Case No.

7272

Application

Transcripts

Small Exhibits

ETC

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION ON ITS OWN MOTION TO CONSIDER CERTAIN AMENDMENTS TO ITS RULES AND REGULATIONS.

CASE NO. 7272
Order No. R-6702

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at Santa Fe, New Mexico, on June 4 and June 17, 1981, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 17th day of June, 1981, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the Oil Conservation Division, hereinafter referred to as the "Division," proposes certain amendments to its rules and regulations as they relate to the underground injection of fluids including the adoption of certain new definitions and certain new forms, the amendment of Rules Nos. 103, 106, 107, 204, 701 thru 705, 1100, 1108, 1115, and 1131, and the promulgation of certain new rules, being Rules 706, 707, and 708, the revision of certain old forms, being Forms C-108 and C-131, and the adoption of a new Form C-131-B.

(3) That the Division has jurisdiction over all matters pertinent to the use of injection wells related to oil and natural gas operations including the use of such wells for secondary recovery, enhanced recovery, pressure maintenance, disposal of waters coproduced with oil or gas, storage of natural gas, storage of liquefied petroleum gas, and storage of other hydrocarbons.

(4) That since 1951 the Division has authorized over 3000 injection wells.

(5) That in addition to its rules and regulations covering the approval, use, monitoring, and reporting of injection wells, the Division has developed a large body of policies, procedures, and conventions which should now be included within said regulations.

(6) That many Division rules dealing with standard drilling and operation activities applicable to all wells were written prior to the extensive use of injection wells.

(7) That such rules should be amended to clarify their applicability to injection wells as well as to other well classes.

(8) The Public Law 93-523, the Safe Drinking Water Act, was signed into law December 16, 1974.

(9) That said law required that the Administrator of the Environmental Protection Agency (EPA) adopt minimum regulations for State programs to control the underground injection of fluids to protect underground sources of drinking water.

(10) That final EPA regulations were published in the spring of 1980.

(11) That under Safe Drinking Water Act and the amendments thereto, and said regulations and EPA guidelines, in order for the State to apply for and receive primary enforcement authority for control of oil and gas related injection wells in New Mexico under the Act, certain changes or additions to the Division Rules and Regulations are required, to wit:

(12) That Section A-DEFINITIONS of the Oil Conservation Division Rules and Regulations should be amended by the addition of three new definitions, reading in their entirety as follows:

> AQUIFER shall mean a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.
>
> EXEMPTED AQUIFER shall mean an aquifer that does not currently serve as a source of drinking water, and which cannot now and will not in the foreseeable

future serve as a source of drinking water because: (1) it is hydrocarbon producing; (2) it is situated at a depth or location which makes the recovery of water for drinking water purposes economically or technologically impractical; or, (3) it is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption.

UNDERGROUND SOURCE OF DRINKING WATER shall mean an aquifer which supplies water for human consumption or which contains ground water having a total dissolved solids concentration of 10,000 mg/l or less and which is not an exempted aquifer.

(13) That Rule 103 of the Division Rules and Regulations should be amended to read in its entirety as follows:

RULE 103. SIGN ON WELLS

All wells subject to these regulations, including drilling, production, and injection wells, shall be identified by a sign, posted on the derrick or not more than 20 feet from such well, and such sign shall be of durable construction and the lettering thereon shall be kept in a legible condition and shall be large enough to be legible under normal conditions at a distance of 50 feet. The wells on each lease or property shall be numbered in non-repetitive, logical and distinctive sequence. Each sign shall show the number of the well, the name of the lease (which shall be different or distinctive for each lease), the name of the leasee, owner or operator, and the location by quarter section, township and range. The location, for each sign posted after March 1, 1968, shall indicate the quarter-quarter section, township, and range.

(14) That Rule 106(a) should be revised to read in its entirety as follows (no change in subsections (b) and (c):

(a) During the drilling of any oil well, gas well, injection well or any other service well, all oil, gas, and water strata above the producing and/or injection horizon shall be sealed or separated in order to prevent their contents from passing into other strata.

(15) That the first paragraph of Rule 107(a) should be amended to read in its entirety as follows (no change in the second, third, fourth, fifth, or sixth paragraphs of subsection (a) nor in subsections (b), (c), (d) or (e) of Rule 107):

RULE 107. CASING AND TUBING REQUIREMENTS

(a) Any well drilled for oil or natural gas or for injection shall be equipped with such surface and intermediate casing strings and cement as may be necessary to effectively seal off and isolate all water-, oil-, and gas-bearing strata and other strata encountered in the well down to the casing point. In addition thereto, any well completed for the production of oil or natural gas shall be equipped with a string of properly cemented production casing at sufficient depth to ensure protection of all oil- and gas-bearing strata encountered in the well, including the one(s) to be produced.

(16) That Rule 204 should be amended to read in its entirety as follows:

RULE 204. LIABILITY

The owner of any well drilled for oil or gas or for injection, or any seismic, core or other exploratory hole, whether cased or uncased, shall be responsible for the plugging thereof.

(17) That Section I of the Rules and Regulations should be entitled:

I - SECONDARY OR OTHER ENHANCED RECOVERY, PRESSURE MAINTENANCE, SALT WATER DISPOSAL, AND UNDERGROUND STORAGE

(18) That Rules 701 through 705, inclusive, of the Rules and Regulations should be amended to read in their entirety as follows:

RULE 701. INJECTION OF FLUIDS INTO RESERVOIRS

A. <u>Permit for Injection Required</u>

The injection of gas, liquefied petroleum gas, air, water, or any other medium into any reservoir for

the purpose of maintaining reservoir pressure or for the purpose of secondary or other enhanced recovery or for storage or the injection of water into any formation for the purpose of water disposal shall be permitted only by order of the Division after notice and hearing, unless otherwise provided herein.

B. Method of Making Application

(1) Applications for authority for the injection of gas, liquefied petroleum gas, air, water or any other medium into any formation for any reason, including but not necessarily limited to the establishment of or the expansion of water flood projects, enhanced recovery projects, pressure maintenance projects, and salt water disposal, shall be by submittal of Division Form C-108 complete with all attachments.

(2) The applicant shall furnish, by certified or registered mail, a copy of the application to the owner of the surface of the land on which each injection or disposal well is to be located and to each leasehold operator within one-half mile of the well.

(3) Administrative Approval

If the application is for administrative approval rather than for a hearing, it must also be accompanied by a copy of a legal publication published by the applicant in a newspaper of general circulation in the county in which the proposed injection well is located. (The details required in such legal notice are listed on Side 2 of Form C-108.)

No application for administrative approval may be approved until 15 days following receipt by the Division of Form C-108 complete with all attachments including evidence of mailing as required under paragraph 2 above and proof of publication as required by paragraph 3 above.

If no objection is received within said 15-day period, and a hearing is not otherwise required, the application may be approved administratively.

C. Hearings

If a written objection to any application for administrative approval of an injection well is filed

within 15 days after receipt of a complete application, or if a hearing is required by these rules or deemed advisable by the Division Director, the application shall be set for hearing and notice thereof given by the Division.

D. Salt Water Disposal Wells

1. The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for water disposal wells only, without notice and hearing, when the waters to be disposed of are mineralized to such a degree as to be unfit for domestic, stock, irrigation, or other general use, and when said waters are to be disposed of into a formation older than Triassic (Lea County only) which is nonproductive of oil or gas within a radius of two miles from the proposed injection well, and provided no objections are received pursuant to Rule 701-B(3).

2. Disposal will not be permitted into zones containing waters having total dissolved solids concentrations of 10,000 mg/l or less except after notice and hearing, provided however, that the Division may establish exempted aquifers for such zones wherein such injection may be approved administratively.

3. Notwithstanding the provisions of paragraph 2. above, the Division Director may authorize disposal into such zones if the waters to be disposed of are of higher quality than the native water in the disposal zone.

E. Pressure Maintenance Projects

1. Pressure maintenance projects are defined as those projects in which fluids are injected into the producing horizon in an effort to build up and/or maintain the reservoir pressure in an area which has not reached the advanced or "stripper" state of depletion.

2. All applications for establishment of pressure maintenance projects shall be set for hearing.

The project area and the allowable formula for any pressure maintenance project shall be fixed by the Division on an individual basis after notice and hearing.

3. Pressure maintenance projects may be expanded and additional wells placed on injection only upon authority from the Division after notice and hearing or by administrative approval.

The Division Director shall have authority to grant an exception to the hearing requirements of Rule 701-A for the conversion to injection of additional wells within a project area provided that any such well is necessary to develop or maintain efficient pressure maintenance within such project and provided that no objections are received pursuant to Rule 701-B(3).

F. Water Flood Projects

1. Water flood projects are defined as those projects in which water is injected into a producing horizon in sufficient quantities and under sufficient pressure to stimulate the production of oil from other wells in the area, and shall be limited to those areas in which the wells have reached an advanced state of depletion and are regarded as what is commonly referred to as "stripper" wells.

2. All applications for establishment of water flood projects shall be set for hearing.

The project area of a water flood project shall comprise the proration units owned or operated by a given operator upon which injection wells are located plus all proration units owned or operated by the same operator which directly or diagonally offset the injection tracts and have producing wells completed on them in the same formation; provided however, that additional proration units not directly nor diagonally offsetting an injection tract may be included in the project area if, after notice and hearing, it has been established that such additional units have wells completed thereon which have experienced a substantial response to water injection.

3. The allowable assigned to wells in a water flood project area shall be equal to the ability of the

wells to produce and shall not be subject to the depth bracket allowable for the pool nor to the market demand percentage factor.

Nothing herein contained shall be construed as prohibiting the assignment of special allowables to wells in buffer zones after notice and hearing. Special allowables may also be assigned in the limited instances where it is established at a hearing that it is imperative for the protection of correlative rights to do so.

4. Water flood projects may be expanded and additional wells placed on injection only upon authority from the Division after notice and hearing or by administrative approval.

The Division Director shall have authority to grant an exception to the hearing requirements of Rule 701-A for conversion to injection of additional wells provided that any such well is necessary to develop or maintain thorough and efficient waterflood injection for any authorized project and provided that no objections are received pursuant to Rule 701-B(3).

G. Storage Wells

The Division Director shall have authority to grant an exception to the hearing requirements of Rule 701-A for the underground storage of liquefied petroleum gas or liquid hydrocarbons in secure caverns within massive salt beds, and provided no objections are received pursuant to Rule 701-B(3).

In addition to the filing requirements of Rule 701-B, the applicant for approval of a storage well under this rule shall file the following:

1. With the Division Director:

   (a) A plugging bond in accordance with the provisions of Rule 101;

2. With the appropriate district office of the Division in TRIPLICATE:

(a) Form C-101, Application for Permit to Drill, Deepen, or Plug Back;

(b) Form C-102, Well Location and Acreage Dedication Plat; and

(c) Form C-105, Well Completion or Recompletion Report and Log.

RULE 702. CASING AND CEMENTING OF INJECTION WELLS

Wells used for injection of gas, air, water, or any other medium into any formation shall be cased with safe and adequate casing or tubing so as to prevent leakage, and such casing or tubing shall be so set and cemented as to prevent the movement of formation or injected fluid from the injection zone into any other zone or to the surface aroung the outside of any casing string.

RULE 703. OPERATION AND MAINTENANCE

Injection wells shall be equipped, operated, monitored, and maintained to facilitate periodic testing and to assure continued mechanical integrity which will result in no significant leak in the tubular goods and packing materials used and no significant fluid movement through vertical channels adjacent to the well bore.

Injection projects, including injection wells and producing wells and all related surface facilities shall be operated and maintained at all times in such a manner as will confine the injected fluids to the interval or intervals approved and prevent surface damage or pollution resulting from leaks, breaks, or spills.

Failure of any injection well, producing well, or surface facility, which failure may endanger underground sources of drinking water, shall be reported under the "Immediate Notification" procedures of Rule 116.

Injection well or producing well failures requiring casing repair or cementing are to be reported to the Division prior to commencement of workover operations.

Injection wells or projects which have exhibited failure to confine injected fluids to the authorized injection zone or zones may be subject to restriction of injection volume and pressure, or shut-in, until the failure has been identified and corrected.

RULE 704. TESTING AND MONITORING

A. Testing

Prior to commencement of injection, wells shall be tested to assure the initial integrity of the casing and the tubing and packer, if used, including pressure testing of the casing-tubing annulus.

At least once every five years thereafter, injection wells shall be tested to assure their continued mechanical integrity. Tests demonstrating continued mechanical integrity shall include the following:

(a) measurement of annular pressures in wells injecting at positive pressures under a packer or a balanced-fluid seal;

(b) pressure testing of the casing-tubing annulus for wells injecting under vacuum conditions; and,

(c) such other tests which are demonstrably effective and which may be approved for use by the Division.

Notwithstanding the test procedures outlined above, the Division may require more comprehensive testing of injection wells when deemed advisable, including the use of tracer surveys, noise logs, temperature logs, or other test procedures or devices.

In addition, the Division may order special tests to be conducted prior to the expiration of five years if conditions are believed to so warrant. Any such special test which demonstrates continued mechanical integrity of a well shall be considered the equivalent of an initial test for test scheduling purposes, and the regular 5-year testing schedule shall be applicable thereafter.

The injection well operator shall advise the Division of the date and time any initial, 5-year, or special tests are to be commenced in order that such tests may be witnessed.

B. Monitoring

Injection wells shall be so equipped that the injection pressure and annular pressure may be determined at the wellhead and the injected volume may be determined at least monthly.

Injection wells used for storage shall be so equipped that both injected and produced volumes may be determined at any time.

RULE 705. COMMENCEMENT, DISCONTINUANCE, AND ABANDONMENT OF INJECTION OPERATIONS

The following provisions shall apply to all injection projects, storage projects, salt water disposal wells and special purpose injection wells:

A. Notice of Commencement and Discontinuance

1. Immediately upon the commencement of injection operations in any well, the operator shall notify the Division of the date such operations began.

2. Within 30 days after permanent cessation of gas or liquefied petroleum gas storage operations or within 30 days after discontinuance of injection operations into any other well, the operator shall notify the Division of the date of such discontinuance and the reasons therefor. No injection well may be temporarily abandoned for a period exceeding six months unless the injection interval has been isolated by use of cement or a bridge plug. The Director of the Division may delay the cement or bridge plug requirements above upon a demonstration that there is a continuing need for such well, that the well exhibits mechanical integrity, and that continued temporary abandonment will not endanger underground sources of drinking water.

3. Before any injection well is plugged, the operator shall obtain approval for the well's

plugging program from the appropriate District Office of the Division in the same manner as when plugging oil and gas wells or dry holes.

B. Abandonment of Injection Operations

1. Whenever there is a continuous six-month period of non-injection into any injection project, storage project, salt water disposal well, or special purpose injection well, such project or well shall be considered abandoned, and the authority for injection shall automatically terminate ipso facto.

2. For good cause shown, the Division Director may grant an administrative extension or extensions of injection authority as an exception to Paragraph 1. above.

(19) That the Division Rules and Regulations should be amended by the addition of new Rules 706 through 708, inclusive, reading in their entirety as follows:

RULE 706. RECORDS AND REPORTS

The operator of an injection well or project for secondary or other enhanced recovery, pressure maintenance, natural gas storage, salt water disposal, or injection of any other fluids shall keep accurate records and shall report monthly to the Division gas or fluid volumes injected, stored, and/or produced as required on the appropriate form listed below:

1. Secondary or Other Enhanced Recovery on Form C-115;

2. Pressure Maintenance on Form C-115 and as otherwise prescribed by the Division;

3. Salt Water Disposal on Form C-120-A;

4. Natural Gas Storage on Form C-131-A; and

5. Injection of other fluids on a form prescribed by the Division.

The operator of a liquefied petroleum gas storage project shall report annually on Form C-131-B, Annual LPG Storage Report.

RULE 707. RECLASSIFICATION OF WELLS

The Division Director shall have authority to reclassify an injection well from any category defined in Rule 701-B to any other category without notice and hearing upon request and proper showing by the operator thereof.

RULE 708. TRANSFER OF AUTHORITY TO INJECT

Authority to inject granted under any order of the Division is not transferable except upon approval of the Division. Approval of transfer of authority to inject may be obtained by filing form C-104 in accordance with Rule 1104(5).

The Division may require a demonstration of mechanical integrity prior to approving transfer of authority to inject.

(20) That Rule 1100 C. should be amended to read in its entirety as follows:

RULE 1100 C. Books and Records

All producers, injectors, transporters, storers, refiners, gasoline or extraction plant operators, treating plant operators, and initial purchasers of natural gas within the State of New Mexico shall make and keep appropriate books and records for a period of not less than five years, covering their operations in New Mexico, from which they may be able to make and substantiate the reports required by these rules.

(21) That Rule 1100 D. should be amended only to reflect the change in title of Form C-108 from "Application to Dispose of Salt Water by Injection into a Porous Formation" to "Application For Authorization To Inject;" to reflect the change in form number of "Monthly Gas Storage Report" from Form C-131 to Form C-131-A; and to reflect adoption of new Form C-131-B, "Annual LPG Storage Report."

(22) That Rule 1108 should be amended to read in its entirety as follows:

RULE 1108. APPLICATION FOR AUTHORIZATION TO INJECT
(Form C-108)

Form C-108 shall be filed in accordance with Rule 701-B.

(23) That Rule 1115 should be amended to read in its entirety as follows:

RULE 1115. OPERATOR'S MONTHLY REPORT (Form C-115)

Operator's Monthly Report, Form C-115 or Form C-115-EDP, shall be filed on each producing lease and each secondary or other enhanced recovery project or pressure maintenance project injection well within the State of New Mexico for each calendar month, setting forth complete information and data indicated on said forms in the order, format, and style prescribed by the Division Director. Oil production from wells which are producing into common storage shall be estimated as accurately as possible on the basis of periodic tests.

The reports on this form shall be filed by the producer as follows:

Original to the Oil Conservation Division at Santa Fe; one copy to the District Office of the Division in which district the lease is located; and one copy to each transporter involved. Each report for each month shall be postmarked not later than the 24th day of next succeeding month. Failure of an operator to file this report in accordance with the provisions of this rule may result in cancellation of Form C-104 for the affected well or wells and/or cancellation of authority to inject.

(24) That Rule 1131 should be amended to read in its entirety as follows:

RULE 1131. MONTHLY GAS STORAGE REPORT (Form C-131-A)
ANNUAL LPG STORAGE REPORT (Form C-131-B)

Each operator of an underground natural gas storage project shall report its operation monthly on Form C-131-A. Form C-131-A shall be filed in duplicate (one copy to the Santa Fe Office of the Division and one copy to the appropriate district office) and shall be postmarked not later than the 24th day of the next succeeding month.

Each operator of an underground liquefied petroleum gas storage project approved by the Division shall report its operation annually on Form C-131-B.

Form C-131-B shall be filed in duplicate (one copy to the Santa Fe Office of the Division and one copy to the appropriate district office) and shall be postmarked not later than the 24th day of January of each year.

(25) That Form C-108 should be re-named "Application For Authorization To Inject" and should be revised to be in the form and content prescribed in Exhibit "A" attached hereto and made a part hereof.

(26) That Form C-131, "Monthly Gas Storage Report", should be re-numbered as Form C-131-A and revised to be in the form and content prescribed in Exhibit "B" attached hereto and made a part hereof.

(27) That a new form, Form C-131-B, "Annual LPG Storage Report", should be adopted in the form and content prescribed in Exhibit "C" attached hereto and made a part hereof.

(28) That Findings Nos. (12) through (27) above describe all of the definitions, rule changes, new rules, form revisions, and new forms which will be required to (1) incorporate necessary existing injection policy within the rules, (2) clarify the applicability of the rules to injection wells, and (3) permit the State to meet EPA requirements for underground injection control under regulations and guidelines adopted under provisions of the Safe Drinking Water Act.

(29) That said definitions, rule changes, new rules, form revisions, and new forms as described in Findings Nos. (12) through (27) above are in the public interest, will serve to prevent waste, will protect underground sources of drinking water, and will not violate correlative rights, and should be approved.

(30) That the effective date of this order and of all of the amendments, revisions, changes, and adoptions contained herein should be July 1, 1981.

IT IS THEREFORE ORDERED:

(1) That the Rules and Regulations of the New Mexico Oil Conservation Division are hereby amended as follows:

A. That three new definitions, being of "Aquifer," "Exempted Aquifer," and "Underground Source of Drinking Water" as described in Finding No. (12) above are adopted.

B. That Rule 103 is amended as described in Finding No. (13) above.

C. That Rule 106(a) is amended as described in Finding No. (14) above.

D. That the first paragraph of Rule 107(a) is amended as described in Finding No. (15) above.

E. That Rule 204 is amended as described in Finding No. (16) above.

F. That Section I is entitled as described in Finding No. (17) above.

G. That Rules 701 through 705, inclusive, are amended as described in Finding No. (18) above.

H. That new Rules 706 through 708, inclusive, as described in Finding No. (19) above, are adopted.

I. That Rule 1100 C. is amended as described in Finding No. (20) above.

J. That Rule 1100 D. is amended as described in Finding No. (21) above.

K. That Rule 1108 is amended as described in Finding No. (22) above.

L. That Rule 1115 is amended as described in Finding No. (23) above.

M. That Rule 1131 is amended as described in Finding No. (24) above.

(2) That Oil Conservation Division Form C-108 is hereby re-named "Application For Authorization To Inject" and revised to be in the form and content prescribed in Exhibit "A" attached hereto and made a part hereof.

(3) That Division Form C-131, "Monthly Gas Storage Report", is hereby re-numbered as Form C-131-A and revised to be in the form and content prescribed in Exhibit "B" attached hereto and made a part hereof.

(4) That Form C-131-B, "Annual LPG Storage Report", in the form and content prescribed in Exhibit "C" attached hereto and made a part hereof, is hereby adopted.

(5) That the effective date of this order and of all of the amendments, revisions, changes and adoptions contained herein shall be July 1, 1981.

(6) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

ALEX J. ARMIJO, Member

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A L

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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no

II. Operator: _____

Address: _____

Contact party: _____ Phone: _____

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? ☐ yes ☐ no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: _____ Title _____

Signature: _____ Date: _____

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

Exhibit A - Order No. R-6702

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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OPERATOR		

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-105
Revised 10-1-78

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease: State ☐ Fee ☐
5. State Oil & Gas Lease No.

1a. TYPE OF WELL
OIL WELL ☐ GAS WELL ☐ DRY ☐ OTHER _____

b. TYPE OF COMPLETION
NEW WELL ☐ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER

7. Unit Agreement Name
8. Farm or Lease Name
9. Well No.
10. Field and Pool, or Wildcat

2. Name of Operator
3. Address of Operator
4. Location of Well
UNIT LETTER _____ LOCATED _____ FEET FROM THE _____ LINE AND _____ FEET FROM THE _____ LINE OF SEC. _____ TWP. _____ RGE. _____ NMPM
12. County

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. *(Ready to Prod.)*	18. Elevations *(DF, RKB, RT, GR, etc.)*	19. Elev. Cashinghead

20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By →	Rotary Tools	Cable Tools

24. Producing Interval(s), of this completion — Top, Bottom, Name
25. Was Directional Survey Made

26. Type Electric and Other Logs Run
27. Was Well Cored

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET

31. Perforation Record *(Interval, size and number)*

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED

33. PRODUCTION

Date First Production	Production Method *(Flowing, gas lift, pumping — Size and type pump)*	Well Status *(Prod. or Shut-in)*

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Gas — Oil Ratio

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Oil Gravity — API *(Corr.)*

34. Disposition of Gas *(Sold, used for fuel, vented, etc.)*
Test Witnessed By

35. List of Attachments

36. *I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.*

SIGNED _____ TITLE _____ DATE _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(3) the formation name and depth with expected maximum injection rates and pressures; and

(4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-105
Revised 10-1-78

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease: State ☐ Fee ☐

5. State Oil & Gas Lease No.

1a. TYPE OF WELL

OIL WELL ☐ GAS WELL ☐ DRY ☐ OTHER

b. TYPE OF COMPLETION

NEW WELL ☐ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER

7. Unit Agreement Name

8. Farm or Lease Name

2. Name of Operator

9. Well No.

3. Address of Operator

10. Field and Pool, or Wildcat

4. Location of Well

UNIT LETTER _____ LOCATED _____ FEET FROM THE _____ LINE AND _____ FEET FROM THE _____ LINE OF SEC. _____ TWP. _____ RGE. _____ NMPM

12. County

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. *(Ready to Prod.)*	18. Elevations *(DF, RKB, RT, GR, etc.)*	19. Elev. Cashinghead

20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By →	Rotary Tools	Cable Tools

24. Producing Interval(s), of this completion — Top, Bottom, Name

25. Was Directional Survey Made

26. Type Electric and Other Logs Run

27. Was Well Cored

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET

31. Perforation Record *(Interval, size and number)*

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED

33. PRODUCTION

Date First Production	Production Method *(Flowing, gas lift, pumping — Size and type pump)*	Well Status *(Prod. or Shut-in)*

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Gas — Oil Ratio

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Oil Gravity — API *(Corr.)*

34. Disposition of Gas *(Sold, used for fuel, vented, etc.)*

Test Witnessed By

35. List of Attachments

36. *I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.*

SIGNED _____ TITLE _____ DATE _____

Form C-121-A
Revised 7-1-81

NEW MEXICO OIL CONSERVATION DIVISION
P. O. BOX 2088, SANTA FE, NEW MEXICO 87501

MONTHLY GAS STORAGE REPORT

_____ (Company) _____ (Address)

NAME OF STORAGE PROJECT: _____ COUNTY _____ REPORT MONTH _____

WELL NAME AND NUMBER	LOCATION				MAXIMUM INJECTION PRESSURE	INJECTION (MCF)	WITH-DRAWAL (MCF)
	UNIT	SEC.	TWP.	RANGE			
TOTALS							

TOTAL CAPACITY (MMCF) _____

BEGINNING STORAGE (MMCF) _____

NET CHANGE (MMCF) _____

ENDING STORAGE (MMCF) _____

CALCULATED RESERVOIR PRESSURE @ END OF MONTH _____

I hereby certify that this report is true and complete to the best of my knowledge and belief.

By _____

Title _____ Date _____

Exhibit B - Order No. R-6702

Form C-105
Revised 10-1-78

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ENERGY AND MINERALS DEPARTMENT

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OIL CONSERVATION DIVISION

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SANTA FE, NEW MEXICO 87501

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease: State ☐ Fee ☐

5. State Oil & Gas Lease No.

1a. TYPE OF WELL

OIL WELL ☐ GAS WELL ☐ DRY ☐ OTHER

b. TYPE OF COMPLETION

NEW WELL ☐ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RES. ☐ OTHER

7. Unit Agreement Name

8. Farm or Lease Name

2. Name of Operator

9. Well No.

3. Address of Operator

10. Field and Pool, or Wildcat

4. Location of Well

UNIT LETTER _____ LOCATED _____ FEET FROM THE _____ LINE AND _____ FEET FROM THE _____ LINE OF SEC. _____ TWP. _____ RGE. _____ NMPM

12. County

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. *(Ready to Prod.)*	18. Elevations *(DF, RKB, RT, GR, etc.)*	19. Elev. Cashinghead

20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By →	Rotary Tools	Cable Tools

24. Producing Interval(s), of this completion — Top, Bottom, Name

25. Was Directional Survey Made

26. Type Electric and Other Logs Run

27. Was Well Cored

28. CASING RECORD *(Report all strings set in well)*

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET

31. Perforation Record *(Interval, size and number)*

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED

33. PRODUCTION

Date First Production	Production Method *(Flowing, gas lift, pumping — Size and type pump)*	Well Status *(Prod. or Shut-in)*

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Gas — Oil Ratio

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Oil Gravity — API *(Corr.)*

34. Disposition of Gas *(Sold, used for fuel, vented, etc.)*

Test Witnessed By

35. List of Attachments

36. *I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.*

SIGNED _____ TITLE _____ DATE _____

Form C-131-B
Adopted 7-1-81

NEW MEXICO OIL CONSERVATION DIVISION
P. O. BOX 2088, SANTA FE, NEW MEXICO 87501

ANNUAL LPG STORAGE REPORT

(Company) _____ (Address) _____

NAME OF STORAGE PROJECT: _____ COUNTY _____ REPORT YEAR _____

WELL NAME AND NUMBER	LOCATION				MAXIMUM INJECTION PRESSURE	INJECTION (BBLS)	WITHDRAWAL (BBLS)
	UNIT	SEC.	TWP.	RANGE			
TOTALS							

CALCULATED RESERVOIR PRESSURE @ END OF YEAR _____

TOTAL CAPACITY (BBLS) _____ BEGINNING STORAGE (BBLS) _____

NET CHANGE (BBLS) _____ ENDING STORAGE (BBLS) _____

I hereby certify that this report is true and complete to the best of my knowledge and belief.

By _____ Title _____

Date _____

Exhibit C - Order No. R-6702

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

Form C-105
Revised 10-1-78

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SANTA FE, NEW MEXICO 87501

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease: State ☐ Fee ☐

5. State Oil & Gas Lease No.

1a. TYPE OF WELL

OIL WELL ☐ GAS WELL ☐ DRY ☐ OTHER _____

b. TYPE OF COMPLETION

NEW WELL ☐ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER

7. Unit Agreement Name

8. Farm or Lease Name

2. Name of Operator

9. Well No.

3. Address of Operator

10. Field and Pool, or Wildcat

4. Location of Well

UNIT LETTER _____ LOCATED _____ FEET FROM THE _____ LINE AND _____ FEET FROM

THE _____ LINE OF SEC. _____ TWP. _____ RGE. _____ NMPM

12. County

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. *(Ready to Prod.)*	18. Elevations *(DF, RKB, RT, GR, etc.)*	19. Elev. Cashinghead

20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By →	Rotary Tools	Cable Tools

24. Producing Interval(s), of this completion — Top, Bottom, Name

25. Was Directional Survey Made

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28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED

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SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET

31. Perforation Record *(Interval, size and number)*

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED

33. PRODUCTION

Date First Production	Production Method *(Flowing, gas lift, pumping — Size and type pump)*	Well Status *(Prod. or Shut-in)*

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Gas — Oil Ratio

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Oil Gravity — API *(Corr.)*

34. Disposition of Gas *(Sold, used for fuel, vented, etc.)*

Test Witnessed By

35. List of Attachments

36. *I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.*

SIGNED _____ TITLE _____ DATE _____

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
4 June 1981

COMMISSION HEARING

IN THE MATTER OF:

The hearing called by the Oil Conservation Commission on its on motion to consider certain amendments to its rules and regulations. CASE 7272

BEFORE: Commissioner Ramey
Commissioner Arnold

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Commission: Albert Sims, Esq.
Energy and Minerals Dept.
Santa Fe, New Mexico

For the Oil Conservation Division: Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

I N D E X

E X H I B I T S

MR. RAMEY: The hearing will come to order.

We have one case on the docket this morning, Case 7272.

MR. SIMS: Mr. Chairman, the case is in the matter of the hearing called by the Oil Conservation Division on its own motion to consider certain amendments to its rules and regulations, in particular as they relate to the underground injection of fluids and to compliance with the Federal standards of underground injection control and the National Safe Drinking Water Act.

MR. RAMEY: I'll ask for appearances at this time.

MR. PADILLA: May it please the Commission, I'm Ernest L. Padilla for the Oil Conservation Division.

Mr. Chairman, at the appropriate time I have one witness to be sworn.

MR. RAMEY: Any other appearances? Ask that the witness stand at this time.

(Witness sworn.)

MR. RAMEY: You may proceed, Mr. Padilla.

RICHARD L. STAMETS

being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. PADILLA:

Q. Mr. Stamets, for the record would you please state your name, by whom you're employed and in what capacity?

A. My name is R. L. Stamets. I am Technical Support Chief with the Oil Conservation Division in Santa Fe, New Mexico.

Q. Mr. Stamets, have you previously testified before this Division or the Commission, and are your credentials a matter of record before the Commission?

A. I have and they are.

Q. Mr. Stamets, are you familiar with the purpose of today's hearing?

A. Yes, I am.

MR. PADILLA: Mr. Chairman, are the witness' qualifications acceptable?

MR. RAMEY: Having been involved with Mr. Stamets on this UIC program for the past six years, I

would say he's quite qualified.

MR. PADILLA: Thank you.

Q Mr. Stamets, as Technical Support Chief do you have certain recommendations to make today to the Commission concerning the rule changes involving the underground injection control?

A Yes, I do have. These are basically the same as are in the docket for today's hearing.

Q Mr. Stamets, you have been previously handed what has been marked as Exhibit A. Would you please identify and explain the nature of the contents of that exhibit?

A All right. I think -- well, yes.

Exhibit A is a copy of the Federal Register from May 19th, 1981.

Perhaps before we discuss that I ought to go into the history of this thing. I think that's necessary for the background to discuss Exhibit A.

Of course the Division has authority over injection wells for salt water disposal, secondary recovery, pressure maintenance, storage, and so on.

The first disposal well was authorized back in 1951 in the Penrose-Skelly Pool, and apparently the first secondary recovery project was begun in 1952 in the

Shugart Pool, and a great number of projects were approved in the late 1950's, early 1960's.

At this time we have something over 260 disposal wells. We have something like 3500 classified injection wells, and not all of those are actually in operation at this time but they are still carried on the books.

The proposals that we have here today stem from two causes.

In the first instance, in the 1970's our field inspectors began to find evidence of water out of zone or water which was in zones where it wasn't supposed to be. This was demonstrated by pressure on well annulae, annuluses, flowing Bradenheads, collapsed casing, and zones other than the injection zones being pressured up; people finding water as they were drilling in zones which previously had no water in them.

The Division instituted an extensive test program trying to pinpoint the problems, the sources, and oversaw a considerable amount of corrective action. We also developed a number of policies and practices for handling injection in this period to alleviate the problems and prevent future problems.

Also, the Safe Drinking Water Act, Public Law 93523, was signed into law in December of 1974.

Basically, what this law did was give the Administrator of the Environmental Protection Agency the direction to write minimum regulations for State programs to control the underground injection of fluids to prevent contamination to underground sources of drinking water, and this they did over the five or six years Mr. Ramey referred to, writing many, many drafts of regulations, which were terrible, and coming up with some final proposals early in 1980 which were technically all right but administratively awful.

At the end of the last session of congress the, what's known as the Graham-Waxman Amendment, or HR-8117, was passed by the Congress and signed into law, and this provides for the states with existing injection control programs to demonstrate to EPA that those programs do meet the requirements of the act.

Subsequent to the passage of that amendment the states, including New Mexico, did meet with EPA to hammer out guidelines for submission of state demonstrations and for EPA review of such demonstrations in order for EPA to have some sort of guidance as to how they would determine whether the state program was or was not effective, and these guidelines, then, were published in the Federal Register May 19, 1981, and they are contained in Exhibit A.

So the hearing today is basically to do

three things: To clean up the regulations, clarify our intent; bring into the regulations the policies and practices that have developed in the 1970's; and also to make changes required to facilitate approval of our demonstration to the EPA.

Now, Exhibit A has about five or six sections in it that tell us what to do.

Section 1.0, Purpose and Scope, I don't think I need to explain that.

Section 2.0 just tells what, who, and the whens of the state demonstration.

Section 3.0 tells us as a state what must be included with the application and is not important to this hearing.

Section 4.0 tells how EPA will process our application.

And Section 5.0 is probably the part that would be critical to anything that we do here today, and it sets out the criteria for approving or disapproving state programs, and this is what the EPA personnel who review our demonstration will be looking at when they check our program.

Some of the important things there would start on the next page, on page 27337.

About halfway down the lefthand side it talks about what must be in the application to the state

by an operator for approval of an injection well, and I've highlighted by underlining a number of the things and I think if you look at this versus what we have on our application form you'll see that they're basically the same.

Section 5.4 talks about inspection, monitoring, recordkeeping, and reporting. We pretty well track what EPA is asking for there.

Section 5.6 talks about whether the state assures adequate participation by the public in the permit issuance process, and this is one of the things that EPA pretty strongly believes in and one of the things that has affected the way the administrative approval process is proposed to be changed.

Technical criteria start on the next page. They're concerned with siting of wells, construction, operation, plugging and abandonment, area of review, corrective action, mechanical integrity. All of these things are included in our program.

And then the very last section, Section 6.0, talks about what EPA's role is under a program approved by state demonstration.

And I really don't believe that there's any benefit in going further into this unless it becomes a question later on in the case.

Q Mr. Stamets, turning now to what has been marked for identification as Number -- or Exhibit B, would you please identify this exhibit and what it contains?

A Exhibit B, as I've handed to the Commission, is basically identical to the attachment to the docket for today's hearing. This exhibit contains all of the proposals that we have here today for the definitions, the rule changes, the new rules, the forms to be proposed and used in this program, and I'm going to go through this and wherever I can, I'm just going to discuss the change without having to read the entire section, and some of them I won't have any choice but to go through the entire section to explain the purpose.

To begin with we have proposed --

Q Mr. Stamets, excuse me. The contents of Exhibit B relate back to the requirements of Exhibit A, is that correct?

A They relate back to the three purposes that I mentioned to begin with. Some of the material that we have in here represents policy and practice of recent years, now being brought into the rules and regulations, and some of it represents changed needed to bring our regulations up to the point where I feel confident our demonstration will be approved by the EPA.

Q But the ultimate effect of the rule changes as proposed in Exhibit B is to conform to the EPA requirements, is that a fair statement? Or at least make a satisfactory demonstration?

A Right.

Q Okay.

A Right.

Q Proceed now with your explanation of Exhibit B.

A All right. The, as you can see, everything is -- every change has a number to the left, a Roman numeral.

So Roman numeral I is a proposal to add three definitions; the definition of an aquifer, being a geological formation, group of formations, or part of a formation capable of yielding a significant amount of water to a well or spring.

Then an exempt aquifer, which we'll get into a little bit later, and an underground source of drinking water.

Now in this instance these changes are necessary in order for us to be able to talk to the Environmental Protection Agency and tell them what we are protecting or not protecting in our program and for us to be using the

same words with the same definitions. And this is just basically taken from the EPA's definitions.

The second proposal relates to Rule 103. This is a very simple change. Rule 103 requires signs on drilling wells, producing wells, and so on, but it never said that you had to have a sign on an injection well.

So Rule 103 has been changed, as you can see underlined there, to require signs at injection wells, also.

Section III talks about Rule 106(a). That now requires, well, let me just read that.

(a) During the drilling of any oil well, gas well, injection well, or any other service well, all oil, gas, and water strata above the producing and/or injecting horizon shall be sealed or separated in order to prevent their contents from passing into any other strata.

Rule 107 is the casing and tubing requirements. This again is a simple change to assure that casing of injection wells during drilling will protect water zones.

Part V, then, to amend Rule 204 relative to liability, this change clarifies now that drillers of injection wells are responsible for plugging and abandonment. Actually, this is no change from what we've been doing, but

it makes the rule conform to practice.

Part VI is where the major changes occur. This will require us to retitle Section I of our rules and regulations.

That will now read, 1, Secondary Recovery, Pressure Maintenance, Salt Water Disposal, and Underground Storage, so that all the types of wells covered by this section are identified.

Rule 701-A is updated only by the inclusion of the phrase "or other enhanced recovery projects" so that we've brought ourselves into the modern era now. We've gotten out of -- beyond secondary recovery into the possibility of enhanced recovery.

Getting to Section B, this is an entirely new section. It's set up to make the application process uniform, or at least relatively uniform, for all wells. The first two paragraphs involve that.

Application for -- paragraph 1 says, Application for original authority for the injection of gas, LPG, air, water, or any other medium into any formation for any reason, including salt water disposal, or for expansion of any injection project by the completion or conversion of injection wells, shall be by the submittal to the Division of Form C-108 completed with all attachments.

So that will be uniform now for every type of injection well, not just for salt water disposal wells.

Paragraph 2 requires that notice by certified or registered mail a copy of the application be sent to the owner of the surface of the land on which the injection or disposal well is to be located, and each leasehold operator within one-half mile of the well location.

This is a requirement which used to be only for salt water disposal wells and now covers all wells.

Paragraphs 3 and 4 are substantially different from anything that we have.

Paragraph 3 says applications qualifying for administrative approval must be accompanied by a copy of the legal publication published by the applicant in a newspaper of general circulation in the county in which the proposed injection well is located. The details required in such notice are listed on side 2 of Form C-108.

