

CASE 6089: OCC CONSIDER AMENDMENT OF
RULES 701, 702, 703, 704, and 705 OF THE
COMMISSION RULES

Case Number

6089

Application

Transcripts.

Small Exhibits

ETC.



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501



DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO
February 2, 1978

STATE GEOLOGIST
EMERY C. ARNOLD

Mr. Kenneth Bateman
White, Koch, Kelly & McCarthy
Attorneys at Law
Post Office Box 787
Santa Fe, New Mexico

Re: CASE NO. 6089
ORDER NO. R-5636

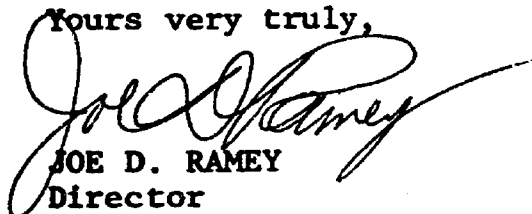
Applicant:

Oil Conservation Commission

Dear Sir:

Enclosed herewith are two copies of the above-referenced
Commission order recently entered in the subject case.

Yours very truly,


JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC	<u>X</u>
Artesia OCC	<u>X</u>
Aztec OCC	<u>X</u>

Other Vic Lyon, Rick Tully

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

CASE NO. 6089
Order No. R-5636

IN THE MATTER OF THE HEARING CALLED BY THE
OIL CONSERVATION COMMISSION ON ITS OWN MOTION
TO CONSIDER THE AMENDMENT OF RULES 701, 702,
703, 704 AND 705 OF THE COMMISSION RULES GOVERNING
APPLICATIONS FOR APPROVAL OF INJECTION WELLS AND
PROJECTS, WELL CONSTRUCTION AND OPERATION STANDARDS,
REPORTS AND RECORDS REQUIREMENTS, AND AUTOMATIC
TERMINATION OF AUTHORIZATION FOR ABANDONED WELLS
OR PROJECTS.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 30, 1977,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 31st day of January, 1978, the Commission,
a quorum being present, having considered the testimony, the
record, and the recommendations of the Examiner, 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 this case was called by the Commission in an effort
to bring its rules up to date with current policy and technology
with respect to injection wells and projects and to coincide its
rules with pending underground injection control regulations of
the United States Environmental Protection Agency which are being
promulgated pursuant to the national Safe Drinking Water Act.
- (3) That at the hearing of this case, motions were made to
continue the case to January 4, 1978, "...to allow the operators
more time to absorb and understand the effect on their operations"
of the proposed rules and rules changes.
- (4) That the motions for continuance were denied, but the
record in this case was left open until December 30, 1977.
- (5) That statements received at the hearing and during the
period the record in this case stood open indicate that certain
of the proposed amendments of Rules 701 and 702 may be premature
in view of certain delays in the promulgation of underground
injection control regulations by the United States Environmental
Protection Agency.

(6) That despite the prematurity of certain of the proposed amendments of Rules 701 and 702, the evidence establishes that certain other amendments of said rules and of Rules 703, 704, and 705 are not contingent upon the EPA injection control regulations and should be adopted.

(7) That in the interest of coherence and to avoid confusion, the adoption of any amendments to Rules 701 and 702 should be deferred until all of the necessary amendments to said rules, including those amendments which will be necessary for coincidence with the EPA injection control regulations, can be made.

(8) That that portion of Case No. 6089 relating to the amendment of Rules 701 and 702 should be dismissed without prejudice and should be reconsidered by the Commission at a later date.

(9) That the proposed amendments to Rules 703, 704 and 705 of the Commission Rules and Regulations should be considered herein.

(10) That in the interest of more efficient administration of the rules governing injection projects and wells, and to facilitate the keeping of records concerning same, Rule 703 of the Commission Rules and Regulations should be amended to provide for automatic termination of authority to inject after some reasonable period of time following cessation of injection operations.

(11) That six months is a reasonable period of time to ascertain the viability of an injection project or well, and the authority for injection should terminate automatically after a six-month period of non-injection, provided however, that the Secretary-Director of the Commission should have authority to extend the injection authority beyond said six-month period for good cause shown.

(12) That Rule 703 of the Commission Rules and Regulations should be amended to read in its entirety as follows:

**"RULE 703. 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 Commission of the date such operations began.

- (2) Within 30 days after the discontinuance of injection operations in any well, the operator shall notify the Commission of the date of such discontinuance and the reasons therefor.
- (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 Commission 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 Secretary-Director of the Commission may grant an administrative extension or extensions of injection authority as an exception to Paragraph (1) above."

(13) That by Order No. R-5505, dated August 9, 1977, the Commission revised its Form C-115, Operator's Monthly Report and Form C-115-EDP, Operator's Monthly Report (electronic data processing) and provided space on said forms for the inclusion of enhanced recovery injection volumes and pressures, abolishing the use of Commission Form C-120, Monthly Injection Report, effective February 1, 1978.

(14) That in keeping with the foregoing revision and abolishment of certain Commission forms, Rule 704 of the Commission Rules and Regulations should be amended to correctly reflect the proper forms to be filed by operators of injection wells in secondary recovery injection wells and salt water disposal wells.

(15) That by Order No. R-5635, entered by the Commission in Case No. 6091 on _____, 1978, the Commission adopted Form C-131, Monthly Gas Storage Report, and promulgated Rule 1131 governing the filing of said report.

(16) That Rule 704 of the Commission Rules and Regulations should be amended to correctly reflect the proper forms to be filed by operators of gas storage projects.

(17) That Rule 704 of the Commission Rules and Regulations should be amended to read in its entirety as follows:

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"RULE 704. 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 Commission 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 a form prescribed by the Commission;
- (3) Salt Water Disposal on Form C-120-A;
- (4) Natural Gas Storage on Form C-131; and
- (5) Injection of other fluids on a form prescribed by the Commission."

(18) That there is need for the revision of Rule 705 of the Commission Rules and Regulations in order to up-date the administrative process for obtaining approval for the construction and operation of underground storage facilities for liquefied petroleum gas or other liquid hydrocarbons in secure caverns within massive salt beds.

(19) That Rule 705 of the Commission Rules and Regulations should be amended to read in its entirety as follows:

"RULE 705. STORAGE WELLS

The Secretary-Director of the Oil Conservation Commission 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.

Applicant shall furnish each operator within a one-half mile radius of the proposed well with a copy of the application to the Commission, and applicant shall include with his application a written stipulation that all operators within said half-mile radius of the proposed well have been properly notified. The Secretary-Director of the Commission shall wait at least ten days before approving any such application, and shall approve any such application only in the absence of objection from any notified operator. In the event that an operator objects to the application the Commission shall consider the matter only after proper notice and hearing.

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:

A. With the Secretary-Director:

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

B. With the appropriate district office of the Commission in TRIPLICATE:

- (1) Form C-101, Application for Permit to Drill, Deepen, or Plug Back;
- (2) Form C-102, Well Location and Acreage Dedication Plat; and,
- (3) Form C-105, Well Completion or Recompletion Report and Log."

(20) That an order embodying the above-described amendments is in the interest of conservation, will not impair correlative rights, and will not cause but will prevent waste and should be adopted by the Commission.

IT IS THEREFORE ORDERED:

- (1) That Rule 703 of the Commission Rules and Regulations is hereby amended to read in its entirety as follows:

"RULE 703. 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 Commission of the date such operations began.
- (2) Within 30 days after the discontinuance of injection operations in any well, the operator shall notify the Commission of the date of such discontinuance and the reasons therefor.
- (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 Commission 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 Secretary-Director of the Commission may grant an administrative extension or extensions of injection authority as an exception to Paragraph (1) above."

(2) That Rule 704 of the Commission Rules and Regulations is hereby amended to read in its entirety as follows:

"RULE 704. 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 Commission 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 a form prescribed by the Commission;
- (3) Salt Water Disposal on Form C-120-A;
- (4) Natural Gas Storage on Form C-131; and
- (5) Injection of other fluids on a form prescribed by the Commission."

(3) That Rule 705 of the Commission Rules and Regulations is hereby amended to read in its entirety as follows:

"RULE 705. STORAGE WELLS

The Secretary-Director of the Oil Conservation Commission 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.

Applicant shall furnish each operator within a one-half mile radius of the proposed well with a copy of the application to the Commission, and applicant shall include with his application a

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written stipulation that all operators within said half-mile radius of the proposed well have been properly notified. The Secretary-Director of the Commission shall wait at least ten days before approving any such application, and shall approve any such application only in the absence of objection from any notified operator. In the event that an operator objects to the application the Commission shall consider the matter only after proper notice and hearing.

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:

A. With the Secretary-Director:

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

B. With the appropriate district office of the Commission in TRIPLICATE:

- (1) Form C-101, Application for Permit to Drill, Deepen, or Plug Back;
- (2) Form C-102, Well Location and Acreage Dedication Plat; and,
- (3) Form C-105, Well Completion or Recompletion Report and Log."
- (4) That that portion of this case relating to the proposed amendment of Rules 701 and 702 of the Commission Rules and Regulations is hereby dismissed without prejudice.
- (5) That the effective date of this order and all of the amendments contained herein shall be 7 o'clock a.m. February 1, 1978.
- (6) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman


EMERY C. ARNOLD, Member


JOE D. RAMEY, Member & Secretary

S E A L

jx/

5. A diagrammatic sketch of all plugged and abandoned wells within the one-half mile radius and which have penetrated the injection zone showing all information required under (2) above plus the size and location of all plugs and the date of abandonment. Applications for expansion of projects need not include the schematics if the same are on file and no additional wells are included.
6. Other pertinent information including the name and depth of the zone or formation into which the injection will be made, the kind of fluid to be injected, an analysis of the formation water and water to be injected if any, any calculations of the formation fracture gradient made including data upon which such calculations were based, anticipated injection pressure and volume, and the source of the injection fluid.
7. The depth of any source of potable water and any water having a total dissolved solids concentration of 10,000 mg/l or less above the injection zone within the area set out in 2 above.

C. Salt Water Disposal Wells

The Secretary-Director of the Oil Conservation Commission 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, providing that any water occurring naturally within said disposal formation has a total dissolved solids concentration in excess of 10,000 mg/l or has a total dissolved solids concentration in excess of the fluid to be injected and that such injection will not render unfit for such use underground waters which are sources or potential sources for domestic, stock, irrigation, and/or other general use.

To obtain such administrative approval, operator shall submit in TRIPLICATE Commission Form C-108, Application to Dispose of Salt Water by Injection Into a Porous Formation, said application to be filed in accordance with Rule 701-B above. Copies of the application shall also be sent to all offset operators and to the surface owner of the land upon which the well is located.

If no objection is received within 15 days from the date of receipt of the application, and the Secretary-Director is satisfied that all of the above requirements have been complied with, and that the well is to be cased and cemented in such a manner that there will be no danger to oil, gas, or usable water reservoirs, an administrative order approving the disposal may be issued. In the event that the application is not granted administratively, it shall be set for public hearing, if the operator so requests.

The Commission may dispense with the 15-day waiting period if waivers of objection are received from all offset operators and the surface owner.

RULE 107. CASING AND TUBING REQUIREMENTS

(The following paragraph will be proposed to be added to Rule 107 (a).)

The cement top outside all strings of casing shall be determined by means of a temperature survey or other wireline survey whenever cement is not circulated to the surface.

RULE 405. STORAGE GAS

With the exception of the requirement to meter and report monthly the amount of gas injected and the amount of gas withdrawn from storage in the absence of waste these rules and regulations shall not apply to gas being injected into or removed from storage. (See Rule 1131.)

I- SECONDARY RECOVERY, PRESSURE MAINTENANCE, SALT WATER DISPOSAL, AND HYDROCARBON 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 hydrocarbon storage, maintaining reservoir pressure, secondary recovery, or the injection of water into any formation for the purpose of water disposal shall be permitted only by order of the Commission after notice and hearing, unless otherwise provided herein.

