

penalized or excluded from participation merely because it had obtained shale oil leases on its own initiative. We believe in this principle even though Sun Oil Company does not now have leases in oil shale lands.

Also, we are uncertain of the requirements which would have the applicant describe the reserves owned or controlled (3171.2 (c) (11)). If this section means the applicant must describe the total of oil reserves owned or controlled "of the kind believed to be present on the lands applied for" on a worldwide basis, Sun feels that such information is not only not germane to the issuance of a research shale lease but is impossible to determine with any degree of reasonable accuracy. This section should be redrafted to exclude such data.

In reviewing the proposed regulations (3171.2 (c) (12)) covering commercial operation if research is successful, it is our belief that the amount of detailed description is unrealistic. Only a few companies who have already carried out extensive research on privately held oil shale acreage and pilot plant projects could possibly be in a position to answer these questions.

Subpart 3172—Miscellaneous Provisions

Since no form of lease is prescribed, any actual lease or development contract for a shale research program will have to be analyzed as to its form and terms. It is our belief that a standard lease form is desirable, at this time, in order that any lessee can be informed as to the specific requirements and terms of the leases under which he must operate.

The proposed regulations (3172.2 (b)) now specify an extension of the term of the research lease to permit commercial production if the Secretary determines that certain requirements under the research lease were met. This section should be re-worded: "Upon the request of the research lessee, the Secretary will extend the term of the research lease providing the terms of the original lease have been fully complied with and * * *."

Also, the determination of whether the lessee has conducted research activity substantially in accordance with the plan submitted, for the purpose of extending the terms of the lease, is solely with the Secretary. In view of the magnitude of expenditures likely to be made during the research term, it would be better to have an objective test used to determine substantial compliance with the research program.

It is difficult to predict the profit potential under the proposed regulations since broad discretionary powers are reserved for the Secretary. One consequence of this is that an unreasonable risk would be attached to any financial commitment.

Specifically, the Secretary can determine (3172.2 (b) (2)) whether a proposed commercial process is economic and can reject an application for commercial production on this basis after an expensive research program has been successfully completed. A company's willingness to commit the investment necessary for commercial production should be the basis for determining the economic feasibility.

Also, the Secretary can require optimum recovery of shale oil and other minerals. The requirement needs clarification since it could be so rigidly enforced that economic production would be impossible.

The Secretary is to designate that part of the leased lands upon which the lessee will be permitted to conduct operations. This section (3172.3(b)) should be withdrawn since the requirements elsewhere for the protection and conservation of the surface area will afford the public interest the protection to which it is entitled.

Another section (3172.3 (c)) which concerns us is the granting to the Secretary the right to determine the commercial or market demand for oil shale products and that the commercial extension of the lease area is to be governed by such commercial need. Shale oil and its products should be allowed to compete on the open market with crude oil from conventional production.

Under the section dealing with royalty rates (3172.5 (d)) provision is made for graduated annual income royalty rates up to 50% of the net income which is more than 20% of the investment. This seems to be unreasonably high and may well discourage investment in and consequently development of the oil shales. Sun strongly favors a straight royalty on each barrel regardless of total production or total profits.

The proposed requirements for a lease bond specify that it not be less than \$100,000. There is, however, no upper limit on the amount that may be required. Sun carries a nationwide bond of \$100,000 in connection with its operations under the Mineral Leasing Act. It is our opinion that any increase in the amount of the bond for oil shale research should be tied strictly to the lessee's