Paragraph 4 says that no application shall be approved until the applicant shall supply evidence of mailing as required under 2 above, and if applicable, proof of publication.

I got a call from the Environmental Protection Agency the other day and they suggested that somewhere in paragraph 4 we make it clear that it's the Division's

intent that no application will be acted upon until a fifteen day waiting period has expired, and I see no problem with that.

The next section, C, discusses hearings. This sets out the process for setting applications for hearing, and it's a little different from what we're already doing, and of course, this reads, If a written objection to any application for administrative approval of an injection well is filed within the fifteen day period after receipt by the Division of the complete application, or if a hearing is required by the Division, the application shall be set for hearing and notice thereof shall be given by the Division. If no objection is filed and a hearing is not required, the matter may be approved administratively.

The -- the matter could be set for hearing either by provisions of the rules or based upon our review of the data submitted by the applicant. It could be, even though the applicant has met all the requirements, we might feel that the condition of wells in the area is such that we would like to have a public hearing so that we're able to cross examine witnesses and get the information we feel we need to protect water in the area.

In the next section, D, Salt Water Disposal Wells, the first paragraph is identical to the paragraph in our current rules and regulations.

The second paragraph contains new language but the intention is the same as what we have been following for the last number of years, and this paragraph says, disposal will not be permitted into zones containing waters having total dissolved solids concentrations of 10,000 milligrams per liter or less, except after notice of hearing, provided, however, that the Division may establish exempted aquifers for such zones, wherein such injection may be approved administratively.

Also, one of our District offices has suggested that we might wish to add another line there that says something to the effect that notwithstanding the above provision, the Division Director may authorize disposal into such zones if the water to be disposed of is of a higher quality than the water in the disposal zone, and this does occur in some parts of the state, and again, I have no particular problem with that. I think that would be an improvement.

The next section, E, dealing with pressure maintenance projects, items one, two, and three, the first paragraph, are identical to the existing rules, and the second paragraph in E sets out the new process for approval, or getting administrative approval of an additional injection well.

Let me just read it this time. This

paragraph is going to be the same for all of the administrative approval processes, so I think I can read it once and then just skip over it from here on out.

The Division Director shall have authority to grant an exception to the -- and here it's been suggested that the word "hearing" be placed in here, to clarify what we're talking about -- so the Division Director can give an exception to the hearing requirements of Rule 701-A for the conversion to injection of additional wells within a project area, provided that any such well is necessary to develop or maintain efficient pressure maintenance within such project and provided that no objections are received, as provided in Rule 701-C.

Then we get into F. It covers waterflood projects and again, as we move through there, this is basically the same until we get down to the middle of 3, again.

At this point we have dropped a couple of requirements that required the operator to identify waterflood production on Form C-115, and as near as I can tell, this was never done. And also, we've removed a reference to report certain well tests on Form C-120, and Form C-120 was done away with back in February of 1978.

Moving on to paragraph 4, this again tells an operator how he shall file for administrative ap-

proval, and although the wording is slightly different for secondary recovery projects, it's basically the same as we've had for pressure maintenance.

And again, I'd want to insert the word "hearing".

Moving on to G, discuss Storage Wells, and this is basically the same as we've had before. Again, I want to insert the word "hearing" in the second sentence. And this is essentially what used to be Rule 705, and I've simply moved it to this section of the rules and regulations for consisttency.

Moving on, then, to Section VII, we are talking about amending Rule 702, which is -- relates to casing and cementing of injection wells. I'd like to point out one word change in the fourth line right before the underlined section there's the word "or", and it would appear that that word should be "and" instead of "or".

Now this is changed so that all types of injection wells are covered by the casing and cementing requirements, and the rule describes now specifically what is intended to be prohibited.

Now, we -- it says now, wells used for injection of gas, air, water, or any other medium, into any formation shall be cased with safe and adequate casing or

tubing so as to prevent leakage -- it would seem like there ought to be a comma there -- and such casing or tubing shall be set and cemented to prevent the movement of formation or injected fluids from the injection zone into any other zone or to the surface around the outside of any casing string.

Section VIII proposes to amend Rule 703, relative to Operation and Maintenance.

Now, this basically is a new rule, even though it says it's an amendment; it's a new rule, and it's to show the responsibility of an injection well operator and the possibility of well restriction in case of well failures. I think this is a section I'm going to have to read.

It says, Injection wells shall be equipped and operated, monitored and maintained, to facilitate periodic testing and to assure mechanical -- continued mechanical integrity, which will result in no significant leak in the tubular goods and packing materials used, and no significant fluid movement through through vertical channels adjacent to the wellbore.

Injection wells, project wells, and related surface facilities, shall at all times be operated and maintained in such a manner as to confine the injected fluids to the interval, or intervals, approved, and to prevent surface damage or pollution resulting from leaks, breaks, or

spills.

Injection well, project well, or surface facility failures, which may endanger underground sources of drinking water, shall be reported under the "Immediate Notification" procedures of Rule 116.

What this requires is that we be notified as soon as possible after discovery, by phone, and a written notice within ten days.

Going on then, injection well or project well failures requiring casing repair or cementing are to be reported to the Division prior to commencement of workover operations.

Injection wells or projects which have exhibited failures to confine injected fluids to the authorized injection zone, or zones, may be subject to restriction of injection volume, or pressure, or shut-in until the failure has been identified or corrected.

MR. RAMEY: Mr. Stamets, would you define "project" and "project well" at this time?

A. This would refer back to the earlier descriptions of secondary recovery projects and pressure maintenance projects. Normally when we issue an order for a pressure maintenance project, we describe the project area in that order, and so in this case "project" would follow

that defined area.

The rules on secondary recovery say that the project will consist of those tracts with injection wells plus the immediate and diagonal offset tracts, and in that case, that would be the project.

MR. RAMEY: So a project well could be a producing well?

A. Yes.

MR. RAMEY: Thank you.

A. One other thing there in-built talks about notifying the Division before beginning workover where casing or cementing is involved, and an operator asked me if -- what would happen if they didn't realize that was the case and they got into workover a well and then they found they were going to have to do it, do some casing or cementing work, and I indicated I felt that certainly at that point that all they would have to do would be contact our District Office and advise them. There'd be no need in delaying this work simply because they discovered something they weren't aware of to begin with.

The intent of this is for the District Office to know when and where casing and cementing failures are occurring and be able to go out and witness the work if they choose to.

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The intent of this is for the District Office to know when and where casing and cementing failures are occurring and be able to go out and witness the work if they choose to.

Moving on then to Section IX, which is a proposal to amend Rule 704, this again is basicall a new rule we put in here for EPA, and it also confirms by and large what we have been doing for the past two years.

I'm going to have to read this one, too. This is Rule 704. Testing and Monitoring.

A. Testing. Prior to commencement of injection, wells shall be tested to assure the initial integrity of the casing and the tubing and packer, if used, including pressure testing of the casing-tubing annulus.

At least once every five years thereafter, injection wells shall be tested to assure their continued mechanical integrity.

Tests demonstrating continued mechanical integrity shall include the following:

(a) measurement of annular pressures in wells injecting at positive pressures under a packer or a balanced-fluid seal;

(b) pressure testing of the casing-tubing annuius for wells injecting under vacuum conditions, and;

(c) such other tests which are demonstrably effective and which may be approved for us the the Division.

The injection well operator shall advise the Division of the date and time of such initial and subsequent integrity tests in order that they may be witnessed.

Notwithstanding the subsequent test requirements above, the Division may require more frequent or more comprehensive testing of injection wells, including the use of tracer surveys, noise logs, temperature logs, or other test procedures or devices. Such special tests, when run, shall supplant the required five-year test.

B. Monitoring. Injection wells shall be equipped in order that the injection pressure and annular pressure may be determined at the wellhead, and that the injected volume may be determined at least monthly.

Injection wells used for storage shall be equipped so that both injected and produced volumes may be determined at any time.

Next is Section X. The Division proposed here to amend Rule 705. This 705 is formerly Rule 703, and it's basically the same down through A-1.

And A-2 is amended and here the wording has been revised so that it now covers all types of injection wells, and covers a problem that we see with injection wells being shutin and remaining shutin for an extended period of time with no assurance that that well may not be leaking

downhole. So let me read this.

2. Within thirty days after permanent cessation of gas or liquefied petroleum gas storage operations, or within thirty days after disconinuance of injection operations into any other well, the operator shall notify the Division of the date of such discontinuance and the reasons therefor.

No injection well may be temporarily abandoned for a period exceeding six months unless the injection interval has been isolated by use of cement or a bridge plug.

The Director of the Division may delay the cement or bridge plug requirements above upon a demonstration that there is a continuing need for such well, that the well exhibits mechanical integrity, and that the continued temporary abandonment will not endanger underground sources of drinking water.

And the next paragraph 3 is identical to what is currently in the regulations and the same is true for the B, Abandonment Injection Operations, so I'm not going to cover that.

Moving on then to Section XI, Records and Reports. This is formerly Rule 704, and the only changes are on the next page.

In 1. there, that was identical to what was proposed and someone suggested yesterday that that be revised to say "secondary or other enhanced recovery would be reported on C-115." And so far I haven't figured out any reason why that shouldn't be. It seems to me that whatever is injected in an enhanced recovery project would be a liquid which would be measured in barrels, or gas, which would be measured in Mcf, and so I -- I believe that's all right.

2. is a change to require that pressure maintenance be reported on Form C-115, and as otherwise prescribed by the Division. This simply reflects what the current practice is.

After 5., then, there is a new sentence, and this is done for the Environmental Protection Agency, and this says that the operator of a liquefied petroleum gas storage project shall report annually on Form C-131-B, Annual LPG Storage Report. And this was the only injection well that we operate that we weren't receiving reports on, and they do require us to get a report on all types of injection wells which we regulate.

Section XII is a proposal for a new Rule 107 -- or 707, I'm sorry -- calling for reclassification of wells. This would permit the Division Director to have authority to reclassify an injection wellfrom one category

as defined in Rule 701-B, to any other category without notice and hearing upon request and proper showing by the operator thereof.

And again this, we've been doing this, and this would clarify the practice is correct and tell everybody that it can be done.

The next Section XIII, a new Rule 708 relative to Transfer of Authority to Inject. This simply clarifies that the authority is not automatic and it does put everybody on notice that we test suspect wells before we allow them to be transferred.

The rule states, authority to inject granted under any order of the Division is not transferable except upon approval of the Division. Approval of transfer of authority to inject may be obtained by filing Form C-104, in accordance with Rule 1104(5).

The Division may require a demonstration of mechanical integrity prior to authorizing transfer of authority to inject.

And we hope this will prevent the dumping of junk on an unsuspecting operator. We think this has been done in the past, where a well has been eaten up top to bottom, and one company has sold the well to another one, who then finds they've got a problem. We feel that the person who made

the problem ought to be responsible for correcting it.

Section XIV is a proposal to amend Rule 1100-C, relative to Books and Records.

This is cleanup language and what we've simply done here is add injectors and treating plant operators to those who are required to keep appropriate books and records for a period of not less than five years covering their operations in New Mexico.

While treating plant operators really don't have anything at all to do with UIC, they were left out and they really need to be in there.

Section XV is a proposal to amend Rule 1100-D to retitle Form C-108. It would now be Form C-108, Application for Authorization to Inject.

Section XVI is another rule change which reflects that change in title that amends Rule 1108, which is simply the form title.

Section XVII is a proposal to amend Rule 115 to read as follows. Well, let me just point out the change. One of the changes you don't have.

In the second line, then, -- well, let me start.

Operator's Monthly Report, Form C-115 or Form C-115-EDP, shall be filed on each producing lease and

each secondary -- and then it's been suggested that there we add the words "or other enhanced recovery project"or pressure maintenance project, and so on, and everything else in that paragraph is identical to the existing rule.

Then the next paragraph is identical to the existing rule except we've added one line which is right at the bottom and says, and/or cancellation of authority to inject. And what this means, then, is that if an operator fails to file his Form C-115, we can cancel his authority to utilize an injection well.

And the final section here, XVIII, proposes to amend Rule 1131.

Now Rule 1131 currently covers the monthly gas storage report and Form C-131. So this will now be amended so that we'll have a monthly gas storage report, Form C-131-A, and an annual LPG storage report, Form C-131-B.

The first paragraph of this simply reflects the change in form number from 131 to 131-A.

The second paragraph is new and it states, each operator of an underground liquefied storage project approved by the Division shall report its operation annually on Form C-131-B. Form C-131-B shall be filed in duplicate, one copy to the Santa Fe Office of the Division and one copy to the appropriate District Office, and shall

be postmarked not later than the 24th of January of each year.

Along with the rule changes we have the forms which go with that. So the next thing which would be covered both in your Exhibit B and in the docket would be Form C-108, and this form is designed to now lead an applicant completely through the process for applying for an injection well. Before this time you had to have Mr. Nutter's famous computer connected to a ouija board to go through and find all the filing requirements. Some of them were contained in the rules. Some of them were contained in memorandums and some of them were contained in policy.

So now an operator can take this form and go completely through and by the time he finished up on the back side of the page he would have an application which could be submitted to the Division.

Line one says what he's applying for and also whether he qualifies for administrative approval, and this makes a difference as to what you would do later on as far as notice is concerned.

Section II, I can see we're going to have to provide a little bit more space because an operator is not going to be able to put his name on that little bitty line, and we will put some more space in there.

In III the data refers to the back side

of the form, tells you what you've got to file relative to the injection well, or wells.

V. let's us know whether this is an expansion of existing project. That was IV., I'm sorry.

V. and VI., is what we have been doing since 1977 under Memorandum 3-77 requiring the operator to not only identify all the wells and leases within two miles, as is in the rules and regulations, but also to draw a half-mile circle around the injection well, identify an area of review, and then review the records of all the wells within that area, give us that detail so that we can then review it and see that none of those wells would serve as an avenue of escape for the injected water into another zone.

VII. on the form, has the operator tell us about his proposed operating data, and down in 5 there it says, if injection is for disposal purposes into a zone not productive of oil or gas within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water, which may be inferred from existing literature, studies, et cetera, of nearby wells.

This will allow us to make certain that an operator is not injecting into a zone which would be an underground source of water or a zone which was under 10,000 TDS.

Section VIII discusses the appropriate geologic data relative to the injection zone and any overlying or immediate underlying underground sources of drinking water.

Section IX asks for a stimulation program, if any.

X., logging data.

XI., required a chemical analysis of fresh water from two or more fresh water wells, if available, and producing within one mile of any injection or disposal well, showing location of wells and dates samples were taken. This will provide us and the operator with baseline data in case there is some contamination, or alleged contamination, later on.

I would think that -- that we might relax that a little bit in the case of a large project where an operator could find a well around the margin, or some wells around the margins, and a well or two within the project, we might not have to have one within -- within this distance from each individual well.

XII., requires the applicant to -- for a disposal well to make an affirmative statement that they don't know of any reason why their well ought to be hydrolically connected to any underground source of drinking water.

XIII., refers to the Proof of Notice on

the reserves side of this form.

And then we have the certification.

You'll notice coming down through there several of those sections had an asterisk by them, and that's to indicate below that if you've already submitted this data early on, you don't need to repeat it.

And the distribution on the form is shown at the bottom.

Side two goes through and tells an operator exactly what we're looking for relative to well data for the injection well, and also exactly what we are requiring relative to the proof of notice. It tells an operator what he needs to put in his legal advertisement, if he makes legal advertisement for an administrative application.

I bold type it tells him we're not going to take any action on the application until this material has been sent in, and then also tells the surface owner or the offset operators that they've got to file their objection within fifteen days.

The next form, C-131-A, the only change from the existing form is to add a column for the maximum injection pressure. This is for the Environmental Protection Agency; that's one of their requirements.

The C-131-B is identical to the A, ex-

cept that we've changed Mcf to barrels and that's consistent with LPG storage.

The last sheet of this Exhibit B is the injection well data sheet which we have prepared and which we'll make available at our District Offices or out of Santa Fe, so that an operator can use this as a model or understand what types of information we are expecting when he submits this well data.

And that covers Exhibit B, and I believe covers everything I have on direct in this case.

Q. Mr. Stamets, a minor point, going back to your Rule 706, you've added new language there requiring the C-131-B for the LPG storage report.

Shouldn't that be numbered Number Six instead, as part of --

A. Well, no, from the standpoint of the heading.

In the first paragraph it says shall report monthly to the Division, and all of these are monthly reports. The LPG report is an annual report.

Now the whole thing could be reworded but I was trying to get by with the least amount of change.

Q. Okay.

MR. PADILLA: Mr. Chairman, I have no

further questions and I pass the witness.

MR. RAMEY: Any questions of Mr. Stamets? Mr. Nutter.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Stamets, in reading Section VI of Exhibit B, paragraph B, Method of Making Application, I find some confusion there as to the making application for administrative approval or making application for a hearing.

As we have previously discussed, would it be possible to just arrange the wording somewhat different; not any substantive change that I'm talking about, but just a rearrangement of the data required so that it would be clear just exactly what data would be submitted for administrative as versus hearing process?

A Yes. I -- I think, perhaps, this section could be improved. I had hoped to stress the uniformity of application so that it's clear to everybody that up to a certain point no matter what you're doing, everything is identical.

Q The application is identical for either process.

A Right.

Q. And then there are some changes after that and that could be clarified.

A. Yes. I would hope to retain that uniformity flavor, plus certainly make this as clear as possible.

Q. Okay.

Now, with respect to Rule 703, Mr. Stamets, Operation and Maintenance, you elaborated on what project and project wells mean in response to questions by Mr. Ramey; however, I think there have been certain cases in which wells that contributed to problems within project areas, when the wells were not project wells. In other words, we think of project wells as being injection wells and the wells producing from the zone that the injection is made into, but sometimes there have been deeper wells, going to a deeper horizon, that have contributed to the problem and provided this avenue of escape for injected fluids, and they would not be project wells.

Would it -- could it -- would it be feasible to say wells within the project area, injection wells and wells within the project area?

A. It gets a little tricky because the injection well operator has no direct control over the operation of such a well.

Q. Any time that those wells belong to him,

then he's got an avenue of escape there.

A. That's true. Let's go back and begin -- well, let's take a new project, for example. I think that in those cases we could have everything pretty well taken care of. We wouldn't approve it if an injection -- or a well within the area appeared to be an avenue of escape. If the well was -- did belong to that operator, perhaps this rule is not sufficient at that point, but if the well belonged to a different operator, if we had reviewed it and thought it was all right and then that well began to flow water at the surface because of some failure in that well, would we want to restrict the injection or would we want to make the owner of the well which wasn't properly completed repair that well?

Q. Well, I don't know, but we'd want to restrict the injection until someone has repaired the well, and you know we've had problems with those deeper wells.

A. If it's --

Q. It may not be anything we can figure out right now, but I think we ought to give serious consideration to some phraseology here to protect the project from non-project wells that aren't maintained properly.

A. Later this year we have planned to work on a number of rule changes with an industry committee, and one of the things that I had in mind, a list of things to

consider, was a proposal that all well operators had some sort of a standard that they have to meet in their operations. Everybody has to operate their wells in such a way as to prevent loss of oil, contamination of water zones, and perhaps we could cover this sort of a problem by that rule.

Q. See, the crux of this thing goes back to Rule 107, and Rule 107 says any well drilled for oil or natural gas or for injection shall be equipped with surface or intermediate casing that may be necessary to effectively seal off all these oil, gas, and water bearing strata.

It doesn't say that they have to be maintained in that --

A. That's correct.

Q. -- manner.

A. That's correct.

Q. And there's where the change needs to be --

A. Right.

Q. -- but we don't have a rule saying they must be maintained.

A. And I believe we do have that relative to injection wells and project wells. Now, the rest of them, we don't have it, and I think a general rule requiring everybody to have that sort of maintenance would be appropriate.

Q It's probably not within the call of the hearing today to amend Rule 107 but I think it ought to say shall be equipped and maintained in such a manner as to confine these things to the proper strata.

Okay, anyway, so much for that for the time being.

Okay, now on Rule 704, the testing and monitoring section, at the bottom of that page, that last sentence in that last paragraph, such special tests, when run, shall supplant the required five-year test. Now supposing we're talking about a project that is authorized in 1981. At the -- in 1986 it would be required to take a five-year test.

Supposing it develops a problem and they take a test and find out that maybe everything is all right in 1982. Now, you've said that this test, this special test will supplant the five-year test, so that means that in 1986 they don't have to take a test and they won't have to take one until 1991. They've gone nine years without taking a test, then.

A. Let me tell you what the intention is and then we can work on the language later on.

Q. Okay.

A. The intention would be that if a project

was begun in 1981, 1986 would be the year for testing.

If the project then were tested in 1982, that would simply restart the five-year period so that the testing would be done in 1987.

Q. Okay, just so we have something in the record that would make possible that that revision in the rule be provided.

A. Right. I tried to find one word that did that and I wasn't successful.

Q. You can't do it in one word.

MR. RAMEY: Let me ask you a question, Mr. Nutter.

You feel it's important under Rule 107 to put "and shall maintain these wells in such manner"?

MR. NUTTER: I think any well should be cased and equipped when it's drilled and also maintained, and it may be somewhere in our other rules some place that they have to maintain that well's integrity as far as its casing is concerned, but it's not real specific anywhere, I'm afraid.

MR. RAMEY: I'm just wondering if it wouldn't -- couldn't be proper to put it in at this time.

MR. NUTTER: It's been brought up in here.

MR. RAMEY: Since we have a revision of

Rule 107 in the call of the hearing, I think it would be proper that we could make that change if the Commission so saw fit.

Does anybody have any problem with that? Do you think that would be proper, Mr. Padilla?

MR. PADILLA: Mr. Chairman, I don't see any reason why we couldn't do that, simply because this Rule 107 is already -- is being amended, and also because I think the intent of the change -- or the purpose of changing the regulations is simply to protect fresh water, although the primary purpose is the injection of the fluids, but obviously, within our -- the Division's purview and the statutes, or the statutory authority given to the Division shall protect fresh water, we have that mandate.

So going back to the advertisement to change Rule 107, I think it would be included. It may be necessary to readvertise this thing as a precaution, but we could go ahead and make that change, and if someone should complain, we could then -- or request a hearing, then we could hold a hearing specifically on that issue.

A. I would only point out one thing, Mr. Ramey, and we may be able to get that from the people who are here today. If this should cause a request for a re-hearing, it's possible that that might delay our application to the EPA, which we intend to put together about the middle of

this month and send to them, and I would prefer to get this project off my desk and on to the Feds so I can do something else for awhile.

MR. NUTTER: I don't know why you're in a hurry, as Joe said, you've been working on it for six years.

MR. PADILLA: Mr. Chairman, I think if someone were to object as to the proposed rule change. or as to this specific thing, the -- it may be that we could sever the objection of the rule changes and this -- this specific amendment to Rule 107, should we have to readvertise the case.

MR. RAMEY: Are you saying we could go ahead and put it in Rule 107 and then if somebody complains we could nunc pro tunc the order and take it out?

MR. PADILLA: No. We could have another hearing on that specific issue without -- and at the same time accommodate Mr. Stamets deadline.

MR. NUTTER: That would probably be better because we're planning to have some more rule revisions later on this year, and it might be safer to properly advertise the rule before we make it. We don't want to jeopardize our basic rules and regulations on casing and cementing.

MR. RAMEY: Since it's the opinion between the engineering lawyer and the lawyer lawyer, that perhaps would be best.

Any other questions of Mr. Stamets? Mr. Manning?

CROSS EXAMINATION

BY MR. MANNING:

Q. E. R. Manning with El Paso Natural Gas. With respect to Rule 705, specifically No. 2 under A., Mr. Stamets, it is possible for an operator to have a gas storage project and inject into this gas storage project and cease injection into the gas storage project and go for some period of time until he wants to withdraw from this storage project.

Perhaps there is some phraseology that we could put in there that may clear that up to where he wouldn't have to notify you of the discontinuance of the project, even though it was shut down for, you know, all practical purposes, inactive I guess would be a better word for it, during this period of time.

A. Well, I wouldn't consider that situation to be a permanent cessation of operations and I certainly think that the operator of that project could make that argument at the time.

Q. Well, I was just referring down there, "no injection well may be temporarily abandoned for a period of six months -- exceeding six months".

Now conceivably, he can fill his storage in April and not withdraw from it until October or November, and there it would be enacted -- I certainly believe it would be in order to put phraseology --

A. I don't interpret that as being temporarily abandoned for a gas storage project. That's the normal course of operations and I just -- I don't feel that this should apply.

Q. One other question. What if he's in the winding down stage of the gas storage operation and he's now withdrawn his injected cushion gas, how is that classified? Is that classified as a cessation or discontinuance or what is that?

A. Certainly as long as you have a well which is or was classified as an injection well and you're still utilizing it, that well has not ceased to be an active well.

Q. Now you're not injecting any more.

A. It's still active, though.

MR. MANNING: Thank you.

A. If -- let me elaborate on that. It would then become a producing well and would fall under our regular producing well rules.

What this is talking about primarily is

an operation which is permanently abandoned, not going to use this well any more, or a water injection well, or a gas injection well, in a recovery or pressure maintenance project, which is shut down. That's the basic thrust of this rather than --

Q. Would you have any objection to wording it like that?

A. Certainly if you -- if you would like to suggest some wording which could be submitted within a few days which would reflect your concerns, I would consider it.

Q. All right, sir.

MR. RAMEY: Any other questions?

CROSS EXAMINATION

BY MR. RAMEY:

Q. Mr. Stamets, Rule 701, and other places, you put "or other enhanced recovery". Then in your heading there above Rule 701 you just referred to secondary recovery and pressure maintenance. I wonder if, perhaps, you shouldn't put "or other enhanced recovery" in that heading, also?

A. So it might read secondary or other enhanced recovery?

Q. Yes.

A. That sounds like a good idea.

Q. And under Rule 708 on your transfer of authority to inject, are you -- are you contending that we need to take care of certain operators, or --

A. Possibly.

Q. Some of them don't seem to be capable of purchasing good wells?

A. Apparently.

Q. But you would advocate that the well should be sound before it is transferred to someone else.

A. I believe that's the -- yes. I firmly believe in that. I don't think that a large company with a lot of resources, or any company, ought to be able to take an injection well or disposal well and use it and use it up and then transfer their problems to somebody else.

Q. I see. Well, would there be some way that an operator knows he's buying a bad well and he's willing to buy it and still, you know, then he would repair the well? Are we covered in this case?

A. Well, it does say that the Division may require this demonstration, and I presume that means we may not require it, and I don't think that it says a well must have mechanical integrity before we would authorize transfer. And if the new operator was aware of the condition of the well and had a plan for repairing the well and we felt he could do

it, then I would see no problem with transferring the well.

Q. Okay, thank you.

On your Form C-108, under XI, how complete a chemical analysis are you thinking of there of fresh water?

A. I would think a- a minimum we would be concerned with total dissolved solids, sulfates, chlorides, those constituents which are typical of produced water and which would be most readily usable to determine whether or not there's been some sort of contamination.

Q. Thank you.

MR. RAMEY: Any other questions?

Would you like to offer your exhibits at this time, Mr. Padilla?

MR. PADILLA: I was going to do that. We tender Exhibits A and B into evidence, and I have nothing further.

MR. RAMEY: Exhibits A and B will be admitted and the witness may be excused at this time.

Does anyone have anything further that they wish to add at this time?

If not, the Commission will take the case under advisement.

MR. NUTTER: Mr. Chairman.

MR. RAMEY: Oh, Mr. Nutter.

MR. NUTTER: The United States mails were delinquent and delivered the legal notice for this case to the Sandoval County newspaper and also to the San Juan County newspaper -- legal notices were mailed out May the 15th and publication date was given no later than May the 22nd in order to be timely for this hearing today.

However, the San Juan newspaper and the Sandoval County newspaper did not get their notice until the 26th of May, which was eleven days after being mailed, and as a result they have been readvertised for those two counties for hearing on June 17th, so I think this case is going to have to be reopened for the benefit of anyone who relies on legal notice in those two county newspapers.

So I think you're going to have to continue this case until June the 17th and reopen it and call for appearances if anyone from those counties came in.

MR. RAMEY: That's June the 15th?

MR. NUTTER: 17th.

MR. RAMEY: All right, in that case this case will be continued until June the 17th, at which time it will be reopened, and the hearing is adjourned.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

NEW MEXICO OIL CONSERVATION COMMISSION

COMMISSION HEARING

SANTA FE, NEW MEXICO

Hearing Date JUNE 4, 1981 Time: 9:00 A.M.

NAME	REPRESENTING	LOCATION
B.W. Griffin	Anadarko Production Co	Midland Tx
Peter Hanagan	NM Oil & Gas Association	Santa Fe
A.R. Ballou	Sun Oil Co.	Dallas, Tx.
Gary Stephens	USGS	Albuquerque, N.M.
L.B. Goodheart	Rice Engineering	Hobbs
Albert Simms	~~OCD~~ OCC	Sf
Hugh Ingram	Conoco	Hobbs
Victor Lyon	Conoco	Houston
Glenn Emerick	Chevron	Denver
Jason Kellahin	N.M. Oil & Gas Association	Santa Fe
R.J. Boomer	Texaco	Hobbs
Charles R. Wolle	Texaco	Midland, Tx
John F. Eichelmann Jr.	El Paso Co	Santa Fe
E.F. Smythe	"	El Paso
J.H. Law	New Mexico State Land Office	Santa Fe
R.E. Murphy	Shell Oil Co.	Houston, Tx
L.W. Phillips	Amoco Prod Co	Houston, Tx
C.A. Mote	" "	" "
V.C. Allen	" "	" "
H.R. Reedleich	El Paso Natural Gas	El Paso

NEW MEXICO OIL CONSERVATION COMMISSION

COMMISSION HEARING

SANTA FE, NEW MEXICO

Hearing Date JUNE 4, 1981 Time: 9:00 A.M.

NAME	REPRESENTING	LOCATION
Chas Gholson	NMOCD	Aztec
B. J. Coffia	Grace Petrol Corp	OKLA CITY OK
E. R. Mannning	El Paso Natural Gas	El Paso, Tx
Larry Brooks	NMOCD	ARTESIA
Mike Williams	"	"
Harold McGowan	Phillips Pet. Co	Odessa
Hold Biddy	Drill Bit	Santa Fe
BUDD HEBERT	MARBOB ENERGY	ARTESIA
CONNIE L. BARNES	AMOCO PRODUCTION CO	FARMINGTON
Bob Hulen	Boyan	Santa Fe

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Docket No. 18-81

DOCKET: COMMISSION HEARING - THURSDAY - JUNE 4, 1981

OIL CONSERVATION COMMISSION - 9 A.M. - MORGAN HALL
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 7272: In the matter of the hearing called by the Oil Conservation Division on its own motion to consider certain amendments to its rules and regulations, in particular as they relate to the underground injection of fluids and to compliance with the Federal standards of underground injection control and the national Safe Drinking Water Act.

Among the proposed changes would be the adoption of certain new definitions and certain new forms, the amendment of Rules Nos. 103, 106, 107, 204, 701 thru 705, 1100, 1108, 1115, and 1131, and the promulgation of certain new rules, being Rules 706, 707, and 708, the revision of certain old forms, being Forms C-108 and C-131, and the adoption of a new Form C-131-B.

Copies of the proposed definitions, rules, amendments to rules, and forms and revisions of forms will be distributed with the docket for the June 4, 1981, hearing, and will also be available at the office of the Oil Conservation Division, State Land Office Building, Santa Fe, New Mexico, on or after May 25, 1981.

M E M O R A N D U M

TO: ALL OPERATORS

FROM: JOE D. RAMEY

SUBJECT: ANTI-CRUDE OIL THEFT ACT

The subject act will be discussed in a meeting in Santa Fe at Morgan Hall, State Land Office Building on June 4, 1981, at 2:00 p.m.

Since this involves hauling of crude oil, produced water, bottoms, sediment oil, etc., you may wish and are invited to attend.

PROPOSED RULE CHANGES TO BE CONSIDERED IN
OIL CONSERVATION COMMISSION CASE NO. 7272
TO BE HEARD JUNE 4, 1981, MORGAN HALL,
STATE LAND OFFICE BUILDING, SANTA FE,
NEW MEXICO

I. It is proposed to add the following three definitions:

AQUIFER shall mean a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

EXEMPTED AQUIFER shall mean an aquifer that does not currently serve as a source of drinking water, and which cannot now and will not in the foreseeable future serve as a source of drinking water because: (1) it is hydrocarbon producing; (2) it is situated at a depth or location which makes the recovery of water for drinking water purposes economically or technologically impractical; or, (3) it is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption.

UNDERGROUND SOURCE OF DRINKING WATER shall mean an aquifer which supplies water for human consumption or which contains ground water having a total dissolved solids concentration of 10,000 mg/l or less and which is not an exempted aquifer.

II. It is proposed to amend Rule 103 to read in its entirety as follows:

RULE 103. SIGN ON WELLS

All wells, subject to these regulations, including drilling, production, and injection wells shall be identified by a sign, posted on the derrick or not more than 20 feet from such well, and such sign shall be of durable construction and the lettering thereon shall be kept in a legible condition and shall be large enough to be legible under normal conditions at a distance of 50 feet. The wells on each lease or property shall be numbered in non-repetitive, logical and distinctive sequence. Each sign shall show the number of the well, the name of the lease (which shall be different or distinctive for each lease), the name of the lessee, owner or operator, and the location by quarter section, township and range. The location, for each sign posted after March 1, 1968, shall indicate the quarter-quarter section, township, and range.

III. It is proposed to amend Rule 106(a) to read in its entirety as follows:

(a) During the drilling of any oil well, gas well, injection well or any other service well, all oil, gas, and water strata above the producing and/or injection horizon shall be sealed or separated in order to prevent their contents from passing into other strata.

IV. It is proposed to amend the first paragraph of Rule 107(a) to read in its entirety as follows:

RULE 107. CASING AND TUBING REQUIREMENTS

(a) Any well drilled for oil or natural gas or for injection shall be equipped with such surface and intermediate casing strings and cement as may be necessary to effectively seal off and isolate all water-, oil-, and gas-bearing strata and other strata encountered in the well down to the casing point. In addition thereto, any well completed for the production of oil or natural gas shall be equipped with a string of properly cemented production casing at sufficient depth to ensure protection of all oil- and gas-bearing strata encountered in the well, including the one(s) to be produced.

V. It is proposed to amend Rule 204 to read in its entirety as follows:

RULE 204. LIABILITY

The owner of any well drilled for oil or gas, for injection, or any seismic, core or other exploratory holes, whether cased or uncased, shall be responsible for the plugging thereof.

VI. It is proposed to re-title Section I and amend Rule 701 to read in their entirety as follows:

I - SECONDARY RECOVERY, PRESSURE MAINTENANCE, SALT WATER DISPOSAL, AND UNDERGROUND STORAGE

RULE 701. INJECTION OF FLUIDS INTO RESERVOIRS

A. Permit for Injection Required

The injection of gas, liquefied petroleum gas, air, water, or any other medium into any reservoir for the purpose of maintaining reservoir pressure or for the purpose of secondary or other enhanced recovery or for storage or the injection of water into any formation for the purpose of water disposal shall be permitted only by order of the Division after notice and hearing, unless otherwise provided herein.

B. Method of Making Application

1. Application for original authority for the injection of gas, liquefied petroleum gas, air, water, or any other medium into any formation for any reason, including salt water disposal, or for the expansion of any injection project by the completion or conversion of injection well(s) shall be by submittal of Division Form C-108 complete with all attachments.

2. The applicant shall furnish, by certified or registered mail, a copy of the application to the owner of the surface of the land on which the injection or disposal well is to be located and to each leasehold operator within one-half mile of the well location.

3. Applications qualifying for administrative approval must be accompanied by a copy of a legal publication published by the applicant in a newspaper of general circulation in the county in which the proposed injection well(s) is located. The details required in such notice are listed on Side 2 of Form C-108.

4. No application shall be approved until the applicant shall supply evidence of mailing as required under 2. above and, if applicable, proof of publication.

C. Hearings

If a written objection to any application for administrative approval of an injection well is filed within fifteen (15) days after receipt by the Division of a complete application, or if a hearing is required by the Division,

the application shall be set for hearing, and notice thereof shall be given by the Division. If no objection is filed, and a hearing is not required, the matter may be approved administratively.

D. Salt Water Disposal Wells

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for water disposal wells only, without notice and hearing, when the waters to be disposed of are mineralized to such a degree as to be unfit for domestic, stock, irrigation, or other general use, and when said waters are to be disposed of into a formation older than Triassic (Lea County only) which is non-productive of oil or gas within a radius of two miles from the proposed injection well.

Disposal will not be permitted into zones containing waters having total dissolved solids concentrations of 10,000 mg/l or less except after notice and hearing, provided however, that the Division may establish exempted aquifers for such zones wherein such injection may be approved administratively.

E. Pressure Maintenance Projects

1. Pressure maintenance projects are defined as those projects in which fluids are injected into the producing horizon in an effort to build up and/or maintain the reservoir pressure in an area which has not reached the advanced or "stripper" state of depletion.

2. All applications for establishment of pressure maintenance projects shall be set for hearing.

The project area and the allowable formula for any pressure maintenance project shall be fixed by the Division on an individual basis after notice and hearing.

3. Pressure maintenance projects may be expanded and additional wells placed on injection only upon authority from the Division after notice and hearing or by administrative approval.

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for the conversion to injection of additional wells within a project area provided that any such well is necessary to develop or maintain efficient pressure maintenance within such project and provided that no objections are received as provided in Rule 701 C.

F. Water Flood Projects

1. Water flood projects are defined as those projects in which water is injected into a producing horizon in sufficient quantities and under sufficient pressure to stimulate the production of oil from other wells in the area, and shall be limited to those areas in which the wells have reached an advanced state of depletion and are regarded as what is commonly referred to as "stripper" wells.

2. All applications for establishment of water flood projects shall be set for hearing.

The project area of a water flood project shall comprise the proration units owned or operated by a given operator upon which injection wells are located plus all proration units owned or operated by the same operator which directly or diagonally offset the injection tracts and have

producing wells completed on them in the same formation; provided however, that additional proration units not directly nor diagonally offsetting an injection tract may be included in the project area if, after notice and hearing, it has been established that such additional units have wells completed thereon which have experienced a substantial response to water injection.

3. The allowable assigned to wells in a water flood project area shall be equal to the ability of the wells to produce and shall not be subject to the depth bracket allowable for the pool nor to the market demand percentage factor.

Nothing herein contained shall be construed as prohibiting the assignment of special allowables to wells in buffer zones after notice and hearing. Special allowables may also be assigned in the limited instances where it is established at a hearing that it is imperative for the protection of correlative rights to do so.

4. Water flood projects may be expanded and additional wells placed on injection only upon authority from the Division after notice and hearing or by administrative approval.

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for conversion to injection of additional wells provided: that any such well is necessary to develop or maintain thorough and efficient waterflood injection for any authorized project; provided that no objections are received as provided in Rule 701 C.

G. Storage Wells

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for the underground storage of liquefied petroleum gas or liquid hydrocarbons in secure caverns within massive salt beds.

In addition to the filing requirements of Rule 701 B, the applicant for approval of a storage well under this rule shall file the following:

1. With the Division Director:

   (a) A plugging bond in accordance with the provisions of Rule 101;

2. With the appropriate district office of the Division in TRIPLICATE:

   (a) Form C-101, Application for Permit to Drill, Deepen, or Plug Back;

   (b) Form C-102 Well Location and Acreage Dedication Plat; and

   (c) Form C-105, Well Completion or Recompletion Report and Log.

VII. It is proposed to amend Rule 702 to read in its entirety as follows:

RULE 702. CASING AND CEMENTING OF INJECTION WELLS

Wells used for injection of gas, air, water, or any other medium, into any formation shall be cased with safe and adequate casing or tubing so as to prevent leakage and such casing or tubing shall be so set or cemented to prevent the movement of formation or injected fluid from the injection zone into any other zone or to the surface around the outside of any casing string.

VIII. It is proposed to amend Rule 703 to read in its entirety as follows:

RULE 703. OPERATION AND MAINTENANCE

Injection wells shall be equipped, operated, monitored, and maintained to facilitate periodic testing and to assure continued mechanical integrity which will result in no significant leak in the tubular goods and packing materials used and no significant fluid movement through vertical channels adjacent to the well bore.

Injection wells, project wells, and related surface facilities shall at all times be operated and maintained in such a manner as to confine the injected fluids to the interval or intervals approved and to prevent surface damage or pollution resulting from leaks, breaks, or spills.