B. Method of Making Application

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 such injection project by the completion or conversion of additional well(s) shall include the following:

1. A plat showing the location of the proposed injection well(s) and the location of all other wells within a radius of two miles from said proposed injection well(s) and the formation from which said wells are producing or have produced. The plat shall also indicate the lessees, if any there be, within said two-mile radius.
2. The log of the proposed injection well(s) if same is available.
3. A diagrammatic sketch of the proposed injection well(s) showing all casing strings, including diameters and setting depths, quantities used and tops of cement, perforated or open hole intervals, tubing strings, including diameters and setting depths, and the type and location of packers, if any.
4. A tabular summary of all wells located within one-half mile of the injection well(s) which wells penetrate the injection zone, showing all casing strings, setting depths, sacks of cement used, cement tops, total depth, producing interval, well identification, and location. Applications for expansion of projects need not include the tabulation if the same is on file and no additional wells are included.

4. A tabular summary of all wells located within one-half mile of the injection well(s) which wells penetrate the injection zone, showing well identification, and location, and total depth, also all casing strings, including size and setting depths, ~~whether~~ ^{whether} cased or cement well, cement tops (and how determined), and perforated interval(s). Applications for expansion of projects need not include ^{any} wells in the tabular summary which ~~have~~ ^{have} been included on ^{any} previous tabular summary ^{by the applicant}, unless the well has been modified and the previous data is no longer applicable.
5. A schematic diagram of each plugged and abandoned well within the aforesaid one-half mile radius which penetrated the injection zone, showing thereon all the data required under Section B 5 above as well as the size and location of all plugs and the date of abandonment. Applications for expansion of projects need not include ^{the} schematic diagrams of plugged wells if the schematics have been previously submitted by the applicant, ~~and the~~ ^{unless the} well has been re-entered and the previous ~~the~~ schematic is no longer applicable.

RULE 107. CASING AND TUBING REQUIREMENTS

(The following paragraph will be proposed to be added to Rule 107 (a).)

The cement top outside all strings of casing shall be determined by means of a temperature survey or other wireline survey whenever cement is not circulated to the surface.

RULE 405. STORAGE GAS

With the exception of the requirement to meter and report monthly the amount of gas injected and the amount of gas withdrawn from storage in the absence of waste these rules and regulations shall not apply to gas being injected into or removed from storage. (See Rule 1131.)

I- SECONDARY RECOVERY, PRESSURE MAINTENANCE, SALT WATER DISPOSAL, AND HYDROCARBON 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 hydrocarbon storage, maintaining reservoir pressure, secondary recovery, or the injection of water into any formation for the purpose of water disposal shall be permitted only by order of the Commission after notice and hearing, unless otherwise provided herein.

B. Method of Making Application

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 such injection project by the completion or conversion of additional well(s) shall include the following:

1. A plat showing the location of the proposed injection well(s) and the location of all other wells within a radius of two miles from said proposed injection well(s) and the formation from which said wells are producing or have produced. The plat shall also indicate the lessees, if any there be, within said two-mile radius.
2. A tabular summary of all wells located within one-half mile of the injection well(s) which wells penetrate the injection zone showing all casing strings, setting depths, sacks of cement used, cement tops, total depth, producing interval, well identification, and location. Applications for expansion of projects need not include the tabulation if the same is on file and no additional wells are included.
3. The log of the proposed injection well(s) if same is available.
4. A diagrammatic sketch of the proposed injection well(s) showing all casing strings, including diameters and setting depths, quantities used and tops of cement, perforated or open hole intervals, tubing strings, including diameters and setting depths, and the type and location of packers, if any.

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
OCC EXHIBIT NO. 1
CASE NO. 6089-6090-6091

5. A diagrammatic sketch of all plugged and abandoned wells within the one-half mile radius and which have penetrated the injection zone showing all information required under (2) above plus the size and location of all plugs and the date of abandonment. Applications for expansion of projects need not include the schematics if the same are on file and no additional wells are included.
6. Other pertinent information including the name and depth of the zone or formation into which the injection will be made, the kind of fluid to be injected, an analysis of the formation water and water to be injected if any, any calculations of the formation fracture gradient made including data upon which such calculations were based, anticipated injection pressure and volume, and the source of the injection fluid.
7. The depth of any source of potable water and any water having a total dissolved solids concentration of 10,000 mg/l or less above the injection zone within the area set out in 2 above.

C. Salt Water Disposal Wells

The Secretary-Director of the Oil Conservation Commission 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, providing that any water occurring naturally within said disposal formation has a total dissolved solids concentration in excess of 10,000 mg/l or has a total dissolved solids concentration in excess of the fluid to be injected and that such injection will not render unfit for such use underground waters which are sources or potential sources for domestic, stock, irrigation, and/or other general use.

To obtain such administrative approval, operator shall submit in TRIPLICATE Commission Form C-108, Application to Dispose of Salt Water by Injection Into a Porous Formation, said application to be filed in accordance with Rule 701-B above. Copies of the application shall also be sent to all offset operators and to the surface owner of the land upon which the well is located.

If no objection is received within 15 days from the date of receipt of the application, and the Secretary-Director is satisfied that all of the above requirements have been complied with, and that the well is to be cased and cemented in such a manner that there will be no danger to oil, gas, or usable water reservoirs, an administrative order approving the disposal may be issued. In the event that the application is not granted administratively, it shall be set for public hearing, if the operator so requests.

The Commission may dispense with the 15-day waiting period if waivers of objection are received from all offset operators and the surface owner.

INJECTION WELL
CONSTRUCTION AND OPERATION STANDARDS
RULE 702.

A. Casing and Cementing Requirements

Wells used for injection of gas, air, water, or other fluids 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 that damage will not be caused to oil, gas, or fresh water resources.

B. Tubing and Packer Requirements

Wells used for injection of gas, air, water or other fluids shall be equipped with a string of tubing set in a packer set within 100 feet of the uppermost perforations, or in the case of open-hole completions within 100 feet of the casing shoe. If the gas or fluid to be injected is corrosive, the tubing shall be protected by a non-reactive internal coating, addition of corrosion control chemicals to the injected stream, or both.

The annular space between the tubing and casing shall be equipped in such a manner as to permit the detection of the failure of the tubing or packer.

C. Injection Pressure Requirements

Wells used for injection of gas, air, water, or other fluids shall be equipped in such a manner as to limit the injection pressure. The pressure limitation shall be such as to prevent the fracturing of the strata confining the injected fluid.

D. Reporting of Leaks or Mechanical Failures

The operator of any injection project, storage project, salt water disposal well or special purpose injection well shall report the failure of the casing, tubing, or packer in any injection well, or the leakage of air, gas, water, liquid hydrocarbons or any other fluid from or around any injection well or any producing or plugged well offsetting such injection well or within such project. Such notice shall be given in accordance with the provisions of Rule 116.

RULE 703. 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 Commission of the injection date.
- (2) Within 30 days after the discontinuance of injection operations in any well the operator shall notify the Commission of the date of such discontinuance and the reasons therefor.
- (3) Before any ^{injection} intake well shall be plugged, notice shall be served on the Commission by the owner of said well, and the same procedure shall be followed in the plugging of such well as provided for the plugging of oil and gas wells.

B. Abandonment of Injection Operations

- (1) Whenever there shall be a continuous 6 months 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 approval for injection shall be terminated.
- (2) The Secretary-Director, may for good cause shown, administratively grant an extension or extensions of injection authority as an exception to Paragraph (1) above.

RULE 704. RECORDS AND REPORTS

The operator of an injection well or project for secondary recovery or pressure maintenance, gas or petroleum storage, salt water disposal, or injection of any other fluids shall keep accurate records and shall report monthly to the Commission 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 a form approved by the Commission;
- (3) Salt Water Disposal on Form C-120-A;
- (4) Gas or Liquefied Petroleum Gas Storage on Form C-131; and
- (5) Injection of other fluids on a form approved by the Commission.

RULE 705. STORAGE WELLS

The Secretary-Director of the Oil Conservation Commission 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.

Applicants shall furnish all operators within a half-mile radius of the proposed well with a copy of the application to the Commission, and applicant shall include with his application a written stipulation that all operators within a half-mile radius of the proposed well have been properly notified. The Secretary-Director of the Commission shall wait at least ten days before approving any such application, and shall approve any such application only in the absence of objection from any notified operator. In the event that an operator objects to the application the Commission shall consider the matter only after proper notice and hearing.

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:

A. With the Secretary-Director:

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

B. With the appropriate district office of the Commission in TRIPLICATE:

- (1) Form C-101, Application for Permit to Drill, Deepen, or Plug Back;
- (2) Form C-102, Well Location and Acreage Dedication Plat; and,
- (3) Form C-105, Well Completion or Recompletion Report and Log.

RULE 1131.

Each operator of an underground gas storage project, including projects for the storage of liquefied natural gas or liquefied petroleum gas, shall report such operations on Form C-131. Form C-131 shall be filed in DUPLICATE (one copy with the Santa Fe office and one copy with the appropriate district office) and shall be postmarked not later than the 15th day of the first succeeding month.



L. P. Thompson
Division Manager

E. L. Oshio
Assistant Division Manager

Production Department
Hobbs Division
North American Production

Continental Oil Company
P.O. Box 460
1001 North Turner
Hobbs, New Mexico 88240
(505) 393-4141

December 22, 1977

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87501

Attention Mr. D. S. Nutter, Examiner

Gentlemen:

Case No. 6089 on Examiner Docket November 30, 1977

Continental Oil Company operates in New Mexico eleven multiple-well waterflood injection projects and several single-well projects. As you know, Continental has been active in the water-flow study areas in Lea County, particularly that in the Oil Center-Monument area. During the several meetings and hearings on water-flow problems in these specific areas, Continental has introduced testimony and statements, limited to information pertinent to these specific areas. We have not considered it advisable up to this time to introduce testimony on a statewide basis.

Mr. V. T. Lyon of my office picked up a copy of the proposed rules at your office on November 18; and we, therefore, had access to those rules on November 21. Continental observed November 24 & 25 as Thanksgiving holidays. In the time available we were unable to prepare testimony and exhibits which would be pertinent on a statewide basis. In fact, we were not aware until the hearing date that the proposed rules would be applicable to existing waterflood projects. Had we been aware of this fact, we would have been prepared to introduce some general testimony as to the possible effect of the revised rules on these projects.

The administration of the rules is at least as important as the language of the rules. We are concerned about the administration of Rule 702-C which places a limitation of pressure on injection projects. We know of no technique which would prove that we are not fracturing the confining strata in any of our waterflood projects. In the absence of such proof, we are concerned that the Commission may fall back on the philosophy expressed in Memorandum 3-77, which would limit injection pressure to .2 psi per foot of depth for existing waterflood projects.

New Mexico Oil Conservation Commission
December 22, 1977
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Continental Oil Company produces approximately 17,500 barrels of oil per day in the State of New Mexico, and 53% of this production comes from our waterflood projects. The effect of a limitation of pressure as described above would have a very drastic effect on these waterflood projects; the exact amount would have to be calculated after the gathering of considerable data involving several months of testing. Roughly, we would estimate a loss in daily average production from these projects at 4,000 barrels of oil per day with a loss of several million barrels of recoverable oil. This would constitute physical waste which, under the statutes of the State of New Mexico, the Commission is charged to prevent.

The verbal statement which was offered at the November 30 hearing by Mr. Lyon requested a continuance of this case so that oral testimony and exhibits could be offered. The earlier request by Mr. Hanagan of the NMOGA had been denied, and this ruling was not changed. Continental Oil Company believes that the Commission should have in its record of this case any testimony under oath, together with exhibits, which the industry may care to introduce which would indicate the magnitude of the economic impact on the State of New Mexico by the entering of such rules in the subject case. We feel strongly that denial of the request for continuance was improper considering the short notice involved and the magnitude of the probable impact of the imposition of these rules.

We further believe that the Commission is premature in promulgating the proposed rules. These rules obviously are influenced to a large degree by the proposed Underground Injection Control regulations being proposed by the Environmental Protection Agency. The final draft of these rules has not been written nor promulgated. Changes in these regulations may necessitate further amendment of New Mexico's statewide rules. It seems more appropriate to promulgate statewide rules after the EPA has promulgated its nationwide rules.

