STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

Case No. 10138 Order No. R-4549-G

APPLICATION OF ARCO OIL & GAS COMPANY FOR AMENDMENT OF THE SPECIAL RULES AND REGULATIONS FOR THE EMPIRE-ABO PRESSURE MAINTENANCE PROJECT, EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

<u>BY THE DIVISION</u>:

This cause came on for hearing at 8:15 a.m. on October 31, 1990, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this <u>7th</u> day of November, 1990, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction over this cause and the subject matter thereof.

(2) The applicant, ARCO Oil & Gas Company, is the operator of the Empire-Abo Pressure Maintenance Project, Empire-Abo Pool, Eddy County, New Mexico, which project was authorized by Division Order No. R-4549 and is governed by operating rules contained in the Special Rules and Regulations for the Empire-Abo Pressure Maintenance Project, included in said Order as amended by Orders Nos. R-4549-A through R-4549-F.

(3) Said rules provide for the injection of extraneous gas into the Abo formation and for the withdrawal of this extraneous gas at certain specified times and rates.

(4) The applicant seeks the amendment of the rules governing withdrawal of the extraneous gas to permit the withdrawal of certain volumes during winter months and the make-up of the amounts withdrawn by reinjection of gas during the succeeding summer months, plus an additional volume of gas to compensate the Empire-Abo Unit for any fuel use, shrinkage or metering errors.

(5) During recent winters, the Division has authorized emergency withdrawals of volumes of extraneous gas from this unit to meet consumer demands for this gas and the withdrawal volumes have been subsequently replaced by the reinjection into the unit of additional extraneous gas.

(6) The evidence presented in this case established that the withdrawal and reinjection of gas into the unit has not had an adverse impact on the recovery of hydrocarbons from the unit and has not resulted in waste.

(7) At the time of the hearing, Gas Company of New Mexico, who owns the extraneous gas in question, presented additional supporting testimony in this matter.

(8) Also, at the hearing, a representative from OXY USA, Inc. and Marathon Oil Company appeared at the hearing, but did not present any evidence.

(9) Approval of the application will establish a procedure for the withdrawal of extraneous gas from the unit during periods of high demand for natural gas.

(10) Reinjection of the withdrawn gas during the succeeding summer season plus the injection of an additional 12% to cover fuel usage, shrinkage, and metering errors, will assure that the ultimate recovery of hydrocarbons from the project will not be reduced.

(11) The proposed amendment of said special rules will not result in a violation of correlative rights.

(12) The application for amendment of said rules should be approved.

IT IS THEREFORE ORDERED THAT:

(1) Rule 4 of the Special Rules and Regulations for the Empire-Abo Pressure Maintenance Project contained in Division Order No. R-4549, as Amended, is hereby rescinded. (2) Said special rules are amended by the adoption of a new Rule 4 which reads in its entirety as follows:

"<u>RULE 4</u>: All Available Residue Gas from the unit shall be reinjected. No raw gas nor plant residue gas attributable to the project shall be sold or otherwise disposed of by any other means.

In addition to the injection of Available Residue Gas, the project operator may inject up to and including 35 million cubic feet of extraneous gas per day into the Abo formation underlying the project area.

Withdrawals of said extraneous gas may be made, pending reservoir blow down, as follows:

(A) During each of the winter seasons (November 1 through March 31) of 1990 through 1996, a volume of gas not to exceed 300,000 MCF may be withdrawn, provided that the volume of extraneous gas withdrawn shall be replaced during the next succeeding summer season (April 1 through October 31) at a rate not to exceed 2,300 MCFD.

(B) During each of the winter seasons (November 1 through March 31) of 1996 through 1998, a volume of gas not to exceed 800,000 MCF may be withdrawn, provided that the volume of extraneous gas withdrawn shall be replaced during the next succeeding summer season (April 1 through October 31) at a rate not to exceed 5,500 MCFD.

(C) In addition to complete replacement of the volumes of extraneous gas withdrawn during the immediately preceding winter season, an additional volume of gas shall be injected during each summer season equal to 12% of the volume withdrawn during the immediately preceding winter season to compensate the Empire Abo Unit for any fuel used, shrinkage or metering errors. (D) No extraneous gas may be withdrawn during a winter season until all gas withdrawn during preceding winter seasons is replaced plus the additional 12% volume required by paragraph C of this rule.

(E) The provisions of Paragraphs 4 (A) through 4 (D) shall be of no further effect on the date the Pressure Maintenance Project ceases or November 1, 1998, whichever occurs first.

The project operator shall establish and maintain an "Extraneous Gas Bank Statement" which shall be filed with the Division each month concurrently with the project operators "Empire-Abo Pressure Maintenance Project Monthly Report", and which shall show thereon each month the volume of extraneous gas injected, the cumulative volume of such gas injected, the volume of gas withdrawn and delivered back to the supplier of extraneous gas and the net cumulative extraneous gas bank."

(3) 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 WILLIAM J. LeMAY Director

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