Injection well, project well, or surface facility failures which may endanger underground sources of drinking water shall be reported under the "Immediate Notification" procedures of Rule 116.

Injection well or project well failures requiring casing repair or cementing are to be reported to the Division prior to commencement of workover operations.

Injection wells or projects which have exhibited failure to confine injected fluids to the authorized injection zone or zones may be subject to restriction of injection volume and pressure or shut-in until the failure has been identified and corrected.

IX. It is proposed to amend Rule 704 to read in its entirety as follows:

RULE 704. TESTING AND MONITORING

A. Testing

Prior to commencement of injection, wells shall be tested to assure the initial integrity of the casing and the tubing and packer, if used, including pressure testing of the casing-tubing annulus.

At least once every five years thereafter, injection wells shall be tested to assure their continued mechanical integrity. Tests demonstrating continued mechanical integrity shall include the following:

(a) measurement of annular pressures in wells injecting at positive pressures under a packer or a balanced-fluid seal;

(b) pressure testing of the casing-tubing annulus for wells injecting under vacuum conditions; and,

(c) such other tests which are demonstably effective and which may be approved for use by the Division.

The injection well operator shall advise the Division of the date and time of such initial and subsequent integrity tests in order that they may be witnessed.

Notwithstanding the subsequent test requirements above, the Division may require more frequent or more comprehensive testing of injection wells including the use of tracer surveys, noise logs, temperature logs, or other test procedures or devices. Such special tests, when run, shall supplant the required five-year test.

B. Monitoring

Injection wells shall be equipped in order that the injection pressure and annular pressure may be determined at the wellhead and that the injected volume may be determined at least monthly.

Injection wells used for storage shall be equipped so that both injected and produced volumes may be determined at any time.

X. The Division proposes to amend Rule 705 to read in its entirety as follows:

RULE 705. COMMENCEMENT, DISCONTINUANCE, AND ABANDONMENT OF INJECTION OPERATIONS

The following provisions shall apply to all injection projects, storage projects, salt water disposal wells and special purpose injection wells:

A. Notice of Commencement and Discontinuance

1. Immediately upon the commencement of injection operations in any well, the operator shall notify the Division of the date such operations began.

2. Within 30 days after permanent cessation of gas or liquefied petroleum gas storage operations or within 30 days after discontinuance of injection operations into any other well, the operator shall notify the Division of the date of such discontinuance and the reasons therefor. No injection well may be temporarily abandoned for a period exceeding six months unless the injection interval has been isolated by use of cement or a bridge plug. The Director of the Division may delay the cement or bridge plug requirements above upon a demonstration that there is a continuing need for such well, that the well exhibits mechanical integrity, and that continued temporary abandonment will not endanger underground sources of drinking water.

3. Before any injection well is plugged, the operator shall obtain approval for the well's plugging program from the appropriate District Office of the Division in the same manner as when plugging oil and gas wells or dry holes.

B. Abandonment of Injection Operations

1. Whenever there is a continuous six-month period of non-injection into any injection project, storage project, salt water disposal well, or special purpose injection well, such project or well shall be considered abandoned, and the authority for injection shall automatically terminate ipso facto.

2. For good cause shown, the Division Director may grant an administrative extension or extensions of injection authority as an exception to Paragraph 1. above.

XI. It is proposed that a new Rule 706 be adopted which will read in its entirety as follows:

RULE 706. RECORDS AND REPORTS

The operator of an injection well or project for secondary recovery or pressure maintenance, natural gas storage, salt water disposal, or injection of any other fluids shall keep accurate records and shall report monthly to the Division gas or fluid volumes injected, stored, and/or produced as required on the appropriate form listed below:

1. Secondary Recovery on Form C-115;

2. Pressure Maintenance on Form C-115 and as otherwise prescribed by the Division;

3. Salt Water Disposal on Form C-120-A;

4. Natural Gas Storage on Form C-131-A; and

5. Injection of other fluids on a form prescribed by the Division.

The operator of a liquefied petroleum gas storage project shall report annually on Form C-131-B, Annual LPG Storage Report.

XII. It is proposed that a new Rule 707 be adopted which will read in its entirety as follows:

RULE 707. RECLASSIFICATION OF WELLS

The Division Director shall have authority to reclassify an injection well from any category defined in Rule 701 B to any other category without notice and hearing upon request and proper showing by the operator thereof.

XIII. It is proposed that a new Rule 708 be adopted which will read in its entirety as follows:

RULE 708. TRANSFER OF AUTHORITY TO INJECT

Authority to inject granted under any order of the Division is not transferable except upon approval of the Division. Approval of transfer of authority to inject may be obtained by filing Form C-104 in accordance with Rule 1104(5).

The Division may require a demonstration of mechanical integrity prior to authorizing transfer of authority to inject.

XIV. It is proposed to amend Rule 1100 C. to read in its entirety as follows:

RULE 1100 C. Books and Records

All producers, injectors, transporters, storers, refiners, gasoline or extraction plant operators, treating plant operators, and initial purchasers of natural gas within the State of New Mexico shall make and keep appropriate books and records for a period of not less than five years, covering their operations in New Mexico, from which they may be able to make and substantiate the reports required by these rules.

XV. It is proposed to amend Rule 1100 D. to re-title Form C-108 as follows:

Form C-108 Application for Authorization to Inject

XVI. It is proposed to adopt a revised Form C-108 and amend Rule 1108 to read in its entirety as follows:

RULE 1108. APPLICATION FOR AUTHORIZATION TO INJECT
(Form C-108)

Form C-108 shall be filed in accordance with Rule 701-B.

XVII. It is proposed to amend Rule 1115 to read in its entirety as follows:

RULE 1115. OPERATOR'S MONTHLY REPORT (Form C-115)

Operator's Monthly Report, Form C-115 or Form C-115-EDP, shall be filed on each producing lease and each secondary recovery project or pressure maintenance project injection well within the State of New Mexico for each calendar month, setting forth complete information and data indicated on said forms in the order, format, and style prescribed by the Division Director. Oil production from wells which are producing into common storage shall be estimated as accurately as possible on the basis of periodic tests.

The reports on this form shall be filed by the producer as follows:

Original to the Oil Conservation Division at Santa Fe; one copy to the District Office of the Division in which district the lease is located; and one copy to each transporter involved. Each report for each month shall be postmarked not later than the 24th day of next succeeding month. Failure of an operator to file this report in accordance with the provisions of this rule may result in cancellation of Form C-104 for the affected well or wells and/or cancellation of authority to inject.

XVIII. It is proposed to amend Rule 1131 to read in its entirety as follows:

RULE 1131. MONTHLY GAS STORAGE REPORT (Form C-131-A)
ANNUAL LPG STORAGE REPORT (Form C-131-B)

Each operator of an underground natural gas storage project shall report is operation monthly on Form C-131-A. Form C-131-A shall be filed in duplicate (one copy to the Santa Fe Office of the Division and one copy to the appropriate district office) and shall be postmarked not later than the 24th day of the next succeeding month.

Each operator of an underground liquefied gas storage project approved by the Division shall report its operation annually on Form C-131-B. Form C-131-B shall be filed in duplicate (one copy to the Santa Fe Office of the Division and one copy to the appropriate district office) and shall be postmarked not later than the 24th day of January of each year.

ENERGY AND MINERALS DEPARTMENT

Revised

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no

II. Operator: _____ Address: _____

Contact party: _____ Phone: _____

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? ☐ yes ☐ no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

* VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates sampled were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: _____ Title: _____

Signature: _____ Date: _____

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

FORM C-108 Side 2

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(3) the formation name and depth with expected maximum injection rates and pressures; and

(4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Draft

Form C-131-A

NEW MEXICO OIL CONSERVATION DIVISION
P. O. BOX 2088, SANTA FE, NEW MEXICO 87501

MONTHLY GAS STORAGE REPORT

_____ (Company) _____ (Address)

NAME OF STORAGE PROJECT: _____ COUNTY _____ REPORT MONTH _____

WELL NAME AND NUMBER	LOCATION UNIT	SEC.	TWP.	RANGE	MAXIMUM INJECTION PRESSURE	INJECTION (MCF)	WITHDRAWAL (MCF)
TOTALS							

TOTAL CAPACITY (MMCF) _____
BEGINNING STORAGE (MMCF) _____
NET CHANGE (MMCF) _____
ENDING STORAGE (MMCF) _____

CALCULATED RESERVOIR PRESSURE @ END OF MONTH _____

I hereby certify that this report is true and complete to the best of my knowledge and belief.

By _____

Title _____ Date _____

Form C-131-B

NEW MEXICO OIL CONSERVATION DIVISION
P. O. BOX 2088, SANTA FE, NEW MEXICO 87501

ANNUAL LPG STORAGE REPORT

_____ (Company) _____ (Address)

NAME OF STORAGE PROJECT: _____ COUNTY _____ REPORT YEAR _____

WELL NAME AND NUMBER	LOCATION UNIT	SEC.	TWP.	RANGE	MAXIMUM INJECTION PRESSURE	INJECTION (BBLS)	WITHDRAWAL (BBLS)
TOTALS							

CALCULATED RESERVOIR PRESSURE @ END OF YEAR _____

TOTAL CAPACITY (BBLS) _____ BEGINNING STORAGE (BBLS) _____

NET CHANGE (BBLS) _____ ENDING STORAGE (BBLS) _____

I hereby certify that this report is true and complete to the best of my knowledge and belief.

By _____ Title _____

Date _____

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
4 June 1981

COMMISSION HEARING

IN THE MATTER OF:

The hearing called by the Oil Conservation Commission on its own motion to consider certain amendments to its rules and regulations. CASE 7272

BEFORE: Commissioner Ramey
Commissioner Arnold

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Commission: Albert Sims, Esq.
Energy and Minerals Dept.
Santa Fe, New Mexico

For the Oil Conservation Division: Ernest L. Padilla Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

I N D E X

E X H I B I T S

MR. RAMEY: The hearing will come to order.

We have one case on the docket this morning, Case 7272.

MR. SIMS: Mr. Chairman, the case is in the matter of the hearing called by the Oil Conservation Division on its own motion to consider certain amendments to its rules and regulations, in particular as they relate to the underground injection of fluids and to compliance with the Federal standards of underground injection control and the National Safe Drinking Water Act.

MR. RAMEY: I'll ask for appearances at this time.

MR. PADILLA: May it please the Commis--sion, I'm Ernest L. Padilla for the Oil Conservation Division.

Mr. Chairman, at the appropriate time I have one witness to be sworn.

MR. RAMEY: Any other appearances? Ask that the witness stand at this time.

(Witness sworn.)

MR. RAMEY: You may proceed, Mr. Padilla.

RICHARD L. STAMETS

being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. PADILLA:

Q. Mr. Stamets, for the record would you please state your name, by whom you're employed and in what capacity?

A. My name is R. L. Stamets. I am Technical Support Chief with the Oil Conservation Division in Santa Fe, New Mexico.

Q. Mr. Stamets, have you previously testified before this Division or the Commission, and are your credentials a matter of record before the Commission?

A. I have and they are.

Q. Mr. Stamets, are you familiar with the purpose of today's hearing?

A. Yes, I am.

MR. PADILLA: Mr. Chairman, are the witness' qualifications acceptable?

MR. RAMEY: Having been involved with Mr. Stamets on this UIC program for the past six years, I

would say he's quite qualified.

MR. PADILLA: Thank you.

Q Mr. Stamets, as Technical Support Chief do you have certain recommendations to make today to the Commission concerning the rule changes involving the underground injection control?

A Yes, I do have. These are basically the same as are in the docket for today's hearing.

Q Mr. Stamets, you have been previously handed what has been marked as Exhibit A. Would you please identify and explain the nature of the contents of that exhibit?

A All right. I think -- well, yes.

Exhibit A is a copy of the Federal Register from May 19th, 1981.

Perhaps before we discuss that I ought to go into the history of this thing. I think that's necessary for the background to discuss Exhibit A.

Of course the Division has authority over injection wells for salt water disposal, secondary recovery, pressure maintenance, storage, and so on.

The first disposal well was authorized back in 1951 in the Penrose-Skelly Pool, and apparently the first secondary recovery project was begun in 1952 in the

Shugart Pool, and a great number of projects were approved in the late 1950's, early 1960's.

At this time we have something over 260 disposal wells. We have something like 3500 classified injection wells, and not all of those are actually in operation at this time but they are still carried on the books.

The proposals that we have here today stem from two causes.

In the first instance, in the 1970's our field inspectors began to find evidence of water out of zone or water which was in zones where it wasn't supposed to be. This was demonstrated by pressure on well annulae, annuluses, flowing Bradenheads, collapsed casing, and zones other than the injection zones being pressured up; people finding water as they were drilling in zones which previously had no water in them.

The Division instituted an extensive test program trying to pinpoint the problems, the sources, and oversaw a considerable amount of corrective action. We also developed a number of policies and practices for handling injection in this period to alleviate the problems and prevent future problems.

Also, the Safe Drinking Water Act, Public Law 93523, was signed into law in December of 1974.

Basically, what this law did was give the Administrator of the Environmental Protection Agency the direction to write minimum regulations for State programs to control the underground injection of fluids to prevent contamination to underground sources of drinking water, and this they did over the five or six years Mr. Ramey referred to, writing many, many drafts of regulations, which were terrible, and coming up with some final proposals early in 1980 which were technically all right but administratively awful.

At the end of the last session of congress the, what's known as the Graham-Waxman Amendment, or HR-8117, was passed by the Congress and signed into law, and this provides for the states with existing injection control programs to demonstrate to EPA that those programs do meet the requirements of the act.

Subsequent to the passage of that amendment the states, including New Mexico, did meet with EPA to hammer out guidelines for submission of state demonstrations and for EPA review of such demonstrations in order for EPA to have some sort of guidance as to how they would determine whether the state program was or was not effective, and these guidelines, then, were published in the Federal Register May 19, 1981, and they are contained in Exhibit A.

So the hearing today is basically to do

three things: To clean up the regulations, clarify our intent; bring into the regulations the policies and practices that have developed in the 1970's; and also to make changes required to facilitate approval of our demonstration to the EPA.

Now, Exhibit A has about five or six sections in it that tell us what to do.

Section 1.0, Purpose and Scope, I don't think I need to explain that.

Section 2.0 just tells what, who, and the whens of the state demonstration.

Section 3.0 tells us as a state what must be included with the application and is not important to this hearing.

Section 4.0 tells how EPA will process our application.

And Section 5.0 is probably the part that would be critical to anything that we do here today, and it sets out the criteria for approving or disapproving state programs, and this is what the EPA personnel who review our demonstration will be looking at when they check our program.

Some of the important things there would start on the next page, on page 27337.

About halfway down the lefthand side it talks about what must be in the application to the state

by an operator for approval of an injection well, and I've highlighted by underlining a number of the things and I think if you look at this versus what we have on our application form you'll see that they're basically the same.

Section 5.4 talks about inspection, monitoring, recordkeeping, and reporting. We pretty well track what EPA is asking for there.

Section 5.6 talks about whether the state assures adequate participation by the public in the permit issuance process, and this is one of the things that EPA pretty strongly believes in and one of the things that has affected the way the administrative approval process is proposed to be changed.

Technical criteria start on the next page. They're concerned with siting of wells, construction, operation, plugging and abandonment, area of review, corrective action, mechanical integrity. All of these things are included in our program.

And then the very last section, Section 6.0, talks about what EPA's role is under a program approved by state demonstration.

And I really don't believe that there's any benefit in going further into this unless it becomes a question later on in the case.

Q Mr. Stamets, turning now to what has been marked for identification as Number -- or Exhibit B, would you please identify this exhibit and what it contains?

A Exhibit B, as I've handed to the Commission, is basically identical to the attachment to the docket for today's hearing. This exhibit contains all of the proposals that we have here today for the definitions, the rule changes, the new rules, the forms to be proposed and used in this program, and I'm going to go through this and wherever I can, I'm just going to discuss the change without having to read the entire section, and some of them I won't have any choice but to go through the entire section to explain the purpose.

To begin with we have proposed --

Q Mr. Stamets, excuse me. The contents of Exhibit B relate back to the requirements of Exhibit A, is that correct?

A They relate back to the three purposes that I mentioned to begin with. Some of the material that we have in here represents policy and practice of recent years, now being brought into the rules and regulations, and some of it represents changed needed to bring our regulations up to the point where I feel confident our demonstration will be approved by the EPA.

Q. But the ultimate effect of the rule changes as proposed in Exhibit B is to conform to the EPA requirements, is that a fair statement? Or at least make a satisfactory demonstration?

A. Right.

Q. Okay.

A. Right.

Q. Proceed now with your explanation of Exhibit B.

A. All right. The, as you can see, every-thing is -- every change has a number to the left, a Roman numeral.

So Roman numeral I is a proposal to add three definitions; the definition of an aquifer, being a geological formation, group of formations, or part of a formation capable of yielding a significant amount of water to a well or spring.

Then an exempt aquifer, which we'll get into a little bit later, and an underground source of drinking water.

Now in this instance these changes are necessary in order for us to be able to talk to the Environ-mental Protection Agency and tell them what we are protecting or not protecting in our program and for us to be using the

same words with the same definitions. And this is just basically taken from the EPA's definitions.

The second proposal relates to Rule 103. This is a very simple change. Rule 103 requires signs on drilling wells, producing wells, and so on, but it never said that you had to have a sign on an injection well.

So Rule 103 has been changed, as you can see underlined there, to require signs at injection wells also.

Section III talks about Rule 106(a). That now requires, well, let me just read that.

(a) During the drilling of any oil well, gas well, injection well, or any other service well, all oil, gas, and water strata above the producing and/or injecting horizon shall be sealed or separated in order to prevent their contents from passing into any other strata.

Rule 107 is the casing and tubing requirements. This again is a simple change to assure that casing of injection wells during drilling will protect water zones.

Part V, then, to amend Rule 204 relative to liability, this change clarifies now that drillers of injection wells are responsible for plugging and abandonment. Actually, this is no change from what we've been doing, but

it makes the rule conform to practice.

Part VI is where the major changes occur. This will require us to retitle Section I of our rules and regulations.

That will now read, I, Secondary Recovery, Pressure Maintenance, Salt Water Disposal, and Underground Storage, so that all the types of wells covered by this section are identified.

Rule 701-A is updated only by the inclusion of the phrase "or other enhanced recovery projects" so that we've brought ourselves into the modern era now. We've gotten out of -- beyond secondary recovery into the possibility of enhanced recovery.

Getting to Section B, this is an entirely new section. It's set up to make the application process uniform, or at least relatively uniform, for all wells. The first two paragraphs involve that.

Application for -- paragraph 1 says, Application for original authority for the injection of gas, LPG, air, water, or any other medium into any formation for any reason, including salt water disposal, or for expansion of any injection project by the completion or conversion of injection wells, shall be by the submittal to the Division of Form C-108 completed with all attachments.

So that will be uniform now for every type of injection well, not just for salt water disposal wells.

Paragraph 2 requires that notice by certified or registered mail a copy of the application be sent to the owner of the surface of the land on which the injection or disposal well is to be located, and each leasehold operator within one-half mile of the well location.

This is a requirement which used to be only for salt water disposal wells and now covers all wells.

Paragraphs 3 and 4 are substantially different from anything that we have.

Paragraph 3 says applications qualifying for administrative approval must be accompanied by a copy of the legal publication published by the applicant in a newspaper of general circulation in the county in which the proposed injection well is located. The details required in such notice are listed on side 2 of Form C-108.

Paragraph 4 says that no application shall be approved until the applicant shall supply evidence of mailing as required under 2 above, and if applicable, proof of publication.

I got a call from the Environmental Protection Agency the other day and they suggested that somewhere in paragraph 4 we make it clear that it's the Division's

intent that no application will be acted upon until a fifteen day waiting period has expired, and I see no problem with that.

The next section, C, discusses hearings. This sets out the process for setting applications for hearing, and it's a little different from what we're already doing, and of course, this reads, If a written objection to any application for administrative approval of an injection well is filed within the fifteen day period after receipt by the Division of the complete application, or if a hearing is required by the Division, the application shall be set for hearing and notice thereof shall be given by the Division. If no objection is filed and a hearing is not required, the matter may be approved administratively.

The -- the matter could be set for hearing either by provisions of the rules or based upon our review of the data submitted by the applicant. It could be, even though the applicant has met all the requirements, we might feel that the condition of wells in the area is such that we would like to have a public hearing so that we're able to cross examine witnesses and get the information we feel we need to protect water in the area.

In the next section, D, Salt Water Disposal Wells, the first paragraph is identical to the paragraph in our current rules and regulations.

The second paragraph contains new language but the intention is the same as what we have been following for the last number of years, and this paragraph says, disposal will not be permitted into zones containing waters having total dissolved solids concentrations of 10,000 milligrams per liter or less, except after notice of hearing, provided, however, that the Division may establish exempted aquifers for such zones, wherein such injection may be approved administratively.

Also, one of our District offices has suggested that we might wish to add another line there that says something to the effect that notwithstanding the above provision, the Division Director may authorize disposal into such zones if the water to be disposed of is of a higher quality than the water in the disposal zone, and this does occur in some parts of the state, and again, I have no particular problem with that. I think that would be an improvement.

The next section, E, dealing with pressure maintenance projects, items one, two and three, the first paragraph, are identical to the existing rules, and the second paragraph in E sets out the new process for approval, or getting administrative approval of an additional injection well.

Let me just read it this time. This

paragraph is going to be the same for all of the administrative approval processes, so I think I can read it once and then just skip over it from here on out.

The Division Director shall have authority to grant an exception to the -- and here it's been suggested that the word "hearing" be placed in here, to clarify what we're talking about -- so the Division Director can give an exception to the hearing requirements of Rule 701-A for the conversion to injection of additional wells within a project area, provided that any such well is necessary to develop or maintain efficient pressure maintenance within such project and provided that no objections are received, as provided in Rule 701-C.

Then we get into F. It covers waterflood projects and again, as we move through there, this is basically the same until we get down to the middle of 3, again.

At this point we have dropped a couple of requirements that required the operator to identify waterflood production on Form C-115, and as near as I can tell, this was never done. And also, we've removed a reference to report certain well tests on Form C-120, and Form C-120 was done away with back in February of 1978.

Moving on to paragraph 4, this again tells an operator how he shall file for administrative ap-

proval, and although the wording is slightly different for secondary recovery projects, it's basically the same as we've had for pressure maintenance.

And again, I'd want to insert the word "hearing".

Moving on to G, discuss Storage Wells, and this is basically the same as we've had before. Again, I want to insert the word "hearing" in the second sentence. And this is essentially what used to be Rule 705, and I've simply moved it to this section of the rules and regulations for consisttency.

Moving on, then, to Section VII, we are talking about amending Rule 702, which is -- relates to casing and cementing of injection wells. I'd like to point out one word change in the fourth line right before the underlined section there's the word "or", and it would appear that that word should be "and" instead of "or".

Now this is changed so that all types of injection wells are covered by the casing and cementing requirements, and the rule describes now specifically what is intended to be prohibited.

Now, we -- it says now, wells used for injection of gas, air, water, or any other medium, into any formation shall be cased with safe and adequate casing or

tubing so as to prevent leakage -- it would seem like there ought to be a comma there -- and such casing or tubing shall be set and cemented to prevent the movement of formation or injected fluids from the injection zone into any other zone or to the surface around the outside of any casing string.

Section VIII proposes to amend Rule 703, relative to Operation and Maintenance.

Now, this basically is a new rule, even though it says it's an amendment; it's a new rule, and it's to show the responsibility of an injection well operator and the possibility of well restriction in case of well failures. I think this is a section I'm going to have to read.

It says, Injection wells shall be equipped and operated, monitored and maintained, to facilitate periodic testing and to assure mechanical -- continued mechanical integrity, which will result in no significant leak in the tubular goods and packing materials used, and no significant fluid movement through through vertical channels adjacent to the wellbore.

Injection wells, project wells, and related surface facilities, shall at all times be operated and maintained in such a manner as to confine the injected fluids to the interval, or intervals, approved, and to prevent surface damage or pollution resulting from leaks, breaks, or

spills.

Injection well, project well, or surface facility failures, which may endanger underground sources of drinking water, shall be reported under the "Immediate Notification" procedures of Rule 116.

What this requires is that we be notified as soon as possible after discovery, by phone, and a written notice within ten days.

Going on then, injection well or project well failures requiring casing repair or cementing are to be reported to the Division prior to commencement of workover operations.

Injection wells or projects which have exhibited failures to confine injected fluids to the authorized injection zone, or zones, may be subject to restriction of injection volume, or pressure, or shut-in until the failure has been identified or corrected.

MR. RAMEY: Mr. Stamets, would you define "project" and "project well" at this time?

A. This would refer back to the earlier descriptions of secondary recovery projects and pressure maintenance projects. Normally when we issue an order for a pressure maintenance project, we describe the project area in that order, and so in this case "project" would follow

that defined area.

The rules on secondary recovery say that the project will consist of those tracts with injection wells plus the immediate and diagonal offset tracts, and in that case, that would be the project.

MR. RAMEY: So a project well could be a producing well?

A. Yes.

MR. RAMEY: Thank you.

A. One other thing there in -- it talks about notifying the Division before beginning workover where casing or cementing is involved, and an operator asked me if -- what would happen if they didn't realize that was the case and they got into workover a well and then they found they were going to have to do it, do some casing or cementing work, and I indicated I felt that certainly at that point that all they would have to do would be contact our District Office and advise them. There'd be no need in delaying this work simply because they discovered something they weren't aware of to begin with.

The intent of this is for the District Office to know when and where casing and cementing failures are occurring and be able to go out and witness the work if they choose to.

Moving on then to Section IX, which is a proposal to amend Rule 704, this again is basicall a new rule we put in here for EPA, and it also confirms by and large what we have been doing for the past two years.

I'm going to have to read this one, too. This is Rule 704. Testing and Monitoring.

A. Testing. Prior to commencemant of injection, wells shall be tested to assure the initial integrity of the casing and the tubing and packer, if used, including pressure testing of the casing-tubing annulus.

At least once every five years thereafter, injection wells shall be tested to assure their continued mechanical integrity.

Tests demonstrating continued mechanical integrity shall include the following:

(a) measurement of annular pressures in wells injecting at positive pressures under a packer or a balanced-fluid seal;

(b) pressure testing of the casing-tubing annulus for wells injecting under vacuum conditions, and;

(c) such other tosts which are demonstrably effective and which may be approved for us the the Division.

The injection well operator shall advise the Division of the date and time of such initial and subsequent integrity tests in order that they may be witnessed.

Notwithstanding the subsequent test requirements above, the Division may require more frequent or more comprehensive testing of injection wells, including the use of tracer surveys, noise logs, temperature logs, or other test procedures or devices. Such special tests, when run, shall supplant the required five-year test.

B. Monitoring. Injection wells shall be equipped in order that the injection pressure and annular pressure may be determined at the wellhead, and that the injected volume may be determined at least monthly.

Injection wells used for storage shall be equipped so that both injected and produced volumes may be determined at any time.

Next is Section X. The Division proposed here to amend Rule 705. This 705 is formerly Rule 703, and it's basically the same down through A-1.

And A-2 is amended and here the wording has been revised so that it now covers all types of injection wells, and covers a problem that we see with injection wells being shutin and remaining shutin for an extended period of time with no assurance that that well may not be leaking

downhole. So let me read this.

2. Within thirty days after permanent cessation of gas or liquefied petroleum gas storage operations, or within thirty days after disconinuance of injection operations into any other well, the operator shall notify the Division of the date of such discontinuance and the reasons therefor.

No injection well may be temporarily abandoned for a period exceeding six months unless the injection interval has been isolated by use of cement or a bridge plug.

The Director of the Division may delay the cement or bridge plug requirements above upon a demonstration that there is a continuing need for such well, that the well exhibits mechanical integrity, and that the continued temporary abandonment will not endanger underground sources of drinking water.

And the next paragraph 3 is identical to what is currently in the regulations and the same is true for the B, Abandonment Injection Operations, so I'm not going to cover that.

Moving on then to Section XI, Records and Reports. This is formerly Rule 704, and the only changes are on the next page.

In 1. there, that was identical to what was proposed and someone suggested yesterday that that be revised to say "secondary or other enhanced recovery would be reported on C-115." And so far I haven't figured out any reason why that shouldn't be. It seems to me that whatever is injected in an enhanced recovery project would be a liquid which would be measured in barrels, or gas, which would be measured in Mcf, and so I -- I believe that's all right.

2. is a change to require that pressure maintenance be reported on Form C-115, and as otherwise prescribed by the Division. This simply reflects what the current practice is.

After 5., then, there is a new sentence, and this is done for the Environmental Protection Agency, and this says that the operator of a liquefied petroleum gas storage project shall report annually on Form C-131-B, Annual LPG Storage Report. And this was the only injection well that we operate that we weren't receiving reports on, and they do require us to get a report on all types of injection wells which we regulate.

Section XII is a proposal for a new Rule 107 -- or 707, I'm sorry -- calling for reclassification of wells. This would permit the Division Director to have authority to reclassify an injection wellfrom one category

as defined in Rule 701-B, to any other category without notice and hearing upon request and proper showing by the operator thereof.

And again this, we've been doing this, and this would clarify the practice is correct and tell everybody that it can be done.

The next Section XIII, a new Rule 708 relative to Transfer of Authority to Inject. This simply clarifies that the authority is not automatic and it does put everybody on notice that we test suspect wells before we allow them to be transferred.

The rule states, authority to inject granted under any order of the Division is not transferable except upon approval of the Division. Approval of transfer of authority to inject may be obtained by filing Form C-104, in accordance with Rule 1104(5).

The Division may require a demonstration of mechanical integrity prior to authorizing transfer of authority to inject.

And we hope this will prevent the dumping of junk on an unsuspecting operator. We think this has been done in the past, where a well has been eaten up top to bottom, and one company has sold the well to another one, who then finds they've got a problem. We feel that the person who made

the problem ought to be responsible for correcting it.

Section XIV is a proposal to amend Rule 1100-C, relative to Books and Records.

This is cleanup language and what we've simply done here is add injectors and treating plant operators to those who are required to keep appropriate books and records for a period of not less than five years covering their operations in New Mexico.

While treating plant operators really don't have anything at all to do with UIC, they were left out and they really need to be in there.

Section XV is a proposal to amend Rule 1100-D to retitle Form C-108. It would now be Form C-108, Application for Authorization to Inject.

Section XVI is another rule change which reflects that change in title that amends Rule 1108, which is simply the form title.

Section XVII is a proposal to amend Rule 115 to read as follows. Well, let me just point out the change. One of the changes you don't have.

In the second line, then, -- well, let me start.

Operator's Monthly Report, Form C-115 or Form C-115-EDP, shall be filed on each producing lease and

each secondary -- and then it's been suggested that there we add the words "or other enhanced recovery project"or pressure maintenance project, and so on, and everything else in that paragraph is identical to the existing rule.

Then the next paragraph is identical to the existing rule except we've added one line which is right at the bottom and says, and/or cancellation of authority to inject. And what this means, then, is that if an operator fails to file his Form C-115, we can cancel his authority to utilize an injection well.

And the final section here, XVIII, proposes to amend Rule 1131.

Now Rule 1131 currently covers the monthly gas storage report and Form C-131. So this will now be amended so that we'll have a monthly gas storage report, Form C-131-A, and an annual LPG storage report, Form C-131-B.

The first paragraph of this simply reflects the change in form number from 131 to 131-A.

The second paragraph is new and it states, each operator of an underground liquefied storage project approved by the Division shall report its operation annually on Form C-131-B. Form C-131-B shall be filed in duplicate, one copy to the Santa Fe Office of the Division and one copy to the appropriate District Office, and shall

be postmarked not later than the 24th of January of each year.

Along with the rule changes we have the forms which go with that. So the next thing which would be covered both in your Exhibit B and in the docket would be Form C-108, and this form is designed to now lead an applicant completely through the process for applying for an injection well. Before this time you had to have Mr. Nutter's famous computer connected to a ouija board to go through and find all the filing requirements. Some of them were contained in the rules. Some of them were contained in memorandums and some of them were contained in policy.

So now an operator can take this form and go completely through and by the time he finished up on the back side of the page he would have an application which could be submitted to the Division.

Line one says what he's applying for and also whether he qualifies for administrative approval, and this makes a difference as to what you would do later on as far as notice is concerned.

Section II, I can see we're going to have to provide a little bit more space because an operator is not going to be able to put his name on that little bitty line, and we will put some more space in there.

In III the data refers to the back side

of the form, tells you what you've got to file relative to the injection well, or wells.

V. let's us know whether this is an expansion of existing project. That was IV., I'm sorry.

V. and VI., is what we have been doing since 1977 under Memorandum 3-77 requiring the operator to not only identify all the wells and leases within two miles, as is in the rules and regulations, but also to draw a half-mile circle around the injection well, identify an area of review, and then review the records of all the wells within that area, give us that detail so that we can then review it and see that none of those wells would serve as an avenue of escape for the injected water into another zone.

VII. on the form, has the operator tell us about his proposed operating data, and down in 5 there it says, if injection is for disposal purposes into a zone not productive of oil or gas within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water, which may be inferred from existing literature, studies, et cetera, of nearby wells.

This will allow us to make certain that an operator is not injecting into a zone which would be an underground source of water or a zone which was under 10,000 TDS.

Section VIII discusses the appropriate geologic data relative to the injection zone and any overlying or immediate underlying underground sources of drinking water.

Section IX asks for a stimulation program, if any.

X., logging data.

XI., required a chemical analysis of fresh water from two or more fresh water wells, if available, and producing within one mile of any injection or disposal well, showing location of wells and dates samples were taken. This will provide us and the operator with baseline data in case there is some contamination, or alleged contamination, later on.

I would think that -- that we might relax that a little bit in the case of a large project where an operator could find a well around the margin, or some wells around the margins, and a well or two within the project, we might not have to have one within -- within this distance from each individual well.

XII., requires the applicant to -- for a disposal well to make an affirmative statement that they don't know of any reason why their well ought to be hydrolically connected to any underground source of drinking water.

XIII., refers to the Proof of Notice on

the reserves side of this form.

And then we have the certification.

You'll notice coming down through there several of those sections had an asterisk by them, and that's to indicate below that if you've already submitted this data early on, you don't need to repeat it.

And the distribution on the form is shown at the bottom.

Side two goes through and tells an operator exactly what we're looking for relative to well data for the injection well, and also exactly what we are requiring relative to the proof of notice. It tells an operator what he needs to put in his legal advertisement, if he makes legal advertisement for an administrative application.

I bold type it tells him we're not going to take any action on the application until this material has been sent in, and then also tells the surface owner or the offset operators that they've got to file their objection within fifteen days.

The next form, C-131-A, the only change from the existing form is to add a column for the maximum injection pressure. This is for the Environmental Protection Agency; that's one of their requirements.

The C-131-B is identical to the A, ex-

cept that we've changed Mcf to barrels and that's consistent with LPG storage.

The last sheet of this Exhibit B is the injection well data sheet which we have prepared and which we'll make available at our District Offices or out of Santa Fe, so that an operator can use this as a model or understand what types of information we are expecting when he submits this well data.

And that covers Exhibit B, and I believe covers everything I have on direct in this case.

Q. Mr. Stamets, a minor point, going back to your Rule 706, you've added new language there requiring the C-131-B for the LPG storage report.

Shouldn't that be numbered Number Six instead, as part of --

A. Well, no, from the standpoint of the heading.

In the first paragraph it says shall report monthly to the Division, and all of these are monthly reports. The LPG report is an annual report.

Now the whole thing could be reworded but I was trying to get by with the least amount of change.

Q. Okay.

MR. PADILLA: Mr. Chairman, I have no

further questions and I pass the witness.

MR. RAMEY: Any questions of Mr. Stamets? Mr. Nutter.

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Stamets, in reading Section VI of Exhibit B, paragraph B, Method of Making Application, I find some confusion there as to the making application for administrative approval or making application for a hearing.

As we have previously discussed, would it be possible to just arrange the wording somewhat different; not any substantive change that I'm talking about, but just a rearrangement of the data required so that it would be clear just exactly what data would be submitted for administrative as versus hearing process?

A. Yes. I -- I think, perhaps, this section could be improved. I had hoped to stress the uniformity of application so that it's clear to everybody that up to a certain point no matter what you're doing, everything is identical.

Q. The application is identical for either process.

A. Right.

Q And then there are some changes after that and that could be clarified.

A Yes. I would hope to retain that uniformity flavor, plus certainly make this as clear as possible.

Q Okay.

Now, with respect to Rule 703, Mr. Stamets, Operation and Maintenance, you elaborated on what project and project wells mean in response to questions by Mr. Ramey; however, I think there have been certain cases in which wells that contributed to problems within project areas, when the wells were not project wells. In other words, we think of project wells as being injection wells and the wells producing from the zone that the injection is made into, but sometimes there have been deeper wells, going to a deeper horizon, that have contributed to the problem and provided this avenue of escape for injected fluids, and they would not be project wells.

Would it -- could it -- would it be feasible to say wells within the project area, injection wells and wells within the project area?

A It gets a little tricky because the injection well operator has no direct control over the operation of such a well.

Q Any time that those wells belong to him,

then he's got an avenue of escape there.

A That's true. Let's go back and begin -- well, let's take a new project, for example. I think that in those cases we could have everything pretty well taken care of. We wouldn't approve it if an injection -- or a well within the area appeared to be an avenue of escape. If the well was -- did belong to that operator, perhaps this rule is not sufficient at that point, but if the well belonged to a different operator, if we had reviewed it and thought it was all right and then that well began to flow water at the surface because of some failure in that well, would we want to restrict the injection or would we want to make the owner of the well which wasn't properly completed repair that well?

Q Well, I don't know, but we'd want to restrict the injection until someone has repaired the well, and you know we've had problems with those deeper wells.

A. If it's --

Q. It may not be anything we can figure out right now, but I think we ought to give serious consideration to some phraseology here to protect the project from non-project wells that aren't maintained properly.

A. Later this year we have planned to work on a number of rule changes with an industry committee, and one of the things that I had in mind, a list of things to

consider, was a proposal that all well operators had some sort of a standard that they have to meet in their operations. Everybody has to operate their wells in such a way as to prevent loss of oil, contamination of water zones, and perhaps we could cover this sort of a problem by that rule.

Q. See, the crux of this thing goes back to Rule 107, and Rule 107 says any well drilled for oil or natural gas or for injection shall be equipped with surface or intermediate casing that may be necessary to effectively seal off all these oil, gas, and water bearing strata.

It doesn't say that they have to be maintained in that --

A. That's correct.

Q. -- manner.

A. That's correct.

Q. And there's where the change needs to be --

A. Right.

Q. -- but we don't have a rule saying they must be maintained.

A. And I believe we do have that relative to injection wells and project wells. Now, the rest of them, we don't have it, and I think a general rule requiring everybody to have that sort of maintenance would be appropriate.

Q It's probably not within the call of the hearing today to amend Rule 107 but I think it ought to say shall be equipped and maintained in such a manner as to confine these things to the proper strata.

Okay, anyway, so much for that for the time being.

Okay, now on Rule 704, the testing and monitoring section, at the bottom of that page, that last sentence in that last paragraph, such special tests, when run, shall supplant the required five-year test. Now supposing we're talking about a project that is authorized in 1981. At the -- in 1986 it would be required to take a five-year test.

Supposing it develops a problem and they take a test and find out that maybe everything is all right in 1982. Now, you've said that this test, this special test will supplant the five-year test, so that means that in 1986 they don't have to take a test and they won't have to take one until 1991. They've gone nine years without taking a test, then.

A Let me tell you what the intention is and then we can work on the language later on.

Q Okay.

A The intention would be that if a project

was begun in 1981, 1986 would be the year for testing.

If the project then were tested in 1982, that would simply restart the five-year period so that the testing would be done in 1987.

Q Okay, just so we have something in the record that would make possible that that revision in the rule be provided.

A Right. I tried to find one word that did that and I wasn't successful.

Q You can't do it in one word.

MR. RAMEY: Let me ask you a question, Mr. Nutter.

You feel it's important under Rule 107 to put "and shall maintain these wells in such manner"?

MR. NUTTER: I think any well should be cased and equipped when it's drilled and also maintained, and it may be somewhere in our other rules some place that they have to maintain that well's integrity as far as its casing is concerned, but it's not real specific anywhere, I'm afraid.

MR. RAMEY: I'm just wondering if it wouldn't -- couldn't be proper to put it in at this time.

