancos Shale. The wells will have a minimum five-inch diameter conductor casing, extending through the Mancos Shale, grouted in place to form a seal so that only water from the Dakota Sandstone is sampled. The locations of these wells are shown on Figure

The two deep wells are designed to detect degradation of existing groundwater from deep seepage (if any) through the Mancos Shale aquiclude. If deep seepage to the Dakota Sandstone occurs, it will have to move downward through the Mancos Shale along fracture zones. No faults were detected in the areas occupied by disposal facilities. The nearest detected fault zones are a north-south fault to the east and an east-west fault to the north of the facilities. A long, slow seepage path would be required to reach these faults. Also, evidence indicates that fracturing does not persist through the Mancos Shale.

The two deep wells will have permanent pumps installed for ease of sampling and can be used as a replacement stock water supply after the Polvadera Well has been abandoned. The Polvadera Well, along with two other old oil and gas test wells, will be sealed with cement and bentonite grout to the surface to prevent these wells from transmitting seepage water downward to degrade existing groundwater.

Monitoring Procedures

The monitoring well network will be constructed prior to the start of disposal operations, and baseline water level and moisture measurements will be made and samples will be collected for chemical analysis from the two deep wells (the shallow well system will be dry). After the start of operations, monthly water level measurements in the two deep wells and monthly moisture determinations in all shallow wells will be made. Water samples from the deep wells will be collected and analyzed quarterly. The results of the monitoring program will be evaluated annually and submitted to the New Mexico Environmental Improvement Division. Sampling and water level measurement frequency will be reviewed annually and adjusted to reflect monitoring requirements. Sampling and analytical techniques will conform with Subsection 3-107.B. of the amended Water Quality Control Commission Regulations dated January 11, 1977. Chemical analyses will include constituents listed under Section 3-103 for baseline monitoring and initial operational monitoring. With the review and concurrence of New Mexico Environmental Improvement Division (NMEID), analyses will be adjusted later during operations to include only constituents of concern.

Threshold Levels

The criteria for setting threshold levels for corrective action in the event of degradation of existing groundwater will conform with Section 3-103 of the amended Water Quality Control Commission Regulations dated January 11, 1977. If seepage could penetrate the Mancos Shale, the first principal

