

sources is a venture in which publicly-owned companies, public investors and consumers all have a stake.

As the regulations are presently drafted, the Pennzoil Company is convinced that private industry would be unable or unwilling to dedicate the large sums of capital and the technical talent required to carry out a research program looking to the development of oil shale reserves. Requisite incentives for this effort are hampered by manifest uncertainties in the proposed regulations.

Uncertainties exist as to what areas will be designated for research development. The regulations should provide for selection of acreage by any qualified applicant and the 30,000-acre limitation should be deleted.

Uncertainties exist as to the form of the lease. A reasonable form should be prescribed.

The research term is uncertain in duration and there is no certainty that the Secretary will extend the terms of a lease to permit commercial production.

The royalties of the United States are uncertain in amount. These royalties should be fixed at a level and reasonable amount.

The benefits to be derived by private industry from research are uncertain in that the United States will acquire title to all inventions and all information must be disclosed. This feature of the regulations should be rewritten to provide for a fair license to others by any company developing an invention.

XIV. Phillips Petroleum Company

A. As a general criticism of the regulations, they do not provide incentive to attract investment and application of the capital, research facilities and personnel of the caliber which would offer possibilities of success.

The proposed rewards are nebulous and are not equated to the risks to be undertaken. Patents, processes and technical information developed on the governmental land cannot be retained by the developer; royalty rates are extremely onerous and there is no real assurance that, after up to 10 years of effort, the applicant will even receive a shale lease, nor are there any assurances as to the size of the lease which may be awarded.

The limitation of the program to 30,000 acres of land is unwise. This is less than six times the individual limitation of 5,120 acres. Since each applicant would surely require the maximum-size lease allowed by law in order to justify the tremendous expenditure envisioned, these regulations would effectively limit the Secretary to five or six leases.

Satisfactorily definitive standards are not provided touching (a) whether the lease will be extended into a commercial production term and (b) the area to which the lease will be extended for a commercial term. It appears that only those lessees who have been eminently successful in developing a "commercially feasible" processing method effecting "optimum recovery of the mineral to be produced" while preventing or minimizing damage to water, air, scenic values, etc. will be entitled to a commercial lease. It would be far better to have the ground rules laid out in advance than to ask the applicant to rely on a retrospective evaluation of an initially risky investment.

The requirements in the regulations that all technical information be made public immediately and that all patents be assigned to the federal government are highly objectionable and deterrent to the commitment of private research funds, facilities, and technical talent to the needed development of oil shale technology. Patent and technical know-how rights should reside with those who have paid for their development.

To impose additionally the onerous provisions for sliding scale royalties is most discouraging. Under the proposed wording it is doubtful that any credit could be taken for research costs in determining the "investment" which fixes the royalty rate. The proposed royalty scale resembles an additional income tax, which could take up to 50% of net income computed without allowance for royalty or depletion. In the sliding scale, royalty should be eliminated. The government already has a heavy weapon against excess profits in its right to readjust royalties 20 years after the date of the lease.

Section 3170.0-5 leaves it unclear as to when an oil shale lease will cover dawsonite, nahcolite and other minerals as they occur in the Piceance Basin. It would also seem desirable to give the oilshale lessee a preferential right to a lease on other minerals which are separately minable in order to avoid occupancy and interference problems.