MR. NUTTER: It's been brought up in here.

MR. RAMEY: Since we have a revision of

Rule 107 in the call of the hearing, I think it would be proper that we could make that change if the Commission so saw fit.

Does anybody have any problem with that? Do you think that would be proper, Mr. Padilla?

MR. PADILLA: Mr. Chairman, I don't see any reason why we couldn't do that, simply because this Rule 107 is already -- is being amended, and also because I think the intent of the change -- or the purpose of changing the regulations is simply to protect fresh water, although the primary purpose is the injection of the fluids, but obviously, within our -- the Division's purview and the statutes, or the statutory authority given to the Division shall protect fresh water, we have that mandate.

So going back to the advertisement to change Rule 107, I think it would be included. It may be necessary to readvertise this thing as a precaution, but we could go ahead and make that change, and if someone should complain, we could then -- or request a hearing, then we could hold a hearing specifically on that issue.

A I would only point out one thing, Mr. Ramey, and we may be able to get that from the people who are here today. If this should cause a request for a re-hearing, it's possible that that might delay our application to the EPA, which we intend to put together about the middle of

this month and send to them, and I would prefer to get this project off my desk and on to the Feds so I can do something else for awhile.

MR. NUTTER: I don't know why you're in a hurry, as Joe said, you've been working on it for six years.

MR. PADILLA: Mr. Chairman, I think if someone were to object as to the proposed rule change, or as to this specific thing, the -- it may be that we could sever the objection of the rule changes and this -- this specific amendment to Rule 107, should we have to readvertise the case.

MR. RAMEY: Are you saying we could go ahead and put it in Rule 107 and then if somebody complains we could nunc pro tunc the order and take it out?

MR. PADILLA: No. We could have another hearing on that specific issue without -- and at the same time accommodate Mr. Stamets deadline.

MR. NUTTER: That would probably be better because we're planning to have some more rule revisions later on this year, and it might be safer to properly advertise the rule before we make it. We don't want to jeopardize our basic rules and regulations on casing and cementing.

MR. RAMEY: Since it's the opinion between the engineering lawyer and the lawyer lawyer, that perhaps would be best.

Any other questions of Mr. Stamets? Mr. Manning?

CROSS EXAMINATION

BY MR. MANNING:

Q E. R. Manning with El Paso Natural Gas. With respect to Rule 705, specifically No. 2 under A., Mr. Stamets, it is possible for an operator to have a gas storage project and inject into this gas storage project and cease injection into the gas storage project and go for some period of time until he wants to withdraw from this storage project.

Perhaps there is some phraseology that we could put in there that may clear that up to where he wouldn't have to notify you of the discontinuance of the project, even though it was shut down for, you know, all practical purposes, inactive I guess would be a better word for it, during this period of time.

A Well, I wouldn't consider that situation to be a permanent cessation of operations and I certainly think that the operator of that project could make that argument at the time.

Q Well, I was just referring down there, "no injection well may be temporarily abandoned for a period of six months -- exceeding six months".

Now conceivably, he can fill his storage in April and not withdraw from it until October or November, and there it would be enacted -- I certainly believe it would be in order to put phraseology --

A. I don't interpret that as being temporarily abandoned for a gas storage project. That's the normal course of operations and I just -- I don't feel that this should apply.

Q. One other question. What if he's in the winding down stage of the gas storage operation and he's now withdrawn his injected cushion gas, how is that classified? Is that classified as a cessation or discontinuance or what is that?

A. Certainly as long as you have a well which is or was classified as an injection well and you're still utilizing it, that well has not ceased to be an active well.

Q. Now you're not injecting any more.

A. It's still active, though.

MR. MANNING: Thank you.

A. If -- let me elaborate on that. It would then become a producing well and would fall under our regular producing well rules.

What this is talking about primarily is

an operation which is permanently abandoned, not going to use this well any more, or a water injection well, or a gas injection well, in a recovery or pressure maintenance project, which is shut down. That's the basic thrust of this rather than --

Q. Would you have any objection to wording it like that?

A. Certainly if you -- if you would like to suggest some wording which could be submitted within a few days which would reflect your concerns, I would consider it.

Q. All right, sir.

MR. RAMEY: Any other questions?

CROSS EXAMINATION

BY MR. RAMEY:

Q. Mr. Stamets, Rule 701, and other places, you put "or other enhanced recovery". Then in your heading there above Rule 701 you just referred to secondary recovery and pressure maintenance. I wonder if, perhaps, you shouldn't put "or other enhanced recovery" in that heading, also?

A. So it might read secondary or other enhanced recovery?

Q. Yes.

A. That sounds like a good idea.

Q And under Rule 708 on your transfer of authority to inject, are you -- are you contending that we need to take care of certain operators, or --

A Possibly.

Q Some of them don't seem to be capable of purchasing good wells?

A Apparently.

Q But you would advocate that the well should be sound before it is transferred to someone else.

A I believe that's the -- yes. I firmly believe in that. I don't think that a large company with a lot of resources, or any company, ought to be able to take an injection well or disposal well and use it and use it up and then transfer their problems to somebody else.

Q I see. Well, would there be some way that an operator knows he's buying a bad well and he's willing to buy it and still, you know, then he would repair the well? Are we covered in this case?

A Well, it does say that the Division may require this demonstration, and I presume that means we may not require it, and I don't think that it says a well must have mechanical integrity before we would authorize transfer. And if the new operator was aware of the condition of the well and had a plan for repairing the well and we felt he could do

it, then I would see no problem with transferring the well.

Q. Okay, thank you.

On your Form C-108, under XI, how complete a chemical analysis are you thinking of there of fresh water?

A. I would think at a minimum we would be concerned with total dissolved solids, sulfates, chlorides, those constituents which are typical of produced water and which would be most readily usable to determine whether or not there's been some sort of contamination.

Q. Thank you.

MR. RAMEY: Any other questions?

Would you like to offer your exhibits at this time, Mr. Padilla?

MR. PADILLA: I was going to do that. We tender Exhibits A and B into evidence, and I have nothing further.

MR. RAMEY: Exhibits A and B will be admitted and the witness may be excused at this time.

Does anyone have anything further that they wish to add at this time?

If not, the Commission will take the case under advisement.

MR. NUTTER: Mr. Chairman.

MR. RAMEY: Oh, Mr. Nutter.

MR. NUTTER: The United States mails were delinquent and delivered the legal notice for this case to the Sandoval County newspaper and also to the San Juan County newspaper -- legal notices were mailed out May the 15th and publication date was given no later than May the 22nd in order to be timely for this hearing today.

However, the San Juan newspaper and the Sandoval County newspaper did not get their notice until the 26th of May, which was eleven days after being mailed, and as a result they have been readvertised for those two counties for hearing on June 17th, so I think this case is going to have to be reopened for the benefit of anyone who relies on legal notice in those two county newspapers.

So I think you're going to have to continue this case until June the 17th and reopen it and call for appearances if anyone from those counties came in.

MR. RAMEY: That's June the 15th?

MR. NUTTER: 17th.

MR. RAMEY: All right, in that case this case will be continued until June the 17th, at which time it will be reopened, and the hearing is adjourned.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

PROPOSED RULE CHANGES TO BE CONSIDERED IN
OIL CONSERVATION COMMISSION CASE NO. 7272
TO BE HEARD JUNE 4, 1981, MORGAN HALL,
STATE LAND OFFICE BUILDING, SANTA FE,
NEW MEXICO

I. It is proposed to add the following three definitions:

AQUIFER shall mean a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

EXEMPTED AQUIFER shall mean an aquifer that does not currently serve as a source of drinking water, and which cannot now and will not in the foreseeable future serve as a source of drinking water because: (1) it is hydrocarbon producing; (2) it is situated at a depth or location which makes the recovery of water for drinking water purposes economically or technologically impractical; or, (3) it is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption.

UNDERGROUND SOURCE OF DRINKING WATER shall mean an aquifer which supplies water for human consumption or which contains ground water having a total dissolved solids concentration of 10,000 mg/l or less and which is not an exempted aquifer.

II. It is proposed to amend Rule 103 to read in its entirety as follows:

RULE 103. SIGN ON WELLS

All wells, subject to these regulations, including drilling, production, and injection wells shall be identified by a sign, posted on the derrick or not more than 20 feet from such well, and such sign shall be of durable construction and the lettering thereon shall be kept in a legible condition and shall be large enough to be legible under normal conditions at a distance of 50 feet. The wells on each lease or property shall be numbered in non-repetitive, logical and distinctive sequence. Each sign shall show the number of the well, the name of the lease (which shall be different or distinctive for each lease), the name of the leasee, owner or operator, and the location by quarter section, township and range. The location, for each sign posted after March 1, 1968, shall indicate the quarter-quarter section, township, and range.

III. It is proposed to amend Rule 106(a) to read in its entirety as follows:

(a) During the drilling of any oil well, gas well, injection well or any other service well, all oil, gas, and water strata above the producing and/or injection horizon shall be sealed or separated in order to prevent their contents from passing into other strata.

IV. It is proposed to amend the first paragraph of Rule 107(a) to read in its entirety as follows:

RULE 107. CASING AND TUBING REQUIREMENTS

(a) Any well drilled for oil or natural gas or for injection shall be equipped with such surface and intermediate casing strings and cement as may be necessary to effectively seal off and isolate all water-, oil-, and gas-bearing strata and other strata encountered in the well

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. 7272 Exhibit No. B
Submitted by OCD

down to the casing point. In addition thereto, any well completed for the production of oil or natural gas shall be equipped with a string of properly cemented production casing at sufficient depth to ensure protection of all oil- and gas-bearing strata encountered in the well, including the one(s) to be produced.

V. It is proposed to amend Rule 204 to read in its entirety as follows:

RULE 204. LIABILITY

The owner of any well drilled for oil or gas, for injection, or any seismic, core or other exploratory holes, whether cased or uncased, shall be responsible for the plugging thereof.

VI. It is proposed to re-title Section I and amend Rule 701 to read in their entirety as follows:

I - SECONDARY RECOVERY, PRESSURE MAINTENANCE, SALT WATER DISPOSAL, AND <u>UNDERGROUND STORAGE</u>

RULE 701. INJECTION OF FLUIDS INTO RESERVOIRS

A. <u>Permit for Injection Required</u>

The injection of gas, liquefied petroleum gas, air, water, or any other medium into any reservoir for the purpose of maintaining reservoir pressure or for the purpose of secondary <u>or other enhanced recovery</u> or for storage or the injection of water into any formation for the purpose of water disposal shall be permitted only by order of the Division after notice and hearing, unless otherwise provided herein.

B. <u>Method of Making Application</u>

1. Application for original authority for the injection of gas, liquefied petroleum gas, air, water, or any other medium into any formation for any reason, including salt water disposal, or for the expansion of any injection project by the completion or conversion of injection well(s) shall be by submittal of Division Form C-108 complete with all attachments.

2. The applicant shall furnish, by certified or registered mail, a copy of the application to the owner of the surface of the land on which the injection or disposal well is to be located and to each leasehold operator within one-half mile of the well location.

3. Applications qualifying for administrative approval must be accompanied by a copy of a legal publication published by the applicant in a newspaper of general cirulcation in the county in which the proposed injection well is located. The details required in such notice are listed on Side 2 of Form C-108.

4. No application shall be approved until the applicant shall supply evidence of mailing as required under 2. above and, if applicable, proof of publication.

C. <u>Hearings</u>

If a written objection to any application for administrative approval of an injection well is filed within fifteen (15) days after receipt by the Division of a complete application, or if a hearing is required by the Division,

the application shall be set for hearing, and notice thereof shall be given by the Division. If no objection is filed, and a hearing is not required, the matter may be approved administratively.

D. Salt Water Disposal Wells

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for water disposal wells only, without notice and hearing, when the waters to be disposed of are mineralized to such a degree as to be unfit for domestic, stock, irrigation, or other general use, and when said waters are to be disposed of into a formation older than Triassic (Lea County only) which is non-productive of oil or gas within a radius of two miles from the proposed injection well.

Disposal will not be permitted into zones containing waters having total dissolved solids concentrations of 10,000 mg/l or less except after notice and hearing, provided however, that the Division may establish exempted aquifers for such zones wherein such injection may be approved administratively.

E. Pressure Maintenance Projects

1. Pressure maintenance projects are defined as those projects in which fluids are injected into the producing horizon in an effort to build up and/or maintain the reservoir pressure in an area which has not reached the advanced or "stripper" state of depletion.

2. All applications for establishment of pressure maintenance projects shall be set for hearing.

The project area and the allowable formula for any pressure maintenance project shall be fixed by the Division on an individual basis after notice and hearing.

3. Pressure maintenance projects may be expanded and additional wells placed on injection only upon authority from the Division after notice and hearing or by administrative approval.

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for the conversion to injection of additional wells within a project area provided that any such well is necessary to develop or maintain efficient pressure maintenance within such project and provided that no objections are received as provided in Rule 701 C.

F. Water Flood Projects

1. Water flood projects are defined as those projects in which water is injected into a producing horizon in sufficient quantities and under sufficient pressure to stimulate the production of oil from other wells in the area, and shall be limited to those areas in which the wells have reached an advanced state of depletion and are regarded as what is commonly referred to as "stripper" wells.

2. All applications for establishment of water flood projects shall be set for hearing.

The project area of a water flood project shall comprise the proration units owned or operated by a given operator upon which injection wells are located plus all proration units owned or operated by the same operator which directly or diagonally offset the injection tracts and have

producing wells completed on them in the same formation; provided however, that additional proration units not directly nor diagonally offsetting an injection tract may be included in the project area if, after notice and hearing, it has been established that such additional units have wells completed thereon which have experienced a substantial response to water injection.

3. The allowable assigned to wells in a water flood project area shall be equal to the ability of the wells to produce and shall not be subject to the depth bracket allowable for the pool nor to the market demand percentage factor.

Nothing herein contained shall be construed as prohibiting the assignment of special allowables to wells in buffer zones after notice and hearing. Special allowables may also be assigned in the limited instances where it is established at a hearing that it is imperative for the protection of correlative rights to do so.

4. Water flood projects may be expanded and additional wells placed on injection only upon authority from the Division after notice and hearing or by administrative approval.

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for conversion to injection of additional wells provided; that any such well is necessary to develop or maintain thorough and efficient waterflood injection for any authorized project; provided that no objections are received as provided in Rule 701 C.

G. Storage Wells

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for the underground storage of liquefied petroleum gas or liquid hydrocarbons in secure caverns within massive salt beds.

In addition to the filing requirements of Rule 701 B, the applicant for approval of a storage well under this rule shall file the following:

1. With the Division Director:

   (a) A plugging bond in accordance with the provisions of Rule 101;

2. With the appropriate district office of the Division in TRIPLICATE:

   (a) Form C-101, Application for Permit to Drill, Deepen, or Plug Back;

   (b) Form C-102 Well Location and Acreage Dedication Plat; and

   (c) Form C-105, Well Completion or Recompletion Report and Log.

VII. It is proposed to amend Rule 702 to read in its entirety as follows:

RULE 702. CASING AND CEMENTING OF INJECTION WELLS

Wells used for injection of gas, air, water, or any other medium, into any formation shall be cased with safe and adequate casing or tubing so as to prevent leakage and such casing or tubing shall be so set or cemented to prevent the movement of formation or injected fluid from the injection zone into any other zone or to the surface around the outside of any casing string.

VIII. It is proposed to amend Rule 703 to read in its entirety as follows:

RULE 703. OPERATION AND MAINTENANCE

Injection wells shall be equipped, operated, monitored, and maintained to facilitate periodic testing and to assure continued mechanical integrity which will result in no significant leak in the tubular goods and packing materials used and no significant fluid movement through vertical channels adjacent to the well bore.

Injection wells, project wells, and related surface facilities shall at all times be operated and maintained in such a manner as to confine the injected fluids to the interval or intervals approved and to prevent surface damage or pollution resulting from leaks, breaks, or spills.

Injection well, project well, or surface facility failures which may endanger underground sources of drinking water shall be reported under the "Immediate Notification" procedures of Rule 116.

Injection well or project well failures requiring casing repair or cementing are to be reported to the Division prior to commencement of workover operations.

Injection wells or projects which have exhibited failure to confine injected fluids to the authorized injection zone or zones may be subject to restriction of injection volume and pressure or shut-in until the failure has been identified and corrected.

IX. It is proposed to amend Rule 704 to read in its entirety as follows:

RULE 704. TESTING AND MONITORING

A. Testing

Prior to commencement of injection, wells shall be tested to assure the initial integrity of the casing and the tubing and packer, if used, including pressure testing of the casing-tubing annulus.

At least once every five years thereafter, injection wells shall be tested to assure their continued mechanical integrity. Tests demonstrating continued mechanical integrity shall include the following:

(a) measurement of annular pressures in wells injecting at positive pressures under a packer or a balanced-fluid seal;

(b) pressure testing of the casing-tubing annulus for wells injecting under vacuum conditions; and,

(c) such other tests which are demonstably effective and which may be approved for use by the Division.

The injection well operator shall advise the Division of the date and time of such initial and subsequent integrity tests in order that they may be witnessed.

Notwithstanding the subsequent test requirements above, the Division may require more frequent or more comprehensive testing of injection wells including the use of tracer surveys, noise logs, temperature logs, or other test procedures or devices. Such special tests, when run, shall supplant the required five-year test.

B. Monitoring

Injection wells shall be equipped in order that the injection pressure and annular pressure may be determined at the wellhead and that the injected volume may be determined at least monthly.

Injection wells used for storage shall be equipped so that both injected and produced volumes may be determined at any time.

X. The Division proposes to amend Rule 705 to read in its entirety as follows:

RULE 705. COMMENCEMENT, DISCONTINUANCE, AND ABANDONMENT OF INJECTION OPERATIONS

The following provisions shall apply to all injection projects, storage projects, salt water disposal wells and special purpose injection wells:

A. Notice of Commencement and Discontinuance

1. Immediately upon the commencement of injection operations in any well, the operator shall notify the Division of the date such operations began.

2. Within 30 days after permanent cessation of gas or liquefied petroleum gas storage operations or within 30 days after discontinuance of injection operations into any other well, the operator shall notify the Division of the date of such discontinuance and the reasons therefor. No injection well may be temporarily abandoned for a period exceeding six months unless the injection interval has been isolated by use of cement or a bridge plug. The Director of the Division may delay the cement or bridge plug requirements above upon a demonstration that there is a continuing need for such well, that the well exhibits mechanical integrity, and that continued temporary abandonment will not endanger underground sources of drinking water.

3. Before any injection well is plugged, the operator shall obtain approval for the well's plugging program from the appropriate District Office of the Division in the same manner as when plugging oil and gas wells or dry holes.

B. Abandonment of Injection Operations

1. Whenever there is a continuous six-month period of non-injection into any injection project, storage project, salt water disposal well, or special purpose injection well, such project or well shall be considered abandoned, and the authority for injection shall automatically terminate ipso facto.

2. For good cause shown, the Division Director may grant an administrative extension or extensions of injection authority as an exception to Paragraph 1. above.

XI. It is proposed that a new Rule 706 be adopted which will read in its entirety as follows:

RULE 706. RECORDS AND REPORTS

The operator of an injection well or project for secondary recovery or pressure maintenance, natural gas storage, salt water disposal, or injection of any other fluids shall keep accurate records and shall report monthly to the Division gas or fluid volumes injected, stored, and/or produced as required on the appropriate form listed below:

1. Secondary Recovery on Form C-115;

2. Pressure Maintenance on Form C-115 and as otherwise prescribed by the Division;

3. Salt Water Disposal on Form C-120-A;

4. Natural Gas Storage on Form C-131-A; and

5. Injection of other fluids on a form prescribed by the Division.

The operator of a liquefied petroleum gas storage project shall report annually on Form C-131-B, Annual LPG Storage Report.

XII. It is proposed that a new Rule 707 be adopted which will read in its entirety as follows:

RULE 707. RECLASSIFICATION OF WELLS

The Division Director shall have authority to reclassify an injection well from any category defined in Rule 701 B to any other category without notice and hearing upon request and proper showing by the operator thereof.

XIII. It is proposed that a new Rule 708 be adopted which will read in its entirety as follows:

RULE 708. TRANSFER OF AUTHORITY TO INJECT

Authority to inject granted under any order of the Division is not transferable except upon approval of the Division. Approval of transfer of authority to inject may be obtained by filing Form C-104 in accordance with Rule 1104(5).

The Division may require a demonstration of mechanical integrity prior to authorizing transfer of authority to inject.

XIV. It is proposed to amend Rule 1100 C. to read in its entirety as follows:

RULE 1100 C. Books and Records

All producers, injectors, transporters, storers, refiners, gasoline or extraction plant operators, treating plant operators, and initial purchasers of natural gas within the State of New Mexico shall make and keep appropriate books and records for a period of not less than five years, covering their operations in New Mexico, from which they may be able to make and substantiate the reports required by these rules.

XV. It is proposed to amend Rule 1100 D. to re-title Form C-108 as follows:

Form C-108 Application for Authorization to Inject

XVI. It is proposed to adopt a revised Form C-108 and amend Rule 1108 to read in its entirety as follows:

RULE 1108. APPLICATION FOR AUTHORIZATION TO INJECT (Form C-108)

Form C-108 shall be filed in accordance with Rule 701-B.

XVII. It is proposed to amend Rule 1115 to read in its entirety as follows:

RULE 1115. OPERATOR'S MONTHLY REPORT (Form C-115)

Operator's Monthly Report, Form C-115 or Form C-115-EDP, shall be filed on each producing lease and each secondary recovery project or pressure maintenance project injection well within the State of New Mexico for each calendar month, setting forth complete information and data indicated on said forms in the order, format, and style prescribed by the Division Director. Oil production from wells which are producing into common storage shall be estimated as accurately as possible on the basis of periodic tests.

The reports on this form shall be filed by the producer as follows:

Original to the Oil Conservation Division at Santa Fe; one copy to the District Office of the Division in which district the lease is located; and one copy to each transporter involved. Each report for each month shall be postmarked not later than the 24th day of next succeeding month. Failure of an operator to file this report in accordance with the provisions of this rule may result in cancellation of Form C-104 for the affected well or wells and/or cancellation of authority to inject.

XVIII. It is proposed to amend Rule 1131 to read in its entirety as follows:

RULE 1131. MONTHLY GAS STORAGE REPORT (Form C-131-A)
ANNUAL LPG STORAGE REPORT (Form C-131-B)

Each operator of an underground natural gas storage project shall report its operation monthly on Form C-131-A. Form C-131-A shall be filed in duplicate (one copy to the Santa Fe Office of the Division and one copy to the appropriate district office) and shall be postmarked not later than the 24th day of the next succeeding month.

Each operator of an underground liquefied gas storage project approved by the Division shall report its operation annually on Form C-131-B. Form C-131-B shall be filed in duplicate (one copy to the Santa Fe Office of the Division and one copy to the appropriate district office) and shall be postmarked not later than the 24th day of January of each year.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no

II. Operator: _____ Address: _____

Contact party: _____ Phone: _____

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? ☐ yes ☐ no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

* VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: _____ Title _____

Signature: _____ Date: _____

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. *PROOF OF NOTICE*

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement *must include:*

(1) The name, address, phone number, and contact party for the applicant;

(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(3) the formation name and depth with expected maximum injection rates and pressures; and

(4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing *of administrative applications within 15 days from the date this application was* mailed to them.

Form C-131-A

NEW MEXICO OIL CONSERVATION DIVISION
P. O. BOX 2088, SANTA FE, NEW MEXICO 87501

MONTHLY GAS STORAGE REPORT

_____ (Company) _____ (Address)

NAME OF STORAGE PROJECT: _____ COUNTY _____ REPORT MONTH _____

WELL NAME AND NUMBER	LOCATION				MAXIMUM INJECTION PRESSURE	INJECTION (MCF)	WITH-DRAWAL (MCF)
	UNIT	SEC.	TWP.	RANGE			
TOTALS							

TOTAL CAPACITY (MMCF) _____

BEGINNING STORAGE (MMCF) _____

NET CHANGE (MMCF) _____

ENDING STORAGE (MMCF) _____

CALCULATED RESERVOIR PRESSURE @ END OF MONTH _____

I hereby certify that this report is true and complete to the best of my knowledge and belief.

By _____

Title _____ Date _____

Form C-131-B

NEW MEXICO OIL CONSERVATION DIVISION
P. O. BOX 2088. SANTA FE, NEW MEXICO 87501

ANNUAL LPG STORAGE REPORT

(Company) _____ (Address) _____

NAME OF STORAGE PROJECT: _____ COUNTY _____ REPORT YEAR _____

WELL NAME AND NUMBER	LOCATION UNIT	SEC.	TWP.	RANGE	MAXIMUM INJECTION PRESSURE	INJECTION (BBLS)	WITHDRAWAL (BBLS)
TOTALS							

CALCULATED RESERVOIR PRESSURE @ END OF YEAR _____

TOTAL CAPACITY (BBLS) _____ BEGINNING STORAGE (BBLS) _____

NET CHANGE (BBLS) _____ ENDING STORAGE (BBLS) _____

I hereby certify that this report is true and complete to the best of my knowledge and belief.

By _____ Title _____

Date _____

INJECTION WELL DATA SHEET

OPERATOR _____ LEASE _____

WELL NO. _____ FOOTAGE LOCATION _____ SECTION _____ TOWNSHIP _____ RANGE _____

Schemntic

Tabular Data

Surface Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet
(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ set in a
(material)

_____ packer at _____ feet
(brand and model)

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? ☐ Yes ☐ No

   If no, for what purpose was the well originally drilled? _____

   _____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

   _____

   _____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

   _____

   _____

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Ch. I

[WH-FRL-1826-8]

State Underground Injection Control Programs

AGENCY: Environmental Protection Agency.

ACTION: Interim Final Guidance and Request for Public Comment.

SUMMARY: The Safe Drinking Water Act of 1974 (SDWA) was amended on December 5, 1980. Among other changes, the amendments added a new Section 1425 to the Act. Section 1425 establishes an alternative method for a State to obtain primary enforcement responsibility for those portions of its Underground Injection Control (UIC) program related to the recovery and production of oil and gas. More specifically, "* * * in lieu of the showing required under subparagraph (A) of section 1422(b)(1) the State may demonstrate that such portion of the State program meets the requirements of subparagraphs (A) through (D) of section 1421(b)(1) and represents an effective program * * * to prevent underground injection which endangers drinking water sources."

Section 1422(b)(1) of the SDWA specifies that a State, in order to obtain approval for its UIC program, must make a satisfactory showing that it has adopted and will implement a program that meets the requirements of regulations issued by the Administrator. Such regulations have been promulgated at 40 CFR Parts 122, 123, 124 and 146.

This notice is intended to provide guidance for the implementation of the alternative demonstration provided for in the new Section 1425. It contains information on: (1) how States may apply for approval under Section 1425; and (2) the criteria the Environmental Protection Agency (EPA) will use in approving or disapproving applications under Section 1425.

DATES: Effective date: This guidance is issued as interim final. It becomes effective upon May 19, 1981.

COMMENT DATE: EPA will accept public comments on this document until July 20, 1981.

ADDRESS: Comments should be sent to Mr. Thomas E. Belk, Chief, Ground Water Protection Branch, Office of Drinking Water (WH-550), Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460.

Such comments, together with other relevant materials, will be maintained at the same address.

FOR FURTHER INFORMATION CONTACT: Mr. Thomas E. Belk (202) 426-3004.

OMB Approval: This guidance has been cleared for publication by the Office of Management and Budget.

Dated: May 11, 1981.

Walter C. Barber, Jr.,

Acting Administrator.

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1.0 Purpose and Scope

The 1980 amendments to the Safe Drinking Water Act (SDWA) added a new Section 1425 which provides an alternative means for States to acquire primary enforcement responsibility for the control of underground injection related to the recovery and production of oil and natural gas. This document contains guidance on: (1) how States may apply for approval under Section 1425; and (2) the criteria EPA will use in approving or disapproving applications under Section 1425.

EPA is mindful of the fact that, in enacting Section 1425, Congress intended that States be offered an alternative to the detailed requirements of the regulations promulgated at 40 CFR Parts 122, 123, 124 and 146, and that State programs to control injections related to oil and gas production be considered on their merits.

Nevertheless, Section 1425 does require a State to demonstrate that such portion of its Underground Injection Control (UIC) program: (1) meets the requirements of Section 1421(b)(1) (A) through (D); and (2) represents an effective program to prevent injection which endangers drinking water sources. Further, Section 1425 requires the Administrator of EPA to approve or disapprove such portion of a State's UIC program for primary enforcement responsibility based on his judgment of whether the State has succeeded in making the required demonstrations.

Consequently, EPA believes that States are entitle to guidance on the implementation of Section 1425. The procedures and criteria contained in this document were developed in consultation with interested States. They represent a "model" State application and program which, in EPA's view, meet the requirements of the amended SDWA. A State application which conforms to these procedures and meets the suggested criteria should be approvable under Section 1425.

A State may choose to apply in a different form and make demonstrations different from those suggested in this document. EPA will consider such applications. However, they will have to be reviewed on a case-by-case basis to determine whether they meet the requirements of the Act. Such reviews may involve additional requests for information, more time and less assurance of ultimate approval.

This guidance and the regulations promulgated at 40 CFR Parts 122, 123, 124 and 146 are both aimed at achieving the same fundamental objective: the protection of underground sources of drinking water from endangerment by well injection. There are, however, some significant differences between them.

The most immediate difference is that one is a regulation and the other is guidance. This was a deliberate choice on the part of the Agency because it does not view the new Congressional mandate as requiring another set of detailed regulations for its implementation. In any event, there is insufficient time to develop such regulations in light of the short time remaining before State program submissions are due under Section 1422(b)(1)(A) of the SDWA.

A further difference is that State program submissions under Section 1422(b)(1) of the SDWA are required to meet a different legal standard from State program submissions under Section 1425. Under Section 1422(b)(1)(A), the State is required to make a showing that its UIC program "meets the requirements of regulations in effect under section 1421; * * *" Under Section 1425, the State is required to demonstrate that the Class II portion of its UIC program meets the requirements of Section 1421(b)(1) (A) through (D) and represents an effective program to prevent underground injection which endangers drinking water sources.

As a consequence of these differences, this guidance is much less detailed than the regulations and leaves a great deal more discretion to the State to develop and EPA to approve State UIC programs under Section 1425.

2.0 Applications

2.1 Definition

For the purposes of Section 1425 of the SDWA:

1. The underground injection of brine or other fluids which are brought to the surface in connection with oil or natural gas production; and

2. Any underground injection for the secondary or tertiary recovery of oil or natural gas; and

3. Any injection for the storage of hydrocarbons which are liquid at standard temperature and pressure; shall be defined as "Class II" injections or wells.

2.2 Need for an Underground Injection Control (UIC) Program

Any State which has Class II wells must have an UIC program to assure that such wells do not endanger underground sources of drinking water (USDWs). A State may submit its Class II program to EPA for approval. If EPA approves the program, the State has primary enforcement responsibility for that portion of its UIC program.

If a State chooses not to apply, or if its program is disapproved, or if subsequent to approval the State loses primary enforcement responsibility because the Administrator determines, under Section 1425(c)(2), that the demonstration is no longer valid, EPA must prescribe and implement a program in that State. When EPA implements a Class II program for a State, it will do so in accordance with the requirements of 40 CFR Parts 122, 124 and 146.

A State which does *not* have any Class II wells *need not* develop a Class II control program in order to qualify for primacy under the UIC program. Under the regulations at 40 CFR 123.51(d), such a State only needs to demonstrate that Class II wells cannot legally occur until the State has developed an approved program to regulate such injections.

2.3 Applications Under Section 1425

Any State which has Class II wells may, at its option apply for primary for its Class II UIC program either: (1) under the regulations at 40 CFR Parts 122, 123, 124 and 146; or (2) under Section 1425 of the SDWA.

2.4 When Should Application be Made?

House Report No. 96-1348, accompanying the 1980 amendments, states on page 5 that: "The Committee expects that alternative demonstrations will be submitted on the same schedule. Accordingly, as demonstrations required for state programs meeting Federal regulations promulgated under Section

1421(b)." States have 270 days from July 24, 1980 to submit applications, or until *April 20, 1981.*

This period may be extended by up to another 270 days by the Regional Administrators for "good cause", or until *January 15, 1982.*

A State need not wait until it is ready to submit its application for all classes of wells. EPA will entertain partial applications for primacy as long as the program for which approval is sought covers: (1) all elements of a program to regulate a particular class or classes of injection practices even if the class or classes involve the jurisdiction of more than one State agency; or (2) all elements of a program to regulate all the classes or types of wells within the jurisdiction of a single State agency. However, if a State submits a partial application, the alternative demonstration under Section 1425 may be used only for the Class II portion of the application. The portion of the program covering types of practices other than Class II will have to meet the requirements of 40 CFR Parts 122, 123, 124 and 146.

2.5 Effects of a Partial Application

The recent amendments have changed Section 1443 of the SDWA so that a State may receive grant support until July 1982. After that date, it must have achieved full primacy in order for grant eligibility to continue. As a consequence, a State may receive partial primacy for its Class II control program and continue to receive grants: (1) if it has obtained an extension for submitting the remainder of its application; (2) until it declares its intention not to file any further applications; (3) until EPA terminates its grant for cause; or (4) until July 1982, whichever is soonest.

If a State receives full primacy, its eligibility for grants will, of course, continue.

3.0 Elements of an Application for Primacy under Section 1425

3.1 Elements of a State Application

A complete State submission should contain the following elements:

a. a letter from the Governor;

b. a description of the program;

c. a statement of legal authority;

d. copies of the pertinent statutes and regulations;

e. copies of the pertinent State forms; and

f. a signed copy of a Memorandum of Agreement.

The nature of these elements is described further below.

3.2 Letter From the Governor

The letter from the Governor should:

a. request approval of the State's program for primacy under the UIC program;

b. specify whether approval is sought under Section 1425 of the SDWA or under 40 CFR Parts 122, 123, 124, and 146; and

c. affirm that the State is willing and able to carry out the program described.

3.3 Program Description

A State's application is expected to contain a full description of the program for which approval is sought, in sufficient detail to enable EPA to make the judgments outlined in Section 5 below. Such a description should:

a. Specify the structure, coverage and scope of the program;

b. Specify the State permitting process and address, to the extent applicable, the following elements:

1. Who applies for the permit or the authorization by rule;

2. Signatories required for permit application and reports;

3. Conditions applicable to permits, including: duty to comply with permit conditions, duty to reapply, duty to halt or reduce activity, duty to mitigate, proper operation and maintenance, permit actions, property rights, inspection and entry monitoring, record keeping, and reporting requirements;

4. Compliance schedules;

5. Transfer of permits;

6. Termination of permits;

7. Whether area permits or project permits are granted;

8. Emergency permits;

9. The availability and use of variances and other discretionary exemptions to programmatic requirements; and

10. Administrative and judicial procedures for the modification of permits.

c. Describe the operation of any rules used by the State to regulate Class II wells;

d. Describe the technical requirements applied to operators by the State program;

e. Include a description of the State's procedures for monitoring, inspection and requiring reporting from operators;

f. Discuss the State's enforcement program, e.g.:

1. Administrative procedures for dealing with violations;

2. Nature and amounts of penalties, fines and other enforcement tools;

3. Criteria for taking enforcement actions; and

4. If the State is seeking approval for an existing program, summary data on:

A. Past practice in the use of enforcement tools;

B. Current compliance/non-compliance with State requirements;

C. Repeat violations at the same well or by the same operator at different wells;

D. Well failure rates; and

E. USDW contamination cases based on actual field work and citizen complaints.

g. Detail the State's staffing and resources, and demonstrate that these are sufficient to carry out the proposed program;

h. If more than one State agency is involved in the Class II program, describe their relationships with regard to carrying out the Class II program;

i. Contain a reasonable schedule for completion of an inventory of Class II wells in the State;

j. Include the procedures for exempting aquifers, a list of the aquifers or portions of aquifers proposed for exemption at the time of application, and the reasons for the proposed exemptions, unless these have been described in the partial applications made by the State;

k. Contain a plan (including the basis for assigning priorities) for the review of all existing Class II wells in the State within five years of program approval to assure that they meet current non-endangerment requirements of the State (this may include permit modification and reissuance, if appropriate);

l. Describe State requirements for ensuring public participation in the process of issuing permits and modifying permits in the case of substantial changes in the project area, injection pressure or the injection horizon; and

m. Describe State procedures for responding to complaints by the public.

3.4 Statement of Legal Authority

The statement of legal authority is intended to assure EPA that the State has the legal authority to carry out the program described. It may be signed by a competent legal officer of the State, for example, the Attorney General, the Counsel for the responsible State agency, or any other officer who represents the Agency in legal matters.

The statement may, at the option of the State, consist of a full analysis of the legal basis for the State program, including case law as appropriate. Or the statement may consist of a simple certification by the legal representative that the State has adequate authority to carry out the described progam. If the State chooses to submit a certification, the program description should detail

the legal authority on which the various elements of the State's program rest.

3.5 Copies of Statutes and Regulations

The application should contain copies of all applicable State statutes, rules and regulations, including those governing State administrative procedures.

3.6 Copies of State Forms

The application should contain examples of all forms used by the State in administering the program, including application forms, permit forms and reporting forms.

3.7 Memorandum of Agreement

The head of the cognizant State agency and the EPA Regional Administrator shall execute a memorandum of agreement which shall set forth the terms under which the State will carry out the described program and EPA will exercise its oversight responsibility. A copy of such an agreement signed by the Director of the State agency, shall be submitted as part of the application.

At a minimum, the memorandum of agreement should:

a. Include a commitment by the State that the program will be carried out as described and be supported by an appropriate level of staff and resources;

b. Recognize EPA's right of access to any pertinent State files;

c. Specify the procedures (e.g., notification to the State and participation by State officials) governing EPA inspections of wells or operator records;

d. Recognize EPA's authority to take Federal enforcement action under Section 1423 of the SDWA in cases where the State fails to take adequate enforcement actions;

e. Agree to provide EPA with an annual report on the operation of the State program, the content of which may be negotiated between EPA and primacy States from time to time;

f. Provide that aquifer exemptions for Class II wells be consistent with aquifer exemptions for the rest of the UIC program;

g. When appropriate, may include provisions for joint processing of permits by the State and EPA for facilities or activities which require permits from both EPA and the State under different programs; and

h. Specify that if the State proposes to allow any mechanical integrity tests other than those specified or justified in the program application, the Director will notify the cognizant Regional Administrator and provide enough information about the proposed test that a judgment about its usefulness and reliability may be made.

4.0 Process for Approval or Disapproval of Application

4.1 Public Participation by States

Section 1425 relieves States of the responsibility to hold public hearings or afford an opportunity for public comment prior to submitting an application to EPA. Therefore, when application is made by a State under Section 1425, it may, but need not, provide an opportunity for public hearings or comments.

4.2 Complete Applications

Within 10 working days of the receipt of a final application, EPA will determine whether the application is complete or not and so notify the State in writing. If the application is found to be incomplete it will be returned to the State with specific requests for additional material or changes. However, the State may, at its option, insist that EPA complete its review of an application as submitted.

4.3 EPA Review

a. EPA has 90 days to approve or disapprove an application. If EPA finds that the application is complete, the review period will be deemed to have begun on the date the application was received in the cognizant Regional Office. If an application has been found to be incomplete and the State insists that EPA proceed with its review of the application as submitted, the review period will begin on the date that EPA receives the State's request to proceed in writing. The review period may be extended by the mutual consent of EPA and the State.

b. Within the 90-day period, EPA will request public comments and provide an opportunity for public hearing on each application, in the applying State, in accordance with 40 CFR 123.54(c) and (d). If the State has not done so, EPA will hold at least one public hearing in the State.

c. If a State's application is approved, the State shall have primary enforcement responsibility for its Class II program.

d. If a State's application is disapproved, EPA intends within 90 days of disapproval or as soon thereafter as feasible, prescribe a Class II program for the State in accordance with Section 1422(c) of the SDWA and 40 CFR Parts 122, 124 and 146.

5.0 Criteria for Approving or Disapproving State Programs

5.1 General

Section 1425 of the SDWA states that: "* * * the State may demonstrate that [the Class II] portion of the State program meets the requirements of subparagraphs (A) through (D) of Section 1421(b)(1) and represents an effective program (including adequate recordkeeping and reporting) to prevent underground injection which endangers drinking water sources."