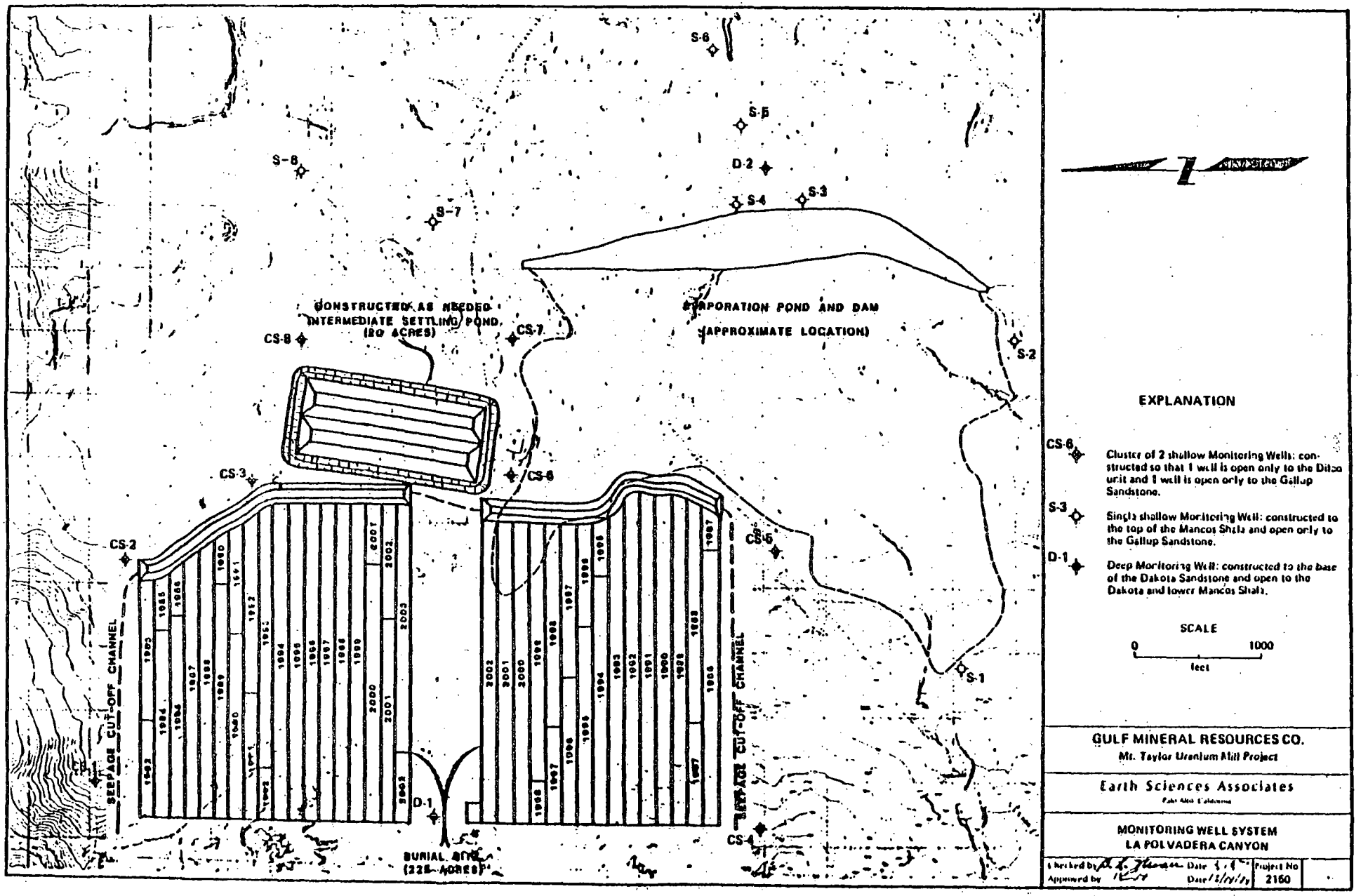

S-6
S-5
D-2
S-4
S-3
S-8
S-7
CONSTRUCTED AS NEEDED
INTERMEDIATE SETTLING POND
(20 ACRES)
EVAPORATION POND AND DAM
(APPROXIMATE LOCATION)
CS-8
CS-7
S-2
CS-3
CS-6
CS-2
CS-5
S-1
SEEPAGE CUT-OFF CHANNEL
SEEPAGE CUT-OFF CHANNEL
CP-1
D-1
CS-4
BURIAL AREA
(22± ACRES)
EXPLANATION
CS-6
Cluster of 2 shallow Monitoring Wells: constructed so that 1 well is open only to the Dilco unit and 1 well is open only to the Gallup Sandstone.
S-3
Single shallow Monitoring Well: constructed to the top of the Mancos Shale and open only to the Gallup Sandstone.
D-1
Deep Monitoring Well: constructed to the base of the Dakota Sandstone and open to the Dakota and lower Mancos Shale.
SCALE
0
1000
feet
GULF MINERAL RESOURCES CO.
Mt. Taylor Uranium Mill Project
Earth Sciences Associates
MONITORING WELL SYSTEM
LA POLVADERA CANYON
Project No
2160

FIGURE 15

aquifer that seepage water could reach would be the Dakota Sandstone. This aquifer occurs more than 1,000 feet below the lowest part of the disposal area. Baseline samples will be collected and analyzed prior to start of operations and will be used as more definitive critieria for threshold values. This, and additional analyses from deep monitoring wells, will establish threshold levesl.

A realistic threshold for seepage and lateral spreading of perched groundwater is established by the seepage analysis. Saturation, and perched mound development and spreading should not occur in the Gallup Sandstone. Therefore, if seepage water is detected in monitoring wells open to this unit after the start of pond operations, then design threshold levels will have been exceeded. The detection of saturation in the Gallup Sandstone beneath the disposal trenches does not mean that groundwater degradation will occur, but it would indicate that seepage estimates have been exceeded and serves as an alert to this fact. If saturation in the Gallup Unit is detected beneath the disposal trenches or beneath the evaporation pond, seepage conditions will be re-analyzed using monitoring data to make the appropriate adjustments to provide better accuracy for seepage predictions. The monitoring program will be flexible so that additional wells can be added to fill data gaps as information is developed. The extremely long periods of time required for perched mound development and spreading provides an abundance of time to make adjustments. If the seepage rates indicated by monitoring appear to threaten the quality of existing aquifers, then preparation would be made for corrective actions. The rate of seepage movement and configuration of a seepage mound would provide information for design of corrective measures, if needed.

Detection of development of perched saturated zones within the Dilco Unit would not indicate excessive seepage. It is reasonable to expect this to occur to some extent and it would indicate beneficial barriers against downward seepage to the more permeable Gallup Sandstone. Perched saturated zones within the Dilco Unit will be monitored closely to determine the extent and rate of seepage. Additional monitoring wells will be provided, if needed. If necessary, corrective measures will be formulated to contain lateral spreading beyond the area of the facility.

Contingency Plans

The primary contingency plan is to periodically evaluate monitoring data to verify seepage estimates. If seepage predictions are exceeded, conditions will be reanalyzed to determine if existing aquifers are threatened with contamination. These updated analyses based on observed moisture contents and water quality will then be used to design remedial measures, if needed.

Corrective measures will be initiated if it appears that the quality of groundwater in the saturated zone of the Gallup Sandstone, which may, or could conceivably be used as a domestic or agricultural water supply in the reasonably foreseeable future, could be degraded beyond the standards of Section 3-103 of the Regulations. Corrective measures could include, for instance, hydraulic barriers and/or grout curtain.

Perched saturated zones within the Dilco Unit will probably be relatively easy to intercept with open drainage trenches. Open drains will be constructed around the perimeter of the tailings burial trenches. Additional trenches will be added downslope from the planned drains if monitoring data indicates they are needed.

