Entered June 30, 1980 AR

## STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

CASE NO. 6852 Order No. R-6388

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION ON ITS OWN MOTION TO CONSIDER SPECIAL RULES AND PROCEDURES FOR THE DESIGNATION OF "TIGHT FORMATIONS" UNDER THE NATURAL GAS POLICY ACT OF 1978.

### ORDER OF THE DIVISION

### BY THE DIVISION:

This cause came on for hearing at 9 a.m. on April 9, 1980, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this <u>30th</u> day of June, 1980, the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.

(2) That the 95th Congress of the United States passed the Natural Gas Policy Act of 1978 (NGPA), P.L. 95-621, 92 Stat. L. 3350.

(3) That said Act was enacted on November 9, 1978, and went into effect on December 1, 1978.

(4) That pursuant to said Act, the Federal Energy Regulatory Commission (FERC), on February 20, 1980, issued interim regulations under Section 107 of the NGPA providing that the appropriate agency in each state may recommend formations within that state which meet FERC specifications and which may be eligible for designation by the FERC as "tight formation."

(5) That natural gas produced from said "tight formations" should receive a reasonable incentive price.

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(6) That the Oil Conservation Division and the Office of the United States Geological Survey in Albuquerque, New Mexico, are the agencies in the State of New Mexico which may recommend formations within the State of New Mexico for tight formation designations.

(7) That the Oil Conservation Division and the Office of the United States Geological Survey in Albuquerque, New Mexico, have agreed that the Oil Conservation Division shall receive and rule on all applications for tight formation designations in the State of New Mexico irrespective of the nature of land ownership.

(8) That the Oil Conservation Division should adopt special rules of procedure for accepting applications for the tight formation designations.

(9) That said special rules should require the filing of geographical, geological, and engineering information sufficient to support findings for an order recommending a tight formation designation.

(10) That said special rules should be in the form and content prescribed in Exhibit A, attached hereto and made a part hereof.

#### IT IS THEREFORE ORDERED:

(1) That the "Special Rules and Procedures for Tight Formation Designations Under Section 107 of the Natural Gas Policy Act of 1978," attached hereto as Exhibit A, are hereby adopted effective immediately.

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

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

STATE OF NEW MEXICO OIL CONSERVATION DIVISION UM.º JOE D. RAMEY Director

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### SPECIAL RULES AND PROCEDURES FOR TIGHT FORMATION DESIGNATIONS UNDER SECTION 107 OF THE NATURAL GAS POLICY ACT OF 1978

## A. General

Applications for tight formation designations under Section 107 of the NGPA and applicable FERC rules and regulations shall be accepted by the Division at its Santa Fe, New Mexico office after <u>June 30</u>, 1980. These special rules apply only to tight formation designations and do not apply to individual well filing requirements for price category determination.

## B. Definitions

- "Crude Oil" means a mixture of hydrocarbons that exists in the liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separation facilities.
- "Division" means the Oil Conservation Division of the Energy and Minerals Department of the State of New Mexico.
- 3. "FERC" means the Federal Energy Regulatory Commission.
- 4. "USGS" means the office of the United States Geological Survey in Albuquerque, New Mexico.
- 5. "Formation" means any geological formation or portion thereof described by geological as well as geographical parameters which is the subject of a tight formation designation application.

# C. Procedure

- 1. To the extent that the Division's general rules of procedure for public hearings are not altered or amended by these special rules, such general rules of procedure shall be applicable and are incorporated herein by reference.
- 2. All applications for tight formation designation in the State of New Mexico, in which Federal, Indian, state, or fee lands, or any combination thereof, are involved, shall be filed with the Division.
- 3. All applications for tight formation designation shall be set for public hearing.

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- 4. A complete set of exhibits which an applicant proposes to offer or introduce at a hearing, together with a statement of the meaning and purpose of each exhibit, shall be submitted to the Division (and to the USGS when federal or Indian lands are involved) when the application is filed or at least 15 days prior to a hearing. These exhibits shall cover all aspects of the required evidentiary data described in Section D below. One additional complete set of such exhibits and statements, enclosed in an unsealed postage-paid packet, shall also accompany the application or be presented at the hearing; this packet and its contents will be forwarded to the FERC by the Division after the hearing, together with the Division order recommending disposition of the application.
- 5. Where practicable, applications may be consolidated for hearing at the discretion of the Director of the Division.
- 6. Within 15 days after its issuance, any order promulgated by the Division pursuant to these special rules shall be submitted by the Division to the FERC in accordance with Section 271.705 of the FERC rules and regulations applicable to NGPA for approval or disapproval of a tight formation designation.
- D. Evidence
  - Evidence offered by an applicant at a hearing shall include:
    - a. a map and geographical and geological descriptions of the area and formation for which the designation is sought; and
    - b. geological and engineering data to support the application; and
    - c. a map or list which clearly locates or describes wells which have produced oil or gas, or both, from the formation within the geographical area of the application; and

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- d. a report of the extent to which an applicant believes existing State and Federal regulations will assure that development of the formation will not adversely affect or impair any fresh water aquifers that are being used or are expected to be used in the foreseeable future for domestic or agricultural water supplies; and
- e. any other information which the Division may require.
- 2. Evidence shall be based on each of the following geological and engineering guidelines:
  - a. The estimated average in situ gas permeability, throughout the pay section, is expected to be 0.1 millidarcy or less.
    - Permeability may be established and demonstrated by any customary or acceptable methods, techniques, or testing acceptable in the oil and gas industry.
  - b. The stabilized production rate, either at atmospheric pressure or calculated against atmospheric pressure, of wells completed for production in the formation, without stimulation, is not expected to exceed the production rate determined in accordance with the following table:

If the average depth to the top of the formation (in feet):		The maximum allowable production rate (in Mcf/day) may not exceed:
0	1000	44
1000	1500	51
1500	2000	59
2000	2500	68
2500	3000	79
3000	3500	91
3500	4000	105
4000	4500	122
4500	5000	141

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If the average depth to the top of the formation (in feet):		The maximum allowable production rate (in Mcf/day) may not exceed:
exceeds:	but does not exceed:	
5000	5500	163
5500	6000	188
6000	6500	217
6500	7000	251
7000	7500	290
7500	8000	336
8000	8500	388
8500	9000	449
9000	9500	519
9500	10000	600
10000	10500	693
10500	11000	802
11000	11500	927
11500	12000	1071
12000	12500	1238
12500	13000	1432
13000	13500	1655
13500	14000	1913
14000	14500	2212
14500	15000	2557

- c. No well drilled into the recommended tight formation is expected to produce more than five barrels of crude oil per day prior to application of stimulation techniques or processes.
- d. If an application meets the guidelines contained in subparagraphs 2 b and 2 c above, but does not meet the guideline contained in subparagraph 2 a, an applicant may, in the alternative, show that the formation exhibits low permeability characteristics and that the incentive price is necessary to provide reasonable incentive for production of the natural gas from the formation due to extraordinary risks or costs associated with such production.
  - (1) An application based on the guideline outlined in subparagraph 2 d above shall include data

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> to support the contention that the guidelines contained in paragraph 2 b and 2 c above are met, and in addition thereto, shall contain:

- (a) the types and extent of enhanced production techniques which are expected to be necessary, and
- (b) the estimated expenditures necessary for employing those techniques, and
- (c) an estimate of the degree of increase in production from use of such techniques together with engineering and geological data to support that estimate.