Continental respectfully requests as follows:

1. That this matter be reopened for the introduction of testimony and exhibits from the industry at a hearing date on or after February 15, 1978;
2. That this statement be entered in the record of the case in addition to the statement which was made at the November 30 hearing;

New Mexico Oil Conservation Commission
December 22, 1977
Page 3

3. That any order promulgating the proposed rules be held in abeyance until such time as the Environmental Protection Agency promulgates the Underground Injection Control regulations, which obviously provide a major impetus to the proposed rules.

Yours very truly,

E. L. Achle

VTL/jj

CC:

Peter Hanagan, NMOGA, Box 1864, Santa Fe, NM 87501

C. F. Ellis - Houston

F. O. Hull - Houston

J. W. Kellahin - Santa Fe

Gulf Energy and Minerals Company - U. S.

SOUTHWEST DIVISION

J. L. Huitt
VICE-PRESIDENT
C. E. Fields
COMPTROLLER
R. E. Galvin
GENERAL MANAGER-PRODUCTION
J. A. Hord
GENERAL MANAGER-EXPLORATION

P. O. Drawer 1150
Midland, TX 79702

December 27, 1977

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention: Joe B. Ramey

Re: Case No. 6089 - Amendment of
Statewide Rule 701 - 705.
Case No. 6090 - Amendment of
Statewide Rule 107.

Gentlemen:

On November 30, 1977, the New Mexico Oil Conservation Commission held an Examiner hearing on the captioned cases. Gulf Oil Corporation did not participate in the hearing because Gulf was under the impression that the proposed rule changes would only be prospective in nature. It has since come to Gulf's attention that the proposed changes in Rules 701 - 705 would have retro-active as well as prospective application. Gulf has also become concerned that without clarification, proposed Rule 107 might be applied to existing operations in New Mexico.

The records in the captioned cases were left open until December 30, 1977, in order that interested parties might have an opportunity to submit written comments. In accordance with this opportunity, Gulf Oil Corporation respectfully submits the following general comments in regard to the captioned cases.

1. Gulf respectfully requests that the hearings on these cases be continued until February 15, 1978, and that the presentation of additional testimony be allowed at that time. This extra time would allow Gulf, as well as other New Mexico operators, to properly review operations at existing waterfloods and evaluate the impact the proposed rules would have on present and future water-flood operations.

2. Gulf believes that portions of the proposed rules require clarification before they are implemented. For example, while Gulf believes proposed Rule 107 is only intended to deal with future operations, the existing language could be interpreted to require all existing wells to conform to the requirements of the proposed rule. Gulf is not in a position at this time to outline all proposed



A DIVISION OF GULF OIL CORPORATION

N.M.O.C.C.
Attn: Joe B. Ramey

- 2 -

December 27, 1977

clarifications, but hopefully would be able to do so at a February 15, 1978, hearing.

3. Gulf believes that some of the proposed changes are unduly burdensome, especially when compared to the latest proposed rules for control of underground injection set forth by the United States Environmental Protection Agency. For example, proposed Rule 702C is intended to prevent fracture of the confining strata while the comparable proposed Federal rule is intended to minimize fracture of the confining strata. Gulf believes that this and other unduly restrictive provisions should be amended.

Gulf would like to present a more comprehensive analysis of the proposed rules, but is unable to do so given the short time frame within which to work. Due to the substantial impact these rules may have on oil and gas operations in New Mexico, it would seem appropriate that all interested parties be given the opportunity to present comprehensive testimony regarding the proposed changes.

Gulf realizes that some form of the proposed rules must be adopted. However, in order that all relevant information may be presented to and considered by the Commission, Gulf respectfully requests that the hearing on the captioned rules be continued until February 15, 1978.

Yours very truly,



R. E. Galvin
General Manager - Production

REG/JGS:bg

Anadarko
PRODUCTION COMPANY

Two Greenway Plaza East, Suite 410 • Houston, Texas 77046 • (713) 426-7610

APC
Production
Company
1977

December 22, 1977

New Mexico Oil Conservation Commission
Box 2088
Santa Fe, NM 87501

Re: Case 6089, Nov. 30, 1977
Amendment of Statewide Rules
701, 702, 703, 704 & 705

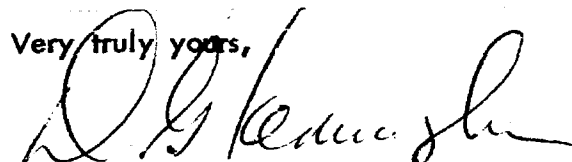
Gentlemen:

Anadarko Production Company ("Anadarko") has reviewed the amendments to the above rules and considers these amendments burdensome to the industry, but it can, from a prospective standpoint, accept these rules as amended. An operator or lease owner will recognize the burden imposed by these rules when he is considering a prospect or business venture and can consider such prospect or venture from an economic standpoint in light of how these rules will apply. However, to apply these rules as amended retroactively creates an extreme onerous burden on any operator or lease owners presently engaged in secondary recovery operations. The operators of existing floods have entered into these projects in the light of present rules and have computed their economics based on considerations which include the rules as presently drafted. To enforce the amendment to these rules from a retroactive standpoint could very likely cause the abandonment of many current secondary recovery projects in the state of New Mexico.

There was no indication in the notice of the above hearing or in the proposed amendment to these rules that there would be an attempt to apply these amended rules retroactively, and therefore, Anadarko made no appearance to contest this point at the hearing. However, in the testimony at the hearing, the Commission's witness testified that these rules would be applied retroactively. This was the first indication that the Commission was taking this position.

It is respectfully requested that this case be reopened for direct testimony before any order is entered, and that such hearing be on or after February 15, 1978.

Very truly yours,



D. G. Kernaghan
Division Evaluation Engineer

DGK/jc

EXXON COMPANY, U.S.A.

POST OFFICE BOX 1600 • MIDLAND, TEXAS 79701

December 28, 1977

PRODUCTION DEPARTMENT
MIDCONTINENT DIVISION

P. H. KELLY
OPERATIONS MANAGER

Public Hearing of November 30, 1977
Case 6089

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey

Dear Sir:

In regard to the hearing of November 30, 1977, involving Case No. 6089 which considered amendment of Rules 701, 702, 703, 704, and 705, the notice of the hearing mailed November 18, 1977, did not come to our attention until November 28, 1977. There was not sufficient time to prepare for the hearing. At the hearing on November 30, 1977, a request to continue the hearing was denied, but the record was to be left open until December 30 for written statements. Written statements are not considered as effective as sworn testimony and exhibits in a public hearing, and the operators should be given the opportunity of a public hearing on the referenced case with sufficient notice of the hearing.

Exxon Corporation objects to the New Mexico Oil Conservation Commission's proposed amendments to Rules 701, 702, 703, 704, and 705 because the amendments would be changing the state's injection well rules to conform with the proposed Federal EPA Underground Injection Control Regulations before it is known what the EPA regulations will be in the final adopted form. Rule 702-C is particularly objectionable in the limiting of injection pressure "such as to prevent the fracturing of the strata confining the injection fluid." Since frac pressures are difficult to define, we suggest the rule state that injection fluid be confined to the intended zone.

Respectfully submitted,

Exxon Corporation

by 

A DIVISION OF EXXON CORPORATION

TEXAS PACIFIC OIL COMPANY, INC.

REGIONAL OFFICE
MIDLAND, TEXAS 79701

P. O. BOX 4067
1500 WEST WALL STREET

TEL. 915-834-5584
TWX. 910-896-5324

December 28, 1977

State of New Mexico
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. Daniel S. Nutter

Re: Examiner Hearing - November 30, 1977
Amendment of Rules 701-5, 107 & 405

Dear Sir:

Texas Pacific Oil Company, Inc., respectfully requests that the Oil Conservation Commission issue a continuance of the captioned hearing. Due to the far-reaching implications of the proposed changes and the short notice of the hearing, we believe such a continuance is necessary to allow operators the opportunity to present sworn testimony and exhibits in a public hearing subject to cross examination. A continuance would provide a forum for the industry and the Oil Conservation Commission to develop the merits of the proposed changes.

Texas Pacific received notice of the subject hearing on November 21, 1977. Due to the Thanksgiving holidays only four working days were available to study the proposals prior to the hearing. Due to the far-reaching implications of the proposed changes this short notice was inadequate for Texas Pacific to study the impact of the proposals and respond accordingly. It is probable that operators in more distant cities had even less time to study these proposals.

Texas Pacific is concerned that the Commission by these actions, of calling an important hearing on short notice and denying a continuance, is undermining the mutual efforts put forth in the past by the Commission, oil operators and interested parties to bring about just and equitable regulations after consideration of all facts.

Very truly yours,

TEXAS PACIFIC OIL COMPANY, INC.

RJWomack

R. J. Womack
Regional Manager

MLS/TJW:lw

Atlantic Richfield Company

North American Producing Division
Permian District
Post Office Box 1610
Midland, Texas 79701
Telephone 915 682 8631



DEC 21 1977

December 19, 1977

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Attn: Mr. Joe Ramey

Re: November 30, 1977 Hearing
Case No. 6089

Gentlemen:

Atlantic Richfield Company respectfully requests that subject hearing be granted a continuance to the last hearing date in February 1978. The purpose of this request is to afford the opportunity for all operators to participate and/or develop for submittal in the hearing, meaningful data prior to issuance of final orders.

This office received notice of the hearing docket and copies of the proposed amended Rules 701, 702, 703, 704, and 705 on November 29, 1977. The short notice precluded our attendance and participation in the scheduled hearing. We believe other operators were in a similar position.

In addition, it is our understanding that the proposed amended rules are intended to be retroactive. If so, it is our view that this could possibly result in a substantial economic impact on operations of previously approved projects.

Should our request for a February 1978 hearing continuance be denied we request that operators be granted a minimum period of one year in which to bring their previously approved projects into compliance with the proposed amended rules.

Very truly yours,

J. L. Tweed
District Engineer

REP/agp

Don:
Let's reopen this the second examiner
hearing in February.
JLR

A Statement of Texaco's Position
New Mexico Oil Conservation Commission
CASE 6089

Texaco Inc. as an operator and working interest owner of numerous secondary recovery projects in New Mexico strongly opposes the adoption of the proposed NMOCC Rule 702-C. Adoption of the proposed rule will result in the immediate reduction of current production and ultimate loss of recoverable reserves from secondary recovery projects due to reduced volumetric sweep efficiency particularly in the low porosity and permeability reservoirs characteristic of New Mexico. Adoption of the proposed rule will also result in physical and economic waste by lengthening the time required to produce the potential secondary reserves thereby increasing operating costs and reducing the ultimate volume of otherwise economically recoverable oil. Furthermore this rule could preclude the installation of new secondary projects that have marginal economics that would become uneconomic under the proposed Rule 702-C. There has been no evidence presented to date to show that injection of fluids at pressures greater than fracture pressure has caused damage to or contamination of other formations. For reasons stated herein Texaco feels that proposed Rule 702-C is not in the best interest of conservation and should therefore not be adopted.

cc "1/11"
CH MJK
OK JAN

11-29-77
PHD

INJECTION WELL
CONSTRUCTION AND OPERATION STANDARDS
RULE 702.

A. Casing and Cementing Requirements

Wells used for injection of gas, air, water, or other fluids 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 that damage will not be caused to oil, gas, or fresh water resources.

B. Tubing and Packer Requirements

Wells used for injection of gas, air, water or other fluids shall be equipped with a string of tubing set in a packer set within 100 feet of the uppermost perforations, or in the case of open-hole completions within 100 feet of the casing shoe. If the gas or fluid to be injected is corrosive, the tubing shall be protected by a non-reactive internal coating, addition of corrosion control chemicals to the injected stream, or both.

The annular space between the tubing and casing shall be equipped in such a manner as to permit the detection of the failure of the tubing or packer.

C. Injection Pressure Requirements

Wells used for injection of gas, air, water, or other fluids shall be equipped in such a manner as to limit the injection pressure. The pressure limitation shall be such as to prevent the fracturing of the strata confining the injected fluid.