If deep percolation to the Dakota Sandstone is detected, then pumping the two deep monitoring wells could contain contaminants in the immediate area. However. additional deep pumping and monitoring wells would be considered, depending on the hydraulic characteristics of this aquifer and the degree of degradation. Direct contamination of the Dakota Sandstone would require an undetected fracture zone penetrating the Mancos Shale in the disposal area and failure of the pond lining systems. This is considered to be the most improbably scenario for ground water degradation.

If seepage discharges from the Gallup Sandstone to the recent alluvium to the east, then dewatering wells would be constructed in the alluvium along the buried channels. This system will take full advantage of the buried channels which will act as natural drains.

Post Operational Monitoring

After waste disposal operations cease, monitoring of both shallow and deep wells will continue until the seepage flow system can be predicted with reasonable confidence. Tentatively, monitoring will continue at least five years after operations cease. By this time, the seepage predictions should be so well validated that monitoring can cease or at least be reduced to a few key wells monitored at extended intervals of time. Emphasis should be placed on periodic reevaluation of monitoring data and upgrading seepage analyses so that flexibility is maintained throughout the program. A fixed, inflexible routine should be avoided so that any unpredictable conditions can be handled easily and in a timely manner. Rates of movement of any saturated flow should be very slow, providing ample time to adjust the monitoring program and to activate contingency plans if needed, after careful analysis of monitoring data.

Evaluation of the Proposed Monitoring Program

Gulf's proposal to monitor shallow subsurface seepage migration with the use of neutron-moisture moderation techniques is felt to be appropriate. The staff believes, and Gulf's model indicates, that seepage beneath the pond liner will occur mostly at water contents much less than saturation, provided the integrity of the three-foot thick liner is maintained. Conventional open-hole piezometers are generally useful for monitoring saturated flow conditions; substantial volumes of fluid moving under unsaturated flow conditions could, therefore, remain undected by such a well design.

As these monitoring holes are drilled, moisture determinations on samples of recovered rock will be made by Gulf. This data will be used to establish a baseline condition of in situ moisture content. In addition,

Gulf will examine the rock structure under the evaporation pond upon excavation. If this examination indicates a significant difference from the presently assumed conditions, Gulf will consider additional monitoring wells as may be agreed upon by Gulf and the New Mexico Environmental Improvement Division.

Given the uncertainties regarding rock conditions at the pond site, the staff does not feel that a final monitoring array can be established prior to pond-bottom exhumation. In general, the proposed shallow array shown in Figure 15 seems acceptable; it is considered prudent, however, to hold in abeyance recommendations regarding the monitoring configuration and design until this additional on-site data can be incorporated.

Given the structural deformation which has occurred at the San Mateo dome, monitoring of deep water bearing units is appropriate. Gulf proposes installing two deep wells into the Dakota formation for water quality testing. Available drilling information, however, suggests that sandstone units within the overlying Mancos Shale have been developed in the past for livestock supply. Gulf should prepare discussion for presentation at the forthcoming hearing regarding historical use and known hydrogeologic conditions of the Mancos sandstone units at the site. Upon hearing the discussion, the staff will then make a recommendation regarding the need for monitoring in the Mancos formation.

Witnesses for the Environmental
Improvement Division Concerning the
Gulf Mineral Resources Company
Proposed Ground Water Discharge
Plan for the Mt. Taylor
Uranium Mill Project

WITNESS	TESTIMONY
Jonathan F. Callender, Professor University of New Mexico	Structural Geology
Bruce M. Gallaher, Geohydrologist Ground Water Section	Overall summary of staff review of Gulf Proposal
David L. Schreiber, Consulting Hydraulic Engineer	Engineering Design Features of the Waste Pipeline System
Daniel B. Stephens, Professor New Mexico Tech	Seepage Assessments
Stephen G. Wells, Professor University of New Mexico	Long Term Stability of the Tailings Disposal Area

APPENDIX H

TRANSCRIPT OF PRIMACY HEARING AND RESPONSIVENESS SUMMARY

UIC PRIMACY HEARING ATTANDANCE

SEPTEMBER 20, 1982

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Record of UIC Primacy Hearing

held September 20, 1982

This document contains:

1. Hearing Transcript

2. Exhibits (except copies of Affidavit of Publication for ten New Mexico newspapers /EID Exhibit 2/ and complete primacy application /EID Exhibit 3/)

3. Statements for the hearing record by Mobil Oil Company and EPA.

BEFORE THE
HEALTH & ENVIRONMENT DEPARTMENT
ENVIRONMENTAL IMPROVEMENT DIVISION
Santa Fe, New Mexico

In the Matter of the Primary)
Enforcement Authority Concern-)
ing Federal Underground)
Injection Control in New)
Mexico.)

TRANSCRIPT OF PROCEEDINGS

September 20, 1982

BE IT REMEMBERED that on to-wit, the twentieth day of September 1982, the above matter came on for hearing before the Environmental Improvement Division, Mr. Cubia Clayton, Hearing Officer, at Apodaca Hall, P.E.R.A. Building, Capitol Complex, Santa Fe, New Mexico, at the hour of ten o'clock in the forenoon.