Thus Section 1425 requires that a State, in order to receive approval for its Class II program under the optional demonstration, make a successful showing that its program meets five conditions:

a. Section 1421(b)(1)(A) requires that an approvable State program prohibit any underground injection in such State which is not authorized by permit or rule.

b. Section 1421(b)(1)(B) requires that an approvable State program shall require that:

1. The applicant for a permit must satisfy the State that the underground injection will not endanger drinking water sources; and

2. No rule may be promulgated which authorizes any underground injection which endangers drinking water sources.

c. Section 1421(b)(1)(C) requires that an approvable State program include inspection, monitoring, recordkeeping, and reporting requirements.

d. Section 1421(b)(1)(D) requires that an approvable State program apply to: (1) underground injections by Federal agencies; and (2) underground injections by any other person, whether or not occurring on property owned or leased by the United States.

e. Section 1425(a) requires that an approvable State program represent an effective program to prevent underground injection which endangers drinking water sources.

The following sections provide guidance to EPA personnel for making the required judgments with respect to these five conditions in the review of an application for approval under Section 1425.

5.2 Section 1421(b)(1)(A)

The question of whether a State program prohibits unauthorized Class II injections is a function of the State's statutory and regulatory authority. A determination of whether the State program meets this condition should be made from a review of the coverage and scope of the program, the statement of

legal authority submitted by the State, and of the statutes and regulations themselves. One important consideration is whether the State has an appropriate formal mechanism for modifying permits in cases where the operation has undergone significant change.

5.3 Section 1421(b)(1)(B)

The determination of whether a State program is adequate in requiring that the applicant demonstrate that the proposed injection will not endanger drinking water sources turns on two elements: (1) whether the State program places on the applicant the burden of making the requisite showing; and (2) the extent of the information the applicant is required to provide as a basis for the State agency's decision. Whether the burden of making the requisite showing is on the applicant should be determined from the State's description of its permitting process. If the necessary information is available in State files, the Director need not require it to be submitted again. However, as a matter of principle, the applicant should not escape ultimate responsibility for assuring that the information about his operation is accurate and available. One consideration in this regard is whether the well operator has a responsibility to inform the permitting authority about any material change in his operation, or any pertinent information acquired since the permit application was made.

With regard to the extent of the information to be considered by the Director, the State program should require an application containing sufficiently detailed information to make a knowledgeable decision to grant or deny the permit. Such information should include:

a. A map showing the area of review and identifying all wells of public record penetrating the injection interval;

b. A tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data should include a description of each well's type, construction, date of drilling, location, depth, record of plugging and/or completion, and any additional information the Director may require;

c. Data on the proposed operation, including:

1. Average and maximum daily rate and volume of fluids to be injected;

2. Average and maximum injection pressure; and

3. Source, and an appropriate analysis of injection fluid if other than produced water, and compatibility with the receiving formation;

d. Appropriate geological data on the injection zone and confining zones including lithologic description, geological name, thickness, and depth;

e. Geologic name, and depth to bottom of all underground sources of drinking water which may be affected by the injection;

f. Schematic drawings of the surface and subsurface construction details of the system;

g. Proposed stimulation program;

h. All available logging and testing data on the well; and

i. The need for corrective action on wells penetrating the injection zone in the area of review.

There are two circumstances under which the director may require less information from the applicant. First, the Director need not require an applicant to resubmit information which is up-to-date and readily available in State files. Second, a State's application may outline circumstances or conditions where certain items of information may not be required in a specific case. Such circumstances may include situations where, based upon demonstrable knowledge available to the director about a specific operation, the Director proposes to permit that operation without requiring corrective action or alternatives to it. Examples of such circumstances are gravity or vacuum injections and injections through zones of plastic heaving shales.

Section 1421(b)(1)(B) also requires a State which authorizes Class II injections by rule to show that such rules do not allow any underground injection which endangers drinking water sources. The determination of whether the State program meets this requirement may be made from the program description, statement of legal authority, the text of the rules themselves, and the manner in which the State has administered such rules.

5.4 Section 1421(b)(1)(C)

This section of the SDWA requires that an approvable State program contain elements for inspection, monitoring, recordkeeping and reporting. The adequacy of the State program in these respects may be assessed with the use of the following criteria.

a. *Inspection.*

An approvable State program is expected to have an effective system of field inspection which will provide for:

1. Inspections of injection facilities, wells, and nearby producing wells; and

2. The presence of qualified State inspectors to witness mechanical integrity tests, corrective action operations, and plugging procedures.

An adequate program should insure that, at a minimum, 25% of all mechanical integrity tests performed each year will be witnessed by a qualified State inspector.

b. *Monitoring, Reporting and Recordkeeping.*

1. The Director should have the authority to sample injected fluids at any time during injection operation.

2. The operator should be required to monitor the injection pressure and injection rate of each injection well at least on a monthly basis with the results reported annually.

3. The Director should require prompt notice of mechanical failure or downhole problems in injection wells.

4. The State should assure retention and availability of all monitoring records from one mechanical integrity test to the next (i.e., 5 years).

5.5 Section 1421(b)(1)(D)

An approvable State program must demonstrate the State's authority to regulate injection activities by Federal agencies and by any other person on property owned or leased by the United States. The adequacy of the State's authority in these regards may be assessed on the basis of the program description and statement of legal authority submitted by the State. Such authority and the programs to carry it out must be in place at a time no later than the approval of the program by EPA. EPA will administer the UIC program on Indian lands unless the State has the authority and is willing to assume responsibility.

5.6 Section 1425(a)

In addition to the four demonstrations discussed above, Section 1425 requires a State to demonstrate that the Class II program for which it seeks approval in fact "represents an effective program to prevent underground injection which endangers drinking water sources." Among the factors that EPA will consider in assessing the "effectiveness" of a State program are: (1) whether the State has an effective permitting process which results in enforceable permits; (2) whether the State applies certain minimum technical requirements to operators by permit or rule; (3) whether the State has an effective surveillance program to determine compliance with its requirements; (4) whether the State has effective means to enforce against violators; and (5) whether the State assures adequate participation by the public in the permit issuance process.

Evidence of the presence or absence of ground water contamination is important. However, it cannot serve as

the sole criterion of effectiveness. Not all States have collected such evidence systematically. More importantly, the absence of evidence of contamination, especially if based on an absence of complaints, is not necessarily proof that ground water contamination has not occurred.

Each of the five factors named above is discussed further in the following subsections. In its review of these factors, EPA is not necessarily looking for a minimum set or even any particular elements. The effectiveness of a State program will be assessed by reviewing the State's entire program. The absence of even an important element in a State program may not by itself mean that the program is ineffective as long as there is a credible program for detecting and eliminating injection practices which allow any migration which endangers drinking water sources.

a. *Permitting Process.*

Section 3.3b of the Program Description outlines the major elements of the permitting process. The listing of these considertions should not be viewed as Federally imposed minimum policy, but rather as an outline of the information which will be necessary for EPA to evaluate the effectiveness of the State's permitting process.

States may deal with permitting considerations, such as limitations on the transfer of permits, in a variety of ways. There are many permitting approaches which may be equally effective. EPA's review will turn on whether the permitting process, taken as a whole, represents an effective mechanism for applying appropriate and enforceable requirements to operators.

b. *Technical Criteria.*

Any approvable State program should have the authority to apply, by permit or rule, certain technical requirements designed to prevent the migration of injected or formation fluids into USDWs. Any State program adopting the language of 40 CFR 146 should be considered approvable on its face value for that portion of the program to which it applies. State applications not relying on the language of 40 CFR 146 should be reviewed for the presence and adequacy of the following kinds of technical requirements in the State program.

1. *Siting.*

Siting requirements should be considered in the placement and construction of any Class II disposal well. Such requirements should be designed to assure that disposal zones are hydraulically isolated from underground sources of drinking water (USDWs). Such isolation may be shown through information supplied by the applicant, or data, on file with the State, which would be analyzed by qualified State staff.

2. *Construction.*

A. Effective programs should require all newly drilled Class II wells to be cased and cemented to prevent movement of fluids into USDWs. Specific casing and cementing requirements should be based on:

i. the depth to the base of the USDW;

ii. the nature of the fluids to be injected; and

iii. the hydrologic relationship between the injection zone and the base of the USDW.

B. All newly converted Class II wells should be required to demonstrate mechanical integrity.

3. *Operation.*

A. Adequate operating requirements should establish a maximum injection pressure for a well which assures that the pressure in the injection zone during injection does not initiate new fractures or propagate existing fractures in the confining zone. Limitations on injection pressure should also preclude the injection from causing the movement of fluids into an underground source of drinking water.

Acceptable methods for establishing limitations on injection pressures include:

i. Calculated fracture gradients;

ii. Injectivity tests to establish fracture pressure; or

iii. Other compelling geologic, hydrologic or engineering data.

B. An effective State program should have the demonstrated ability to detect and remedy system failures discovered during routine operation or monitoring so as to mitigate endangerment to USDWs.

4. *Plugging and Abandonment.*

Plugging and abandonment requirements should be reviewed for the presence of the following elements:

A. That appropriate mechanisms are available in the State program to insure the proper plugging of wells upon abandonment;

B. That all Class II wells are required, upon abandonment, to be plugged in a manner which will not allow the movement of fluids into or between USDWs; and

C. That operators are required to maintain financial responsibility in some form, for the plugging of their injection wells.

5. *Area of Review.*

An effective State program is expected to incorporate the concept of an area of review defined as a radius of not less than ¼ mile from the well, field, or project.

Alternatively, a State program may substitute a concept of a zone of endangering influence in lieu of this fixed radius. The zone of endangering influence should be determined for the estimated life of the well, field, or project through the use of an appropriate calculation, formula, or mathematical model that takes the relevant geologic, hydrologic, engineering and operational features of the injection well, field or project into account.

6. *Corrective Action.*

An approvable State program is expected to include the authority to require the operator to take corrective actions on wells within the area of review or zone of endangering influence.

A. Corrective action may include any of the following types of requirements:

i. recementing;

ii. workover;

iii. reconditioning; or

iv. plugging or replugging.

B. A State program may provide the Director the discretion to specify the following types of requirements *in lieu* of immediate corrective action:

i. Permit conditions which will assure a negative hydraulic gradient at the base of USDW at the well in question;

ii. Monitoring program (i.e., monitoring wells completed to the base of USDW within the zone of influence); or

iii. Periodic testing to determine fluid movement outside the injection interval at other wells within the area of review.

However, if monitoring or testing indicate the potential endangerment of any USDW, corrective action shall be required.

C. In cases where the Director has demonstrable knowledge of geologic, hydrologic, or engineering conditions, specific to a given operation, which assure that wells within the zone of endangering influence or area of review will not serve as conduits for migration of fluids into an USDW, a State program may provide the Director the discretion to permit a specific operation without requiring corrective actions or any of the alternatives specified in Subsection (B) above. Examples of such circumstances are gravity or vacuum injections and injections through zones of plastic heaving shales. However, under the statute the State program may, in no circumstances, authorize an injection which endangers drinking water sources.

7. *Mechanical Integrity.*

An approvable State program is expected to require the operator to demonstrate the mechanical integrity of a *new* injection well prior to operation and of *all* injection wells periodically, at least once every five years. For the purpose of assessing the State's mechanical integrity requirements:

A. An injection well has mechanical integrity if:

i. there is no significant leak in the casing, tubing or packer; and

ii. there is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the well bore.

B. The following tests are considered to be acceptable tests to demonstrate the absence of significant leaks:

i. a pressure test with liquid or gas;

ii. the monitoring of annulus pressure in those wells injecting at a positive pressure, following an initial pressure test; or

iii. all other tests or combinations of tests considered effective by the Director.

C. The following are considered to be acceptable tests to demonstrate the absence of significant fluid movement in vertical channels adjacent to the well bore:

i. cementing records (they need not be reviewed every five years);

ii. tracer surveys;

iii. noise logs;

iv. temperature surveys; or

v. any other test or combination of tests considered effective by the Director.

D. If the State program allows or specifies alternative tests under B(iii) or (C)(v) above, the program description should supply sufficient information so that the usefulness and reliability of such tests in the proposed circumstance may be assessed.

c. *Surveillance.*

The demonstration of an effective surveillance program has already been discussed in Section 5.4 above.

d. *Enforcement.*

A State's enforcement of its program is a crucial consideration in making the judgment of whether the State program is effective. States have used a number of enforcement tools to shift the economic incentive of operation more toward compliance with the law. Often State programs have employed civil penalties and, for repeat or willful violators, criminal fines or jail sentences. Other commonly used practices are administrative orders and court injunctions. In the area of oil and gas regulation, many States have found pipeline severance a powerful tool. In assessing a State's enforcement program, EPA will consider not whether a State has all or any particular enforcement tools but whether the State's program, taken as a whole, represents an effective enforcement effort. Certainly, there are many enforcement matrices which create effective programs. In addition, EPA will look at whether the State has exercised its enforcement authorities adequately in the past.

e. *Public Participation.*

One factor to be used by EPA in assessing the "effectiveness" of a State program is the degree to which it assures the public an opportunity to participate in major regulatory decisions. It is assumed that most States already have legislation that governs public participation in State decision-making and defines such processes as appeals, etc. Therefore, the following represents only a minimal list of elements that EPA will consider:

1. Public Notice of permit application:

A. The State may give such notice or it may require the applicant to give notice.

B. The method of giving notice should be adequate to bring the matter to the attention of interested parties and, in particular, the public in the area of the proposed injection. This may involve one or more of the following:

i. Posting;

ii. Publication in an official State register;

iii. Publication in a local newspaper;

iv. Mailing to a list of interested persons; or

v. Any other effective method that achieves the objective.

C. An adequate notice should:

i. Provide an adequate description of the proposed action;

ii. Identify where an interested party may obtain additional information. This location should be reasonably accessible and convenient for interested persons;

iii. State how a public hearing may be requested; and

iv. Allow for a comment period of at least 15 days.

2. The State program should provide opportunity for a public hearing if the Director finds, based upon requests, a significant degree of public interest.

A. The Director may hold a hearing of his own motion and give notice of such hearing with the notice of the application.

B. If a public hearing is decided upon during the comment period, notice of public hearing shall be given in a newspaper of general circulation. The hearing should be scheduled no sooner than 15 days after the notice.

3. The final State action on the permit application should contain a "response to comments" which summarizes the substantive comments received and the disposition of the comments.

6.0 Oversight

6.1 General

Once a Class II program is approved under Section 1425, the State has primary enforcement responsibility for such portion of its UIC program. The Class II program is a grant-eligible activity and is subject to the same EPA oversight as other portions of the UIC program (e.g., State/EPA Agreements, Mid-course Reviews, grant conditions, etc.).

6.2 Mid-Course Evaluation

EPA will conduct a mid-course evaluation of Class II programs as envisioned in 40 CFR 122.18(C)(4)(ii) and 146.25. However, *in lieu* of a special reporting requirement, additional requirements have been added to the State's annual report to EPA. Should this mechanism prove unable to provide the necessary data, a special reporting requirement may be negotiated with the primacy States at a later date.

6.3 Annual Reporting

As part of the Memorandum of Agreement, each State shall agree to submit an annual report on the operation of its Class II program to EPA. At a minimum the annual report shall contain:

a. An updated inventory;

b. A summary of surveillance programs, including the results of monitoring and mechanical integrity testing, the number of inspections, and corrective actions ordered and witnessed;

c. An account of all complaints reviewed by the State and the actions taken;

d. An account of the results of the review of existing wells made during the year; and

e. A summary of enforcement actions taken.

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Ch. I

[WH-FRL-1826-8]

State Underground Injection Control Programs

AGENCY: Environmental Protection Agency.

ACTION: Interim Final Guidance and Request for Public Comment.

SUMMARY: The Safe Drinking Water Act of 1974 (SDWA) was amended on December 5, 1980. Among other changes, the amendments added a new Section 1425 to the Act. Section 1425 establishes an alternative method for a State to obtain primary enforcement responsibility for those portions of its Underground Injection Control (UIC) program related to the recovery and production of oil and gas. More specifically, "* * * in lieu of the showing required under subparagraph (A) of section 1422(b)(1) the State may demonstrate that such portion of the State program meets the requirements of subparagraphs (A) through (D) of section 1421(b)(1) and represents an effective program * * * to prevent underground injection which endangers drinking water sources."

Section 1423(b)(1) of the SDWA specifies that a State, in order to obtain approval for its UIC program, must make a satisfactory showing that it has adopted and will implement a program that meets the requirements of regulations issued by the Administrator. Such regulations have been promulgated at 40 CFR Parts 122, 123, 124 and 146.

This notice is intended to provide guidance for the implementation of the alternative demonstration provided for in the new Section 1425. It contains information on: (1) how States may apply for approval under Section 1425; and (2) the criteria the Environmental Protection Agency (EPA) will use in approving or disapproving applications under Section 1425.

DATES: Effective date: This guidance is issued as interim final. It becomes effective upon May 19, 1981.

COMMENT DATE: EPA will accept public comments on this document until July 20, 1981.

ADDRESS: Comments should be sent to Mr. Thomas E. Belk, Chief, Ground Water Protection Branch, Office of Drinking Water (WH-550), Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460.

Such comments, together with other relevant materials, will be maintained at the same address.

FOR FURTHER INFORMATION CONTACT: Mr. Thomas E. Belk (202) 426-9934.

OMB Approval: This guidance has been cleared for publication by the Office of Management and Budget.

Dated: May 11, 1981.

Walter C. Barber, Jr.,
Acting Administrator.

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1.0 Purpose and Scope

The 1980 amendments to the Safe Drinking Water Act (SDWA) added a new Section 1425 which provides an alternative means for States to acquire primary enforcement responsibility for the control of underground injection related to the recovery and production of oil and natural gas. This document contains guidance on: (1) how States may apply for approval under Section 1425; and (2) the criteria EPA will use in approving or disapproving applications under Section 1425.

EPA is mindful of the fact that, in enacting Section 1425, Congress intended that States be offered an alternative to the detailed requirements of the regulations promulgated at 40 CFR Parts 122, 123, 124 and 146, and that State programs to control injections related to oil and gas production be considered on their merits. Nevertheless, Section 1425 does require a State to demonstrate that such portion of its Underground Injection Control (UIC) program: (1) meets the requirements of Section 1421(b)(1) (A) through (D); and (2) represents an effective program to prevent injection which endangers drinking water sources. Further, Section 1425 requires the Administrator of EPA to approve or disapprove such portion of a State's UIC program for primary enforcement responsibility based on his judgment of whether the State has succeeded in making the required demonstrations.

Consequently, EPA believes that States are entitle to guidance on the implementation of Section 1425. The procedures and criteria contained in this document were developed in consultation with interested States. They represent a "model" State application and program which, in EPA's view, meet the requirements of the amended SDWA. A State application which conforms to these procedures and meets the suggested criteria should be approvable under Section 1425.

A State may choose to apply in a different form and make demonstrations different from those suggested in this document. EPA will consider such applications. However, they will have to be reviewed on a case-by-case basis to determine whether they meet the requirements of the Act. Such reviews may involve additional requests for information, more time and less assurance of ultimate approval.

This guidance and the regulations promulgated at 40 CFR Parts 122, 123, 124 and 146 are both aimed at achieving the same fundamental objective: the protection of underground sources of drinking water from endangerment by well injection. There are, however, some significant differences between them.

The most immediate difference is that one is a regulation and the other is guidance. This was a deliberate choice on the part of the Agency because it does not view the new Congressional mandate as requiring another set of detailed regulations for its implementation. In any event, there is insufficient time to develop such regulations in light of the short time remaining before State program submissions are due under Section 1422(b)(1)(A) of the SDWA.

A further difference is that State program submissions under Section 1422(b)(1) of the SDWA are required to meet a different legal standard from State program submissions under Section 1425. Under Section 1422(b)(1)(A), the State is required to make a showing that its UIC program "meets the requirements of regulations in effect under section 1421; * * *" Under Section 1425, the State is required to demonstrate that the Class II portion of its UIC program meets the requirements of Section 1421(b)(1) (A) through (D) and represents an effective program to prevent underground injection which endangers drinking water sources.

As a consequence of these differences, this guidance is much less detailed than the regulations and leaves a great deal more discretion to the State to develop and EPA to approve State UIC programs under Section 1425.

2.0 Applications

2.1 Definition

For the purposes of Section 1425 of the SDWA:

1. The underground injection of brine or other fluids which are brought to the surface in connection with oil or natural gas production; and

2. Any underground injection for the secondary or tertiary recovery of oil or natural gas; and

3. Any injection for the storage of hydrocarbons which are liquid at standard temperature and pressure; shall be defined as "Class II" injections or wells.

2.2 Need for an Underground Injection Control (UIC) Program

Any State which has Class II wells must have an UIC program to assure that such wells do not endanger underground sources of drinking water (USDWs). A State may submit its Class II program to EPA for approval. If EPA approves the program, the State has primary enforcement responsibility for that portion of its UIC program.

If a State chooses not to apply, or if its program is disapproved, or if subsequent to approval the State loses primary enforcement responsibility because the Administrator determines, under Section 1425(c)(2), that the demonstration is no longer valid, EPA must prescribe and implement a program in that State. When EPA implements a Class II program for a State, it will do so in accordance with the requirements of 40 CFR Parts 122, 124 and 146.

A State which does *not* have any Class II wells *need not* develop a Class II control program in order to qualify for primacy under the UIC program. Under the regulations at 40 CFR 123.51(d), such a State only needs to demonstrate that Class II wells cannot legally occur until the State has developed an approved program to regulate such injections.

2.3 Applications Under Section 1425

Any State which has Class II wells may, at its option apply for primary for its Class II UIC program either: (1) under the regulations at 40 CFR Parts 122, 123, 124 and 146; or (2) under Section 1425 of the SDWA.

2.4 When Should Application be Made?

House Report No. 96-1348, accompanying the 1980 amendments, states on page 5 that: "The Committee expects that alternative demonstrations will be submitted on the same schedule. Accordingly, as demonstrations required for state programs meeting Federal regulations promulgated under Section

1421(b)." States have 270 days from July 24, 1980 to submit applications, or until *April 20, 1981.*

This period may be extended by up to another 270 days by the Regional Administrators for "good cause", or until *January 15, 1982.*

A State need not wait until it is ready to submit its application for all classes of wells. EPA will entertain partial applications for primacy as long as the program for which approval is sought covers: (1) all elements of a program to regulate a particular class or classes of injection practices even if the class or classes involve the jurisdiction of more than one State agency; or (2) all elements of a program to regulate all the classes or types of wells within the jurisdiction of a single State agency. However, if a State submits a partial application, the alternative demonstration under Section 1425 may be used only for the Class II portion of the application. The portion of the program covering types of practices other than Class II will have to meet the requirements of 40 CFR Parts 122, 123, 124 and 146.

2.5 Effects of a Partial Application

The recent amendments have changed Section 1443 of the SDWA so that a State may receive grant support until July 1982. After that date, it must have achieved full primacy in order for grant eligibility to continue. As a consequence, a State may receive partial primacy for its Class II control program and continue to receive grants: (1) if it has obtained an extension for submitting the remainder of its application; (2) until it declares its intention not to file any further applications; (3) until EPA terminates its grant for cause; or (4) until July 1982, whichever is soonest.

If a State receives full primacy, its eligibility for grants will, of course, continue.

3.0 Elements of an Application for Primacy under Section 1425

3.1 Elements of a State Application

A complete State submission should contain the following elements:

a. a letter from the Governor;

b. a description of the program;

c. a statement of legal authority;

d. copies of the pertinent statutes and regulations;

e. copies of the pertinent State forms; and

f. a signed copy of a Memorandum of Agreement.

The nature of these elements is described further below.

3.2 Letter From the Governor

The letter from the Governor should:

a. request approval of the State's program for primacy under the UIC program;

b. specify whether approval is sought under Section 1425 of the SDWA or under 40 CFR Parts 122, 123, 124, and 146; and

c. affirm that the State is willing and able to carry out the program described.

3.3 Program Description

A State's application is expected to contain a full description of the program for which approval is sought, in sufficient detail to enable EPA to make the judgments outlined in Section 5 below. Such a description should:

a. Specify the structure, coverage and scope of the program;

b. Specify the State permitting process and address, to the extent applicable, the following elements:

1. Who applies for the permit or the authorization by rule;

2. Signatories required for permit application and reports;

3. Conditions applicable to permits, including: duty to comply with permit conditions, duty to reapply, duty to halt or reduce activity, duty to mitigate, proper operation and maintenance, permit actions, property rights, inspection and entry monitoring, record keeping, and reporting requirements;

4. Compliance schedules;

5. Transfer of permits;

6. Termination of permits;

7. Whether area permits or project permits are granted;

8. Emergency permits;

9. The availability and use of variances and other discretionary exemptions to programmatic requirements; and

10. Administrative and judicial procedures for the modification of permits.

c. Describe the operation of any rules used by the State to regulate Class II wells;

d. Describe the technical requirements applied to operators by the State program;

e. Include a description of the State's procedures for monitoring, inspection and requiring reporting from operators;

f. Discuss the State's enforcement program, e.g.:

1. Administrative procedures for dealing with violations;

2. Nature and amounts of penalties, fines and other enforcement tools;

3. Criteria for taking enforcement actions; and

4. If the State is seeking approval for an existing program, summary data on:

A. Past practice in the use of enforcement tools;

B. Current compliance/non-compliance with State requirements;

C. Repeat violations at the same well or by the same operator at different wells;

D. Well failure rates; and

E. USDW contamination cases based on actual field work and citizen complaints.

g. Detail the State's staffing and resources, and demonstrate that these are sufficient to carry out the proposed program;

h. If more than one State agency is involved in the Class II program, describe their relationships with regard to carrying out the Class II program;

i. Contain a reasonable schedule for completion of an inventory of Class II wells in the State;

j. Include the procedures for exempting aquifers, a list of the aquifers or portions of aquifers proposed for exemption at the time of application, and the reasons for the proposed exemptions, unless these have been described in the partial applications made by the State;

k. Contain a plan (including the basis for assigning priorities) for the review of all existing Class II wells in the State within five years of program approval to assure that they meet current non-endangerment requirements of the State (this may include permit modification and reissuance, if appropriate);

l. Describe State requirements for ensuring public participation in the process of issuing permits and modifying permits in the case of substantial changes in the project area, injection pressure or the injection horizon; and

m. Describe State procedures for responding to complaints by the public.

3.4 Statement of Legal Authority

The statement of legal authority is intended to assure EPA that the State has the legal authority to carry out the program described. It may be signed by a competent legal officer of the State, for example, the Attorney General, the Counsel for the responsible State agency, or any other officer who represents the Agency in legal matters.

The statement may, at the option of the State, consist of a full analysis of the legal basis for the State program, including case law as appropriate. Or the statement may consist of a simple certification by the legal representative that the State has adequate authority to carry out the described progam. If the State chooses to submit a certification, the program description should detail

the legal authority on which the various elements of the State's program rest.

3.5 Copies of Statutes and Regulations

The application should contain copies of all applicable State statutes, rules and regulations, including those governing State administrative procedures.

3.6 Copies of State Forms

The application should contain examples of all forms used by the State in administering the program, including application forms, permit forms and reporting forms.

3.7 Memorandum of Agreement

The head of the cognizant State agency and the EPA Regional Administrator shall execute a memorandum of agreement which shall set forth the terms under which the State will carry out the described program and EPA will exercise its oversight responsibility. A copy of such an agreement signed by the Director of the State agency, shall be submitted as part of the application.

At a minimum, the memorandum of agreement should:

a. Include a commitment by the State that the program will be carried out as described and be supported by an appropriate level of staff and resources;

b. Recognize EPA's right of access to any pertinent State files;

c. Specify the procedures (e.g., notification to the State and participation by State officials) governing EPA inspections of wells or operator records;

d. Recognize EPA's authority to take Federal enforcement action under Section 1423 of the SDWA in cases where the State fails to take adequate enforcement actions;

e. Agree to provide EPA with an annual report on the operation of the State program, the content of which may be negotiated between EPA and primacy States from time to time;

f. Provide that aquifer exemptions for Class II wells be consistent with aquifer exemptions for the rest of the UIC program;

g. When appropriate, may include provisions for joint processing of permits by the State and EPA for facilities or activities which require permits from both EPA and the State under different programs; and

h. Specify that if the State proposes to allow any mechanical integrity tests other than those specified or justified in the program application, the Director will notify the cognizant Regional Administrator and provide enough information about the proposed test that a judgment about its usefulness and reliability may be made.

4.0 Process for Approval or Disapproval of Application

4.1 Public Participation by States

Section 1425 relieves States of the responsibility to hold public hearings or afford an opportunity for public comment prior to submitting an application to EPA. Therefore, when application is made by a State under Section 1425, it may, but need not, provide an opportunity for public hearings or comments.

4.2 Complete Applications

Within 10 working days of the receipt of a final application, EPA will determine whether the application is complete or not and so notify the State in writing. If the application is found to be incomplete it will be returned to the State with specific requests for additional material or changes. However, the State may, at its option, insist that EPA complete its review of an application as submitted.

4.3 EPA Review

a. EPA has 90 days to approve or disapprove an application. If EPA finds that the application is complete, the review period will be deemed to have begun on the date the application was received in the cognizant Regional Office. If an application has been found to be incomplete and the State insists that EPA proceed with its review of the application as submitted, the review period will begin on the date that EPA receives the State's request to proceed in writing. The review period may be extended by the mutual consent of EPA and the State.

b. Within the 90-day period, EPA will request public comments and provide an opportunity for public hearing on each application, in the applying State, in accordance with 40 CFR 123.54(c) and (d). If the State has not done so, EPA will hold at least one public hearing in the State.

c. If a State's application is approved, the State shall have primary enforcement responsibility for its Class II program.

d. If a State's application is disapproved, EPA intends within 90 days of disapproval or as soon thereafter as feasible, prescribe a Class II program for the State in accordance with Section 1422(c) of the SDWA and 40 CFR Parts 122, 124 and 146.

5.0 Criteria for Approving or Disapproving State Programs

5.1 General

Section 1425 of the SDWA states that: "* * * the State may demonstrate that [the Class II] portion of the State program meets the requirements of subparagraphs (A) through (D) of Section 1421(b)(1) and represents an effective program (including adequate recordkeeping and reporting) to prevent underground injection which endangers drinking water sources."

Thus Section 1425 requires that a State, in order to receive approval for its Class II program under the optional demonstration, make a successful showing that its program meets five conditions:

a. Section 1421(b)(1)(A) requires that an approvable State program prohibit any underground injection in such State which is not authorized by permit or rule.

b. Section 1421(b)(1)(B) requires that an approvable State program shall require that:

1. The applicant for a permit must satisfy the State that the underground injection will not endanger drinking water sources; and

2. No rule may be promulgated which authorizes any underground injection which endangers drinking water sources.

c. Section 1421(b)(1)(C) requires that an approvable State program include inspection, monitoring, recordkeeping, and reporting requirements.

d. Section 1421(b)(1)(D) requires that an approvable State program apply to: (1) underground injections by Federal agencies; and (2) underground injections by any other person, whether or not occurring on property owned or leased by the United States.

e. Section 1425(a) requires that an approvable State program represent an effective program to prevent underground injection which endangers drinking water sources.

The following sections provide guidance to EPA personnel for making the required judgments with respect to these five conditions in the review of an application for approval under Section 1425.

5.2 Section 1421(b)(1)(A)

The question of whether a State program prohibits unauthorized Class II injections is a function of the State's statutory and regulatory authority. A determination of whether the State program meets this condition should be made from a review of the coverage and scope of the program, the statement of

legal authority submitted by the State, and of the statutes and regulations themselves. One important consideration is whether the State has an appropriate formal mechanism for modifying permits in cases where the operation has undergone significant change.

5.3 Section 1421(b)(1)(D)

The determination of whether a State program is adequate in requiring that the applicant demonstrate that the proposed injection will not endanger drinking water sources turns on two elements: (1) whether the State program places on the applicant the burden of making the requisite showing; and (2) the extent of the information the applicant is required to provide as a basis for the State agency's decision. Whether the burden of making the requisite showing is on the applicant should be determined from the State's description of its permitting process. If the necessary information is available in State files, the Director need not require it to be submitted again. However, as a matter of principle, the applicant should not escape ultimate responsibility for assuring that the information about his operation is accurate and available. One consideration in this regard is whether the well operator has a responsibility to inform the permitting authority about any material change in his operation, or any pertinent information acquired since the permit application was made.

With regard to the extent of the information to be considered by the Director, the State program should require an application containing sufficiently detailed information to make a knowledgeable decision to grant or deny the permit. Such information should include:

a. A map showing the area of review and identifying all wells of public record penetrating the injection interval;

b. A tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data should include a description of each well's type, construction, date of drilling location, depth, record of plugging and/or completion, and any additional information the Director may require;

c. Data on the proposed operation, including:

1. Average and maximum daily rate and volume of fluids to be injected;

2. Average and maximum injection pressure; and

3. Source, and an appropriate analysis of injection fluid if other than produced water, and compatibility with the receiving formation;

d. Appropriate geological data on the injection zone and confining zones including lithologic description, geological name, thickness, and depth;

e. Geologic name, and depth to bottom of all underground sources of drinking water which may be affected by the injection;

f. Schematic drawings of the surface and subsurface construction details of the system;

g. Proposed stimulation program;

h. All available logging and testing data on the well; and

i. The need for corrective action on wells penetrating the injection zone in the area of review.

There are two circumstances under which the director may require less information from the applicant. First, the Director need not require an applicant to resubmit information which is up-to-date and readily available in State files. Second, a State's application may outline circumstances or conditions where certain items of information may not be required in a specific case. Such circumstances may include situations where, based upon demonstrable knowledge available to the director about a specific operation, the Director proposes to permit that operation without requiring corrective action or alternatives to it. Examples of such circumstances are gravity or vacuum injections and injections through zones of plastic heaving shales.

Section 1421(b)(1)(B) also requires a State which authorizes Class II injections by rule to show that such rules do not allow any underground injection which endangers drinking water sources. The determination of whether the State program meets this requirement may be made from the program description, statement of legal authority, the text of the rules themselves, and the manner in which the State has administered such rules.

5.4 Section 1421(b)(1)(C)

This section of the SDWA requires that an approvable State program contain elements for inspection, monitoring, recordkeeping and reporting. The adequacy of the State program in these respects may be assessed with the use of the following criteria.

a. *Inspection.*

An approvable State program is expected to have an effective system of field inspection which will provide for:

1. Inspections of injection facilities, wells, and nearby producing wells; and

2. The presence of qualified State inspectors to witness mechanical integrity tests, corrective action operations, and plugging procedures.

An adequate program should insure that, at a minimum, 25% of all mechanical integrity tests performed each year will be witnessed by a qualified State inspector.

b. *Monitoring, Reporting and Recordkeeping.*

1. The Director should have the authority to sample injected fluids at any time during injection operation.

2. The operator should be required to monitor the injection pressure and injection rate of each injection well at least on a monthly basis with the results reported annually.

3. The Director should require prompt notice of mechanical failure or downhole problems in injection wells.

4. The State should assure retention and availability of all monitoring records from one mechanical integrity test to the next (i.e., 5 years).

5.5 Section 1421(b)(1)(D)

An approvable State program must demonstrate the State's authority to regulate injection activities by Federal agencies and by any other person on property owned or leased by the United States. The adequacy of the State's authority in these regards may be assessed on the basis of the program description and statement of legal authority submitted by the State. Such authority and the programs to carry it out must be in place at a time no later than the approval of the program by EPA. EPA will administer the UIC program on Indian lands unless the State has the authority and is willing to assume responsibility.

5.6 Section 1425(a)

In addition to the four demonstrations discussed above, Section 1425 requires a State to demonstrate that the Class II program for which it seeks approval in fact "represents an effective program to prevent underground injection which endangers drinking water sources." Among the factors that EPA will consider in assessing the "effectiveness" of a State program are: (1) whether the State has an effective permitting process which results in enforceable permits; (2) whether the State applies certain minimum technical requirements to operators by permit or rule; (3) whether the State has an effective surveillance program to determine compliance with its requirements; (4) whether the State has effective means to enforce against violators; and (5) whether the State assures adequate participation by the public in the permit issuance process.

Evidence of the presence or absence of ground water contamination is important. However, it cannot serve as

the sole criterion of effectiveness. Not all States have collected such evidence systematically. More importantly, the absence of evidence of contamination, especially if based on an absence of complaints, is not necessarily proof that ground water contamination has not occurred.

Each of the five factors named above is discussed further in the following subsections. In its review of these factors, EPA is not necessarily looking for a minimum set or even any particular elements. The effectiveness of a State program will be assessed by reviewing the State's entire program. The absence of even an important element in a State program may not by itself mean that the program is ineffective as long as there is a credible program for detecting and eliminating injection practices which allow any migration which endangers drinking water sources.

a. *Permitting Process.*

Section 3.3b of the Program Description outlines the major elements of the permitting process. The listing of these considerations should not be viewed as Federally imposed minimum policy, but rather as an outline of the information which will be necessary for EPA to evaluate the effectiveness of the State's permitting process.

States may deal with permitting considerations, such as limitations on the transfer of permits, in a variety of ways. There are many permitting approaches which may be equally effective. EPA's review will turn on whether the permitting process, taken as a whole, represents an effective mechanism for applying appropriate and enforceable requirements to operators.

b. *Technical Criteria.*

Any approvable State program should have the authority to apply, by permit or rule, certain technical requirements designed to prevent the migration of injected or formation fluids into USDWs. Any State program adopting the language of 40 CFR 146 should be considered approvable on its face value for that portion of the program to which it applies. State applications not relying on the language of 40 CFR 146 should be reviewed for the presence and adequacy of the following kinds of technical requirements in the State program.

1. *Siting.*

Siting requirements should be considered in the placement and construction of any Class II disposal well. Such requirements should be designed to assure that disposal zones are hydraulically isolated from underground sources of drinking water (USDWs). Such isolation may be shown through information supplied by the applicant, or data on file with the State, which would be analyzed by qualified State staff.

2. *Construction.*

A. Effective programs should require all newly drilled Class II wells to be cased and cemented to prevent movement of fluids into USDWs. Specific casing and cementing requirements should be based on:

i. the depth to the base of the USDW;

ii. the nature of the fluids to be injected; and

iii. the hydrologic relationship between the injection zone and the base of the USDW.

B. All newly converted Class II wells should be required to demonstrate mechanical integrity.

3. *Operation.*

A. Adequate operating requirements should establish a maximum injection pressure for a well which assures that the pressure in the injection zone during injection does not initiate new fractures or propagate existing fractures in the confining zone. Limitations on injection pressure should also preclude the injection from causing the movement of fluids into an underground source of drinking water.

Acceptable methods for establishing limitations on injection pressures include:

i. Calculated fracture gradients;

ii. Injectivity tests to establish fracture pressure; or

iii. Other compelling geologic, hydrologic or engineering data.

B. An effective State program should have the demonstrated ability to detect and remedy system failures discovered during routine operation or monitoring so as to mitigate endangerment to USDWs.

4. *Plugging and Abandonment.*

Plugging and abandonment requirements should be reviewed for the presence of the following elements:

A. That appropriate mechanisms are available in the State program to insure the proper plugging of wells upon abandonment;

B. That all Class II wells are required, upon abandonment, to be plugged in a manner which will not allow the movement of fluids into or between USDWs; and

C. That operators are required to maintain financial responsibility in some form, for the plugging of their injection wells.

5. *Area of Review.*

An effective State program is expected to incorporate the concept of an area of review defined as a radius of not less than ¼ mile from the well, field, or project.

Alternatively, a State program may substitute a concept of a zone of endangering influence in lieu of this fixed radius. The zone of endangering influence should be determined for the estimated life of the well, field, or project through the use of an appropriate calculation, formula, or mathematical model that takes the relevant geologic, hydrologic, engineering and operational features of the injection well, field or project into account.

6. *Corrective Action.*

An approvable State program is expected to include the authority to require the operator to take corrective actions on wells within the area of review or zone of endangering influence.

A. Corrective action may include any of the following types of requirements:

i. recementing;

ii. workover;

iii. reconditioning; or

iv. plugging or replugging.

B. A State program may provide the Director the discretion to specify the following types of requirements *in lieu* of immediate corrective action:

i. Permit conditions which will assure a negative hydraulic gradient at the base of USDW at the well in question;

ii. Monitoring program (i.e., monitoring wells completed to the base of USDW within the zone of influence); or

iii. Periodic testing to determine fluid movement outside the injection interval at other wells within the area of review.

However, if monitoring or testing indicate the potential endangerment of any USDW, corrective action shall be required.