D. Reporting of Leaks or Mechanical Failures

The operator of any injection project, storage project, salt water disposal well or special purpose injection well shall report the failure of the casing, tubing, or packer in any injection well, or the leakage of air, gas, water, liquid hydrocarbons or any other fluid from or around any injection well or any producing or plugged well offsetting such injection well or within such project. Such notice shall be given in accordance with the provisions of Rule 116.

RULE 703. 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 Commission of the injection date.
- (2) Within 30 days after the discontinuance of injection operations in any well the operator shall notify the Commission of the date of such discontinuance and the reasons therefor.
- (3) Before any intake well shall be plugged, notice shall be served on the Commission by the owner of said well, and the same procedure shall be followed in the plugging of such well as provided for the plugging of oil and gas wells.

B. Abandonment of Injection Operations

- (1) Whenever there shall be a continuous 6 months 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 approval for injection shall be terminated.
- (2) The Secretary-Director, may for good cause shown, administratively grant an extension or extensions of injection authority as an exception to Paragraph (1) above.

RULE 704. RECORDS AND REPORTS

The operator of an injection well or project for secondary recovery or pressure maintenance, gas or petroleum storage, salt water disposal, or injection of any other fluids shall keep accurate records and shall report monthly to the Commission 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 a form approved by the Commission;
- (3) Salt Water Disposal on Form C-120-A;
- (4) Gas or Liquefied Petroleum Gas Storage on Form C-131; and
- (5) Injection of other fluids on a form approved by the Commission.

RULE 705. STORAGE WELLS

The Secretary-Director of the Oil Conservation Commission 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.

Applicants shall furnish all operators within a half-mile radius of the proposed well with a copy of the application to the Commission, and applicant shall include with his application a written stipulation that all operators within a half-mile radius of the proposed well have been properly notified. The Secretary-Director of the Commission shall wait at least ten days before approving any such application, and shall approve any such application only in the absence of objection from any notified operator. In the event that an operator objects to the application the Commission shall consider the matter only after proper notice and hearing.

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:

A. With the Secretary-Director:

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

B. With the appropriate district office of the Commission in TRIPLICATE:

- (1) Form C-101, Application for Permit to Drill, Deepen, or Plug Back;
- (2) Form C-102, Well Location and Acreage Dedication Plat; and,
- (3) Form C-105, Well Completion or Recompletion Report and Log.

RULE 1131.

Each operator of an underground gas storage project, including projects for the storage of liquefied natural gas or liquefied petroleum gas, shall report such operations on Form C-131. Form C-131 shall be filed in DUPLICATE (one copy with the Santa Fe office and one copy with the appropriate district office) and shall be postmarked not later than the 15th day of the first succeeding month.

RULE 107. CASING AND TUBING REQUIREMENTS

(The following paragraph will be proposed to be added to Rule 107 (a).)

The cement top outside all strings of casing shall be determined by means of a temperature survey or other wireline survey whenever cement is not circulated to the surface.

RULE 405. STORAGE GAS

With the exception of the requirement to meter and report monthly the amount of gas injected and the amount of gas withdrawn from storage in the absence of waste these rules and regulations shall not apply to gas being injected into or removed from storage. (See Rule 1131.)

I- SECONDARY RECOVERY, PRESSURE MAINTENANCE, SALT WATER DISPOSAL, AND HYDROCARBON 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 hydrocarbon storage, maintaining reservoir pressure, secondary recovery, or the injection of water into any formation for the purpose of water disposal shall be permitted only by order of the Commission after notice and hearing, unless otherwise provided herein.

B. Method of Making Application

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 such injection project by the completion or conversion of additional well(s) shall include the following:

1. A plat showing the location of the proposed injection well(s) and the location of all other wells within a radius of two miles from said proposed injection well(s) and the formation from which said wells are producing or have produced. The plat shall also indicate the lessees, if any there be, within said two-mile radius.
2. A tabular summary of all wells located within one-half mile of the injection well(s) which wells penetrate the injection zone showing all casing strings, setting depths, sacks of cement used, cement tops, total depth, producing interval, well identification, and location. Applications for expansion of projects need not include the tabulation if the same is on file and no additional wells are included.
3. The log of the proposed injection well(s) if same is available.
4. A diagrammatic sketch of the proposed injection well(s) showing all casing strings, including diameters and setting depths, quantities used and tops of cement, perforated or open hole intervals, tubing strings, including diameters and setting depths, and the type and location of packers, if any.

5. A diagrammatic sketch of all plugged and abandoned wells within the one-half mile radius and which have penetrated the injection zone showing all information required under (2) above plus the size and location of all plugs and the date of abandonment. Applications for expansion of projects need not include the schematics if the same are on file and no additional wells are included.
6. Other pertinent information including the name and depth of the zone or formation into which the injection will be made, the kind of fluid to be injected, an analysis of the formation water and water to be injected if any, any calculations of the formation fracture gradient made including data upon which such calculations were based, anticipated injection pressure and volume, and the source of the injection fluid.
7. The depth of any source of potable water and any water having a total dissolved solids concentration of 10,000 mg/l or less above the injection zone within the area set out in 2 above.

C. Salt Water Disposal Wells

The Secretary-Director of the Oil Conservation Commission 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, providing that any water occurring naturally within said disposal formation has a total dissolved solids concentration in excess of 10,000 mg/l or has a total dissolved solids concentration in excess of the fluid to be injected and that such injection will not render unfit for such use underground waters which are sources or potential sources for domestic, stock, irrigation, and/or other general use.

To obtain such administrative approval, operator shall submit in TRIPPLICATE Commission Form C-108, Application to Dispose of Salt Water by Injection Into a Porous Formation, said application to be filed in accordance with Rule 701-B above. Copies of the application shall also be sent to all offset operators and to the surface owner of the land upon which the well is located.

If no objection is received within 15 days from the date of receipt of the application, and the Secretary-Director is satisfied that all of the above requirements have been complied with, and that the well is to be cased and cemented in such a manner that there will be no danger to oil, gas, or usable water reservoirs, an administrative order approving the disposal may be issued. In the event that the application is not granted administratively, it shall be set for public hearing, if the operator so requests.

The Commission may dispense with the 15-day waiting period if waivers of objection are received from all offset operators and the surface owner.

A Statement of Texaco's Position
New Mexico Oil Conservation Commission
CASE 6089

Texaco Inc. as an operator and working interest owner of numerous secondary recovery projects in New Mexico strongly opposes the adoption of the proposed NMOCC Rule 702-C. Adoption of the proposed rule will result in the immediate reduction of current production and ultimate loss of recoverable reserves from secondary recovery projects due to reduced volumetric sweep efficiency particularly in the low porosity and permeability reservoirs characteristic of New Mexico. Adoption of the proposed rule will also result in physical and economic waste by lengthening the time required to produce the potential secondary reserves thereby increasing operating costs and reducing the ultimate volume of otherwise economically recoverable oil. Furthermore this rule could preclude the installation of new secondary projects that have marginal economics that would become uneconomic under the proposed Rule 702-C. There has been no evidence presented to date to show that injection of fluids at pressures greater than fracture pressure has caused damage to or contamination of other formations. For reasons stated herein Texaco feels that proposed Rule 702-C is not in the best interest of conservation and should therefore not be adopted.

OK
OK JAN

11-29-77
PHD

Dockets Nos. 39-77 and 1-78 are tentatively set for hearing on December 14, 1977 and January 4, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - NOVEMBER 30, 1977

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

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

CASE 6089: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rules 701, 702, 703, 704, and 705 of the Commission Rules governing applications for approval of injection wells and projects, well construction and operations standards, reports and records requirements, and automatic termination of authorization for abandoned wells or projects.

Please see proposed rules enclosed.

CASE 6090: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rule 107 of the Commission Rules to provide a requirement for the determination of cement tops outside all casing strings by means of temperature or mechanical surveys.

Please see proposed rule enclosed.

CASE 6091: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rule 405 of the Commission Rules, the adoption of a new Rule 1131, and a new Form C-131, all for the purpose of reporting gas injections and withdrawals in underground natural gas storage projects.

Please see proposed rule and amended form enclosed.

CASE 6092: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the reclassification of the following pressure maintenance projects as secondary recovery projects: The Amoco Baskett and Wasley Projects, and the Union Texas Baskett Project, all in Cato-San Andres Pool, Chaves County, New Mexico. The Amoco Horton Project, Milnesand-San Andres Pool, Roosevelt County, New Mexico. The Midwest Project, Nonombre-Pennsylvanian Pool, the Coastal States Flying "M" Project, Flying M-San Andres Pool, and the Mobil Vacuum Middle Penn Project, Vacuum-Middle Pennsylvanian Pool, all in Lea County, New Mexico. Also to be considered will be the amendment of the orders authorizing said projects to reflect the aforesaid reclassification.

CASE 6093: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the reclassification of the following pressure maintenance projects as secondary recovery projects: The Atlantic Richfield Horseshoe Gallup Unit Project, the Energy Reserves Group Horseshoe Gallup Project No. 3 and Northeast Hogback Unit Project, and the Engineering and Production Services Horseshoe Gallup Project No. 2, all in Horseshoe Gallup Oil Pool, the Engineering and Production Services Many Rocks Gallup Project No. 1, Getty Many Rocks Gallup Project No. 3, and the J. P. Woosley Many Rocks Gallup Project No. 4, all in the Many Rocks-Gallup Oil Pool; the Dugan Central Cha Cha Project and the Suburban Propane Northwest Cha Cha Unit Project, both in Cha Cha-Gallup Oil Pool; and the Shell Carson Unit Project, Bisti-Gallup Oil Pool, all in San Juan County, New Mexico. The Tenneco Lower Hospah Project, South Hospah-Lower Sand Oil Pool; South Upper Hospah Project, South Hospah-Upper Sand Oil Pool; and Lone Pine Dakota D Unit Project, Lone Pine Dakota D Oil Pool, all in McKinley County, New Mexico. Also to be considered will be the amendment of the orders authorizing said projects to reflect the aforesaid reclassification.

CASE 6094: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the repeal of Commission Order No. 67 and the amendment of Rule 406 of the Commission Rules, both of which relate to carbon dioxide gas. The repeal of said Order 67 and the amendment of Rule 406 would be for the purpose of abolishing the existing special rules for carbon dioxide exploration, development, and processing, and placing such activities under the general rules of the Commission.

3 cases

Application of OCL on its own motion for the amendment of Rule 107 of the Commission Rules and Regulations. To be considered will be a requirement for the determination of current tops outside casing by means of temperature or mechanical survey.

Appl of OCL of Rule 701, 702, 703, ^{904, 705} ~~704~~, and 1120. To be considered will be the amendment of Commission rules governing the application for approval of injection wells and ~~and the construction standards,~~ notice requirements, abandonment, and ~~Record~~ records and reports requirements applicable to such wells and injection ~~and~~ ~~and~~ storage projects. projects, ~~and~~ applicable construction and operation standards, report and record requirements, and automatic termination of authorization for abandoned ~~and~~ wells or projects.

Application OCL of Rule 1100 D. To be considered will be the amendment of the Commission rule enumerating written notices requests, permits, and reports required by Commission Rules and Regulations.

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date NOVEMBER 30, 1977 TIME: 9:00 A.M.

NAME	REPRESENTING	LOCATION
AR Kendrick	Oil	City
El Paso Natural Gas Co		El Paso, TX
J W Hull	SHELL Oil Co	Midland
B W BEST		Houston
Ken Bateman	White Lark Kell, & Co. Lark	Santa Fe
Bob McCrory	Gas Co New Mex.	Dallas
Susan Reno	Gas Co New Mexico	Dallas
V. T. Lyon	CONTINENTAL OIL CO	Hobbs
Joel Carson	Lois & Carson P.A.	Artesia
Boyle John Shaw	Texas Oil & Gas Corp.	Midland, TX
Jerry B. Ely	TEXAS OIL & GAS CORP.	Midland, TX
Quinn Loper	Montgomery Law Firm	Santa Fe
Karen Hamagau	NMOGA	Santa Fe
Bill Thomas	Healy	Hobbs
Ken Griffin	Griffin & Burnett, Inc.	Midland
Ed King	R. K. Hillin	Midland TX
Rick Tully	Dugan Production Corp.	Farmington, NM
JEFFY SEXTON	DCL	Hobbs
R W Phillips	SHELL oil Co	Houston

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
November 30, 1977

EXAMINER HEARING

IN THE MATTER OF:

Hearing called by the Oil Conservation
Commission on its own motion to consider
the amendment of Rules 701, 702, 703,
704 and 705 of the Commission Rules.