* * * *

A P P E A R A N C E S

FOR THE ENVIRONMENTAL IMPROVEMENT DIVISION:

Mr. Cubia Clayton, Hearing Officer
Assistant Director of Environmental Improvement Division
P. O. Box 968
Santa Fe, New Mexico

Mr. Bruce S. Garber
Chief Attorney, Environmental Improvement Division
P. O. Box 968
Santa Fe, New Mexico

Mr. David G. Boyer
Ground Water Hydrologist, Environmental Improvement Division
P. O. Box 968
Santa Fe, New Mexico

THE HEARING OFFICER: I will call this hearing to order. This hearing today is a hearing before the Environmental Improvement Division of the Health & Environment Department, and the Oil Conservation Division of the Energy and Minerals Department concerning the state application for underground injection control.

As Hearing Officer I will exercise the right to limit testimony if it becomes redundant, or involved in matters other than that appropriate to the consideration of the application.

All testimony given will be sworn, and anyone who testifies may be cross examined by any member in the audience, and with that out of the way, Mr. Garber, do you have some introductory exhibits?

MR. GARBER: Yes, I do, Mr. Hearing Officer. My name is Bruce Garber, and I am an Assistant Attorney General employed by the Environmental Improvement Division, and I have some procedural exhibits that I would like to introduce at this time.

E.I.D. Exhibit Number One, I have an affidavit from Jeanette B. Arquero, and this affidavit testifies that Ms. Arquero mailed notice of this hearing to approximately one hundred and eighty parties who are on the list, and who have

expressed an interest in notice for underground injection control matters; and also, the ten newspapers that have been mailed the notice of this hearing by Ms. Arquero for publication.

As E.I.D. Exhibit Number Two, I have Affidavits of Publication from nine newspapers in the state, and these affidavits assert that the notice of this hearing has been published in those newspapers.

As E.I.D. Exhibit Number Three, I have the full set of the applications for Primacy to the Environmental Protection Agency by the State of New Mexico for the underground injection program.

THE HEARING OFFICER: Are there any objections to the introduction of E.I.D. Exhibits One through Three? Without objection they will be received.

Does the Division wish to present a witness at this time, Mr. Garber?

MR. GARBER: Mr. Hearing Officer, we do have one witness, and Mr. Boyer is our witness.

THE HEARING OFFICER: All right, thank you, Mr. Boyer.

DAVID G. BOYER

was called as a witness by the Division, and having been first duly sworn, testified upon his oath as follows, to-wit:

DIRECT EXAMINATION

BY MR. GARBER:

Q Mr. Boyer, do you have a statement that you wish to make?

A Yes. I have a short statement. The importance of protecting ground water quality in New Mexico is underscored by the fact that public water supply systems in this state obtain almost ninety-five percent of their water from ground water sources. Drinking water for over three-fourths of our state's population comes from ground water sources. Even more important, ground water is the only source of water in many areas of the state. The control of underground injection is one way to protect this important resource.

Underground injection deals with wells or other man-made pathways which pump fluids beneath the surface of the earth into porous zones where the fluid can be stored, or used to recover resources.

Systematic underground injection began about fifty years ago in the petroleum industry, and came to be widely used to dispose of salt water, which frequently accompanies

the production of oil and gas.

The New Mexico Oil Conservation Division administers approximately thirty-five hundred injection wells used in connection with oil and gas production including secondary oil recovery wells, and natural gas storage reservoirs.

Underground injection is also used to dispose of potentially hazardous, or polluting, substances. In many cases this practice may be far less hazardous and also less expensive than treatment and disposal of such substances on the surface.

The Environmental Improvement Division in an inventory has identified over two hundred injection wells throughout the state, which are under the jurisdiction of the New Mexico Water Quality Act.

The wells regulated by the Water Quality Control Commission under the Water Quality Act include industrial disposal wells, salt solution mining wells, and uranium mining wells, among others.

To date no hazardous or industrial waste disposal well applications have been submitted to E.I.D. for approval. One early industrial disposal operation has been inactive since 1977, and will be required to obtain a permit before

recommencing injection.

In New Mexico the mining industry employs injection wells to extract substances such as salt and uranium from under the earth's surface. Other types of minerals such as potash and copper may be extracted under proper geologic and hydrologic conditions.

These in situ extraction wells inject a fluid which is capable of dissolving the ore while adjacent wells pump out the fluid and the dissolved ore.

Almost ninety injection, production, and monitoring wells associated with in situ uranium production are under construction at this time in the Grants Mineral Belt; thirty such wells already exist in that area.

Other types of injection wells also exist in New Mexico today, and these include drainage wells, return flow wells, barrier wells, mine backfill wells, and ground water recharge wells.

Regulation of underground injection is clearly a desirable activity, since improperly handled injection can lead to aquifer pollution.

While formulating the Safe Drinking Water Act in 1974, the U. S. Congress recognized both the need for protection of underground drinking water sources from

contamination by underground injection, and the need for effective state regulatory programs.