C. In cases where the Director has demonstrable knowledge of geologic, hydrologic, or engineering conditions, specific to a given operation, which assure that wells within the zone of endangering influence or area of review will not serve as conduits for migration of fluids into an USDW, a State program may provide the Director the discretion to permit a specific operation without requiring corrective actions or any of the alternatives specified in Subsection (B) above. Examples of such circumstances are gravity or vacuum injections and injections through zones of plastic bearing shales. However, under the statute the State program may, in no circumstances, authorize an injection which endangers drinking water sources.

7. *Mechanical Integrity.*

An approvable State program is expected to require the operator to demonstrate the mechanical integrity of a new injection well prior to operation and of *all* injection wells periodically, at least once every five years. For the purpose of assessing the State's mechanical integrity requirements:

A. An injection well has mechanical integrity if:

i. there is no significant leak in the casing, tubing or packer; and

ii. there is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the well bore.

B. The following tests are considered to be acceptable tests to demonstrate the absence of significant leaks:

i. a pressure test with liquid or gas;

ii. the monitoring of annulus pressure in those wells injecting at a positive pressure, following an initial pressure test; or

iii. all other tests or combinations of tests considered effective by the Director.

C. The following are considered to be acceptable tests to demonstrate the absence of significant fluid movement in vertical channels adjacent to the well bore:

i. cementing records (they need not be reviewed every five years);

ii. tracer surveys;

iii. noise logs;

iv. temperature surveys; or

v. any other test or combination of tests considered effective by the Director.

D. If the State program allows or specifies alternative tests under B(iii) or (C)(v) above, the program description should supply sufficient information so that the usefulness and reliability of such tests in the proposed circumstance may be assessed.

c. *Surveillance.*

The demonstration of an effective surveillance program has already been discussed in Section 5.4 above.

d. *Enforcement.*

A State's enforcement of its program is a crucial consideration in making the judgment of whether the State program is effective. States have used a number of enforcement tools to shift the economic incentive of operation more toward compliance with the law. Often State programs have employed civil penalties and, for repeat or willful violators, criminal fines or jail sentences. Other commonly used practices are administrative orders and court injunctions. In the area of oil and gas regulation, many States have found pipeline severance a powerful tool. In assessing a State's enforcement program, EPA will consider not whether a State has all or any particular enforcement tools but whether the State's program, taken as a whole, represents an effective enforcement effort. Certainly, there are many enforcement matrices which create effective programs. In addition, EPA will look at whether the State has exercised its enforcement authorities adequately in the past.

e. *Public Participation.*

One factor to be used by EPA in assessing the "effectiveness" of a State program is the degree to which it assures the public an opportunity to participate in major regulatory decisions. It is assumed that most States already have legislation that governs public participation in State decision-making and defines such processes as appeals, etc. Therefore, the following represents only a minimal list of elements that EPA will consider:

1. Public Notice of permit application:

A. The State may give such notice or it may require the applicant to give notice.

B. The method of giving notice should be adequate to bring the matter to the attention of interested parties and, in particular, the public in the area of the proposed injection. This may involve one or more of the following:

i. Posting;

ii. Publication in an official State register;

iii. Publication in a local newspaper;

iv. Mailing to a list of interested persons; or

v. Any other effective method that achieves the objective.

C. An adequate notice should:

i. Provide an adequate description of the proposed action;

ii. Identify where an interested party may obtain additional information. This location should be reasonably accessible and convenient for interested persons;

iii. State how a public hearing may be requested; and

iv. Allow for a comment period of at least 15 days.

2. The State program should provide opportunity for a public hearing if the Director finds, based upon requests, a significant degree of public interest.

A. The Director may hold a hearing of his own motion and give notice of such hearing with the notice of the application.

B. If a public hearing is decided upon during the comment period, notice of public hearing shall be given in a newspaper of general circulation. The hearing should be scheduled no sooner than 15 days after the notice.

3. The final State action on the permit application should contain a "response to comments" which summarizes the substantive comments received and the disposition of the comments.

6.0 Oversight

6.1 General

Once a Class II program is approved under Section 1425, the State has primary enforcement responsibility for such portion of its UIC program. The Class II program is a grant-eligible activity and is subject to the same EPA oversight as other portions of the UIC program (e.g., State/EPA Agreements, Mid-course Reviews, grant conditions, etc.).

6.2 Mid-Course Evaluation

EPA will conduct a mid-course evaluation of Class II programs as envisioned in 40 CFR 122.18(C)(4)(ii) and 146.25. However, *in lieu* of a special reporting requirement, additional requirements have been added to the State's annual report to EPA. Should this mechanism prove unable to provide the necessary data, a special reporting requirement may be negotiated with the primacy States at a later date.

6.3 Annual Reporting

As part of the Memorandum of Agreement, each State shall agree to submit an annual report on the operation of its Class II program to EPA. At a minimum the annual report shall contain:

a. An updated inventory;

b. A summary of surveillance programs, including the results of monitoring and mechanical integrity testing, the number of inspections, and corrective actions ordered and witnessed;

c. An account of all complaints reviewed by the State and the actions taken;

d. An account of the results of the review of existing wells made during the year; and

e. A summary of enforcement actions taken.

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PROPOSED RULE CHANGES TO BE CONSIDERED IN
OIL CONSERVATION COMMISSION CASE NO. 7272
TO BE HEARD JUNE 4, 1981, MORGAN HALL,
STATE LAND OFFICE BUILDING, SANTA FE,
NEW MEXICO

I. It is proposed to add the following three definitions:

AQUIFER shall mean a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

EXEMPTED AQUIFER shall mean an aquifer that does not currently serve as a source of drinking water, and which cannot now and will not in the foreseeable future serve as a source of drinking water because: (1) it is hydrocarbon producing; (2) it is situated at a depth or location which makes the recovery of water for drinking water purposes economically or technologically impractical; or, (3) it is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption.

UNDERGROUND SOURCE OF DRINKING WATER shall mean an aquifer which supplies water for human consumption or which contains ground water having a total dissolved solids concentration of 10,000 mg/l or less and which is not an exempted aquifer.

II. It is proposed to amend Rule 103 to read in its entirety as follows:

RULE 103. SIGN ON WELLS

All wells, subject to these regulations, including drilling, production, and injection wells shall be identified by a sign, posted on the derrick or not more than 20 feet from such well, and such sign shall be of durable construction and the lettering thereon shall be kept in a legible condition and shall be large enough to be legible under normal conditions at a distance of 50 feet. The wells on each lease or property shall be numbered in non-repetitive, logical and distinctive sequence. Each sign shall show the number of the well, the name of the lease (which shall be different or distinctive for each lease), the name of the leasee, owner or operator, and the location by quarter section, township and range. The location, for each sign posted after March 1, 1968, shall indicate the quarter-quarter section, township, and range.

III. It is proposed to amend Rule 106(a) to read in its entirety as follows:

(a) During the drilling of any oil well, gas well, injection well or any other service well, all oil, gas, and water strata above the producing and/or injection horizon shall be sealed or separated in order to prevent their contents from passing into other strata.

IV. It is proposed to amend the first paragraph of Rule 107(a) to read in its entirety as follows:

RULE 107. CASING AND TUBING REQUIREMENTS

(a) Any well drilled for oil or natural gas or for injection shall be equipped with such surface and intermediate casing strings and cement as may be necessary to effectively seal off and isolate all water-, oil-, and gas-bearing strata and other strata encountered in the well

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. 7272 Exhibit No. B
Submitted by OCD
Hearing Date June 4, 1981

down to the casing point. In addition thereto, any well completed for the production of oil or natural gas shall be equipped with a string of properly cemented production casing at sufficient depth to ensure protection of all oil- and gas-bearing strata encountered in the well, including the one(s) to be produced.

V. It is proposed to amend Rule 204 to read in its entirety as follows:

RULE 204. LIABILITY

The owner of any well drilled for oil or gas, for injection, or any seismic, core or other exploratory holes, whether cased or uncased, shall be responsible for the plugging thereof.

VI. It is proposed to re-title Section I and amend Rule 701 to read in their entirety as follows:

I - SECONDARY RECOVERY, PRESSURE MAINTENANCE, SALT WATER DISPOSAL, AND UNDERGROUND STORAGE

RULE 701. INJECTION OF FLUIDS INTO RESERVOIRS

A. Permit for Injection Required

The injection of gas, liquefied petroleum gas, air, water, or any other medium into any reservoir for the purpose of maintaining reservoir pressure or for the purpose of secondary or other enhanced recovery or for storage or the injection of water into any formation for the purpose of water disposal shall be permitted only by order of the Division after notice and hearing, unless otherwise provided herein.

B. Method of Making Application

1. Application for original authority for the injection of gas, liquefied petroleum gas, air, water, or any other medium into any formation for any reason, including salt water disposal, or for the expansion of any injection project by the completion or conversion of injection well(s) shall be by submittal of Division Form C-108 complete with all attachments.

2. The applicant shall furnish, by certified or registered mail, a copy of the application to the owner of the surface of the land on which the injection or disposal well is to be located and to each leasehold operator within one-half mile of the well location.

3. Applications qualifying for administrative approval must be accompanied by a copy of a legal publication published by the applicant in a newspaper of general cirulcation in the county in which the proposed injection well is located. The details required in such notice are listed on Side 2 of Form C-108.

4. No application shall be approved until the applicant shall supply evidence of mailing as required under 2. above and, if applicable, proof of publication.

C. Hearings

If a written objection to any application for administrative approval of an injection well is filed within fifteen (15) days after receipt by the Division of a complete application, or if a hearing is required by the Division,

the application shall be set for hearing, and notice thereof shall be given by the Division. If no objection is filed, and a hearing is not required, the matter may be approved administratively.

D. Salt Water Disposal Wells

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for water disposal wells only, without notice and hearing, when the waters to be disposed of are mineralized to such a degree as to be unfit for domestic, stock, irrigation, or other general use, and when said waters are to be disposed of into a formation older than Triassic (Lea County only) which is non-productive of oil or gas within a radius of two miles from the proposed injection well.

Disposal will not be permitted into zones containing waters having total dissolved solids concentrations of 10,000 mg/l or less except after notice and hearing, provided however, that the Division may establish exempted aquifers for such zones wherein such injection may be approved administratively.

E. Pressure Maintenance Projects

1. Pressure maintenance projects are defined as those projects in which fluids are injected into the producing horizon in an effort to build up and/or maintain the reservoir pressure in an area which has not reached the advanced or "stripper" state of depletion.

2. All applications for establishment of pressure maintenance projects shall be set for hearing.

The project area and the allowable formula for any pressure maintenance project shall be fixed by the Division on an individual basis after notice and hearing.

3. Pressure maintenance projects may be expanded and additional wells placed on injection only upon authority from the Division after notice and hearing or by administrative approval.

The Division Director shall have authority to grant an exception to ~~the~~ hearing requirements of Rule 701-A for the conversion to injection of additional wells within a project area provided that any such well is necessary to develop or maintain efficient pressure maintenance within such project and provided that no objections are received as provided in Rule 701 C.

F. Water Flood Projects

1. Water flood projects are defined as those projects in which water is injected into a producing horizon in sufficient quantities and under sufficient pressure to stimulate the production of oil from other wells in the area, and shall be limited to those areas in which the wells have reached an advanced state of depletion and are regarded as what is commonly referred to as "stripper" wells.

2. All applications for establishment of water flood projects shall be set for hearing.

The project area of a water flood project shall comprise the proration units owned or operated by a given operator upon which injection wells are located plus all proration units owned or operated by the same operator which directly or diagonally offset the injection tracts and have

producing wells completed on them in the same formation; provided however, that additional proration units not directly nor diagonally offsetting an injection tract may be included in the project area if, after notice and hearing, it has been established that such additional units have wells completed thereon which have experienced a substantial response to water injection.

3. The allowable assigned to wells in a water flood project area shall be equal to the ability of the wells to produce and shall not be subject to the depth bracket allowable for the pool nor to the market demand percentage factor.

Nothing herein contained shall be construed as prohibiting the assignment of special allowables to wells in buffer zones after notice and hearing. Special allowables may also be assigned in the limited instances where it is established at a hearing that it is imperative for the protection of correlative rights to do so.

4. Water flood projects may be expanded and additional wells placed on injection only upon authority from the Division after notice and hearing or by administrative approval.

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for conversion to injection of additional wells provided; that any such well is necessary to develop or maintain thorough and efficient waterflood injection for any authorized project; provided that no objections are received as provided in Rule 701 C.

G. Storage Wells

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for the underground storage of liquefied petroleum gas or liquid hydrocarbons in secure caverns within massive salt beds.

In addition to the filing requirements of Rule 701 B, the applicant for approval of a storage well under this rule shall file the following:

1. With the Division Director:

   (a) A plugging bond in accordance with the provisions of Rule 101;

2. With the appropriate district office of the Division in TRIPLICATE:

   (a) Form C-101, Application for Permit to Drill, Deepen, or Plug Back;

   (b) Form C-102 Well Location and Acreage Dedication Plat; and

   (c) Form C-105, Well Completion or Recompletion Report and Log.

VII. It is proposed to amend Rule 702 to read in its entirety as follows:

RULE 702. CASING AND CEMENTING OF INJECTION WELLS

Wells used for injection of gas, air, water, or any other medium, into any formation shall be cased with safe and adequate casing or tubing so as to prevent leakage and such casing or tubing shall be so set and cemented to prevent the movement of formation or injected fluid from the injection zone into any other zone or to the surface around the outside of any casing string.

VIII. It is proposed to amend Rule 703 to read in its entirety as follows:

RULE 703. OPERATION AND MAINTENANCE

Injection wells shall be equipped, operated, monitored, and maintained to facilitate periodic testing and to assure continued mechanical integrity which will result in no significant leak in the tubular goods and packing materials used and no significant fluid movement through vertical channels adjacent to the well bore.

or wells within the project area

Injection wells, project wells, and related surface facilities shall at all times be operated and maintained in such a manner as to confine the injected fluids to the interval or intervals approved and to prevent surface damage or pollution resulting from leaks, breaks, or spills.

Injection well, project well, or surface facility failures which may endanger underground sources of drinking water shall be reported under the "Immediate Notification" procedures of Rule 116.

Injection well or project well failures requiring casing repair or cementing are to be reported to the Division prior to commencement of workover operations.

Injection wells or projects which have exhibited failure to confine injected fluids to the authorized injection zone or zones may be subject to restriction of injection volume and pressure or shut-in until the failure has been identified and corrected.

IX. It is proposed to amend Rule 704 to read in its entirety as follows:

RULE 704. TESTING AND MONITORING

A. Testing

Prior to commencement of injection, wells shall be tested to assure the initial integrity of the casing and the tubing and packer, if used, including pressure testing of the casing-tubing annulus.

How done if no packer

At least once every five years thereafter, injection wells shall be tested to assure their continued mechanical integrity. Tests demonstrating continued mechanical integrity shall include the following:

(a) measurement of annular pressures in wells injecting at positive pressures under a packer or a balanced-fluid seal;

(b) pressure testing of the casing-tubing annulus for wells injecting under vacuum conditions; and,

(c) such other tests which are demonstably effective and which may be approved for use by the Division.

The injection well operator shall advise the Division of the date and time of such initial and subsequent integrity tests in order that they may be witnessed.

Notwithstanding the subsequent test requirements above, the Division may require more frequent or more comprehensive testing of injection wells including the use of tracer surveys, noise logs, temperature logs, or other test procedures or devices. Such special tests, when run, shall supplant the required five-year test.

B. Monitoring

Injection wells shall be equipped in order that the injection pressure and annular pressure may be determined at the wellhead and that the injected volume may be determined at least monthly.

Injection wells used for storage shall be equipped so that both injected and produced volumes may be determined at any time.

X. The Division proposes to amend Rule 705 to read in its entirety as follows:

RULE 705. COMMENCEMENT, DISCONTINUANCE, AND ABANDONMENT OF INJECTION OPERATIONS

The following provisions shall apply to all injection projects, storage projects, salt water disposal wells and special purpose injection wells:

A. Notice of Commencement and Discontinuance

1. Immediately upon the commencement of injection operations in any well, the operator shall notify the Division of the date such operations began.

2. Within 30 days after permanent cessation of gas or liquefied petroleum gas storage operations or within 30 days after discontinuance of injection operations into any other well, the operator shall notify the Division of the date of such discontinuance and the reasons therefor. No injection well may be temporarily abandoned for a period exceeding six months unless the injection interval has been isolated by use of cement or a bridge plug. The Director of the Division may delay the cement or bridge plug requirements above upon a demonstration that there is a continuing need for such well, that the well exhibits mechanical integrity, and that continued temporary abandonment will not endanger underground sources of drinking water.

3. Before any injection well is plugged, the operator shall obtain approval for the well's plugging program from the appropriate District Office of the Division in the same manner as when plugging oil and gas wells or dry holes.

B. Abandonment of Injection Operations

1. Whenever there is a continuous six-month period of non-injection into any injection project, storage project, salt water disposal well, or special purpose injection well, such project or well shall be considered abandoned, and the authority for injection shall automatically terminate ipso facto.

2. For good cause shown, the Division Director may grant an administrative extension or extensions of injection authority as an exception to Paragraph 1. above.

XI. It is proposed that a new Rule 706 be adopted which will read in its entirety as follows:

RULE 706. RECORDS AND REPORTS

The operator of an injection well or project for secondary recovery or pressure maintenance, natural gas storage, salt water disposal, or injection of any other fluids shall keep accurate records and shall report monthly to the Division gas or fluid volumes injected, stored, and/or produced as required on the appropriate form listed below:

1. Secondary Recovery or other enhanced recovery on Form C-115;

2. Pressure Maintenance on Form C-115 and as otherwise prescribed by the Division;

3. Salt Water Disposal on Form C-120-A;

4. Natural Gas Storage on Form C-131-A; and

5. Injection of other fluids on a form prescribed by the Division.

The operator of a liquefied petroleum gas storage project shall report annually on Form C-131-B, Annual LPG Storage Report.

XII. It is proposed that a new Rule 707 be adopted which will read in its entirety as follows:

RULE 707. RECLASSIFICATION OF WELLS

The Division Director shall have authority to reclassify an injection well from any category defined in Rule 701 B to any other category without notice and hearing upon request and proper showing by the operator thereof.

XIII. It is proposed that a new Rule 708 be adopted which will read in its entirety as follows:

RULE 708. TRANSFER OF AUTHORITY TO INJECT

are we taking care of operators with this?

Authority to inject granted under any order of the Division is not transferable except upon approval of the Division. Approval of transfer of authority to inject may be obtained by filing Form C-104 in accordance with Rule 1104(5).

The Division may require a demonstration of mechanical integrity prior to authorizing transfer of authority to inject.

XIV. It is proposed to amend Rule 1100 C. to read in its entirety as follows:

RULE 1100 C. Books and Records

All producers, injectors, transporters, storers, refiners, gasoline or extraction plant operators, treating plant operators, and initial purchasers of natural gas within the State of New Mexico shall make and keep appropriate books and records for a period of not less than five years, covering their operations in New Mexico, from which they may be able to make and substantiate the reports required by these rules.

XV. It is proposed to amend Rule 1100 D. to re-title Form C-108 as follows:

Form C-108 Application for Authorization to Inject

XVI. It is proposed to adopt a revised Form C-108 and amend Rule 1108 to read in its entirety as follows:

RULE 1108. APPLICATION FOR AUTHORIZATION TO INJECT (Form C-108)

Form C-108 shall be filed in accordance with Rule 701-B.

XVII. It is proposed to amend Rule 1115 to read in its entirety as follows:

RULE 1115. OPERATOR'S MONTHLY REPORT (Form C-115)

Operator's Monthly Report, Form C-115 or Form C-115-EDP, shall be filed on each producing lease and each secondary recovery project or pressure maintenance project injection well within the State of New Mexico for each calendar month, setting forth complete information and data indicated on said forms in the order, format, and style prescribed by the Division Director. Oil production from wells which are producing into common storage shall be estimated as accurately as possible on the basis of periodic tests.

The reports on this form shall be filed by the producer as follows:

Original to the Oil Conservation Division at Santa Fe; one copy to the District Office of the Division in which district the lease is located; and one copy to each transporter involved. Each report for each month shall be postmarked not later than the 24th day of next succeeding month. Failure of an operator to file this report in accordance with the provisions of this rule may result in cancellation of Form C-104 for the affected well or wells and/or cancellation of authority to inject.

XVIII. It is proposed to amend Rule 1131 to read in its entirety as follows:

RULE 1131. MONTHLY GAS STORAGE REPORT (Form C-131-A)
ANNUAL LPG STORAGE REPORT (Form C-131-B)

Each operator of an underground natural gas storage project shall report its operation monthly on Form C-131-A. Form C-131-A shall be filed in duplicate (one copy to the Santa Fe Office of the Division and one copy to the appropriate district office) and shall be postmarked not later than the 24th day of the next succeeding month.

Each operator of an underground liquefied gas storage project approved by the Division shall report its operation annually on Form C-131-B. Form C-131-B shall be filed in duplicate (one copy to the Santa Fe Office of the Division and one copy to the appropriate district office) and shall be postmarked not later than the 24th day of January of each year.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no

II. Operator: _____ Address: _____

Contact party: _____ Phone: _____

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? ☐ yes ☐ no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proppsed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

* VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

How complete? XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: _____ Title _____

Signature: _____ Date: _____

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(3) the formation name and depth with expected maximum injection rates and pressures; and

(4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Form C-131-A

NEW MEXICO OIL CONSERVATION DIVISION
P. O. BOX 2088, SANTA FE, NEW MEXICO 87501

MONTHLY GAS STORAGE REPORT

_____ (Company) _____ (Address)

NAME OF STORAGE PROJECT: _____ COUNTY _____ REPORT MONTH _____

WELL NAME AND NUMBER	LOCATION UNIT	SEC.	TWP.	RANGE	MAXIMUM INJECTION PRESSURE	INJECTION (MCF)	WITH-DRAWAL (MCF)
TOTALS							

TOTAL CAPACITY (MMCF) _____

BEGINNING STORAGE (MMCF) _____

NET CHANGE (MMCF) _____

ENDING STORAGE (MMCF) _____

CALCULATED RESERVOIR PRESSURE @ END OF MONTH _____

I hereby certify that this report is true and complete to the best of my knowledge and belief.

By _____

Title _____ Date _____

Form C-131-B

NEW MEXICO OIL CONSERVATION DIVISION
P. O. BOX 2088. SANTA FE, NEW MEXICO 87501

ANNUAL LPG STORAGE REPORT

_____ _____
(Company) (Address)

NAME OF STORAGE PROJECT: _____ COUNTY _____ REPORT YEAR _____

WELL NAME AND NUMBER	LOCATION UNIT	SEC.	TWP.	RANGE	MAXIMUM INJECTION PRESSURE	INJECTION (BBLS)	WITHDRAWAL (BBLS)
TOTALS							

CALCULATED RESERVOIR PRESSURE @ END OF YEAR _____

TOTAL CAPACITY (BBLS) _____ BEGINNING STORAGE (BBLS) _____

NET CHANGE (BBLS) _____ ENDING STORAGE (BBLS) _____

I hereby certify that this report is true and complete to the best of my knowledge and belief.

By _____ Title _____

Date _____

INJECTION WELL DATA SHEET

OPERATOR _____ LEASE _____

WELL NO. _____ FOOTAGE LOCATION _____ SECTION _____ TOWNSHIP _____ RANGE _____

Schematic

Tabular Data

Surface Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet
(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ set in a
(material)

_____ packer at _____ feet
(brand and model)

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? ☐ Yes ☐ No

   If no, for what purpose was the well originally drilled? _____

   _____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

   _____

   _____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

   _____

   _____

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Ch. I

[WH-FRL-1935-5]

State Underground Injection Control Programs

AGENCY: Environmental Protection Agency.

ACTION: Interim Final Guidance and Request for Public Comment.

SUMMARY: The Safe Drinking Water Act of 1974 (SDWA) was amended on December 5, 1980. Among other changes, the amendments added a new Section 1425 to the Act. Section 1425 establishes an alternative method for a State to obtain primary enforcement responsibility for those portions of its Underground Injection Control (UIC) program related to the recovery and production of oil and gas. More specifically, "* * * in lieu of the showing required under subparagraph (A) of section 1422(b)(1) the State may demonstrate that such portion of the State program meets the requirements of subparagraphs (A) through (D) of section 1421(b)(1) and represents an effective program * * * to prevent underground injection which endangers drinking water sources."

Section 1422(b)(1) of the SDWA specifies that a State, in order to obtain approval for its UIC program, must make a satisfactory showing that it has adopted and will implement a program that meets the requirements of regulations issued by the Administrator. Such regulations have been promulgated at 40 CFR Parts 122, 123, 124 and 146.

This notice is intended to provide guidance for the implementation of the alternative demonstration provided for in the new Section 1425. It contains information on: (1) how States may apply for approval under Section 1425; and (2) the criteria the Environmental Protection Agency (EPA) will use in approving or disapproving applications under Section 1425.

DATES: Effective date: This guidance is issued as interim final. It becomes effective upon May 19, 1981.

COMMENT DATE: EPA will accept public comments on this document until July 20, 1981.

ADDRESS: Comments should be sent to Mr. Thomas E. Belk, Chief, Ground Water Protection Branch, Office of Drinking Water (WH-550), Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460.

Such comments, together with other relevant materials, will be maintained at the same address.

FOR FURTHER INFORMATION CONTACT: Mr. Thomas E. Belk (202) 426-3934.

OMB Approval: This guidance has been cleared for publication by the Office of Management and Budget.

Dated: May 11, 1981.

Walter C. Barber, Jr.,
Acting Administrator.

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1.0 Purpose and Scope

The 1980 amendments to the Safe Drinking Water Act (SDWA) added a new Section 1425 which provides an alternative means for States to acquire primary enforcement responsibility for the control of underground injection related to the recovery and production of oil and natural gas. This document contains guidance on: (1) how States may apply for approval under Section 1425; and (2) the criteria EPA will use in approving or disapproving applications under Section 1425.

EPA is mindful of the fact that, in enacting Section 1425, Congress intended that States be offered an alternative to the detailed requirements of the regulations promulgated at 40 CFR Parts 122, 123, 124 and 146, and that State programs to control injections related to oil and gas production be considered on their merits.

Nevertheless, Section 1425 does require a State to demonstrate that such portion of its Underground Injection Control (UIC) program: (1) meets the requirements of Section 1421(b)(1) (A) through (D); and (2) represents an effective program to prevent injection which endangers drinking water sources. Further, Section 1425 requires the Administrator of EPA to approve or disapprove such portion of a State's UIC program for primary enforcement responsibility based on his judgment of whether the State has succeeded in making the required demonstrations.

Consequently, EPA believes that States are entitle to guidance on the implementation of Section 1425. The procedures and criteria contained in this document were developed in consultation with interested States. They represent a "model" State application and program which, in EPA's view, meet the requirements of the amended SDWA. A State application which conforms to these procedures and meets the suggested criteria should be approvable under Section 1425.

A State may choose to apply in a different form and make demonstrations different from those suggested in this document. EPA will consider such applications. However, they will have to be reviewed on a case-by-case basis to determine whether they meet the requirements of the Act. Such reviews may involve additional requests for information, more time and less assurance of ultimate approval.

This guidance and the regulations promulgated at 40 CFR Parts 122, 123, 124 and 146 are both aimed at achieving the same fundamental objective: the protection of underground sources of drinking water from endangerment by well injection. There are, however, some significant differences between them.

The most immediate difference is that one is a regulation and the other is guidance. This was a deliberate choice on the part of the Agency because it does not view the new Congressional mandate as requiring another set of detailed regulations for its implementation. In any event, there is insufficient time to develop such regulations in light of the short time remaining before State program submissions are due under Section 1422(b)(1)(A) of the SDWA.

A further difference is that State program submissions under Section 1422(b)(1) of the SDWA are required to meet a different legal standard from State program submissions under Section 1425. Under Section 1422(b)(1)(A), the State is required to make a showing that its UIC program "meets the requirements of regulations in effect under section 1421: * * *" Under Section 1425, the State is required to demonstrate that the Class II portion of its UIC program meets the requirements of Section 1421(b)(1) (A) through (D) and represents an effective program to prevent underground injection which endangers drinking water sources.

As a consequence of these differences, this guidance is much less detailed than the regulations and leaves a great deal more discretion to the State to develop and EPA to approve State UIC programs under Section 1425.

2.0 Applications

2.1 *Definition*

For the purposes of Section 1425 of the SDWA:

1. The underground injection of brine or other fluids which are brought to the surface in connection with oil or natural gas production; and

2. Any underground injection for the secondary or tertiary recovery of oil or natural gas; and

3. Any injection for the storage of hydrocarbons which are liquid at standard temperature and pressure; shall be defined as "Class II" injections or wells.

2.2 *Need for an Underground Injection Control (UIC) Program*

Any State which has Class II wells must have an UIC program to assure that such wells do not endanger underground sources of drinking water (USDWs). A State may submit its Class II program to EPA for approval. If EPA approves the program, the State has primary enforcement responsibility for that portion of its UIC program.

If a State chooses not to apply, or if its program is disapproved, or if subsequent to approval the State loses primary enforcement responsibility because the Administrator determines, under Section 1425(c)(2), that the demonstration is no longer valid, EPA must prescribe and implement a program in that State. When EPA implements a Class II program for a State, it will do so in accordance with the requirements of 40 CFR Parts 122, 124 and 146.

A State which does *not* have any Class II wells *need not* develop a Class II control program in order to qualify for primacy under the UIC program. Under the regulations at 40 CFR 123.51(d), such a State only needs to demonstrate that Class II wells cannot legally occur until the State has developed an approved program to regulate such injections.

2.3 *Applications Under Section 1425*

Any State which has Class II wells may, at its option apply for primary for its Class II UIC program either: (1) under the regulations at 40 CFR Parts 122, 123, 124 and 146; or (2) under Section 1425 of the SDWA.

2.4 *When Should Application be Made?*

House Report No. 96-1348, accompanying the 1980 amendments, states on page 5 that: "The Committee expects that alternative demonstrations will be submitted on the same schedule. Accordingly, as demonstrations required for state programs meeting Federal regulations promulgated under Section

1421(b)." States have 270 days from July 24, 1980 to submit applications, or until *April 20, 1981.*

This period may be extended by up to another 270 days by the Regional Administrators for "good cause", or until *January 15, 1982.*

A State need not wait until it is ready to submit its application for all classes of wells. EPA will entertain partial applications for primacy as long as the program for which approval is sought covers: (1) all elements of a program to regulate a particular class or classes of injection practices even if the class or classes involve the jurisdiction of more than one State agency; or (2) all elements of a program to regulate all the classes or types of wells within the jurisdiction of a single State agency. However, if a State submits a partial application, the alternative demonstration under Section 1425 may be used only for the Class II portion of the application. The portion of the program covering types of practices other than Class II will have to meet the requirements of 40 CFR Parts 122, 123, 124 and 146.

2.5 Effects of a Partial Application

The recent amendments have changed Section 1443 of the SDWA so that a State may receive grant support until July 1982. After that date, it must have achieved full primacy in order for grant eligibility to continue. As a consequence, a State may receive partial primacy for its Class II control program and continue to receive grants: (1) if it has obtained an extension for submitting the remainder of its application; (2) until it declares its intention not to file any further applications; (3) until EPA terminates its grant for cause; or (4) until July 1982, whichever is soonest.

If a State receives full primacy, its eligibility for grants will, of course, continue.

3.0 Elements of an Application for Primacy under Section 1425

3.1 Elements of a State Application

A complete State submission should contain the following elements:

a. a letter from the Governor;

b. a description of the program;

c. a statement of legal authority;

d. copies of the pertinent statutes and regulations;

e. copies of the pertinent State forms; and

f. a signed copy of a Memorandum of Agreement.

The nature of these elements is described further below.

3.2 Letter From the Governor

The letter from the Governor should:

a. request approval of the State's program for primacy under the UIC program;

b. specify whether approval is sought under Section 1425 of the SDWA or under 40 CFR Parts 122, 123, 124, and 146; and

c. affirm that the State is willing and able to carry out the program described.

3.3 Program Description

A State's application is expected to contain a full description of the program for which approval is sought, in sufficient detail to enable EPA to make the judgments outlined in Section 5 below. Such a description should:

a. Specify the structure, coverage and scope of the program;

b. Specify the State permitting process and address, to the extent applicable, the following elements:

1. Who applies for the permit or the authorization by rule;

2. Signatories required for permit application and reports;

3. Conditions applicable to permits, including: duty to comply with permit conditions, duty to reapply, duty to halt or reduce activity, duty to mitigate, proper operation and maintenance, permit actions, property rights, inspection and entry monitoring, record keeping, and reporting requirements;

4. Compliance schedules;

5. Transfer of permits;

6. Termination of permits;

7. Whether area permits or project permits are granted;

8. Emergency permits;

9. The availability and use of variances and other discretionary exemptions to programmatic requirements; and

10. Administrative and judicial procedures for the modification of permits.

c. Describe the operation of any rules used by the State to regulate Class II wells;

d. Describe the technical requirements applied to operators by the State program;

e. Include a description of the State's procedures for monitoring, inspection and requiring reporting from operators;

f. Discuss the State's enforcement program, e.g.:

1. Administrative procedures for dealing with violations;

2. Nature and amounts of penalties, fines and other enforcement tools;

3. Criteria for taking enforcement actions; and

4. If the State is seeking approval for an existing program, summary data on:

A. Past practice in the use of enforcement tools;

B. Current compliance/non-compliance with State requirements;

C. Repeat violations at the same well or by the same operator at different wells;

D. Well failure rates; and

E. USDW contamination cases based on actual field work and citizen complaints.

g. Detail the State's staffing and resources, and demonstrate that these are sufficient to carry out the proposed program;

h. If more than one State agency is involved in the Class II program, describe their relationships with regard to carrying out the Class II program;

i. Contain a reasonable schedule for completion of an inventory of Class II wells in the State;

j. Include the procedures for exempting aquifers, a list of the aquifers or portions of aquifers proposed for exemption at the time of application, and the reasons for the proposed exemptions, unless these have been described in the partial applications made by the State;

k. Contain a plan (including the basis for assigning priorities) for the review of all existing Class II wells in the State within five years of program approval to assure that they meet current non-endangerment requirements of the State (this may include permit modification and reissuance, if appropriate);

l. Describe State requirements for ensuring public participation in the process of issuing permits and modifying permits in the case of substantial changes in the project area, injection pressure or the injection horizon; and

m. Describe State procedures for responding to complaints by the public.

3.4 Statement of Legal Authority

The statement of legal authority is intended to assure EPA that the State has the legal authority to carry out the program described. It may be signed by a competent legal officer of the State, for example, the Attorney General, the Counsel for the responsible State agency, or any other officer who represents the Agency in legal matters.

The statement may, at the option of the State, consist of a full analysis of the legal basis for the State program, including case law as appropriate. Or the statement may consist of a simple certification by the legal representative that the State has adequate authority to carry out the described progam. If the State chooses to submit a certification, the program description should detail

the legal authority on which the various elements of the State's program rest.

3.5 Copies of Statutes and Regulations

The application should contain copies of all applicable State statutes, rules and regulations, including those governing State administrative procedures.

3.6 Copies of State Forms

The application should contain examples of all forms used by the State in administering the program, including application forms, permit forms and reporting forms.

3.7 Memorandum of Agreement

The head of the cognizant State agency and the EPA Regional Administrator shall execute a memorandum of agreement which shall set forth the terms under which the State will carry out the described program and EPA will exercise its oversight responsibility. A copy of such an agreement signed by the Director of the State agency, shall be submitted as part of the application.

At a minimum, the memorandum of agreement should:

a. Include a commitment by the State that the program will be carried out as described and be supported by an appropriate level of staff and resources;

b. Recognize EPA's right of access to any pertinent State files;

c. Specify the procedures (e.g., notification to the State and participation by State officials) governing EPA inspections of wells or operator records;

d. Recognize EPA's authority to take Federal enforcement action under Section 1423 of the SDWA in cases where the State fails to take adequate enforcement actions;

e. Agree to provide EPA with an annual report on the operation of the State program, the content of which may be negotiated between EPA and primacy States from time to time;

f. Provide that aquifer exemptions for Class II wells be consistent with aquifer exemptions for the rest of the UIC program;

g. When appropriate, may include provisions for joint processing of permits by the State and EPA for facilities or activities which require permits from both EPA and the State under different programs; and

h. Specify that if the State proposes to allow any mechanical integrity tests other than those specified or justified in the program application, the Director will notify the cognizant Regional Administrator and provide enough information about the proposed test that a judgment about its usefulness and reliability may be made.

4.0 Process for Approval or Disapproval of Application

4.1 Public Participation by States

Section 1425 relieves States of the responsibility to hold public hearings or afford an opportunity for public comment prior to submitting an application to EPA. Therefore, when application is made by a State under Section 1425, it may, but need not, provide an opportunity for public hearings or comments.

4.2 Complete Applications

Within 10 working days of the receipt of a final application, EPA will determine whether the application is complete or not and so notify the State in writing. If the application is found to be incomplete it will be returned to the State with specific requests for additional material or changes. However, the State may, at its option, insist that EPA complete its review of an application as submitted.

4.3 EPA Review

a. EPA has 90 days to approve or disapprove an application. If EPA finds that the application is complete, the review period will be deemed to have begun on the date the application was received in the cognizant Regional Office. If an application has been found to be incomplete and the State insists that EPA proceed with its review of the application as submitted, the review period will begin on the date that EPA receives the State's request to proceed in writing. The review period may be extended by the mutual consent of EPA and the State.

b. Within the 90-day period, EPA will request public comments and provide an opportunity for public hearing on each application, in the applying State, in accordance with 40 CFR 123.53(c) and (d). If the State has not done so, EPA will hold at least one public hearing in the State.

c. If a State's application is approved, the State shall have primary enforcement responsibility for its Class II program.

d. If a State's application is disapproved, EPA intends within 90 days of disapproval or as soon thereafter as feasible, prescribe a Class II program for the State in accordance with Section 1422(c) of the SDWA and 40 CFR Parts 122, 124 and 146.

5.0 Criteria for Approving or Disapproving State Programs

5.1 General

Section 1425 of the SDWA states that: "* * * the State may demonstrate that [the Class II] portion of the State program meets the requirements of subparagraphs (A) through (D) of Section 1421(b)(1) and represents an effective program (including adequate recordkeeping and reporting) to prevent underground injection which endangers drinking water sources."

Thus Section 1425 requires that a State, in order to receive approval for its Class II program under the optional demonstration, make a successful showing that its program meets five conditions:

a. Section 1421(b)(1)(A) requires that an approvable State program prohibit any underground injection in such State which is not authorized by permit or rule.

b. Section 1421(b)(1)(B) requires that an approvable State program shall require that:

1. The applicant for a permit must satisfy the State that the underground injection will not endanger drinking water sources; and

2. No rule may be promulgated which authorizes any underground injection which endangers drinking water sources.

c. Section 1421(b)(1)(C) requires that an approvable State program include inspection, monitoring, recordkeeping, and reporting requirements.

d. Section 1421(b)(1)(D) requires that an approvable State program apply to: (1) underground injections by Federal agencies; and (2) underground injections by any other person, whether or not occurring on property owned or leased by the United States.

e. Section 1425(a) requires that an approvable State program represent an effective program to prevent underground injection which endangers drinking water sources.

The following sections provide guidance to EPA personnel for making the required judgments with respect to these five conditions in the review of an application for approval under Section 1425.

5.2 Section 1421(b)(1)(A)

The question of whether a State program prohibits unauthorized Class II injections is a function of the State's statutory and regulatory authority. A determination of whether the State program meets this condition should be made from a review of the coverage and scope of the program, the statement of

legal authority submitted by the State, and of the statutes and regulations themselves. One important consideration is whether the State has an appropriate formal mechanism for modifying permits in cases where the operation has undergone significant change.

5.3 Section 1421(b)(1)(B)

The determination of whether a State program is adequate in requiring that the applicant demonstrate that the proposed injection will not endanger drinking water sources turns on two elements: (1) whether the State program places on the applicant the burden of making the requisite showing; and (2) the extent of the information the applicant is required to provide as a basis for the State agency's decision. Whether the burden of making the requisite showing is on the applicant should be determined from the State's description of its permitting process. If the necessary information is available in State files, the Director need not require it to be submitted again. However, as a matter of principle, the applicant should not escape ultimate responsibility for assuring that the information about his operation is accurate and available. One consideration in this regard is whether the well operator has a responsibility to inform the permitting authority about any material change in his operation, or any pertinent information acquired since the permit application was made.