CASE
6089
6090
6091
CONSOLIDATED

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission:	Lynn Teschendorf, Esq. Legal Counsel for the Commission State Land Office Building Santa Fe, New Mexico
For Texaco, Inc.:	Ken Bateman, Esq. WHITE, KOCH, KELLY & MCCARTHY Attorneys at Law 220 Otero Santa Fe, New Mexico
For Dugan Production Corp:	Richard Tully, Esq. General Counsel Dugan Production Corporation Farmington, New Mexico

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Phone (505) 982-9212

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1 MR. NUTTER: The next case is Case Number 6089,
2 which is in the matter of the hearing called by the Oil
3 Conservation Commission on its own motion to consider the
4 amendment of Rules 701, 702, 703, 704, and 705 of the Commission
5 rules governing applications for approval of injection
6 programs.

7 Call for appearances in this case.

8 MS. TESCHENDORF: Lynn Teschendorf, appearing on
9 behalf of the Commission and I request that Case 6089 be
10 consolidated with Cases 6090 and 6091.

11 MR. NUTTER: We will also call at this time Case
12 6090, which is in the matter of the hearing called by the
13 Oil Conservation Commission on its own motion to consider
14 the amendment of Rule 107 and call Case Number 6091, which
15 is in the matter of the hearing called by the Oil Conservation
16 Commission on its own motion to consider the amendment of Rule
17 405 of the Commission Rules, the adoption of a new Rule 1131
18 and a new Form C-131, all for the purpose of reporting gas
19 injections and withdrawals in underground natural gas storage
20 projects.

21 For the purpose of testimony we will consolidate
22 Case Numbers 6089, 6090, and 6091.

23 Call for appearances, now.

24 MS. TESCHENDORF: Lynn Teschendorf, appearing on
25 behalf of the Commission.

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1 MR. BATEMAN: Mr. Examiner, I am Ken Bateman of
2 White, Koch, Kelly & McCarthy, Santa Fe, appearing on behalf
3 of Texaco. I have a statement to make in Case 6089.

4 MR. NUTTER: Thank you. Are there other appearances?
5 If not, would you proceed, Miss Teschendorf.

6 MR. TULLY: Richard Tully, General Counsel, Dugan
7 Production Corporation and I am here in Case 6090.

8 MR. NUTTER: Mr. Bateman, your appearance was in
9 Case 6089?

10 MR. BATEMAN: That's correct.

11 MS. TESCHENDORF: I have one witness to be sworn.
12 (THEREUPON, the witness was sworn.)
13

14 RICHARD L. STAMETS

15 was called as a witness by the Commission, and having been
16 first duly sworn, testified upon his oath as follows, to-wit:
17

18 DIRECT EXAMINATION

19 BY MS. TESCHENDORF:

20 Q State your name and position, please?

21 A I am R. L. Stamets, and I am the Technical Support
22 Chief for the Oil Conservation Commission in Santa Fe.

23 Q And have you previously testified before the
24 Commission and are your credentials a matter of record?

25 A I have and they are.

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1 MS. TESCHENDORF: Is the witness qualified?

2 MR. NUTTER: Yes, he is.

3 Q (Ms. Teschendorf continuing.) Are you familiar with
 4 Cases 6089, 6090, and 6091?

5 A I am.

6 Q I think we will take Case 6090, first, if it is
 7 all right with the Examiner.

8 Now, what is the purpose of this case?

9 A I hope that is the amendment of Rule 107 --

10 Q It is.

11 A Before that, I would like to hand the Examiner the
 12 exhibits which will be applicable to these cases.

13 Exhibit Number One is a copy of the proposed rule
 14 changes in all three cases and Exhibit Number Two is a copy
 15 of the proposed form C-131.

16 I would point out for those in attendance here that
 17 the proposed rule changes and the form did accompany the
 18 docket of this case and I have about three extra copies here
 19 if anybody needs to look at them.

20 In amending Rule 107, we have experienced a number
 21 of problems with secondary recovery projects and salt water
 22 disposal wells in southeast New Mexico.

23 These have required the operators and the Commission
 24 to determine what the cement tops were on many of these wells
 25 in these areas and this has proven difficult or somewhat

1 complex when no temperature surveys were available on casing
2 strengths and on cement tops.

3 Also, we have required that operators furnish us with
4 the casing strengths and cement tops on offsetting wells when
5 applying for a new salt water disposal wells or water flood
6 projects for injection wells.

7 All in all an accurate knowledge of cement tops is
8 becoming more important to the Commission and to the industry.

9 The change in Rule 107 is to require the determination
10 of tops on cement and casing strengths on all new wells where
11 the cement did not circulate to the surface.

12 We would propose simply in addition to Rule 107 (a)
13 that the cement tops stating that, "The cement top outside all
14 strings of casing shall be determined by means of a
15 temperature survey or other wireline survey whenever cement
16 is not circulated to the surface."

17 I would point out, too, that Rule 1103 (b) (2) does
18 require the reporting of cement tops in their method of
19 determination on Form C-103.

20 Q Do you have anything further in this case?

21 A That's all I have.

22 Q Were Exhibits One and Two prepared by you or under
23 your direction and supervision?

24 A Yes, they were.

25 MS. TESCHENDORF: I offer Exhibits One and Two.

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1 MR. NUTTER: As they relate to Case 6090?

2 MS. TESCHENDORF: Yes.

3 MR. NUTTER: They will be admitted in evidence. Do
4 you want to proceed with your other cases?

5 Did you have a statement, Mr. Tully, with respect
6 to this case?

7 MR. TULLY: Yes.

8 MR. NUTTER: Do you want to give that now or wait
9 until after we have heard these three cases?

10 MR. TULLY: Whichever you prefer.

11 MR. NUTTER: If you want to go ahead and give your
12 statement with respect to Case 6090, now, we will appreciate
13 it.

14 MR. TULLY: This is a statement by Thomas A. Dugan,
15 President, Dugan Production Corporation, Farmington, New
16 Mexico, and it is addressed to the New Mexico Oil Conservation
17 Commission, attention Daniel S. Nutter, Examiner, Dear Mr.
18 Nutter.

19 In Case No. 6090 called for hearing before the New
20 Mexico Oil Conservation Commission on November 30, 1977, we
21 wish to state our objection to the adoption of the proposed
22 Rule C 107 (a).

23 The proposed Rule C 107 (a) provides that the cement
24 top outside all strings of casing will be determined by means
25 of a temperature or other wireline survey whenever cement is

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1 not circulated to the surface. We feel the adoption of
2 this blanket rule for all operators is not justified because
3 the possible benefits it might yield will not offset the
4 additional time and money that it will cost.

5 The running of these surveys will be time-consuming
6 because more rig time will be needed to complete a well, and
7 the operator and its personnel will need to spend additional time
8 on location to supervise the work. Needless to say, there will
9 be additional costs and expenses associated with the extra
10 rig time and supervisory personnel as well as the extra
11 expense for the additional wireline services.

12 There are of course situations where the locating of
13 the cement tops is necessary, but we do not feel the adoption
14 of this blanket rule is the answer. Rather we are of the
15 opinion that if the cement tops need to be located, then the
16 operator acting under a reasonable and prudent standard
17 can make the decision to acquire the extra wireline services.
18 This method will not estop the New Mexico Oil Conservation
19 Commission and its representatives from requesting the
20 operator to run the surveys if the NMOCC felt the surveys
21 are needed in these limited situations.

22 For the foregoing reasons we would hope the New Mexico
23 Oil Conservation Commission will not adopt this unnecessary
24 and needlessly expensive blanket rule.

25 Respectfully submitted, Thomas A. Dugan, President.

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1 MR. NUTTER: Thank you, Mr. Tully.

2 MS. TESCHENDORF: At this time I would like to
3 proceed on Case 6091, and Mr. Stamets what is the purpose
4 of this case?

5 A Approximately for two and a half years the U. S.
6 Environmental Protection Agency has been working on regulations
7 which they or the states will use to regulate all injection
8 wells.

9 All regulations which I have seen todate require
10 reporting of injection pressures and volumes. Todate this
11 Commission has had no reporting requirements for storage
12 wells, no general reporting requirement.

13 This proposal is to fill that gap. Getting to
14 Rule 1131, first, and that is on the last page of Exhibit
15 Number One, this rule requires the reporting of data for all
16 gas and .G. storage projects on Form C-131 which is
17 Exhibit Number Two in this case.

18 One thing that I would point out for the Examiner's
19 information is that the Environmental Protection Agency all
20 of their regulations todate only require quarterly reporting
21 and perhaps we should want to consider this instead of monthly
22 reporting as Rule 1131 now states.

23 Q (Ms. Teschendorf continuing.) What changes do you
24 recommend for Rule 405?

25 A I am sorry, Rule 405, what we have done there is to

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1 simply add a reference to Rule 1131 for the convenience of
2 those using the rule book.

3 MR. NUTTER: Is Rule 405 reproduced in the Exhibit?

4 A. Yes, it is.

5 MR. NUTTER: What changes have been made there?

6 A. The only change on 405 is just simply the addition
7 of the words "see rule C 1131" in parenthesis at the end of
8 the rule.

9 MR. NUTTER: So, the substance of this amendment in
10 this case would be the addition of Rule 1131?

11 A. That's correct.

12 MR. NUTTER: And the adoption of Form C-131?

13 A. That's right.

14 MR. NUTTER: Now, does the E.P.A. on its proposed
15 U.I.C. program require the reporting of all injection on a
16 quarterly basis or is that just for storage projects that is
17 required to report on a quarterly basis?

18 A. The minimum E.P.A. requirements are for quarterly
19 reporting and our intent is not to really change our requirements
20 on any existing projects such as salt water disposal or water
21 floods but to be able to use our computer in filing the
22 required quarterly reports with the Environmental Protection
23 Agency or at least having them available here.

24 Of course, you are aware that we have changed our
25 reporting of water injection and water flood projects to

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1 Form C-115 to try to get this on the computer where we can
2 reduce the operator's workload and utilize our machinery to
3 better advantage.

4 MR. NUTTER: So, it is not your thought that
5 reporting disposals or pressure maintenance or water flood
6 projects would be changed? It would continue on a monthly
7 basis?

8 A That's correct. I am only thinking of this new
9 report which is something we have not had for sometime and some-
10 thing we have not experienced a tremendous demand for although I
11 think perhaps these two things will become more important in
12 the future as we rely more heavily on storage projects in
13 the State.

14 MR. NUTTER: Now, will the E.P.A., U.I.C. regs
15 require the reporting of L.P.G. storage projects as well as
16 natural gas projects?

17 A My reading of the regulations will require reporting
18 of all hydrocarbon storage projects, liquid, L.P.G. gas, and
19 natural gas.

20 MR. NUTTER: And that is why you have got on this
21 Form C-131 natural gas, MCF, and L.P.G. gallons?

22 A Yes.

23 MR. NUTTER: And over in the column it doesn't mean
24 MCF per gallon it means MCF or gallons?

25 A That's right. We will have to make some corrections

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1 to that form to clarify that.

2 MR. NUTTER: MCF or gallons but it wouldn't be
3 MCF per gallon?

4 A. That's right.

5 MR. NUTTER: Does anyone have any statements to
6 make or comments to make in Case 6091? Are there any questions
7 of the witness?

8 Okay, Ms. Teschendorf, we will take Case 6089, now.

9 MS. TESCHENDORF: First, I would like to offer the
10 Exhibits One and Two in Case 6091.

11 MR. NUTTER: Exhibits One and Two as they relate to
12 Case 6091 will be admitted in evidence.

13 Q. (Ms. Teschendorf continuing.) Mr. Stamets, what
14 is the purpose of Case 6089?

15 A. In this case what we are intending to do is to
16 include now in our rules and regulations provisions which we
17 have been regularly putting in orders which authorize
18 injections.