Congress directed the United States Environmental Protection Agency to develop underground injection regulations to guide states in establishing their own programs. In May of 1980 E.P.A. published final regulations in that area.

Since, 1979, the State of New Mexico has received grants from the Environmental Protection Agency to develop and submit for E.P.A.'s approval a program that would allow the State of New Mexico to administer directly the Underground Injection Control Program of the Safe Drinking Water Act (PL 93-523 as amended).

In February of this year New Mexico received E.P.A. approval to administer those portions of the Federal U.I.C. program dealing with underground injections that relate to the production of oil and natural gas.

The principal part of the New Mexico program to protect ground water from contamination by non-oil and gas underground injection has been the New Mexico Water Quality Control Commission Regulations first adopted in 1977, under the authority of the New Mexico Water Quality Act, and adopted before the adoption of similar federal provisions.

Additional U.I.C. amendments to the state regulations were adopted by the Commission on July 21st, 1982, after extensive public input in 1981, followed by a public hearing in March of 1982.

Further ground water protection from underground injection is provided by the New Mexico Geothermal Resources Conservation Act, and the Surface Mining Act, and the regulations adopted thereunder.

The adoption of regulations such as the Water Quality Control Commission Regulations and other regulations are not under discussion at this Primacy hearing. Those regulations are currently in place.

The final step the state must undertake to receive federal delegation in the U.I.C. program is the formal submission to E.P.A. of an application for Primary Enforcement Authority, and this is commonly called Primacy, and that will allow the state to administer the program in New Mexico.

As required by 40 CFR, Part 123, of the federal regulations, the approval application consists of the following parts:

1. A letter from the Governor requesting program approval.

2. A program description stating how New Mexico intends to carry out its responsibilities under the U.I.C. portion of the Safe Drinking Water Act and applicable federal requirements.

3. An Attorney General's statement describing the state's regulatory authority under state law.

4. A Memorandum of Agreement with the E.P.A. Regional Administrator detailing E.P.A. and state responsibilities once the program is approved.

5. Copies of all applicable state statutes and regulations.

6. A showing of public participation which this hearing is a part of.

The final application is expected to be submitted in late October 1982, followed by an E.P.A. public hearing on the application in December. New Mexico hopes for final E.P.A. approval and completion of the delegation process in February of 1983.

The Primacy application was made available at least thirty days prior to this hearing at the following locations for review and public comment:

The Environmental Improvement Division's, and Oil Conservation Division's offices in Santa Fe; the Environ-

mental Improvement Division's offices in Albuquerque, Grants, Gallup, Farmington, Las Cruces, Roswell, and Hobbs, and also at the Oil Conservation Division's office in Artesia.

A public notice encouraging public comment on the draft state U.I.C. Primacy application was issued and published in a number of state newspapers, and also mailed to approximately a hundred and eighty persons on the U.I.C. mailing list.

Affidavits of these publications, and mailings, have been introduced as E.I.D.-O.C.D. exhibits.

This concludes my comments at this time. I have no further comments.

MR. GARBER: Mr. Boyer, just for the record would you indicate what your position is with the E.I.D.?

MR. BOYER: Yes, I am a Ground Water Hydrologist with the Environmental Improvement Division, and I have been in charge of the U.I.C. program in developing this application, and also developing regulations since April of 1980.

MR. GARBER: Thank you very much.

THE HEARING OFFICER: Are there questions of Mr. Boyer? Mr. Boyer, I have just a couple of questions for clarification.

You noted that the final Environmental Protection Agency regulations governing underground injection and control were promulgated in May of 1980, and have there been amendments, or modifications, to that final promulgation?

MR. BOYER: The promulgation of the procedures to be used was done on May 19th, 1980, and the final technical requirements were done on June 24th, 1980, and there were some modifications to those regulations that were published in the Federal Regulations in February of 1982.

THE HEARING OFFICER: Okay, fine. Do I understand that there will be an additional hearing on the application conducted by the Environmental Protection Agency in December?

MR. BOYER: Yes, sir, they will conduct their own hearing on this application.

THE HEARING OFFICER: Do you know where that hearing has been scheduled for?

MR. BOYER: No, I do not. I believe it will be scheduled for Santa Fe. The Environmental Protection Agency, I don't believe, has set a date, or a place, but I believe they held one in Santa Fe for the Oil Conservation Division for their portion of the program, and I certainly would encourage them to have it in Santa Fe.

THE HEARING OFFICER: I would join you in that encouragement, Mr. Boyer.

Are there any other questions of Mr. Boyer? If not thank you, Mr. Boyer.

(THEREUPON, the witness was excused.)

THE HEARING OFFICER: Does the Division have other witnesses that they wish to present, Mr. Garber?

MR. GARBER: No.

THE HEARING OFFICER: Does the Oil Conservation Division wish to present any witnesses?

Is there anyone else in the audience that wishes to make a statement at this time?

Mr. Garber, would you and Mr. Boyer come here a minute and we will talk about whether or not we need to keep the record open?

(THEREUPON, a short discussion was held off the record.)