With regard to the extent of the information to be considered by the Director, the State program should require an application containing sufficiently detailed information to make a knowledgeable decision to grant or deny the permit. Such information should include:

a. A map showing the area of review and identifying all wells of public record penetrating the injection interval;

b. A tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data should include a description of each well's type, construction, date of drilling location, depth, record of plugging and/or completion, and any additional information the Director may require;

c. Data on the proposed operation, including:

1. Average and maximum daily rate and volume of fluids to be injected;

2. Average and maximum injection pressure; and

3. Source, and an appropriate analysis of injection fluid if other than produced water, and compatibility with the receiving formation;

d. Appropriate geological data on the injection zone and confining zones including lithologic description, geological name, thickness, and depth;

e. Geologic name, and depth to bottom of all underground sources of drinking water which may be affected by the injection;

f. Schematic drawings of the surface and subsurface construction details of the system;

g. Proposed stimulation program;

h. All available logging and testing data on the well; and

i. The need for corrective action on wells penetrating the injection zone in the area of review.

There are two circumstances under which the director may require less information from the applicant. First, the Director need not require an applicant to resubmit information which is up-to-date and readily available in State files. Second, a State's application may outline circumstances or conditions where certain items of information may not be required in a specific case. Such circumstances may include situations where, based upon demonstrable knowledge available to the director about a specific operation, the Director proposes to permit that operation without requiring corrective action or alternatives to it. Examples of such circumstances are gravity or vacuum injections and injections through zones of plastic heaving shales.

Section 1421(b)(1)(B) also requires a State which authorizes Class II injections by rule to show that such rules do not allow any underground injection which endangers drinking water sources. The determination of whether the State program meets this requirement may be made from the program description, statement of legal authority, the text of the rules themselves, and the manner in which the State has administered such rules.

5.4 Section 1421(b)(1)(C)

This section of the SDWA requires that an approvable State program contain elements for inspection, monitoring, recordkeeping and reporting. The adequacy of the State program in these respects may be assessed with the use of the following criteria.

a. *Inspection.*

An approvable State program is expected to have an effective system of field inspection which will provide for:

1. Inspections of injection facilities, wells, and nearby producing wells; and

2. The presence of qualified State inspectors to witness mechanical integrity tests, corrective action operations, and plugging procedures.

An adequate program should insure that, at a minimum, 25% of all mechanical integrity tests performed each year will be witnessed by a qualified State inspector.

b. *Monitoring, Reporting and Recordkeeping.*

1. The Director should have the authority to sample injected fluids at any time during injection operation.

2. The operator should be required to monitor the injection pressure and injection rate of each injection well at least on a monthly basis with the results reported annually.

3. The Director should require prompt notice of mechanical failure or downhole problems in injection wells.

4. The State should assure retention and availability of all monitoring records from one mechanical integrity test to the next (i.e., 5 years).

5.5 Section 1421(b)(1)(D)

An approvable State program must demonstrate the State's authority to regulate injection activities by Federal agencies and by any other person on property owned or leased by the United States. The adequacy of the State's authority in these regards may be assessed on the basis of the program description and statement of legal authority submitted by the State. Such authority and the programs to carry it out must be in place at a time no later than the approval of the program by EPA. EPA will administer the UIC program on Indian lands unless the State has the authority and is willing to assume responsibility.

5.6 Section 1425(a)

In addition to the four demonstrations discussed above, Section 1425 requires a State to demonstrate that the Class II program for which it seeks approval in fact "represents an effective program to prevent underground injection which endangers drinking water sources." Among the factors that EPA will consider in assessing the "effectiveness" of a State program are: (1) whether the State has an effective permitting process which results in enforceable permits; (2) whether the State applies certain minimum technical requirements to operators by permit or rule; (3) whether the State has an effective surveillance program to determine compliance with its requirements; (4) whether the State has effective means to enforce against violators; and (5) whether the State assures adequate participation by the public in the permit issuance process.

Evidence of the presence or absence of ground water contamination is important. However, it cannot serve as

the sole criterion of effectiveness. Not all States have collected such evidence systematically. More importantly, the absence of evidence of contamination, especially if based on an absence of complaints, is not necessarily proof that ground water contamination has not occurred.

Each of the five factors named above is discussed further in the following subsections. In its review of these factors, EPA is not necessarily looking for a minimum set or even any particular elements. The effectiveness of a State program will be assessed by reviewing the State's entire program. The absence of even an important element in a State program may not by itself mean that the program is ineffective as long as there is a credible program for detecting and eliminating injection practices which allow any migration which endangers drinking water sources.

a. *Permitting Process.*

Section 3.3b of the Program Description outlines the major elements of the permitting process. The listing of these considertions should not be viewed as Federally imposed minimum policy, but rather as an outline of the information which will be necessary for EPA to evaluate the effectiveness of the State's permitting process.

States may deal with permitting considerations, such as limitations on the transfer of permits, in a variety of ways. There are many permitting approaches which may be equally effective. EPA's review will turn on whether the permitting process, taken as a whole, represents an effective mechanism for applying appropriate and enforceable requirements to operators.

b. *Technical Criteria.*

Any approvable State program should have the authority to apply, by permit or rule, certain technical requirements designed to prevent the migration of injected or formation fluids into USDWs. Any State program adopting the language of 40 CFR 146 should be considered approvable on its face value for that portion of the program to which it applies. State applications not relying on the language of 40 CFR 146 should be reviewed for the presence and adequacy of the following kinds of technical requirements in the State program.

1. *Siting.*

Siting requirements should be considered in the placement and construction of any Class II disposal well. Such requirements should be designed to assure that disposal zones are hydraulically isolated from underground sources of drinking water (USDWs). Such isolation may be shown through information supplied by the applicant, or data, on file with the State, which would be analyzed by qualified State staff.

2. *Construction.*

A. Effective programs should require all newly drilled Class II wells to be cased and cemented to prevent movement of fluids into USDWs. Specific casing and cementing requirements should be based on:

i. the depth to the base of the USDW;

ii. the nature of the fluids to be injected; and

iii. the hydrologic relationship between the injection zone and the base of the USDW.

B. All newly converted Class II wells should be required to demonstrate mechanical integrity.

3. *Operation.*

A. Adequate operating requirements should establish a maximum injection pressure for a well which assures that the pressure in the injection zone during injection does not initiate new fractures or propagate existing fractures in the confining zone. Limitations on injection pressure should also preclude the injection from causing the movement of fluids into an underground source of drinking water.

Acceptable methods for establishing limitations on injection pressures include:

i. Calculated fracture gradients;

ii. Injectivity tests to establish fracture pressure; or

iii. Other compelling geologic, hydrologic or engineering data.

B. An effective State program should have the demonstrated ability to detect and remedy system failures discovered during routine operation or monitoring so as to mitigate endangerment to USDWs.

4. *Plugging and Abandonment.*

Plugging and abandonment requirements should be reviewed for the presence of the following elements:

A. That appropriate mechanisms are available in the State program to insure the proper plugging of wells upon abandonment;

B. That all Class II wells are required, upon abandonment, to be plugged in a manner which will not allow the movement of fluids into or between USDWs; and

C. That operators are required to maintain financial responsibility in some form, for the plugging of their injection wells.

5. *Area of Review.*

An effective State program is expected to incorporate the concept of an area of review defined as a radius of not less than ¼ mile from the well, field, or project.

Alternatively, a State program may substitute a concept of a zone of endangering influence in lieu of this fixed radius. The zone of endangering influence should be determined for the estimated life of the well, field, or project through the use of an appropriate calculation, formula, or mathematical model that takes the relevant geologic, hydrologic, engineering and operational features of the injection well, field or project into account.

6. *Corrective Action.*

An approvable State program is expected to include the authority to require the operator to take corrective actions on wells within the area of review or zone of endangering influence.

A. Corrective action may include any of the following types of requirements:

i. recementing;

ii. workover;

iii. reconditioning; or

iv. plugging or replugging.

B. A State program may provide the Director the discretion to specify the following types of requirements *in lieu* of immediate corrective action:

i. Permit conditions which will assure a negative hydraulic gradient at the base of USDW at the well in question;

ii. Monitoring program (i.e., monitoring wells completed to the base of USDW within the zone of influence); or

iii. Periodic testing to determine fluid movement outside the injection interval at other wells within the area of review.

However, if monitoring or testing indicate the potential endangerment of any USDW, corrective action shall be required.

C. In cases where the Director has demonstrable knowledge of geologic, hydrologic, or engineering conditions, specific to a given operation, which assure that wells within the zone of endangering influence or area of review will not serve as conduits for migration of fluids into an USDW, a State program may provide the Director the discretion to permit a specific operation without requiring corrective actions or any of the alternatives specified in Subsection (B) above. Examples of such circumstances are gravity or vacuum injections and injections through zones of plastic heaving shales. However, under the statute the State program may, in no circumstances, authorize an injection which endangers drinking water sources.

7. *Mechanical Integrity.*

An approvable State program is expected to require the operator to demonstrate the mechanical integrity of a *new* injection well prior to operation and of *all* injection wells periodically, at least once every five years. For the purpose of assessing the State's mechanical integrity requirements:

A. An injection well has mechanical integrity if:

i. there is no significant leak in the casing, tubing or packer; and

ii. there is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the well bore.

B. The following tests are considered to be acceptable tests to demonstrate the absence of significant leaks:

i. a pressure test with liquid or gas;

ii. the monitoring of annulus pressure in those wells injecting at a positive pressure, following an initial pressure test; or

iii. all other tests or combinations of tests considered effective by the Director.

C. The following are considered to be acceptable tests to demonstrate the absence of significant fluid movement in vertical channels adjacent to the well bore:

i. cementing records (they need not be reviewed every five years);

ii. tracer surveys;

iii. noise logs;

iv. temperature surveys; or

v. any other test or combination of tests considered effective by the Director.

D. If the State program allows or specifies alternative tests under B(iii) or (C)(v) above, the program description should supply sufficient information so that the usefulness and reliability of such tests in the proposed circumstance may be assessed.

c. *Surveillance.*

The demonstration of an effective surveillance program has already been discussed in Section 5.4 above.

d. *Enforcement.*

A State's enforcement of its program is a crucial consideration in making the judgment of whether the State program is effective. States have used a number of enforcement tools to shift the economic incentive of operation more toward compliance with the law. Often State programs have employed civil penalties and, for repeat or willful violators, criminal fines or jail sentences. Other commonly used practices are administrative orders and court injunctions. In the area of oil and gas regulation, many States have found pipeline severance a powerful tool. In assessing a State's enforcement program, EPA will consider not whether a State has all or any particular enforcement tools but whether the State's program, taken as a whole, represents an effective enforcement effort. Certainly, there are many enforcement matrices which create effective programs. In addition, EPA will look at whether the State has exercised its enforcement authorities adequately in the past.

e. *Public Participation.*

One factor to be used by EPA in assessing the "effectiveness" of a State program is the degree to which it assures the public an opportunity to participate in major regulatory decisions. It is assumed that most States already have legislation that governs public participation in State decision-making and defines such processes as appeals, etc. Therefore, the following represents only a minimal list of elements that EPA will consider:

1. Public Notice of permit application:

A. The State may give such notice or it may require the applicant to give notice.

B. The method of giving notice should be adequate to bring the matter to the attention of interested parties and, in particular, the public in the area of the proposed injection. This may involve one or more of the following:

i. Posting;

ii. Publication in an official State register;

iii. Publication in a local newspaper;

iv. Mailing to a list of interested persons; or

v. Any other effective method that achieves the objective.

C. An adequate notice should:

i. Provide an adequate description of the proposed action;

ii. Identify where an interested party may obtain additional information. This location should be reasonably accessible and convenient for interested persons;

iii. State how a public hearing may be requested; and

iv. Allow for a comment period of at least 15 days.

2. The State program should provide opportunity for a public hearing if the Director finds, based upon requests, a significant degree of public interest.

A. The Director may hold a hearing of his own motion and give notice of such hearing with the notice of the application.

B. If a public hearing is decided upon during the comment period, notice of public hearing shall be given in a newspaper of general circulation. The hearing should be scheduled no sooner than 15 days after the notice.

3. The final State action on the permit application should contain a "response to comments" which summarizes the substantive comments received and the disposition of the comments.

6.0 Oversight

6.1 General

Once a Class II program is approved under Section 1425, the State has primary enforcement responsibility for such portion of its UIC program. The Class II program is a grant-eligible activity and is subject to the same EPA oversight as other portions of the UIC program (e.g., State/EPA Agreements, Mid-course Reviews, grant conditions, etc.).

6.2 Mid-Course Evaluation

EPA will conduct a mid-course evaluation of Class II programs as envisioned in 40 CFR 122.16(C)(4)(ii) and 146.25. However, *in lieu* of a special reporting requirement, additional requirements have been added to the State's annual report to EPA. Should this mechanism prove unable to provide the necessary data, a special reporting requirement may be negotiated with the primacy States at a later date.

6.3 Annual Reporting

As part of the Memorandum of Agreement, each State shall agree to submit an annual report on the operation of its Class II program to EPA. At a minimum the annual report shall contain:

a. An updated inventory;

b. A summary of surveillance programs, including the results of monitoring and mechanical integrity testing, the number of inspections, and corrective actions ordered and witnessed;

c. An account of all complaints reviewed by the State and the actions taken;

d. An account of the results of the review of existing wells made during the year; and

e. A summary of enforcement actions taken.

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OIL CONSERVATION COMMISSION CASE NO. 7272
TO BE HEARD JUNE 4, 1981, MORGAN HALL,
STATE LAND OFFICE BUILDING, SANTA FE,
NEW MEXICO

I. It is proposed to add the following three definitions:

AQUIFER shall mean a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

EXEMPTED AQUIFER shall mean an aquifer that does not currently serve as a source of drinking water, and which cannot now and will not in the foreseeable future serve as a source of drinking water because: (1) it is hydrocarbon producing; (2) it is situated at a depth or location which makes the recovery of water for drinking water purposes economically or technologically impractical; or, (3) it is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption.

UNDERGROUND SOURCE OF DRINKING WATER shall mean an aquifer which supplies water for human consumption or which contains ground water having a total dissolved solids concentration of 10,000 mg/l or less and which is not an exempted aquifer.

II. It is proposed to amend Rule 103 to read in its entirety as follows:

RULE 103. SIGN ON WELLS

All wells, subject to these regulations, including drilling, production, and injection wells shall be identified by a sign, posted on the derrick or not more than 20 feet from such well, and such sign shall be of durable construction and the lettering thereon shall be kept in a legible condition and shall be large enough to be legible under normal conditions at a distance of 50 feet. The wells on each lease or property shall be numbered in non-repetitive, logical and distinctive sequence. Each sign shall show the number of the well, the name of the lease (which shall be different or distinctive for each lease), the name of the leasee, owner or operator, and the location by quarter section, township and range. The location, for each sign posted after March 1, 1968, shall indicate the quarter-quarter section, township, and range.

III. It is proposed to amend Rule 106(a) to read in its entirety as follows:

(a) During the drilling of any oil well, gas well, injection well or any other service well, all oil, gas, and water strata above the producing and/or injection horizon shall be sealed or separated in order to prevent their contents from passing into other strata.

IV. It is proposed to amend the first paragraph of Rule 107(a) to read in its entirety as follows:

RULE 107. CASING AND TUBING REQUIREMENTS

(a) Any well drilled for oil or natural gas or for injection shall be equipped with such surface and intermediate casing strings and cement as may be necessary to effectively seal off and isolate all water-, oil-, and gas-bearing strata and other strata encountered in the well

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. 7272 Exhibit No. B
Submitted by OCD
Hearing Date June 4, 1981

down to the casing point. In addition thereto, any well completed for the production of oil or natural gas shall be equipped with a string of properly cemented production casing at sufficient depth to ensure protection of all oil- and gas-bearing strata encountered in the well, including the one(s) to be produced.

V. It is proposed to amend Rule 204 to read in its entirety as follows:

RULE 204. LIABILITY

The owner of any well drilled for oil or gas, for injection, or any seismic, core or other exploratory holes, whether cased or uncased, shall be responsible for the plugging thereof.

VI. It is proposed to re-title Section I and amend Rule 701 to read in their entirety as follows:

I - SECONDARY RECOVERY, PRESSURE MAINTENANCE, SALT WATER DISPOSAL, AND UNDERGROUND STORAGE

RULE 701. INJECTION OF FLUIDS INTO RESERVOIRS

A. Permit for Injection Required

The injection of gas, liquefied petroleum gas, air, water, or any other medium into any reservoir for the purpose of maintaining reservoir pressure or for the purpose of secondary or other enhanced recovery or for storage or the injection of water into any formation for the purpose of water disposal shall be permitted only by order of the Division after notice and hearing, unless otherwise provided herein.

B. Method of Making Application

1. Application for original authority for the injection of gas, liquefied petroleum gas, air, water, or any other medium into any formation for any reason, including salt water disposal, or for the expansion of any injection project by the completion or conversion of injection well(s) shall be by submittal of Division Form C-108 complete with all attachments.

2. The applicant shall furnish, by certified or registered mail, a copy of the application to the owner of the surface of the land on which the injection or disposal well is to be located and to each leasehold operator within one-half mile of the well location.

3. Applications qualifying for administrative approval must be accompanied by a copy of a legal publication published by the applicant in a newspaper of general cirulcation in the county in which the proposed injection well is located. The details required in such notice are listed on Side 2 of Form C-108.

4. No application shall be approved until the applicant shall supply evidence of mailing as required under 2. above and, if applicable, proof of publication.

C. Hearings

If a written objection to any application for administrative approval of an injection well is filed within fifteen (15) days after receipt by the Division of a complete application, or if a hearing is required by the Division,

the application shall be set for hearing, and notice thereof shall be given by the Division. If no objection is filed, and a hearing is not required, the matter may be approved administratively.

D. Salt Water Disposal Wells

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for water disposal wells only, without notice and hearing, when the waters to be disposed of are mineralized to such a degree as to be unfit for domestic, stock, irrigation, or other general use, and when said waters are to be disposed of into a formation older than Triassic (Lea County only) which is non-productive of oil or gas within a radius of two miles from the proposed injection well.

Disposal will not be permitted into zones containing waters having total dissolved solids concentrations of 10,000 mg/l or less except after notice and hearing, provided however, that the Division may establish exempted aquifers for such zones wherein such injection may be approved administratively.

E. Pressure Maintenance Projects

1. Pressure maintenance projects are defined as those projects in which fluids are injected into the producing horizon in an effort to build up and/or maintain the reservoir pressure in an area which has not reached the advanced or "stripper" state of depletion.

2. All applications for establishment of pressure maintenance projects shall be set for hearing.

The project area and the allowable formula for any pressure maintenance project shall be fixed by the Division on an individual basis after notice and hearing.

3. Pressure maintenance projects may be expanded and additional wells placed on injection only upon authority from the Division after notice and hearing or by administrative approval.

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for the conversion to injection of additional wells within a project area provided that any such well is necessary to develop or maintain efficient pressure maintenance within such project and provided that no objections are received as provided in Rule 701 C.

F. Water Flood Projects

1. Water flood projects are defined as those projects in which water is injected into a producing horizon in sufficient quantities and under sufficient pressure to stimulate the production of oil from other wells in the area, and shall be limited to those areas in which the wells have reached an advanced state of depletion and are regarded as what is commonly referred to as "stripper" wells.

2. All applications for establishment of water flood projects shall be set for hearing.

The project area of a water flood project shall comprise the proration units owned or operated by a given operator upon which injection wells are located plus all proration units owned or operated by the same operator which directly or diagonally offset the injection tracts and have

producing wells completed on them in the same formation; provided however, that additional proration units not directly nor diagonally offsetting an injection tract may be included in the project area if, after notice and hearing, it has been established that such additional units have wells completed thereon which have experienced a substantial response to water injection.

3. The allowable assigned to wells in a water flood project area shall be equal to the ability of the wells to produce and shall not be subject to the depth bracket allowable for the pool nor to the market demand percentage factor.

Nothing herein contained shall be construed as prohibiting the assignment of special allowables to wells in buffer zones after notice and hearing. Special allowables may also be assigned in the limited instances where it is established at a hearing that it is imperative for the protection of correlative rights to do so.

4. Water flood projects may be expanded and additional wells placed on injection only upon authority from the Division after notice and hearing or by administrative approval.

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for conversion to injection of additional wells provided; that any such well is necessary to develop or maintain thorough and efficient waterflood injection for any authorized project; provided that no objections are received as provided in Rule 701 C.

G. Storage Wells

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for the underground storage of liquefied petroleum gas or liquid hydrocarbons in secure caverns within massive salt beds.

In addition to the filing requirements of Rule 701 B, the applicant for approval of a storage well under this rule shall file the following:

1. With the Division Director:

   (a) A plugging bond in accordance with the provisions of Rule 101;

2. With the appropriate district office of the Division in TRIPLICATE:

   (a) Form C-101, Application for Permit to Drill, Deepen, or Plug Back;

   (b) Form C-102 Well Location and Acreage Dedication Plat; and

   (c) Form C-105, Well Completion or Recompletion Report and Log.

VII. It is proposed to amend Rule 702 to read in its entirety as follows:

RULE 702. CASING AND CEMENTING OF INJECTION WELLS

Wells used for injection of gas, air, water, or any other medium, into any formation shall be cased with safe and adequate casing or tubing so as to prevent leakage, and such casing or tubing shall be so set or cemented to prevent the movement of formation or injected fluid from the injection zone into any other zone or to the surface around the outside of any casing string.

VIII. It is proposed to amend Rule 703 to read in its entirety as follows:

RULE 703. OPERATION AND MAINTENANCE

Injection wells shall be equipped, operated, monitored, and maintained to facilitate periodic testing and to assure continued mechanical integrity which will result in no significant leak in the tubular goods and packing materials used and no significant fluid movement through vertical channels adjacent to the well bore.

Injection wells, project wells, and related surface facilities shall at all times be operated and maintained in such a manner as to confine the injected fluids to the interval or intervals approved and to prevent surface damage or pollution resulting from leaks, breaks, or spills.

Injection well, project well, or surface facility failures which may endanger underground sources of drinking water shall be reported under the "Immediate Notification" procedures of Rule 116.

Injection well or project well failures requiring casing repair or cementing are to be reported to the Division prior to commencement of workover operations.

Injection wells or projects which have exhibited failure to confine injected fluids to the authorized injection zone or zones may be subject to restriction of injection volume and pressure or shut-in until the failure has been identified and corrected.

IX. It is proposed to amend Rule 704 to read in its entirety as follows:

RULE 704. TESTING AND MONITORING

A. Testing

Prior to commencement of injection, wells shall be tested to assure the initial integrity of the casing and the tubing and packer, if used, including pressure testing of the casing-tubing annulus.

At least once every five years thereafter, injection wells shall be tested to assure their continued mechanical integrity. Tests demonstrating continued mechanical integrity shall include the following:

(a) measurement of annular pressures in wells injecting at positive pressures under a packer or a balanced-fluid seal;

(b) pressure testing of the casing-tubing annulus for wells injecting under vacuum conditions; and,

(c) such other tests which are demonstably effective and which may be approved for use by the Division.

The injection well operator shall advise the Division of the date and time of such initial and subsequent integrity tests in order that they may be witnessed.

Notwithstanding the subsequent test requirements above, the Division may require more frequent or more comprehensive testing of injection wells including the use of tracer surveys, noise logs, temperature logs, or other test procedures or devices. Such special tests, when run, shall supplant the required five-year test.

B. Monitoring

Injection wells shall be equipped in order that the injection pressure and annular pressure may be determined at the wellhead and that the injected volume may be determined at least monthly.

Injection wells used for storage shall be equipped so that both injected and produced volumes may be determined at any time.

X. The Division proposes to amend Rule 705 to read in its entirety as follows:

RULE 705. COMMENCEMENT, DISCONTINUANCE, AND ABANDONMENT OF INJECTION OPERATIONS

The following provisions shall apply to all injection projects, storage projects, salt water disposal wells and special purpose injection wells:

A. Notice of Commencement and Discontinuance

1. Immediately upon the commencement of injection operations in any well, the operator shall notify the Division of the date such operations began.

2. Within 30 days after permanent cessation of gas or liquefied petroleum gas storage operations or within 30 days after discontinuance of injection operations into any other well, the operator shall notify the Division of the date of such discontinuance and the reasons therefor. No injection well may be temporarily abandoned for a period exceeding six months unless the injection interval has been isolated by use of cement or a bridge plug. The Director of the Division may delay the cement or bridge plug requirements above upon a demonstration that there is a continuing need for such well, that the well exhibits mechanical integrity, and that continued temporary abandonment will not endanger underground sources of drinking water.

3. Before any injection well is plugged, the operator shall obtain approval for the well's plugging program from the appropriate District Office of the Division in the same manner as when plugging oil and gas wells or dry holes.

B. Abandonment of Injection Operations

1. Whenever there is a continuous six-month period of non-injection into any injection project, storage project, salt water disposal well, or special purpose injection well, such project or well shall be considered abandoned, and the authority for injection shall automatically terminate ipso facto.

2. For good cause shown, the Division Director may grant an administrative extension or extensions of injection authority as an exception to Paragraph 1. above.

XI. It is proposed that a new Rule 706 be adopted which will read in its entirety as follows:

RULE 706. RECORDS AND REPORTS

The operator of an injection well or project for secondary recovery or pressure maintenance, natural gas storage, salt water disposal, or injection of any other fluids shall keep accurate records and shall report monthly to the Division gas or fluid volumes injected, stored, and/or produced as required on the appropriate form listed below:

1. Secondary Recovery on Form C-115;

2. Pressure Maintenance on Form C-115 and as otherwise prescribed by the Division;

3. Salt Water Disposal on Form C-120-A;

4. Natural Gas Storage on Form C-131-A; and

5. Injection of other fluids on a form prescribed by the Division.

The operator of a liquefied petroleum gas storage project shall report annually on Form C-131-B, Annual LPG Storage Report.

XII. It is proposed that a new Rule 707 be adopted which will read in its entirety as follows:

RULE 707. RECLASSIFICATION OF WELLS

The Division Director shall have authority to reclassify an injection well from any category defined in Rule 701 B to any other category without notice and hearing upon request and proper showing by the operator thereof.

XIII. It is proposed that a new Rule 708 be adopted which will read in its entirety as follows:

RULE 708. TRANSFER OF AUTHORITY TO INJECT

Authority to inject granted under any order of the Division is not transferable except upon approval of the Division. Approval of transfer of authority to inject may be obtained by filing Form C-104 in accordance with Rule 1104(5).

The Division may require a demonstration of mechanical integrity prior to authorizing transfer of authority to inject.

XIV. It is proposed to amend Rule 1100 C. to read in its entirety as follows:

RULE 1100 C. Books and Records

All producers, injectors, transporters, storers, refiners, gasoline or extraction plant operators, treating plant operators, and initial purchasers of natural gas within the State of New Mexico shall make and keep appropriate books and records for a period of not less than five years, covering their operations in New Mexico, from which they may be able to make and substantiate the reports required by these rules.

XV. It is proposed to amend Rule 1100 D. to re-title Form C-108 as follows:

Form C-108 Application for Authorization to Inject

XVI. It is proposed to adopt a revised Form C-108 and amend Rule 1108 to read in its entirety as follows:

RULE 1108. APPLICATION FOR AUTHORIZATION TO INJECT (Form C-108)

Form C-108 shall be filed in accordance with Rule 701-B.

XVII. It is proposed to amend Rule 1115 to read in its entirety as follows:

RULE 1115. OPERATOR'S MONTHLY REPORT (Form C-115)

Operator's Monthly Report, Form C-115 or Form C-115-EDP, shall be filed on each producing lease and each secondary recovery project or pressure maintenance project injection well within the State of New Mexico for each calendar month, setting forth complete information and data indicated on said forms in the order, format, and style prescribed by the Division Director. Oil production from wells which are producing into common storage shall be estimated as accurately as possible on the basis of periodic tests.

The reports on this form shall be filed by the producer as follows:

Original to the Oil Conservation Division at Santa Fe; one copy to the District Office of the Division in which district the lease is located; and one copy to each transporter involved. Each report for each month shall be postmarked not later than the 24th day of next succeeding month. Failure of an operator to file this report in accordance with the provisions of this rule may result in cancellation of Form C-104 for the affected well or wells and/or cancellation of authority to inject.

XVIII. It is proposed to amend Rule 1131 to read in its entirety as follows:

RULE 1131. MONTHLY GAS STORAGE REPORT (Form C-131-A)
ANNUAL LPG STORAGE REPORT (Form C-131-B)

Each operator of an underground natural gas storage project shall report its operation monthly on Form C-131-A. Form C-131-A shall be filed in duplicate (one copy to the Santa Fe Office of the Division and one copy to the appropriate district office) and shall be postmarked not later than the 24th day of the next succeeding month.

Each operator of an underground liquefied gas storage project approved by the Division shall report its operation annually on Form C-131-B. Form C-131-B shall be filed in duplicate (one copy to the Santa Fe Office of the Division and one copy to the appropriate district office) and shall be postmarked not later than the 24th day of January of each year.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no

II. Operator: _____ Address: _____

Contact party: _____ Phone: _____

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? ☐ yes ☐ no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;

2. Whether the system is open or closed;

3. Proposed average and maximum injection pressure;

4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and

5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

* VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: _____ Title _____

Signature: _____ Date: _____

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(3) the formation name and depth with expected maximum injection rates and pressures; and

(4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Form C-131-A

NEW MEXICO OIL CONSERVATION DIVISION
P. O. BOX 2088, SANTA FE, NEW MEXICO 87501

MONTHLY GAS STORAGE REPORT

______________________ (Company) ______________________ (Address)

NAME OF STORAGE PROJECT: ______________ COUNTY ______________ REPORT MONTH ________

WELL NAME AND NUMBER	LOCATION				MAXIMUM INJECTION PRESSURE	INJECTION (MCF)	WITH-DRAWAL (MCF)
	UNIT	SEC.	TWP.	RANGE			
TOTALS							

TOTAL CAPACITY (MMCF) ______________

BEGINNING STORAGE (MMCF) ______________

NET CHANGE (MMCF) ______________

ENDING STORAGE (MMCF) ______________

CALCULATED RESERVOIR PRESSURE @ END OF MONTH ______________

I hereby certify that this report is true and complete to the best of my knowledge and belief.

By ______________________

Title ______________ Date ________

Form C-131-B

NEW MEXICO OIL CONSERVATION DIVISION
P. O. BOX 2088, SANTA FE, NEW MEXICO 87501

ANNUAL LPG STORAGE REPORT

_____ (Company) _____ (Address)

NAME OF STORAGE PROJECT: _____ COUNTY _____ REPORT YEAR _____

WELL NAME AND NUMBER	LOCATION UNIT	SEC.	TWP.	RANGE	MAXIMUM INJECTION PRESSURE	INJECTION (BBLS)	WITHDRAWAL (BBLS)
TOTALS							

CALCULATED RESERVOIR PRESSURE @ END OF YEAR _____

TOTAL CAPACITY (BBLS) _____ BEGINNING STORAGE (BBLS) _____

NET CHANGE (BBLS) _____ ENDING STORAGE (BBLS) _____

I hereby certify that this report is true and complete to the best of my knowledge and belief.

By _____ Title _____

Date _____

INJECTION WELL DATA SHEET

OPERATOR _____ LEASE _____

WELL NO. _____ FOOTAGE LOCATION _____ SECTION _____ TOWNSHIP _____ RANGE _____

Schematic

Tabular Data

Surface Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Total depth _____

Injection interval

_____ feet to _____ feet
(perforated or open-hole, indicate which)

Tubing size _____ lined with _____ set in a
(material)

_____ packer at _____ feet
(brand and model)

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation _____

2. Name of Field or Pool (if applicable) _____

3. Is this a new well drilled for injection? ☐ Yes ☐ No

   If no, for what purpose was the well originally drilled? _____

   _____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

   _____

   _____

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

   _____

   _____

Docket No. 18-81

DOCKET: COMMISSION HEARING - THURSDAY - JUNE 4, 1981

OIL CONSERVATION COMMISSION - 9 A.M. - MORGAN HALL
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 7272: In the matter of the hearing called by the Oil Conservation Division on its own motion to consider certain amendments to its rules and regulations, in particular as they relate to the underground injection of fluids and to compliance with the Federal standards of underground injection control and the national Safe Drinking Water Act.

Among the proposed changes would be the adoption of certain new definitions and certain new forms, the amendment of Rules Nos. 103, 106, 107, 204, 701 thru 705, 1100, 1108, 1115, and 1131, and the promulgation of certain new rules, being Rules 706, 707, and 708, the revision of certain old forms, being Forms C-108 and C-131, and the adoption of a new Form C-131-B.

Copies of the proposed definitions, rules, amendments to rules, and forms and revisions of forms will be distributed with the docket for the June 4, 1981, hearing, and will also be available at the office of the Oil Conservation Division, State Land Office Building, Santa Fe, New Mexico, on or after May 25, 1981.

M E M O R A N D U M

TO: ALL OPERATORS

FROM: JOE D. RAMEY

SUBJECT: ANTI-CRUDE OIL THEFT ACT

The subject act will be discussed in a meeting in Santa Fe at Morgan Hall, State Land Office Building on June 4, 1981, at 2:00 p.m.

Since this involves hauling of crude oil, produced water, bottoms, sediment oil, etc., you may wish and are invited to attend.

PROPOSED RULE CHANGES TO BE CONSIDERED IN OIL CONSERVATION COMMISSION CASE NO. 7272 TO BE HEARD JUNE 4, 1981, MORGAN HALL, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

I. It is proposed to add the following three definitions:

AQUIFER shall mean a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

EXEMPTED AQUIFER shall mean an aquifer that does not currently serve as a source of drinking water, and which cannot now and will not in the foreseeable future serve as a source of drinking water because: (1) it is hydrocarbon producing; (2) it is situated at a depth or location which makes the recovery of water for drinking water purposes economically or technologically impractical; or, (3) it is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption.

UNDERGROUND SOURCE OF DRINKING WATER shall mean an aquifer which supplies water for human consumption or which contains ground water having a total dissolved solids concentration of 10,000 mg/l or less and which is not an exempted aquifer.

II. It is proposed to amend Rule 103 to read in its entirety as follows:

RULE 103. SIGN ON WELLS

All wells, subject to these regulations, including drilling, production, and injection wells shall be identified by a sign, posted on the derrick or not more than 20 feet from such well, and such sign shall be of durable construction and the lettering thereon shall be kept in a legible condition and shall be large enough to be legible under normal conditions at a distance of 50 feet. The wells on each lease or property shall be numbered in non-repetitive, logical and distinctive sequence. Each sign shall show the number of the well, the name of the lease (which shall be different or distinctive for each lease), the name of the lessee, owner or operator, and the location by quarter section, township and range. The location, for each sign posted after March 1, 1966, shall indicate the quarter-quarter section, township, and range.

III. It is proposed to amend Rule 106(a) to read in its entirety as follows:

(a) During the drilling of any oil well, gas well, injection well or any other service well, all oil, gas, and water strata above the producing and/or injection horizon shall be sealed or separated in order to prevent their contents from passing into other strata.

IV. It is proposed to amend the first paragraph of Rule 107(a) to read in its entirety as follows:

RULE 107. CASING AND TUBING REQUIREMENTS

(a) Any well drilled for oil or natural gas or for injection shall be equipped with such surface and intermediate casing strings and cement as may be necessary to effectively seal off and isolate all water-, oil-, and gas-bearing strata and other strata encountered in the well down to the casing point. In addition thereto, any well completed for the production of oil or natural gas shall be equipped with a string of properly cemented production casing at sufficient depth to ensure protection of all oil- and gas-bearing strata encountered in the well, including the one(s) to be produced.

V. It is proposed to amend Rule 204 to read in its entirety as follows:

RULE 204. LIABILITY

The owner of any well drilled for oil or gas, for injection, or any seismic, core or other exploratory holes, whether cased or uncased, shall be responsible for the plugging thereof.

VI. It is proposed to re-title Section I and amend Rule 701 to read in their entirety as follows:

I - SECONDARY RECOVERY, PRESSURE MAINTENANCE, SALT WATER DISPOSAL, AND UNDERGROUND STORAGE

RULE 701. INJECTION OF FLUIDS INTO RESERVOIRS

A. Permit for Injection Required

The injection of gas, liquefied petroleum gas, air, water, or any other medium into any reservoir for the purpose of maintaining reservoir pressure or for the purpose of secondary or other enhanced recovery or for storage or the injection of water into any formation for the purpose of water disposal shall be permitted only by order of the Division after notice and hearing, unless otherwise provided herein.

B. Method of Making Application

1. Application for original authority for the injection of gas, liquefied petroleum gas, air, water, or any other medium into any formation for any reason, including salt water disposal, or for the expansion of any injection project by the completion or conversion of injection well(s) shall be by submittal of Division Form C-108 complete with all attachments.

2. The applicant shall furnish, by certified or registered mail, a copy of the application to the owner of the surface of the land on which the injection or disposal well is to be located and to each leasehold operator within one-half mile of the well location.

3. Applications qualifying for administrative approval must be accompanied by a copy of a legal publication published by the applicant in a newspaper of general circulation in the county in which the proposed injection well(s) is located. The details required in such notice are listed on Side 2 of Form C-108.

4. No application shall be approved until the applicant shall supply evidence of mailing as required under 2. above and, if applicable, proof of publication.

C. Hearings

If a written objection to any application for administrative approval of an injection well is filed within fifteen (15) days after receipt by the Division of a complete application, or if a hearing is required by the Division,

the application shall be set for hearing, and notice thereof shall be given by the Division. If no objection is filed, and a hearing is not required, the matter may be approved administratively.

D. Salt Water Disposal Wells

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for water disposal wells only, without notice and hearing, when the waters to be disposed of are mineralized to such a degree as to be unfit for domestic, stock, irrigation, or other general use; and when said waters are to be disposed of into a formation older than Triassic (Lea County only) which is non-productive of oil or gas within a radius of two miles from the proposed injection well.

Disposal will not be permitted into zones containing waters having total dissolved solids concentrations of 10,000 mg/l or less except after notice and hearing, provided however, that the Division may establish exempted aquifers for such zones wherein such injection may be approved administratively.

E. Pressure Maintenance Projects

1. Pressure maintenance projects are defined as those projects in which fluids are injected into the producing horizon in an effort to build up and/or maintain the reservoir pressure in an area which has not reached the advanced or "stripper" state of depletion.

2. All applications for establishment of pressure maintenance projects shall be set for hearing.

The project area and the allowable formula for any pressure maintenance project shall be fixed by the Division on an individual basis after notice and hearing.

3. Pressure maintenance projects may be expanded and additional wells placed on injection only upon authority from the Division after notice and hearing or by administrative approval.

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for the conversion to injection of additional wells within a project area provided that any such well is necessary to develop or maintain efficient pressure maintenance within such project and provided that no objections are received as provided in Rule 701 C.

F. Water Flood Projects

1. Water flood projects are defined as those projects in which water is injected into a producing horizon in sufficient quantities and under sufficient pressure to stimulate the production of oil from other wells in the area, and shall be limited to those areas in which the wells have reached an advanced state of depletion and are regarded as what is commonly referred to as "stripper" wells.

2. All applications for establishment of water flood projects shall be set for hearing.

The project area of a water flood project shall comprise the proration units owned or operated by a given operator upon which injection wells are located plus all proration units owned or operated by the same operator which directly or diagonally offset the injection tracts and have

producing wells completed on them in the same formation; provided however, that additional proration units not directly nor diagonally offsetting an injection tract may be included in the project area if, after notice and hearing, it has been established that such additional units have wells completed thereon which have experienced a substantial response to water injection.

3. The allowable assigned to wells in a water flood project area shall be equal to the ability of the wells to produce and shall not be subject to the depth bracket allowable for the pool nor to the market demand percentage factor.

Nothing herein contained shall be construed as prohibiting the assignment of special allowables to wells in buffer zones after notice and hearing. Special allowables may also be assigned in the limited instances where it is established at a hearing that it is imperative for the protection of correlative rights to do so.

4. Water flood projects may be expanded and additional wells placed on injection only upon authority from the Division after notice and hearing or by administrative approval.

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for conversion to injection of additional wells provided; that any such well is necessary to develop or maintain thorough and efficient waterflood injection for any authorized project; provided that no objections are received as provided in Rule 701 C.