19 We also are proposing to bring our rules up to date
20 with current policy and technology and to clarify the injection
21 wells which are to be regulated for purposes of the pending
22 Environmental Protection Agency underground control regulations.

23 Q. What are your proposed changes and modifications?

24 A. I am not going to read each one of these but I'll
25 try to summarize each one of these as much as I can and read

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1 those which I think are the most important.

2 Rule 701 (a) Permit for Injection Required, we
3 have added the words "hydrocarbon storage" to clarify the
4 Commission's authority in the rules.

5 Now, I believe Section 65-3-11 (13) of the statutes
6 gives us this authority but we simply added this in here
7 for the purpose of clarifying the rules.

8 Rule 701 (b) Method of Making Application, the
9 opening paragraph in requirement Number One is the same
10 as in the current rules and regulations.

11 Number two, I am going to read this, this would be
12 a requirement with the filing of an application under this
13 rule, "A tabular summary of all wells located within one-half
14 mile of the injection well, wells, which wells penetrate
15 the injection zone showing all casing strings, setting depths,
16 sacks of cement used, cement tops, total depth, producing
17 interval, well identification, and location. Applications
18 for expansion of projects need not include the tabulation if
19 the same is on file and no additional wells are included."

20 This tabular summary is needed for us to evaluate
21 injection projects. If the zone is not covered by casing
22 and cement in an offset well the injected fluids could escape
23 to other zones.

24 Under three, there is no change from the original
25 rules and regulations.

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1 Number four is not changed from the original rules
2 and regulations.

3 Number five, I'll read the requirement here, again.

4 "A diagrammatic sketch of all plugged and abandoned wells
5 within the one-half mile radius and which have penetrated
6 the injection zone showing all information required under
7 two above plus the size and location of all plugs and the
8 date of abandonment. Applications for expansion of projects
9 need not include the schematics if the same are on file and
10 no additional wells are included."

11 As, indeed, two above, these sketches are needed
12 to help us evaluate those projects.

13 Number six, this is the same requirement as the
14 old requirement B (4) and we have added the requirement for
15 the analysis of formation and injected waters so that we can
16 protect waters with less than ten thousand milligrams of total
17 dissolved solids.

18 We have added calculations of fracture gradients
19 so that the pressure may be limited to prevent migration from
20 out of the zone through fractures and the expected volume and
21 pressure is required.

22 Number seven, again I'll read, "The depth of any source
23 of potable water and any water having a total dissolved solids
24 concentration of ten thousand milligrams per liter or less
25 above the injection zone within the area set out in two above."

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1 Here we simply require the identification of water
2 zones which we are required to protect.

3 Rule 701 (c) Salt Water Disposal Wells, the wording
4 at the end of the last paragraph, specifically the last six
5 lines, was more specifically changed to reflect waters to be
6 protected as identified by the State Engineer and the Safe
7 Drinking Water Act, and to tie in with the Water Quality Control
8 Commission regulations and, of course, the Commission is
9 a constituent agency of the Water Quality Control.

10 701 (d) there are no changes.

11 701 (e) now, this is one rule change that I neglected
12 to get on the exhibit. It really is not significant. I don't
13 believe it is going to cause any problem. But what we need
14 to do here is remove this phrase from the end of the third
15 paragraph of Rule 701 (e) and this says, "And result of
16 such tests -- "

17 MR. NUTTER: Just a minute, I can't find it on here.

18 A It's not on here -- that's right, it's not on here
19 on the exhibit.

20 MR. NUTTER: Okay, let me find it in the book, then.

21 701 (e) --

22 A 701 (e) third paragraph and at the end of the third
23 paragraph this phrase should be removed, "And the results of
24 such tests shall be included on the monthly Commission form
25 C-120 for said projects."

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1 Of course, I mentioned before that the C-120 is
2 being phased out beginning with the January report of
3 operations and so there would be no Form C-120 to file this
4 information on.

5 MR. NUTTER: So, the only change there would be
6 the C-120 to the C-115?

7 A Well, actually, I don't see any need of filing this
8 on C-115. We will just phase out this requirement and go
9 ahead and require the tests but not have the information
10 reported.

11 Now, Rule 702, we have changed the title of the
12 form to Injection Well Construction and Operation Standards
13 and it now consists of Sections A, B, C, and D.

14 Under A, this is still casing and cementing requirement
15 and the wording has been changed from the original 702 so
16 that all injection wells must be cased and cemented, not just
17 those utilizing oil and gas producing formations.

18 B, is a new provision requiring that injection be
19 through tubing, internal tubing coating or treatment if
20 corrosive fluids are being injected. Injection below a
21 packer and monitoring of the casing tubing annulus.

22 This is the most common practice in the field and
23 in my view the one which offers the greatest degree of
24 protection.

25 We have some wells in the state without tubing and

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1 we have some injection wells without a packer. We should
2 provide a period of time to either bring these wells into
3 compliance or for operators to request exceptions to these
4 new rules.

5 I would think six months would certainly be an
6 adequate period of time to take one of those actions.

7 Section C, requires injection pressure limitations
8 as such that the strata confining the injected fluids will not
9 be fractured.

10 Now, I would point out that this is not the injection
11 zone, itself, but the formation above which does confine the
12 fluid.

13 In recent orders injection wells have been limited
14 to two tenths of a pound per foot or we have established a
15 limit based on data submitted by the operator such as
16 separate tests or instantaneous shut ins after fracture
17 treatment.

18 Operators of existing projects should have six
19 months to a year to determine these fracture pressures and
20 submit the same to the Commission.

21 Now, Rule 703 is retitled Commencement, Discontinuance
22 and Abandonment of Injection Operations.

23 It now consists of Sections A, and B, and Section
24 A is the same as the old rule about commencement and dis-
25 continuance. The only two changes here would permit the

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1 operator thirty days to notify the Commission of discontinuance
2 of injection operations rather than the ten days in the
3 original rule. I think this is a little more practical
4 time limit and in three we have changed the word "intake"
5 to "injection" to be more consistent.

6 Part B is new and I would like to read that. It
7 talks about abandonment of injection operations and under
8 number one, "Whenever there shall be a continuous six months
9 period of non injection into any injection project, storage
10 project, salt water disposal well, or special purpose
11 injection well such project or well shall be considered
12 abandoned and approval for injection shall be terminated."

13 Under two, "The Secretary-Director, may for good
14 cause shown, administratively grant an extension or extensions
15 of injection authority as an exception to Paragraph One
16 above."

17 Now, this change is to help assure that an old
18 injection well approved under less stringent regulations
19 will not be allowed to restart without a review of its
20 adequacy and also to define when a project may be considered
21 completed or abandoned.

22 Under 704, this is entitled Records and Reports
23 and it clearly spells out the applicable reporting requirements
24 for each type of project or injection well and, of course,
25 adds the new Form C-131 for gas and L.P.G. storage.

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1 705 is retitled Storage Wells and it formerly
2 covered L.P.G. storage wells and it now covers all types
3 of hydrocarbon storage wells and the limitation for
4 administrative approval is to those which are to be located
5 in secure caverns within massive salt beds.

6 As far as I know these are the only ones we have
7 at the present time.

8 The changes also clarify that such wells must be
9 covered by a plugging bond and the well records must be
10 filed by the operators of these wells with our district
11 office.

12 Q Do you have anything further in Case 6089?

13 A No.

14 MS. TESCHENDORF: We will offer Exhibit One as it
15 pertains to this case.

16 MR. NUTTER: Exhibit One as it relates to Case
17 6089 will be admitted in evidence.

18 MS. TESCHENDORF: I have nothing further.

19 MR. NUTTER: Are there any questions of the witness?

20 MR. LYON: May I ask a couple of questions?

21 MR. NUTTER: Yes, sir, Mr. Lyon.

22 MR. LYON: Mr. Stamets, what effect, if any, do you
23 consider that these new rules will have on existing water
24 floods?

25 MR. STAMETS: Well, that depends. If the water

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1 flood is in compliance with all of these, then, it will have
2 no affect. But I can see that in some older projects that
3 there will have to be an expense, expenditure, of some time
4 and effort to -- for the operator to assure himself that he
5 does meet these requirements or for him to bring in a case
6 to show why he should be exempt from these requirements.

7 MR. NUTTER: In other words, Mr. Stamets, you refer
8 here to Rule 702, for example, paragraph (b) tubing and
9 packer requirements, you mentioned that we had some old projects
10 in which injection was taking place through casing or through
11 tubing without packers.

12 Does this mean that this rule will be applicable
13 to those projects that have already been authorized and
14 installed?

15 MR. STAMETS: That's my intent at this time.

16 MR. NUTTER: While the order doesn't mention anything
17 about being applicable retroactively to old projects, the
18 proposed rule doesn't, perhaps the order, itself, would
19 provide a time period in which operators could bring these
20 projects in conformance with this new rule?

21 MR. STAMETS: That's correct and perhaps it could be
22 handled administratively with the Secretary-Director making
23 the decision on those which he feels should go to a hearing.

24 I can think of the instance in the Twin Lakes San
25 Andres Pool where there is no fresh water anywhere in the

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1 territory and I would think it would be certainly a waste
2 of the operator's time in that case to have to bring a case
3 before the Commission.

4 I think the Secretary-Director could very easily
5 grant an exception in that case.

6 MR. LYON: Have the federal U.I.C. regs been
7 announced, yet?

8 MR. STAMETS: I have got a copy of the most recent
9 draft that I have received just a couple of days ago and
10 they are still up in the air and I have no idea when they
11 finally will be promulgated.

12 MR. LYON: Do you think that when the final draft,
13 when the rules are finally promulgated, that it will require
14 the recertification every five years or periodically as the
15 earlier drafts did?

16 MR. STAMETS: The last drafts that I have seen require
17 -- they do not require recertification every five years but
18 they do require that the Director of the state agency review
19 the adequacy of each project, each well, every five years.

20 They do require that the applicant -- not the
21 applicant, I'm sorry -- the operator of those wells take a
22 test to determine the mechanical integrity of his well.
23 They list a number of different tests that could be taken,
24 radioactive tracer survey, cement bond logs and this type of
25 thing.

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1 I am not certain how that is going to wind up
2 but that is something that had not been in some of the earlier
3 drafts.

4 MR. LYON: If the recertification should be
5 required would you anticipate that the requirements in 701
6 for, you know, as far as the tabular summary and the schematic
7 diagrams and so forth would be required for old?

8 MR. STAMETS: They definitely will.

9 MR. LYON: One other question, if I may, in Rule
10 702 (c) the first sentence, "Wells used for injection of gas,
11 air, water, or other fluids shall be equipped in such a
12 manner as to limit the injection pressure."

13 Do you contemplate some device on each well which
14 would limit the pressure and what kind of a device do you
15 have in mind?

16 MR. STAMETS: Well, I have seen some pressure limit
17 gauges installed at the injection wells which simply shut
18 down the pump if the pressure goes over a certain level.

19 This is the sort of thing that I had in mind, some
20 sort of limit, either a pop-off valve at the well or a limit
21 in the system which would limit the amount of pressure that
22 could be exerted at the well head.

23 Of course, this does not anticipate those -- I don't
24 think it anticipates those that take fluid on gravity.

25 Perhaps we need a little bit of rewording on that, but this

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1 would only apply to those wells where pressure was required
2 to inject water.

3 MR. LYON: If you have a pop-off valve where would
4 the water go?

5 MR. STAMETS: That's certainly a problem since you
6 are not supposed to put salt water on top of the ground.

7 I am not going to try to resolve all of the industry's
8 problems today on how they can do that. Apparently, those
9 that do have a pressure limiting switch in the system
10 are able to operate effectively.