THE HEARING OFFICER: We will leave the record open one week to be closed officially at five a.m., next Monday the 27th, for the submittal of any relevant statements, views, arguments, or so forth, regarding the state

application.

I will give everybody one more chance -- is there any one here who wishes a last chance for a statement? If not this hearing is over.

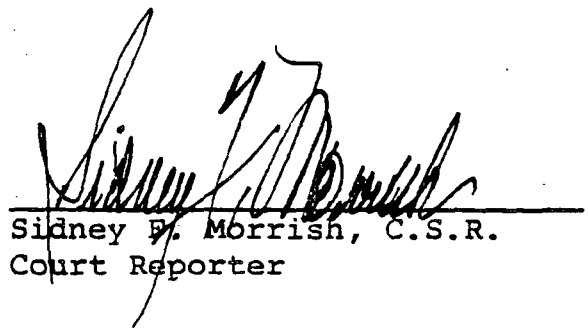
(THEREUPON, the hearing was concluded.)

REPORTER'S CERTIFICATE

I, Sidney F. Morrish, do hereby certify that I recorded the above proceedings, and that this is a true and correct record of the proceedings had at that time and place to the best of my knowledge and ability.

Further, that I am neither attorney nor counsel for, nor related to or employed by any of the parties to these proceedings.

Further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto or financially interested in the action.



Sidney F. Morrish, C.S.R.
Court Reporter

I N D E X

EXHIBIT INDEX

EID 4
EXHIBIT
NO. 1

AFFIDAVIT

I, Jeanette B. Arquero, hereby certify that NOTICE OF PUBLIC HEARING to obtain public comment on the draft state application to the U.S. Environmental Protection Agency (EPA) for Primary Enforcement Authority (Primacy) to administer the Federal Underground Injection Control (UIC) program in New Mexico, were mailed on August 16, 1982 to the following:

1. approximately 180 parties who have expressed interest on UIC matters whose names appear on a listing complied by the Underground Injection Control staff which also includes those parties whose names appear on the Discharge Plan Mailing List; and,

2. the following newspapers:

Albuquerque Journal	Hobbs Daily News-Sun
Artesia Daily Press	Las Cruces Sun-News
Farmington Daily Times	Roswell Daily Record
Gallup Independent	Santa Fe-The New Mexican
Grants Daily Beacon	Carlsbad Current-Argus

Jeanette B. Arquero

Jeanette B. Arquero
Secretary II - Ground Water Section
Water Pollution Control Bureau

Subscribed and sworn to before me this 20th day of September, 1982.

Laura M. Vigil

Laura Vigil, Notary Public

My Commission Expires August 26, 1984

PLEASE NOTE: EID Exhibit #2, Affidavits of Publication for ten New Mexico newspapers not included in this document.

TO BE PUBLISHED ON OR BEFORE AUGUST 21, 1982

STATE OF NEW MEXICO

NOTICE OF PUBLIC HEARING TO PROVIDE OPPORTUNITY FOR PUBLIC COMMENT

A public hearing before the Environmental Improvement Division of the Health & Environment Department and the Oil Conservation Division of the Energy and Minerals Department has been scheduled for 10 a.m., September 20, 1982 in Apodaca Hall (second floor auditorium) PERA Building, Capitol Complex, Santa Fe, New Mexico, to obtain public comment on the draft State application to the U.S. Environmental Protection Agency (EPA) for Primary Enforcement Authority (Primacy) to administer the Federal Underground Injection Control (UIC) program in New Mexico. Underground injection is the emplacement into wells of fluids for disposal or other purposes. The improper injection of such fluids can cause ground water used for drinking or other purposes to be contaminated.

Since 1979 the state of New Mexico has received grants from the EPA to develop and submit for EPA approval a program that would allow the state of New Mexico to administer directly the UIC provisions of the Federal Safe Drinking Water Act (PL 93-523 as amended). In February of this year New Mexico received EPA approval to administer those portions of the Federal UIC program dealing with underground injections that relate to the production of oil and natural gas. Comments at this hearing will therefore be limited to New Mexico's program to control fluid injection practices other than those related to oil and natural gas production.

The principal part of the New Mexico program to protect ground water from contamination by non-oil and gas underground injection has been the New Mexico Water Quality Control Commission Regulations first adopted in 1977 under the authority of the New Mexico Water Quality Act. Additional UIC amendments were adopted by the Commission July 21, 1982. Additional ground water protection from underground injection is provided by the New Mexico Geothermal Resources Conservation Act and the Surface Mining Act and the regulations adopted thereunder.

Copies of the UIC Primacy Application will be available for public review during regular business hours at the Water Pollution Control Bureau, Environmental Improvement Division, Crown Building, 725 St. Michael's Drive and the Oil Conservation Division, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico and at the following Environmental Improvement Division and Oil Conservation Division offices:

Albuquerque (EID)
4219 Montgomery Blvd., NE
Albuquerque, New Mexico 87109

Artesia (OCD)
324 W. Main
Petroleum Building
Artesia, New Mexico 88210

Grants-Milan (EID)
708 Uranium Avenue
Milan, New Mexico 87020

Hobbs (EID)
414 W. Taylor
Hobbs, New Mexico 88240

EID
EXHIBIT
NO. 3

PLEASE NOTE: Complete Primacy application not included with this document.