G. Storage Wells

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for the underground storage of liquefied petroleum gas or liquid hydrocarbons in secure caverns within massive salt beds.

In addition to the filing requirements of Rule 701 B, the applicant for approval of a storage well under this rule shall file the following:

1. With the Division Director:

   (a) A plugging bond in accordance with the provisions of Rule 101;

2. With the appropriate district office of the Division in TRIPLICATE:

   (a) Form C-101, Application for Permit to Drill, Deepen, or Plug Back;

   (b) Form C-102 Well Location and Acreage Dedication Plat; and

   (c) Form C-105, Well Completion or Recompletion Report and Log.

VII. It is proposed to amend Rule 702 to read in its entirety as follows:

RULE 702. CASING AND CEMENTING OF INJECTION WELLS

Wells used for injection of gas, air, water, or any other medium, into any formation shall be cased with safe and adequate casing or tubing so as to prevent leakage and such casing or tubing shall be so set or cemented to prevent the movement of formation or injected fluid from the injection zone into any other zone or to the surface around the outside of any casing string.

VIII. It is proposed to amend Rule 703 to read in its entirety as follows:

RULE 703. OPERATION AND MAINTENANCE

Injection wells shall be equipped, operated, monitored, and maintained to facilitate periodic testing and to assure continued mechanical integrity which will result in no significant leak in the tubular goods and packing materials used and no significant fluid movement through vertical channels adjacent to the well bore.

Injection wells, project wells, and related surface facilities shall at all times be operated and maintained in such a manner as to confine the injected fluids to the interval or intervals approved and to prevent surface damage or pollution resulting from leaks, breaks, or spills.

Injection well, project well, or surface facility failures which may endanger underground sources of drinking water shall be reported under the "Immediate Notification" procedures of Rule 116.

Injection well or project well failures requiring casing repair or cementing are to be reported to the Division prior to commencement of workover operations.

Injection wells or projects which have exhibited failure to confine injected fluids to the authorized injection zone or zones may be subject to restriction of injection volume and pressure or shut-in until the failure has been identified and corrected.

IX. It is proposed to amend Rule 704 to read in its entirety as follows:

RULE 704. TESTING AND MONITORING

A. Testing

Prior to commencement of injection, wells shall be tested to assure the initial integrity of the casing and the tubing and packer, if used, including pressure testing of the casing-tubing annulus.

At least once every five years thereafter, injection wells shall be tested to assure their continued mechanical integrity. Tests demonstrating continued mechanical integrity shall include the following:

(a) measurement of annular pressures in wells injecting at positive pressures under a packer or a balanced-fluid seal;

(b) pressure testing of the casing-tubing annulus for wells injecting under vacuum conditions; and,

(c) such other tests which are demonstably effective and which may be approved for use by the Division.

The injection well operator shall advise the Division of the date and time of such initial and subsequent integrity tests in order that they may be witnessed.

Notwithstanding the subsequent test requirements above, the Division may require more frequent or more comprehensive testing of injection wells including the use of tracer surveys, noise logs, temperature logs, or other test procedures or devices. Such special tests, when run, shall supplant the required five-year test.

B. Monitoring

Injection wells shall be equipped in order that the injection pressure and annular pressure may be determined at the wellhead and that the injected volume may be determined at least monthly.

Injection wells used for storage shall be equipped so that both injected and produced volumes may be determined at any time.

X. The Division proposes to amend Rule 705 to read in its entirety as follows:

RULE 705. COMMENCEMENT, DISCONTINUANCE, AND ABANDONMENT OF INJECTION OPERATIONS

The following provisions shall apply to all injection projects, storage projects, salt water disposal wells and special purpose injection wells:

A. Notice of Commencement and Discontinuance

1. Immediately upon the commencement of injection operations in any well, the operator shall notify the Division of the date such operations began.

2. Within 30 days after permanent cessation of gas or liquefied petroleum gas storage operations or within 30 days after discontinuance of injection operations into any other well, the operator shall notify the Division of the date of such discontinuance and the reasons therefor. No injection well may be temporarily abandoned for a period exceeding six months unless the injection interval has been isolated by use of cement or a bridge plug. The Director of the Division may delay the cement or bridge plug requirements above upon a demonstration that there is a continuing need for such well, that the well exhibits mechanical integrity, and that continued temporary abandonment will not endanger underground sources of drinking water.

3. Before any injection well is plugged, the operator shall obtain approval for the well's plugging program from the appropriate District Office of the Division in the same manner as when plugging oil and gas wells or dry holes.

B. Abandonment of Injection Operations

1. Whenever there is a continuous six-month period of non-injection into any injection project, storage project, salt water disposal well, or special purpose injection well, such project or well shall be considered abandoned, and the authority for injection shall automatically terminate ipso facto.

2. For good cause shown, the Division Director may grant an administrative extension or extensions of injection authority as an exception to Paragraph 1. above.

XI. It is proposed that a new Rule 706 be adopted which will read in its entirety as follows:

RULE 706. RECORDS AND REPORTS

The operator of an injection well or project for secondary recovery or pressure maintenance, natural gas storage, salt water disposal, or injection of any other fluids shall keep accurate records and shall report monthly to the Division gas or fluid volumes injected, stored, and/or produced as required on the appropriate form listed below:

1. Secondary Recovery on Form C-115;

2. Pressure Maintenance on Form C-115 and as otherwise prescribed by the Division;

3. Salt Water Disposal on Form C-140-A;

4. Natural Gas Storage on Form C-131-A; and

5. Injection of other fluids on a form prescribed by the Division.

The operator of a liquefied petroleum gas storage project shall report annually on Form C-131-B, Annual LPG Storage Report.

XII. It is proposed that a new Rule 707 be adopted which will read in its entirety as follows:

RULE 707. RECLASSIFICATION OF WELLS

The Division Director shall have authority to reclassify an injection well from any category defined in Rule 701 B to any other category without notice and hearing upon request and proper showing by the operator thereof.

XIII. It is proposed that a new Rule 708 be adopted which will read in its entirety as follows:

RULE 708. TRANSFER OF AUTHORITY TO INJECT

Authority to inject granted under any order of the Division is not transferable except upon approval of the Division. Approval of transfer of authority to inject may be obtained by filing Form C-104 in accordance with Rule 1104(5).

The Division may require a demonstration of mechanical integrity prior to authorizing transfer of authority to inject.

XIV. It is proposed to amend Rule 1100 C. to read in its entirety as follows:

RULE 1100 C. Books and Records

All producers, injectors, transporters, storers, refiners, gasoline or extraction plant operators, treating plant operators, and initial purchasers of natural gas within the State of New Mexico shall make and keep appropriate books and records for a period of not less than five years, covering their operations in New Mexico, from which they may be able to make and substantiate the reports required by these rules.

XV. It is proposed to amend Rule 1100 D. to re-title Form C-108 as follows:

Form C-108 Application for Authorization to Inject

XVI. It is proposed to adopt a revised Form C-108 and amend Rule 1108 to read in its entirety as follows:

RULE 1108. APPLICATION FOR AUTHORIZATION TO INJECT (Form C-108)

Form C-108 shall be filed in accordance with Rule 701-B.

XVII. It is proposed to amend Rule 1115 to read in its entirety as follows:

RULE 1115. OPERATOR'S MONTHLY REPORT (Form C-115)

Operator's Monthly Report, Form C-115 or Form C-115-EDP, shall be filed on each producing lease and each secondary recovery project or pressure maintenance project injection well within the State of New Mexico for each calendar month, setting forth complete information and data indicated on said forms in the order, format, and style prescribed by the Division Director. Oil production from wells which are producing into common storage shall be estimated as accurately as possible on the basis of periodic tests.

The reports on this form shall be filed by the producer as follows:

Original to the Oil Conservation Division at Santa Fe; one copy to the District Office of the Division in which district the lease is located; and one copy to each transporter involved. Each report for each month shall be postmarked not later than the 24th day of next succeeding month. Failure of an operator to file this report in accordance with the provisions of this rule may result in cancellation of Form C-104 for the affected well or wells and/or cancellation of authority to inject.

XVIII. It is proposed to amend Rule 1131 to read in its entirety as follows:

RULE 1131. MONTHLY GAS STORAGE REPORT (Form C-131-A)
ANNUAL LPG STORAGE REPORT (Form C-131-B)

Each operator of an underground natural gas storage project shall report is operation monthly on Form C-131-A. Form C-131-A shall be filed in duplicate (one copy to the Santa Fe Office of the Division and one copy to the appropriate district office) and shall be postmarked not later than the 24th day of the next succeeding month.

Each operator of an underground liquefied gas storage project approved by the Division shall report its operation annually on Form C-131-B. Form C-131-B shall be filed in duplicate (one copy to the Santa Fe Office of the Division and one copy to the appropriate district office) and shall be postmarked not later than the 24th day of January of each year.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no

II. Operator: _____ Address: _____

Contact party: _____ Phone: _____

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? ☐ yes ☐ no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced waters; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: _____ Title _____

Signature: _____ Date: _____

If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division District office.

FORM C-108 Side 2

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(3) the formation name and depth with expected maximum injection rates and pressures; and

(4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Draft

Form C-131-A

NEW MEXICO OIL CONSERVATION DIVISION
P. O. BOX 2088, SANTA FE, NEW MEXICO 87501

MONTHLY GAS STORAGE REPORT

(Company) (Address)

NAME OF STORAGE PROJECT: _____ COUNTY _____ REPORT MONTH _____

WELL NAME AND NUMBER	LOCATION UNIT	SEC.	TWP.	RANGE	MAXIMUM INJECTION PRESSURE	INJECTION (MCF)	WITHDRAWAL (MCF)
TOTALS							

Draft

TOTAL CAPACITY (MMCF) _____
BEGINNING STORAGE (MMCF) _____
NET CHANGE (MMCF) _____
ENDING STORAGE (MMCF) _____

CALCULATED RESERVOIR PRESSURE @ END OF MONTH _____

I hereby certify that this report is true and complete to the best of my knowledge and belief.

By _____
Title _____ Date _____

Form C-131-B

NEW MEXICO OIL CONSERVATION DIVISION
P. O. BOX 2088, SANTA FE, NEW MEXICO 87501

ANNUAL LPG STORAGE REPORT

(Company) (Address)

NAME OF STORAGE PROJECT: _____ COUNTY _____ REPORT YEAR _____

WELL NAME AND NUMBER	LOCATION UNIT	SEC.	TWP.	RANGE	MAXIMUM INJECTION PRESSURE	INJECTION (BBLS)	WITHDRAWAL (BBLS)
TOTALS							

Draft

CALCULATED RESERVOIR PRESSURE @ END OF YEAR _____
TOTAL CAPACITY (BBLS) _____ BEGINNING STORAGE (BBLS) _____
NET CHANGE (BBLS) _____ ENDING STORAGE (BBLS) _____

I hereby certify that this report is true and complete to the best of my knowledge and belief.

By _____ Title _____
Date _____

Advertisement UIC Rule Changes

Case 7272

1. Adopt definitions of Aquifer, Exempted Aquifer, and Underground Source of Drinking Water
2. Amend Rule 103
3. Amend Rule 106 (a)
4. Amend Rule 107 (a)
5. Amend Rule 204
6. Retitle Section I of the Rules
7. Amend Rule 701
8. Amend Rule 702
9. Amend Rule 703
10. Amend Rule 704
11. Amend Rule 705
12. Adopt new Rule 706
13. Adopt new Rule 707
14. Adopt new Rule 708
15. Amend Rule 1100 C
16. Amend Rule 1100 D
17. Amend Rule 1108
18. Adopt a new Form C-108, Application for Authorization to Inject
19. Amend Rule 1115
20. Amend Rule 1131
21. Revise Form C-131, Monthly Gas Storage Report, and renumber it as Form C-131-A
22. Adopt new Form C-131-B, Annual LPG Storage Report

Advertisement UIC Rule Changes

(1) Adopt definitions of Aquifer, Exempted Aquifer, and Underground Source of Drinking Water

(2) Amend Rule 103. ✓

(3) Amend Rule 106 (a). ✓

(4) Amend Rule 107 (a). ✓

(5) " " 204. ✓

(6) Redivide Section I of the Rules

(7) Amend Rule 701. ✓

(8) " " 702. ✓

(9) " " 703. ✓

(10) " " 704. ✓

(11) " " 705. ✓

(12) Adopt new Rule 706.

(13) " " " 707.

(14) " " " 708.

(15) Amend Rule 1100 C. ✓

(16) " " 1100 D. ✓

(17) (~~16~~) " " 1108 ✓

(18) (~~17~~) Adopt a new Form C-108, Application for Authorization to Inject

(19) (18) Amend Rule 1115.

(20) (~~19~~) Amend Rule 1131

(21) (~~20~~) Revise Form C-131, Monthly Gas Storage Report, and renumber it as Form C-131-A.

(22) (~~21~~) Adopt new Form C-131-B, Annual LPG Storage Report

ROUGH

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION COMMISSION

In the matter of the hearing called by the Oil Conservation Division on its own motion to consider certain amendments to its rules and regulations.

CASE NO. 7272

Order No. R-6702

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at Santa Fe on June 5 and June 17, 1981, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this _____ day of _____, 19____, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the Oil Conservation Division, ~~(Division)~~ hereinafter referred to as the "Division" proposes certain amendments to its rules and regulations as they relate to the underground injection of fluids including the adoption of certain new definitions and certain new forms, the amendment of Rules Nos. 103, 106, 107, 204, 701 thru 705, 1100, 1108, 1115, and 1131, and the promulgation of certain new rules, being Rules 706, 707, and 708, the revision of certain old forms, being Forms C-108 and C-131, and the adoption of a new Form C-131-B.

(3) That the Division has jurisdiction over all matters ~~related~~ pertinent to the use of injection wells related to oil and natural gas operations including the use of such wells for secondary recovery, enhanced recovery, pressure maintenance, disposal of waters coproduced with oil or gas, storage of natural gas, storage of liquefied petroleum gas, and storage of other hydrocarbons.

(4) That since 1951 the Division has authorized over 3000 injection wells.

(5) That in addition to its rules and regulations covering the approval, use, monitoring, and reporting of injection wells, the Division has developed a large body of policies, procedures, and conventions which should now be included within said regulations.

(6) That many Division rules dealing with standard drilling and operation activities applicable to all wells were written prior to the extensive use of injection wells.

(7) That such rules should be amended to clarify their applicability to injection wells as well as to other well classes.

(8) The Public Law 93-523, the Safe Drinking Water Act, was signed into law December 16, 1974.

(9) That said law required that the Administrator of the Environmental Protection Agency (EPA) adopt minimum regulations for State programs to control the underground injection of fluids to protect underground sources of drinking water.

(10) That final EPA regulations were published in the spring of 1980.

Safe Drinking Water Act and the amendments thereto, and

(11) That under said regulations and EPA guidelines, ~~and amendments to the Safe Drinking Water Act, certain changes or additions to Division Rules and Regulations are required~~ in order for the State to apply for and receive primary enforcement authority for control of oil and gas related injection wells in New Mexico under ~~the said~~ the Act, certain changes or additions to the Division Rules and Regulations are required, to wit:

(2) That Section A - DEFINITIONS of the Oil Conservation Division Rules and Regulations should be amended by the addition of three new definitions, reading in their entirety as follows:

AQUIFER shall mean a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

EXEMPTED AQUIFER shall mean an aquifer that does not currently serve as a source of drinking water, and which cannot now and will not in the foreseeable future serve as a source of drinking water because: (1) it is hydrocarbon producing; (2) it is situated at a depth or location which makes the recovery of water for drinking water purposes economically or technologically impractical; or, (3) it is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption.

UNDERGROUND SOURCE OF DRINKING WATER shall mean an aquifer which supplies water for human consumption or which contains ground water having a total dissolved solids concentration of 10,000 mg/l or less and which is not an exempted aquifer.

(13) That Rule 103 of the Division Rules and Regulations should be amended to read in its entirety as follows:

RULE 103. SIGN ON WELLS

All wells subject to these regulations, including drilling, production, and injection wells shall be identified by a sign, posted on the derrick or not more than 20 feet from such well, and such sign shall be of durable construction and the lettering thereon shall be kept in a legible condition and shall be large enough to be legible under normal conditions at a distance of 50 feet. The wells on each lease or property shall be numbered in non-repetitive, logical and distinctive sequence. Each sign shall show the number of the well, the name of the lease (which shall be different or distinctive for each lease), the name of the leasee, owner or operator, and the location by quarter section, township and range. The location, for each sign posted after March 1, 1968, shall indicate the quarter-quarter section,

(12) That Section [illegible] of the Division Rules and Regulations should be amended by the addition of three new definitions, reading in their entirety as follows:

AQUIFER shall mean a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

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(14) That Rule 106(a) should be revised to read in its entirety as follows (no change in subsections (b) and (c)):

(a) During the drilling of any oil well, gas well, injection well or any other service well, all oil, gas, and water strata above the producing and/or injection horizon shall be sealed or separated in order to prevent their contents from passing into other strata.

(15) That the first paragraph of Rule 107(a) should be amended to read in its entirety as follows (no change in the second, third, fourth, fifth, or sixth paragraphs of subsection (a) nor in subsections (b), (c), (d) or (e) of Rule 107):

RULE 107. CASING AND TUBING REQUIREMENTS

(a) Any well drilled for oil or natural gas or for injection shall be equipped with such surface and intermediate casing strings and cement as may be necessary to effectively seal off and isolate all water-, oil-, and gas-bearing strata and other strata encountered in the well down to the casing point. In addition thereto, any well completed for the production of oil or natural gas shall be equipped with a string of properly cemented production casing at sufficient depth to ensure protection of all oil- and gas-bearing strata encountered in the well, including the one(s) to be produced.

(16) That Rule 204 should be amended to read in its entirety as follows:

RULE 204. LIABILITY

The owner of any well drilled for oil or gas or for injection, or any seismic, core or other exploratory hole, whether cased or uncased, shall be responsible for the plugging thereof.

(17) That Section I of the Rules and Regulations should be entitled:

I - SECONDARY OR OTHER ENHANCED RECOVERY, PRESSURE MAINTENANCE, SALT WATER DISPOSAL, AND UNDERGROUND STORAGE

(18) That Rules 701 through 705, inclusive, of the Rules and Regulations should be amended to read in their entirety as follows:

RULE 701. INJECTION OF FLUIDS INTO RESERVOIRS

A. Permit for Injection Required

The injection of gas, liquefied petroleum gas, air, water, or any other medium into any reservoir for the purpose of maintaining reservoir pressure or for the purpose of secondary or other enhanced recovery or for storage or the injection of water into any formation for the purpose of water disposal shall be permitted only by order of the Division after notice and hearing, unless otherwise provided herein.

B. Method of Making Application

(1) Applications for authority for the injection of gas, liquefied petroleum gas, air, water or any other medium into any formation for any reason, including but not necessarily limited to the establishment of or the expansion of water flood projects, enhanced recovery projects, pressure maintenance projects, and salt water disposal, shall be by submittal of Division Form C-108 complete with all attachments.

(2) The applicant shall furnish, by certified or registered mail, a copy of the application to the owner of the surface of the land on which each injection or disposal well is to be located and to each leasehold operator within one-half mile of the well.

(3) Administrative Approval

If the application is for administrative approval rather than for a hearing, it must also be accompanied by a copy of a legal publication published by the applicant in a newspaper of general circulation in the county in which the proposed injection well is located. (The details required in such legal notice are listed on Side 2 of Form C-108.)

No application for administrative approval may be approved until 15 days following receipt by the Division of Form C-108 complete with all attachments including evidence of mailing as required under paragraph 2 above and proof of publication as required by paragraph 3 above.

If no objection is received within said 15-day period, and a hearing is not otherwise required, the application may be approved administratively.

C. Hearings

If a written objection to any application for administrative approval of an injection well is filed within 15 days after receipt of a complete application, or if a hearing is required by these rules or deemed advisable by the Division Director, the application shall be set for hearing and notice thereof given by the Division.

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the application shall be set for hearing, and notice thereof shall be given by the Division. If no objection is filed, and a hearing is not required, the matter may be approved administratively.

D. Salt Water Disposal Wells

1. The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for water disposal wells only, without notice and hearing, when the waters to be disposed of are mineralized to such a degree as to be unfit for domestic, stock, irrigation, or other general use, and when said waters are to be disposed of into a formation older than Triassic (Lea County only) which is non-productive of oil or gas within a radius of two miles from the proposed injection well, and provided no objections are received pursuant to Rule 701 B(3).

2. Disposal will not be permitted into zones containing waters having total dissolved solids concentrations of 10,000 mg/l or less except after notice and hearing, provided however, that the Division may establish exempted aquifers for such zones wherein such injection may be approved administratively.

3. Notwithstanding the provisions of paragraph 2. above, the Division Director may authorize disposal into such zones if the waters to be disposed of are of higher quality than the native water in the disposal zone.

E. Pressure Maintenance Projects

1. Pressure maintenance projects are defined as those projects in which fluids are injected into the producing horizon in an effort to build up and/or maintain the reservoir pressure in an area which has not reached the advanced or "stripper" state of depletion.

2. All applications for establishment of pressure maintenance projects shall be set for hearing.

The project area and the allowable formula for any pressure maintenance project shall be fixed by the Division on an individual basis after notice and hearing.

3. Pressure maintenance projects may be expanded and additional wells placed on injection only upon authority from the Division after notice and hearing or by administrative approval.

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for the conversion to injection of additional wells within a project area provided that any such well is necessary to develop or maintain efficient pressure maintenance within such project and provided that no objections are received ~~as provided in~~ pursuant to Rule 701 B(3).

F. Water Flood Projects

1. Water flood projects are defined as those projects in which water is injected into a producing horizon in sufficient quantities and under sufficient pressure to stimulate the production of oil from other wells in the area, and shall be limited to those areas in which the wells have reached an advanced state of depletion and are regarded as what is commonly referred to as "stripper" wells.

2. All applications for establishment of water flood projects shall be set for hearing.

The project area of a water flood project shall comprise the proration units owned or operated by a given

however, that the Division may establish exempted aquifers for such zones wherein such injection may be approved administratively.

3. Notwithstanding the provisions of paragraph 2. above, the Division Director may authorize disposal into ~~such~~ such zones if the waters to be disposed of are of higher quality than the native water in the ~~disposal~~ zone.

E. Pressure Maintenance Projects

1. Pressure maintenance projects are defined as those projects in which fluids are injected into the producing horizon in an effort to build up and/or maintain the reservoir pressure in an area which has not reached the advanced or "stripper" state of depletion.

2. All applications for establishment of pressure maintenance projects shall be set for hearing.

The project area and the allowable formula for any pressure maintenance project shall be fixed by the Division on an individual basis after notice and hearing.

3. Pressure maintenance projects may be expanded and additional wells placed on injection only upon authority from the Division after notice and hearing or by administrative approval.

The Division Director shall have authority to grant an exception to the hearing requirements of Rule 701-A for the conversion to injection of additional wells within a project area provided that any such well is necessary to develop or maintain efficient pressure maintenance within such project and provided that no objections are received ~~as provided in~~ pursuant to Rule 701 B(3).

F. Water Flood Projects

1. Water flood projects are defined as those projects in which water is injected into a producing horizon in sufficient quantities and under sufficient pressure to stimulate the production of oil from other wells in the area, and shall be limited to those areas in which the wells have reached an advanced state of depletion and are regarded as what is commonly referred to as "stripper" wells.

2. All applications for establishment of water flood projects shall be set for hearing.

The project area of a water flood project shall comprise the proration units owned or operated by a given operator upon which injection wells are located plus all proration units owned or operated by the same operator which directly or diagonally offset the injection tracts and have

producing wells completed on them in the same formation; provided however, that additional proration units not directly nor diagonally offsetting an injection tract may be included in the project area if, after notice and hearing, it has been established that such additional units have wells completed thereon which have experienced a substantial response to water injection.

3. The allowable assigned to wells in a water flood project area shall be equal to the ability of the wells to produce and shall not be subject to the depth bracket allowable for the pool nor to the market demand percentage factor.

Nothing herein contained shall be construed as prohibiting the assignment of special allowables to wells in buffer zones after notice and hearing. Special allowables may also be assigned in the limited instances where it is established at a hearing that it is imperative for the protection of correlative rights to do so.

4. Water flood projects may be expanded and additional wells placed on injection only upon authority from the Division after notice and hearing or by administrative approval.

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for conversion to injection of additional wells provided that any such well is necessary to develop or maintain thorough and efficient waterflood injection for any authorized project and provided that no objections are received ~~as provided in~~ pursuant to Rule 701 B(3).

G. Storage Wells

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for the underground storage of liquefied petroleum gas or liquid hydrocarbons in secure caverns within massive salt beds, and provided no objections are received pursuant to Rule 701 B(3).

In addition to the filing requirements of Rule 701 B, the applicant for approval of a storage well under this rule shall file the following:

1. With the Division Director:

   (a) A plugging bond in accordance with the provisions of Rule 101;

2. With the appropriate district office of the Division in TRIPLICATE:

   (a) Form C-101, Application for Permit to Drill, Deepen, or Plug Back;

   (b) Form C-102 Well Location and Acreage Dedication Plat; and

   (c) Form C-105, Well Completion or Recompletion Report and Log.

~~It is proposed to amend Rule 702 to read in its entirety as follows:~~

RULE 702. CASING AND CEMENTING OF INJECTION WELLS

Wells used for injection of gas, air, water, or any other medium into any formation shall be cased with safe and adequate casing or tubing so as to prevent leakage, and such casing or tubing shall be so set and cemented as to prevent the movement of formation or injected fluid from the injection zone into any other zone or to the surface around the outside of any casing string.

8 ~~It is proposed to amend Rule 703 to read in its entirety as follows:~~

RULE 703. OPERATION AND MAINTENANCE

Injection wells shall be equipped, operated, monitored, and maintained to facilitate periodic testing and to assure continued mechanical integrity which will result in no significant leak in the tubular goods and packing materials used and no significant fluid movement through vertical channels adjacent to the well bore.

Injection projects, including injection wells and producing wells and all related surface facilities, shall be operated and maintained at all times in such a manner as will confine the injected fluids to the interval or intervals approved and to prevent surface damage or pollution resulting from leaks, breaks, or spills.

Failure of any injection well, ~~project~~ producing well, or surface facility, which failure may endanger underground sources of drinking water, shall be reported under the "Immediate Notification" procedures of Rule 116.

Injection well or ~~project~~ producing well failures requiring casing repair or cementing are to be reported to the Division prior to commencement of workover operations.

Injection wells or projects which have exhibited failure to confine injected fluids to the authorized injection zone or zones may be subject to restriction of injection volume and pressure, or shut-in, until the failure has been identified and corrected.

9 ~~It is proposed to amend Rule 704 to read in its entirety as follows:~~

RULE 704. TESTING AND MONITORING

A. Testing

Prior to commencement of injection, wells shall be tested to assure the initial integrity of the casing and the tubing and packer, if used, including pressure testing of the casing-tubing annulus.

At least once every five years thereafter, injection wells shall be tested to assure their continued mechanical integrity. Tests demonstrating continued mechanical integrity shall include the following:

(a) measurement of annular pressures in wells injecting at positive pressures under a packer or a balanced-fluid seal;

(b) pressure testing of the casing-tubing annulus for wells injecting under vacuum conditions; and,

(c) such other tests which are demonstrably effective and which may be approved for use by the Division.

Notwithstanding the test procedures outlined above, the Division may require more comprehensive testing of injection wells when deemed advisable, including the use of tracer surveys, noise logs, temperature logs, or other test procedures or devices.

In addition, the Division may order special tests to be conducted prior to the expiration of five years if conditions are believed to so warrant. Any such special test which demonstrates continued mechanical integrity of a well shall be considered the equivalent of an initial test for test scheduling purposes and the regular 5-year testing schedule shall be applicable thereafter.

The injection well operator shall advise the Division of the date and time any initial, 5-year, or special tests are to be commenced in order such tests may be witnessed

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B. Monitoring

Injection wells shall be so equipped ~~in order~~ that the injection pressure and annular pressure may be determined at the wellhead and ~~that~~ the injected volume may be determined at least monthly.

Injection wells used for storage shall be so equipped ~~so~~ that both injected and produced volumes may be determined at any time.

~~The Division proposes to amend Rule 705 to read in its entirety as follows:~~

RULE 705. COMMENCEMENT, DISCONTINUANCE, AND ABANDONMENT OF INJECTION OPERATIONS

The following provisions shall apply to all injection projects, storage projects, salt water disposal wells and special purpose injection wells:

A. Notice of Commencement and Discontinuance

1. Immediately upon the commencement of injection operations in any well, the operator shall notify the Division of the date such operations began.

2. Within 30 days after permanent cessation of gas or liquefied petroleum gas storage operations or within 30 days after discontinuance of injection operations into any other well, the operator shall notify the Division of the date of such discontinuance and the reasons therefor. No injection well may be temporarily abandoned for a period exceeding six months unless the injection interval has been isolated by use of cement or a bridge plug. The Director of the Division may delay the cement or bridge plug requirements above upon a demonstration that there is a continuing need for such well, that the well exhibits mechanical integrity, and that continued temporary abandonment will not endanger underground sources of drinking water.

3. Before any injection well is plugged, the operator shall obtain approval for the well's plugging program from the appropriate District Office of the Division in the same manner as when plugging oil and gas wells or dry holes.

B. Abandonment of Injection Operations

1. Whenever there is a continuous six-month period of non-injection into any injection project, storage project, salt water disposal well, or special purpose injection well, such project or well shall be considered abandoned, and the authority for injection shall automatically terminate ipso facto.

2. For good cause shown, the Division Director may grant an administrative extension or extensions of injection authority as an exception to Paragraph 1. above.

~~It is proposed that a new Rule 706 be adopted which will read in its entirety as follows:~~

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(19) That the Division Rules and Regulations shall be amended by the addition of new Rules 706 through 708, inclusive, reading in their entirety as follows:

RULE 706. RECORDS AND REPORTS

The operator of an injection well or project for secondary or other enhanced recovery, ~~or~~ pressure maintenance, natural gas storage, salt water disposal, or injection of any other fluids shall keep accurate records and shall report monthly to the Division gas or fluid volumes injected, stored, and/or produced as required on the appropriate form listed below:

1. Secondary Recovery or Other Enhanced on Form C-115;
2. Pressure Maintenance on Form C-115 and as otherwise prescribed by the Division;
3. Salt Water Disposal on Form C-120-A;
4. Natural Gas Storage on Form C-131-A; and
5. Injection of other fluids on a form prescribed by the Division.

The operator of a liquefied petroleum gas storage project shall report annually on Form C-131-B, Annual LPG Storage Report.

~~(20) It is proposed that a new Rule 707 be adopted which will read in its entirety as follows:~~

RULE 707. RECLASSIFICATION OF WELLS

The Division Director shall have authority to reclassify an injection well from any category defined in Rule 701 B to any other category without notice and hearing upon request and proper showing by the operator thereof.

~~(21) It is proposed that a new Rule 708 be adopted which will read in its entirety as follows:~~

RULE 708. TRANSFER OF AUTHORITY TO INJECT

Authority to inject granted under any order of the Division is not transferable except upon approval of the Division. Approval of transfer of authority to inject may be obtained by filing Form C-104 in accordance with Rule 1104(5).

The Division may require a demonstration of mechanical integrity prior to ~~authorizing~~ approving transfer of authority to inject.

(20.) That Rule 1100 C. should be amended to read in its entirety, as follows:

RULE 1100 C. Books and Records

All producers, injectors, transporters, storers, refiners, gasoline or extraction plant operators, treating plant operators, and initial purchasers of natural gas within the State of New Mexico shall make and keep appropriate books and records for a period of not less than five years, covering their operations in New Mexico, from which they may be able to make and substantiate the reports required by these rules.

(21.) That Rule 1100 D. should be amended only to reflect the change in title of Form C-108 from "Application to Dispose of Salt Water

Any Injection into a Pecos Formation" to "Application for Authorization To Inject"; to reflect the change in form number of ~~Form~~ "Monthly Gas Storage Report" from ~~Form~~ C-131 to Form C-131-A; and to reflect adoption of new form C-131-B, "Annual LPG Storage Report." ~~Form~~ ~~Rule 1108~~

[redacted]

(22) That Rule 1108 should be amended to read in its entirety as follows:

RULE 1108. APPLICATION FOR AUTHORIZATION TO INJECT
(Form C-108)

Form C-108 shall be filed in accordance with Rule 701-B.

(23) That Rule 1115 should be amended to read in its entirety as follows:

[redacted]

RULE 1115. OPERATOR'S MONTHLY REPORT (Form C-115)

Operator's Monthly Report, Form C-115 or Form C-115-EDP, shall be filed on each producing lease and each secondary or other enhanced recovery project or pressure maintenance project injection well within the State of New Mexico for each calendar month, setting forth complete information and data indicated on said forms in the order, format, and style prescribed by the Division Director. Oil production from wells which are producing into common storage shall be estimated as accurately as possible on the basis of periodic tests.

The reports on this form shall be filed by the producer as follows:

Original to the Oil Conservation Division at Santa Fe; one copy to the District Office of the Division in which district the lease is located; and one copy to each transporter involved. Each report for each month shall be postmarked not later than the 24th day of next succeeding month. Failure of an operator to file this report in accordance with the provisions of this rule may result in cancellation of Form C-104 for the affected well or wells and/or cancellation of authority to inject.

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(24) That Rule 1131 should be amended to read in its entirety as follows:

RULE 1131. MONTHLY GAS STORAGE REPORT (Form C-131-A)
ANNUAL LPG STORAGE REPORT (Form C-131-B)

Each operator of an underground natural gas storage project shall report its operation monthly on Form C-131-A. Form C-131-A shall be filed in duplicate (one copy to the Santa Fe Office of the Division and one copy to the appropriate district office) and shall be postmarked not later than the 24th day of the next succeeding month.

Each operator of an underground liquefied petroleum gas storage project approved by the Division shall report its operation annually on Form C-131-B. Form C-131-B shall be filed in duplicate (one copy to the Santa Fe Office of the Division and one copy to the appropriate district office) and shall be postmarked not later than the 24th day of January of each year.

(25) That Form C-108 should be re-named "Application for Authorization To Inject" and should be revised to be in the form and content prescribed in Exhibit "A" attached hereto and made a part hereof.

(26) That Form C-131, "Monthly Gas Storage Report", should be re-numbered as Form C-131-A and ~~number~~ revised to be in the form and content prescribed in Exhibit "B" attached hereto and made a part hereof.

(27) That a new form, Form C-131-B, "Annual LPG Storage Report", should be adopted in the form and content prescribed in Exhibit "C" attached hereto and made a part hereof.

(28) That ~~Findings Nos. (1a) through (27) above describe Exhibit "A" to this order contains~~ all of the rule changes, ~~revisions, additional~~ new rules, form revisions, and new forms ~~currently~~ which will be required to (1) incorporate necessary existing injection policy within the rules, (2) clarify the applicability of the rules to injection wells, and (3) permit the State to meet EPA requirements for underground injection control under regulations and guidelines adopted under provisions of the Safe Drinking Water Act.

(29) That said ~~proposed~~ rule changes, new rules, form ~~amend-~~ revisions, ~~ments~~, and new forms will serve to prevent waste, will protect underground sources of drinking water, and will not violate correlative rights, and should be approved.

(30) That the effective date of this order and of all of the amendments, revisions, changes and adoptions contained herein should be July 1, 1981.

IT IS THEREFOR ORDERED:

(1) That the Rules and Regulations of the New Mexico Oil Conservation Division are hereby amended as follows:

A. That three new definitions, defining of "Aquifer," "Exempted Aquifer," and "Underground Source of Drinking Water" as described in Finding No. (12) above are adopted.

B. That Rule 103 is hereby amended as described in Finding No. (13) above.

C. That Rule 106(a) is amended as described in Finding No. (14) above

D. That the first paragraph of Rule 107(a) is amended as described in Finding No. (15) above.

E. That Rule 204 is amended as described in Finding No. (16) above.

F. That Section I is entitled as described in Finding No. (17) above.

G. That Rules 701 through 705, inclusive, are amended as described in Finding No. (18) above.

H. That new Rules 706 through 708, inclusive, as described in Finding No. (19) above, are adopted.

I. That Rule 1100 C. is amended as described in Finding No. (20) above.

J. That Rule 1100 D. is amended as described in Finding No. (21) above.

K. That Rule 1108 is amended as described in Finding No. (22) above.

L. That Rule 1115 is amended as described in Finding No. (23) above.

M. That Rule 1131 is amended as described in Finding No. 24 above.

(2) That Oil Conservation Division Form C-108 is hereby re-named "Application for Authorization To Inject" and revised to be in the form and content prescribed in Exhibit "A" attached hereto and made a part hereof.

(3) That Division Form C-131, "Monthly gas Storage Report", is hereby re-numbered as Form C-131-A and revised to be in the form and content prescribed in Exhibit "B" attached hereto and made a part hereof.

(4) That Form C-131-B, "Annual LPG Storage Report", in the form and content prescribed in Exhibit "C" attached hereto and made a part hereof, is hereby adopted.

(5) That the effective date of this order and of all the amendments, revisions, changes and adoptions contained herein shall be July 1, 1981.

(6) Jurisdiction

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no

II. Operator: _____ Address: _____

Contact party: _____ Phone: _____

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? ☐ yes ☐ no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection preasure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

* VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: _____ Title _____

Signature: _____ Date: _____

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

EXHIBIT A Order No. R-

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(3) the formation name and depth with expected maximum injection rates and pressures; and

(4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Form C-131-A

NEW MEXICO OIL CONSERVATION DIVISION
P. O. BOX 2088, SANTA FE, NEW MEXICO 87501

MONTHLY GAS STORAGE REPORT

_____ (Company) _____ (Address)

NAME OF STORAGE PROJECT: _____ COUNTY _____ REPORT MONTH _____

WELL NAME AND NUMBER	LOCATION UNIT	SEC.	TWP.	RANGE	MAXIMUM INJECTION PRESSURE	INJECTION (MCF)	WITH-DRAWAL (MCF)
TOTALS							

TOTAL CAPACITY (MMCF) _____

BEGINNING STORAGE (MMCF) _____

NET CHANGE (MMCF) _____

ENDING STORAGE (MMCF) _____

CALCULATED RESERVOIR PRESSURE @ END OF MONTH _____

I hereby certify that this report is true and complete to the best of my knowledge and belief.

By _____

Title _____ Date _____

Exhibit B - Order No. R-

Form C-131-B

NEW MEXICO OIL CONSERVATION DIVISION
P. O. BOX 2088. SANTA FE, NEW MEXICO 87501

ANNUAL LPG STORAGE REPORT

_____ (Company) _____ (Address)

NAME OF STORAGE PROJECT: _____ COUNTY _____ REPORT YEAR _____

WELL NAME AND NUMBER	LOCATION UNIT	SEC.	TWP.	RANGE	MAXIMUM INJECTION PRESSURE	INJECTION (BBLS)	WITHDRAWAL (BBLS)
TOTALS							

CALCULATED RESERVOIR PRESSURE @ END OF YEAR _____

TOTAL CAPACITY (BBLS) _____ BEGINNING STORAGE (BBLS) _____

NET CHANGE (BBLS) _____ ENDING STORAGE (BBLS) _____

I hereby certify that this report is true and complete to the best of my knowledge and belief.

By _____ Title _____

Date _____

Exhibit C-Order No. R-

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
17 June 1981

COMMISSION HEARING

IN THE MATTER OF:

The hearing called by the Oil Conservation Division on its own motion to consider amendments to its rules and regulations. CASE 7272

BEFORE: Commissioner Ramey

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Oil Conservation Commission: W. Perry Pearce, Esq.
State of New Mexico
Energy and Minerals Dept.
P. O. Box 2770
Santa Fe, New Mexico 87501

COMMISSIONER RAMEY: The hearing will come to order, please.

We'll call first Case 7272, which is in the matter of the hearing called by the Oil Conservation Division on its own motion to consider amendments to its rules and regulations.

This case was heard on June 4th, and because of lack of advertising in some papers in the State it was continued until today. Is there anyone here today that is appearing in behalf of Case 7272?

MR. PADILLA: Mr. Chairman, just let me make an appearance on behalf of the Oil Conservation Division. My name is Ernest L. Padilla, and we have nothing further to present in this case.

COMMISSIONER RAMEY: All right.

Since there is nothing further, the case will be taken under advisement by the Commission, and this portion is adjourned.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
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