11 MR. LYON: That's all, thank you.

12 MR. RAMEY: You have faith in the engineers in the
13 industry to come up with something to do this --

14 MR. STAMETS: Certainly.

15 MR. NUTTER: Even a pop-off valve, Mr. Stamets, would
16 attract attention --

17 MR. STAMETS: Certainly would and it would be a lot
18 better than pumping water into the ground for long periods
19 of time --

20 MR. NUTTER: At least you would know that it was
21 escaping on the surface rather than escaping underground.

22 MR. STAMETS: Right.

23
24 CROSS EXAMINATION

25 BY MR. NUTTER:

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1 Q Now, with respect to 701 (b) (6) where other
2 pertinent information applies, why is the word "any" preceding
3 the word "calculations" there on the fifth line?

4 A Well, as I stated in my testimony we are aware
5 at this time that we have used two different methods of
6 determining the appropriate pressure, the separate tests
7 and the instantaneous shut in after frack and I don't think
8 we ought to limit our options to those but be prepared to
9 accept any reasonable technically determined fracture
10 gradient.

11 Q Now, the way I read this, this other information is
12 required and any calculations. So, if they didn't make any
13 calculations there wouldn't be any calculations required?

14 Is it feasible that this rule could be written in
15 such a manner that pressures would be limited to the Commission's
16 adopted rule of thumb of two tenths of a pound per foot of
17 depth and if they wanted to exceed that two tenths of a
18 pound then they would submit these calculations of formation
19 fracture pressure?

20 A I don't know of any instance where we have authorized
21 more than two tenths of a pound in recent months in the
22 absence of any information. That's just a matter of policy.
23 I would rather not put that figure in the rule and continue
24 to operate on Commission policies.

25 Q Even though there is no written word anywhere that

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1 says two tenths is the limit?

2 A Well, there is a memorandum that has gone out.

3 Q And it is in individual orders?

4 A Yes.

5 Q Again, this is going to be applicable to old
6 projects, as well?

7 A That's correct.

8 Q And there are no orders on them limiting them in
9 pressure to two tenths of a pound?

10 A That's true and as I mentioned in my testimony
11 we would provide the operators a period of time in which
12 they would furnish us with evidence on what the appropriate
13 fracture gradient is in their particular project or in their
14 particular well.

15 Now, perhaps we might be put in the position --
16 well, I recommended six months to a year. We might be put
17 in a position that at the end of that period of time if not
18 enough operators had come forth with information we might
19 have to call a case on our own to apply some kind of a
20 standard pressure limit.

21 Q Now, 702 (c) I think you covered this with Mr. Lyon,
22 but it says here that the wells should be equipped in such
23 a manner as to limit the injection pressure and the entire
24 system could be limited by putting a pressure limitation switch
25 at the pump or pump station?

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1 A. Right.

2 Q. The system or the wells would be so equipped?

3 A. Right.

4 Q. Now, 705 is for the purpose of securing administrative
5 approval or it provides for administrative approval for the
6 storage of L.P.G. gas or liquid hydrocarbons but I presume
7 that underground storage of natural gas would still require
8 a hearing? That is not covered by this particular rule, is it?

9 A. No, it is not.

10 Q. So, it would come back under 701 where the original
11 authority is only after notice of hearing except as provided
12 hereinafter?

13 A. That's correct.

14 MR. NUTTER: Are there any other questions of Mr.
15 Staments.

16 AN OBSERVER: Yes, sir, concerning this Rule 701 (b)
17 (2) what would you do to flood a zone, say, twenty-five hundred
18 feet and you had a neighbor producing primary at five thousand
19 feet without adequately cementing off the zone that you wanted
20 to flood, what would the situation there be?

21 MR. STAMETS: I believe it is the 104 series of rules
22 and regulations that requires that each operator case and cement
23 his well in such a way as to protect all oil, gas and water
24 zones to keep the fluids in the formation which they were
25 originally encountered.

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1 Now, in a case like that -- what we have done --
2 we have called on those operators to get in and make the
3 necessary repairs on those wells because they have not
4 complied with our rules and regulations.

5 I anticipate that we would continue that policy.

6 MR. NUTTER: In other words, this would call for
7 the repair of those wells that are not adequately cemented
8 in the event the higher formation was to be flooded?

9 MR. STAMETS: That's correct.

10 AN OBSERVER: Even though we have not ever produced
11 that zone and do not intend to?

12 MR. NUTTER: This has already happened in more than
13 one instance.

14 Are there any other questions?

15 MR. MC CRARY: On the 703 (b) (1) what if we had a
16 storage project that was still active and had no injection
17 go in it for six months?

18 MR. STAMETS: Well, under (2) you can just simply
19 request the Secretary-Director to extend your authority and
20 I am not certain if this is the sort of thing you would have
21 on a continuing basis for fifteen years or if this would just
22 be a rare occasion.

23 But as far as I know all you do would be to send a
24 letter to the Secretary-Director stating that we have shut down
25 here for six months because of this and we intend to continue

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1 using this project and we would like not to have it
2 abandoned.

3 I would assume that he would grant you an extension
4 of that authority.

5 The way things are now there is just no end to it.
6 We have nothing in the orders which say this project expires
7 as of a certain date and this does provide for that
8 expiration.

9 MR. KENDRICK: On that same line on 703 (a) (2)
10 it says that, "Within thirty days after the discontinuance
11 of injection operations in any well," does that actually mean
12 the flow-in of a fluid of some type for storage operations
13 if it remains in process?

14 MR. STAMETS: I wasn't involved in the original
15 writing of this rule. Of course, the only change I propose is
16 the number of days. But my interpretation of this is that
17 we are talking about permanent discontinuance. I have
18 ceased to use this well forever.

19 MR. NUTTER: I think, also, Mr. Stamets, on reflection
20 on this rule that this was not contemplating injection projects
21 when it was written. It was contemplating secondary recovery
22 projects and when they quit injection in those usually it is
23 a dead project.

24 You can visualize some injection projects that are
25 for purposes of storage which there might be a period of time

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1 when you don't have any injection in there.

2 MR. STAMETS: Right.

3 MR. NUTTER: So, I think that may need to be
4 clarified a little bit in the rules.

5 MR. STAMETS: That could be true.

6 MR. MC CRARY: In our storage we will run sometimes
7 anywhere from twelve to eighteen months without any activity
8 or withdrawal or injection due to the fact that the past
9 storage in the pool and that could be a period of two or three
10 times to go back and get those.

11 MR. NUTTER: There maybe should be a distinction
12 between injection projects for recovery and injection projects
13 for storage.

14 MR. STAMETS: Perhaps, too, that orders which authorize
15 with the Gas Company's problem there could grant an exception
16 to the provisions of Rule 703 (b).

17 MR. NUTTER: You can easily imagine a storage project
18 for natural gas that would go thirty days without injection
19 in the wintertime when they are just withdrawing it.

20 MR. STAMETS: Right.

21 MR. NUTTER: Are there any other questions? We will
22 make this an informal discussion of these rules because it is
23 probably something that we are going to have to live with
24 all of us. Mr. Kendrick?

25 MR. KENDRICK: Mr. Stamets, you referred to Rule 702

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1 (b) relating to older projects requiring tubing and packers
2 and suggested that possibly the Secretary-Director could
3 grant an exception to that.

4 Do you intend to put a paragraph in this rule to
5 authorize the Secretary-Director to make administrative
6 exceptions for those areas where there are no fresh water
7 sands?

8 MR. STAMETS: No, I did not. In my opinion these
9 should be handled on an individual basis for existing wells
10 or projects and that they would be handled individually for
11 new wells and projects.

12 MR. NUTTER: That, again, is something that might
13 be covered in the orders adopting these rules but not in the
14 rule, itself.

15 MR. STAMETS: That's correct.

16 MR. NUTTER: Are there any other questions? Mr.
17 Hanagan?

18 MR. HANAGAN: Mr. Examiner, I don't have a question
19 but I do have a request and that is does the Examiner
20 consider continuing these three cases until your hearing on
21 January 4th to allow the operators more time to absorb and
22 understand the affect on their operations of these rule and
23 rule changes.

24 The reason I suggest that is because the notice in
25 this case was relatively short in view of the Thanksgiving

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1 holiday and I suspect that there are people, perhaps today,
2 that are for the first time taking a look at them, the
3 rule changes.

4 I think that once it becomes -- once it dawns on
5 them what the affect is going to be they might wish they
6 had more time to respond.

7 So, I certainly would appreciate your consideration
8 of that request.

9 MR. NUTTER: Well, I will not rule on that at this
10 particular time, Mr. Hanagan, but these rules were published
11 and distributed to the industry and I realize that there was
12 a Thanksgiving holiday between the time they were mailed
13 and the time of the hearing.

14 MR. HANAGAN: I know in our case, Mr. Examiner, we
15 received a copy of the rules on Tuesday, a week ago yesterday,
16 and Thursday and Friday were holidays and if the copy reached
17 us on Tuesday I suspect it may have reached Houston or Dallas
18 on Thursday or Friday and it may be that people are just
19 looking at it right now, or yesterday, for the first time.

20 MR. NUTTER: Of course, they have been looking at the
21 U.I.C. rules for three years. These pretty much reflect
22 everything that is in the U.I.C.

23 Are there any other questions of Mr. Stamets? We
24 will leave him on the witness stand and recess the hearing
25 for fifteen minutes.

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1 (THEREUPON, the hearing was in recess.)

2 MR. NUTTER: The hearing will come to order.

3 We still have Mr. Stamets with us and are there any questions
4 of Mr. Stamets, now?

5 He may be excused.

6 (THEREUPON, the witness was excused.)

7 MR. NUTTER: I'll call for statements at this
8 time -- Mr. Bateman?

9 MR. BATEMAN: Mr. Examiner, on behalf of Texaco I
10 have the following statement with respect to the proposed
11 Rule 702 (c) involving injection pressures and the limit on
12 injection pressures.

13 Texaco, Inc., as an operator and working interest
14 owner of numerous secondary recovery projects in New Mexico
15 strongly opposes the adoption of the proposed NMOCC Rule
16 702-C. Adoption of the proposed rule will result in the
17 immediate reduction of current production and ultimate loss
18 of recoverable reserves from secondary recovery projects due
19 to reduced volumetric sweep efficiency particularly in the
20 low porosity and permeability reservoirs characteristic of
21 New Mexico. Adoption of the proposed rule will also result
22 in physical and economic waste by lengthening the time required
23 to produce the potential secondary reserves thereby increasing
24 operating costs and reducing the ultimate volume of otherwise
25 economically recoverable oil.

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1 Furthermore, this rule could preclude the
2 installation of new secondary projects that have marginal
3 economics that would become uneconomic under the proposed
4 Rule 702-C.

5 There has been no evidence presented todate to
6 show that injection of fluids at pressures greater than
7 fracture pressure has caused damage to or contamination of
8 other formations.

9 For the reasons stated herein Texaco feels that
10 the proposed Rule 702-C is not in the best interest of
11 conservation and should therefore not be adopted.

12 MR. NUTTER: Thank, you, Mr. Bateman. Mr. Stamets
13 is still on the stand, although he has been excused, and I
14 would like to ask Mr. Stamets to particularly comment, if he
15 has any comment, on the statement of Mr. Bateman that there
16 has been no evidence presented todate to show that injection
17 of fluids of pressures greater than fracture pressure has
18 caused damage to or contamination of other formations.

19 MR. STAMETS: I don't have a copy of the transcript
20 of the hearing that was held several months ago concerning
21 the Lea County water problems.

22 But it seems to me that there was some evidence
23 presented in that case which was indicative of water problems
24 resulting from formation fracturing, something which is
25 difficult to prove.

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1 I would point out, too, that these rules which are
2 proposed -- that there are exceptions provided for all rules
3 and regulations of the Commission -- so, simply because these
4 were in the book does not preclude an operator from coming in
5 and asking for an exception if he can prove that such higher
6 pressures would not result in the water escaping from the
7 formation and the potential danger to other producing horizons
8 and fresh waters.

9 MR. NUTTER: Mr. Bateman, any comment on Mr. Stamets'
10 comments?

11 MR. BATEMAN: A question for clarification, does
12 that mean that you don't consider fracture pressures to be
13 the maximum limitation?