Mobil Oil Corporation

P.O. BOX 5444
DENVER, COLORADO 80217

URANIUM/MINERALS DIVISION

September 17, 1982

Mr. Roy D. McKeag, Chief
Water Pollution Control Bureau
Environmental Improvement Division
Health & Environment Department
725 St. Michael's Drive
Crown Building
Santa Fe, New Mexico 87503

PUBLIC RECORD STATEMENT
UIC PUBLIC HEARING

Dear Mr. McKeag:

Please find enclosed "Statements for the Public Record of the UIC Hearing of September 20, 1982" submitted on behalf of Mobil Oil Corporation's Uranium/Minerals Division.

Sincerely,

G. A. Cresswell
Manager
Hydrological & Environmental Affairs

WASteingraber:dp
Enclosure
P.F. 0.1.I.4.e.1
cc: W. L. Luthy, Nufuels
D. G. Macaulay, U/M
D. Walker, U/M

STATEMENTS FOR THE PUBLIC RECORD OF THE
UIC HEARING OF SEPTEMBER 20, 1982

BY

MOBIL OIL CORPORATION
URANIUM/MINTERALS DIVISION

This statement is made on behalf of Mobil Oil Corporation, Uranium/Minerals Division, Denver, Colorado. The Uranium/Minerals Division conducts in-situ uranium solution mining operations within the State of New Mexico, and, therefore the Underground Injection Control (UIC) Regulations and the State of New Mexico's application to the U. S. Environmental Protection Agency (EPA) for Primary Enforcement Authority to administer the Federal UIC Program in New Mexico, are of considerable interest to us. I thank you for the opportunity to be able to present a statement.

For the past year, Mobil has worked with the New Mexico Environmental Improvement Division, the U. S. Environmental Protection Agency, various environmental groups, other mineral producing companies, and members of the public at large, in order to develop a set of practical, economically viable and environmentally sound Underground Injection Control Regulations for the State of New Mexico. We are generally pleased with the UIC Regulations presently adopted by the New Mexico Water Quality Control Commission, as we feel that they protect the environment while allowing industry to operate in an economical manner. We favored adoption of such regulations by the New Mexico Water Quality Control Commission, and we support the State's application for Primary Enforcement Authority to administer the Federal UIC Program in New Mexico, rather than be subject to dual regulations by both the State and the EPA.

With respect to the question of implementation of the UIC Program on "Indian Lands", it is our belief that the State of New Mexico should apply for Primary

Enforcement Authority for all UIC activities on such lands. We strongly believe that it is unnecessary and unwarranted for another federal agency, specifically the EPA, to involve itself in such activities when such involvement would only be duplicative of the State's efforts as well as the efforts of at least two other federal agencies involved in the regulation of Underground Injection activities on "Indian Lands". We support the State of New Mexico's application for Primary Enforcement Authority to Administer the Federal Underground Injection Control Program in New Mexico - ALL of New Mexico.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
1201 ELM STREET
DALLAS, TEXAS 75270

September 17, 1982

Mr. Roy McKeag, Chief
Water Pollution Control Bureau
Environmental Improvement Division
P.O. Box 968
Santa Fe, NM 87504-0968

RE: Statement for the Public Record of the UIC Public Hearing of September 20, 1982

Dear Mr. McKeag:

At the June 8, 1982, Water Quality Control Commission (WQCC) meeting, Dick Whittington, EPA Regional Administrator, discussed the six issues on the New Mexico Underground Injection Control (UIC) application which must be addressed prior to EPA approval. Of the six issues, three have been resolved and three issues remain which could prevent EPA from approving (all or part of) the New Mexico UIC program.

The three remaining issues are:

1. The Attorney General's (AG) Statement asserts jurisdiction over non-Indian injection operations on Indian Lands.

   The AG's legal demonstration of authority may not be sufficient to allow EPA to delegate its regulatory functions on Indian Lands. EPA Region 6 is exploring the possibility of joint permit issuance on Indian Lands if delegation is not possible.

2. The WQCC preconstruction regulatory requirement (5-102.B) for in situ wells differs from the EPA requirement of 40 CFR 122.33.

   In order to gain program approval, the State must show that WQCC 5-102.B meets the EPA requirements. A State need not impose a requirement in precisely the same way as the Federal regulations, if the State can demonstrate that its provision is as stringent.

   EPA Region 6 is available for any assistance you might require in preparing a "stringency" argument to resolve the issue. This argument may require additional language in the AG statement.

3. The Memorandum of Agreement (MOA) does not provide for EPA approval of temporary aquifer designations.

   EPA has not yet decided whether New Mexico's temporary aquifer designations require EPA approval and, if so, what the approval process entails. Section VII of the MOA may therefore, need to be revised to provide for EPA approval of temporary aquifer designations.

I greatly appreciate the spirit of cooperativeness which you have shown in working with us to resolve issues. I trust it will continue as we work to resolve these final issues. Please call me or my staff if we may be of any assistance.