14 MR. STAMETS: Well, what the rule says is to preclude
15 the fracturing of the confining strata.

16 Now, let's just say that you are injecting at four
17 thousand feet and the confining strata, shale, or whatever
18 it happens to be is at three thousand five hundred feet and
19 you can present evidence that you can inject at a pound and
20 a half per foot of depth without fracturing that shale and
21 that would be the pressure --

22 MR. NUTTER: You may fracture what you are going into

23 MR. STAMETS: That's right.

24 MR. NUTTER: But not fracture the confining strata?

25 MR. STAMETS: Right. These are two different things.

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1 So, in that case we can grant a higher pressure.
2 Also, an applicant might come in and present evidence that
3 even though he is causing fractures in the formation that
4 such fractures will not result in endangerment of drinking
5 water supplies or to other producing formations.

6 So, he has this opportunity when he comes in and
7 applies for a new water flood project or a salt water
8 disposal well.

9 These are just general rules and regulations which
10 will apply in the absence of any exception, as all rules
11 and regulations do.

12 MR. BATEMAN: Will the same exception apply in the
13 secondary recovery projects?

14 MR. STAMETS: That's correct.

15 MR. NUTTER: Are there any other questions of Mr.
16 Stamets? He may be excused, again.

17 MR. NUTTER: Mr. Hanagan, we are going to deny your
18 motion for a continuance of this case to January. However, we
19 will leave the record open for written comments until
20 December 30th, which is a month from today.

21 Now, inasmuch as we are not going to have another
22 hearing on this does anyone have any comments they wish to
23 make at this time?

24 MR. LYON: I will have to agree with Mr. Hanagan. I
25 think that the time -- the notice on this was rather short.

1 We had tried to get ahold of our research people to see about
2 putting some testimony in the record on this and because of
3 the time limitation we just could not get together with
4 them.

5 We are still in the process of evaluating this
6 thing and the turn of events which is new to me about the
7 rules being retroactive is certainly something that I am
8 going to have to discuss with my management and see what
9 action we would want to take.

10 But we are concerned about the rules in the 700
11 series and particularly Rule 702 (c).

12 We, very well, may wish to put some testimony in the
13 record but we just were not able to get our people ready
14 for today.

15 I would like to join Mr. Hanagan in his request for a
16 continuance. If that isn't granted we will do the best we
17 can in a written statement, but of course, this is unsworn.

18 MR. NUTTER: Well, we will accept written comments
19 up until December 30th in this Case Number 6089.

20 Did you have, Ms. Teschendorf, anything further in
21 any of these cases?

22 MS. TESCHENDORF: No, sir.

23 MR. NUTTER: Does anyone have any comments in Case
24 Number 6089, 6090 or 6091?

25 MR. KENDRICK: Mr. Examiner, did you say that the

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1 written comments were acceptable in Case 6089, only?

2 MR. NUTTER: Yes, sir, I think that that was the
3 only one that was --

4 MR. LYON: My request for a continuance was for all
5 three cases.

6 MR. NUTTER: It was -- okay, we will leave all three
7 open until December 30th, then. Thank you.

8 With that we will take these three cases under
9 advisement.

10 (THEREUPON, the cases were taken under
11 advisement.)
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REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter,
do hereby certify that the foregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation Commission
was reported by me, and the same is a true and correct record
of the said proceedings to the best of my knowledge, skill and
ability.


Sidney F. Morrish, C.S.R.

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No.
heard by me on, 19.....
....., Examiner
New Mexico Oil Conservation Commission

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ROUGH
DRAFT

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

CASE NO. 6089

Order No. R- 5636

IN THE MATTER OF THE HEARING CALLED BY THE
OIL CONSERVATION COMMISSION ON ITS OWN MOTION
TO CONSIDER THE AMENDMENT OF RULES 701, 702,
703, 704, AND 705 OF THE COMMISSION RULES
GOVERNING APPLICATIONS FOR APPROVAL OF
INJECTION WELLS AND PROJECTS, WELL CONSTRUCTION
AND OPERATION STANDARDS, REPORTS AND RECORDS
REQUIREMENTS, AND AUTOMATIC TERMINATION OF AUTHORI-
ZATION FOR ABANDONED WELLS OR PROJECTS.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 30,
1977, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of ~~January~~, 1978, the Commission,
a quorum being present, having considered the testimony, the
record, and the recommendations of the Examiner, 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 this case was called by the Commission in an
effort to bring its rules up to date with current policy and
technology with respect to injection wells and projects and to
coincide its rules with pending underground injection control
regulations of the United States Environmental Protection
Agency which are being promulgated pursuant to the national Safe
Drinking Water Act.

(3) That at the hearing of this case, motions were made to
continue the case to January 4, 1978, "...to allow the operators
more time to absorb and understand the effect on their operations"
of the proposed rules and rules changes.

-2-
Case No. 6089
Order No. R-

(4) That the motions for continuance were denied, but the record in this case was left open until December 30, 1977.

(5) That statements received at the hearing and during the period the record in this case stood open indicate that certain of the proposed amendments of Rules 701 and 702 may be premature in view of certain delays in the promulgation of underground injection control regulations by the United States Environmental Protection Agency.

(6) That despite the prematurity of certain of the proposed amendments of Rules 701 and 702, the evidence establishes that certain other amendments of said rules and of Rules 703, 704, and 705 are not contingent upon the EPA injection control regulations and should be adopted.

(7) That in the interest of coherence and to avoid confusion, the adoption of any amendments to Rules 701 and 702 should be deferred until all of the necessary amendments to said rules, including those amendments which will be necessary for coincidence with the EPA injection control regulations, can be made.

(8) That that portion of Case No. 6089 relating to the amendment of Rules 701 and 702 should be dismissed without prejudice and should be reconsidered by the Commission at a later date.

(9) That the proposed amendments to Rules 703, 704 and 705 of the Commission Rules and Regulations should be considered ^{herein.} ~~new.~~

(10) That in the interest of more efficient administration of the rules governing injection projects and wells, and to facilitate the keeping of records concerning same, Rule 703 of the Commission Rules and Regulations should be amended to provide for automatic termination of authority to inject after some reasonable period of time following cessation of injection operations.

(11) That six months is a reasonable period of time to ascertain the viability of an injection project or well, and the authority for injection should terminate automatically after a six-month period of non-injection, provided however, that the Secretary-Director of the Commission should have authority to extend the injection authority beyond said six-month period for good cause shown.

(12) That Rule 703 of the Commission Rules and Regulations should be amended to read in its entirety as follows:

"RULE 703. 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 Commission of the date such operations began.
- (2) Within 30 days after the discontinuance of injection operations in any well, the operator shall notify the Commission of the date of such discontinuance and the reasons therefor.
- (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 Commission 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 Secretary-Director of the Commission may grant an ^{administrative} extension or extensions of injection authority as an exception to Paragraph (1) above."

(13) That by Order No. R-5505, dated August 9, 1977, the Commission revised its Form C-115, Operator's Monthly Report and Form C-115-EDP, Operator's Monthly Report (electronic data processing) and provided space on said forms for the inclusion of enhanced recovery injection volumes and pressures, abolishing the use of Commission Form C-120, Monthly Injection Report, effective February 1, 1978.

(14) That in keeping with the foregoing revision and abolishment of certain Commission forms, Rule 704 of the Commission Rules and Regulations should be amended to correctly reflect the proper forms to be filed by operators of injection wells in secondary recovery injection wells and salt water disposal wells.

(15) That by Order No. R-~~5635~~ , entered by the Commission in Case No. 6091 on _____, 1978, the Commission adapted Form C-131, Monthly Gas Storage Report, and promulgated Rule 1131 governing the filing of said report.

(16) That Rule 704 of the Commission Rules and Regulations should be amended to correctly reflect the proper forms to be filed by operators of gas storage projects.

(17) That Rule 704 of the Commission Rules and Regulations should be amended to read in its entirety as follows:

"RULE 704. RECORDS AND REPORTS

The operator of an injection well or project for secondary recovery or pressure maintenance, ~~gas or petroleum~~ ^{natural gas} storage, salt water disposal, or injection of any other fluids shall keep accurate records and shall report monthly to the Commission 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 a form ~~pre-~~ ^{scribed} by the Commission;
- (3) Salt Water Disposal on Form C-120-A;
- (4) ^{Natural} Gas ~~or Liquefied Petroleum Gas~~ Storage on Form C-131; and
- (5) Injection of other fluids on a form ~~pre-~~ ^{scribed} by the Commission."

(18) That there is need for the revision of Rule 705 of the Commission Rules and Regulations in order to up-date the administrative process for obtaining approval for the construction and operation of underground storage facilities for liquefied petroleum gas or other liquid hydrocarbons in secure caverns within massive salt beds.

(19) That Rule 703 of the Commission Rules and Regulations should be amended to read in its entirety as follows:

"RULE 705. STORAGE WELLS

The Secretary-Director of the Oil Conservation Commission 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.

Applicant shall furnish ~~each~~ operator within a ^{one-half}_A mile radius of the proposed well with a copy of the application to the Commission, and applicant shall include with his application a written stipulation that all operators within ^{said} half-mile radius of the proposed well have been properly notified. The Secretary-Director of the Commission shall wait at least ten days before approving any such application, and shall approve any such application only in the absence of objection from any notified operator. In the event that an operator objects to the application the Commission shall consider the matter only after proper notice and hearing.

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:

A. With the Secretary-Director:

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

B. With the appropriate district office of the Commission in TRIPLICATE:

- (1) Form C-101, Application for Permit to Drill, Deepen, or Plug Back;
- (2) Form C-102, Well Location and Acreage Dedication Plat; and,
- (3) Form C-105, Well Completion or Recompletion Report and Log."

(20) That an order embodying the above-described amendments is in the interest of conservation, will not impair correlative rights, and will not cause but will prevent waste and should be adopted by the Commission.

IT IS THEREFORE ORDERED:

(1) That Rule 703 of the Commission Rules and Regulations is hereby amended to read in its entirety as follows:

"RULE 703. 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 Commission of the date such operations began.
- (2) Within 30 days after the discontinuance of injection operations in any well, the operator shall notify the Commission of the date of such discontinuance and the reasons therefor.
- (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 Commission 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 Secretary-Director of the Commission may grant an ^{administrative} extension or extensions of injection authority as an exception to Paragraph (1) above."

(2) That Rule 704 of the Commission Rules and Regulations is hereby amended to read in its entirety as follows:

"RULE 704. RECORDS AND REPORTS

The operator of an injection well or project for secondary recovery or pressure maintenance, ^{natural} gas ~~or petroleum~~ storage, salt water disposal, or injection of any other fluids shall keep accurate records and shall report monthly to the Commission 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 a form ~~pre-~~scribed by the Commission;
- (3) Salt Water Disposal on Form C-120-A;
- (4) ^{Natural} Gas ~~on Liquefied Petroleum Gas~~ Storage ^A on Form C-131; and
- (5) Injection of other fluids on a form ~~pre-~~scribed by the Commission."

(3) That Rule 705 of the Commission Rules and Regulations is hereby amended to read in its entirety as follows:

"RULE 705. STORAGE WELLS

The Secretary-Director of the Oil Conservation Commission 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.

Applicant shall furnish each operator within a ^{one-half} mile radius of the proposed well with a copy of the application to the Commission, and applicant shall include with his application a written stipulation that all operators within ^{said} half-mile radius of the proposed well have been properly notified. The Secretary-Director of the Commission shall wait at least ten days before approving any such application, and shall approve any such application only in the absence of objection from any notified operator. In the event that an operator objects to the application the Commission shall consider the matter only after proper notice and hearing.

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:

A. With the Secretary-Director:

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

B. With the appropriate district office of the Commission in TRIPLICATE:

- (1) Form C-101, Application for Permit to Drill, Deepen, or Plug Back;
- (2) Form C-102, Well Location and Acreage Dedication Plat; and,
- (3) Form C-105, Well Completion or Recompletion Report and Log."

Case No. 6089

Order No. R.

(4) That the effective date of this order and all of the amendments contained herein shall be 7 o'clock a.m. February 1, 1978

(5) That jurisdiction

DONE at