Sincerely yours,

Myron O. Knudson

Myron O. Knudson
Director, Water Management Division (6W)

cc: Joe D. Ramey, Director, New Mexico Oil Conservation Division, Santa Fe, NM

Cubia L. Clayton, Chairman, New Mexico Water Quality Control Commission, Santa Fe, NM

RESPONSIVENESS SUMMARY

PRESENTATION OF THE NEW MEXICO PLAN FOR UNDERGROUND INJECTION CONTROL

The New Mexico Environmental Improvment Division (NMEID) presented its program for the assumption of Primary Enforcement Responsibility (primacy) to protect ground water from contamination through the Underground Injection Control (UIC) program at a public hearing on September 20, 1982. This presentation included statements concerning:

(1) the importance of protecting ground water,

(2) the results of a preliminary statewide inventory of injection wells including location and classification,

(3) the division of responsibilities between New Mexico state agencies for different types of injection wells, and

(4) the relevant state legislation protecting ground water from contamination including the N.M. Water Quality Act authorizing the adoption Water Quality Control Commission Regulations, the New Mexico Geothermal Resources Conservation Act, and the Surface Mining Act.

The State presentation also included a short history of the development of UIC amendments to State Water Quality Control Commission Regulations, which were drafted and adopted after extensive public input. Representatives from environmental groups, industries which have been involved in underground injection, and the public at large were all actively involved with the drafting of these regulations.

PUBLIC COMMENT ON THE NEW MEXICO'S PROPOSAL TO ASSUME PRIMARY ENFORCEMENT RESPONSIBILITY FOR UIC ACTIVITIES

Public comment on New Mexico's proposal to assume primary enforcement responsibility for underground injection control (UIC) was provided in the form of written statements submitted by the Mobil Oil Corporation, Uranium/Minerals Division and by the U.S. Environmental Protection Agency (EPA).

Mobil's statement indicates that they have worked with the New Mexico Environmental Improvement Division and also with the EPA, various environmental groups, and other mineral producing companies to agree upon a set of UIC regulations which protect the environment while allowing industry to operate in an economic manner. Mobil feels that it is desirable that the State assume primary enforcement authority over UIC activities in order that they not be subject to different sets of Federal and State regulations. Mobil also supports the State of New Mexico in its assertion of primary enforcement authority on Indian Lands within the State.

The U.S. Environmental Protection Agency stated its concern about three remaining unresolved issues which could prevent EPA from approving all or part of the New Mexico UIC program. These issues are:

(1) The State of New Mexico's assertion of jurisdiction over non-Indian underground injection on Indian Lands. The EPA feels that the demonstration of legal authority over such land may not be sufficient.

(2) The N.M. Water Quality Control Commission preconstruction regulatory requirements for in situ injection wells differs from the EPA requirements of 40 CFR Part 122.33. EPA believes that State requirement may not be stringent enough.

(3) The Memorandum of Agreement (MOA) between the EPA and the State does not provide for EPA approval of temporary aquifer designations. EPA is still uncertain as to their position on whether temporary aquifer designations require EPA's approval.

New Mexico Environmental Improvement Division (NMEID)
Response to Public Comment

The NMEID is happy to note Mobil's support for the State assumption of primary enforcement responsibility for the Underground Injection Control program and concurrs with Mobil's statement.

In regard to the EPA comments on the State of New Mexico's primacy application, the State responds as follows:

(1) State jurisdiction over UIC activities by non-Indians on Indian Lands is jusitified by the two-pronged test mentioned in the State Attorney General's Statement. This asserts that UIC is not an activity whose regulation has been historically pre-empted by the Federal government and that UIC applied to non-Indians would not interfere with tribal self-government. Precedents for this belief are cited in the Attorney General's statement.

(2) In regard to the difference in pre-construction requirements the State feels that it has demonstrated its capacity and willingness to abate discharges which would be made in violation of the State's Water Quality Regulations, and the requirement of a pre-construction permit for in situ injections is not necessary. Additional discussion of this point is found in Table 3 of the Primacy application and in the Attorney General's statement.

(3) In regard to the EPA hesitancy to allow the State of New Mexico to temporarily allow aquifer contamination by in situ mining without EPA approval, New Mexico is confident that its regulations (WQCC Section 5-101.C.2) and enforcement abilities allow it to be certain that such aquifers will be restored to state standards for human health, domestic, and use. The transcript of the March 3-5, 1982, UIC Regulation hearing contains testimony concerning the success of aquifer restoration in New Mexico. In requiring aquifer restoration New Mexico's requirements are more stringent than EPA's and dual EPA approval for this activity is not necessary.

It is the opinion of the State of New Mexico that the purpose of primacy is to put the permit decision-making process in the hands of the State. EPA approval of temporary aquifer designations would be dual permitting--without question. If EPA insists upon approval of temporary aquifer designations, the EID wonders what it has gained by primacy. The EID has discussed this with EPA Region 6 staff and they are aware of our strong feelings on this issue. Therefore, there it is not our intention to rewrite the appropriate section in the Memorandum of Agreement.