

oil shale industry. We recognize and firmly support leasing as the most equitable means for making available oil shale deposits under unencumbered federal public domain lands.

Among the problems which we consider critical and which we think must be resolved are the following:

1. Revocation of the Executive Order of Withdrawal with accompanying legislation to amend the Mineral Leasing Act with respect to chargeable acres, competitive leasing, plan of development provisions and similar matters hereafter discussed.
2. The validity of unpatented oil shale placer claims.
3. The respective rights of an oil and gas lessee, and a lessee of oil shale deposits, both with respect to ownership of production and operational conflicts.
4. The conflict of rights of surface users and lessees of oil shale deposits.

We firmly believe that an orderly and thorough consideration of some of the problem areas and means of solution will not interfere with the continuation of necessary and required research and development work which has been conducted by various companies heretofore. As indicated, the development of an oil shale industry will require a period of such further research and development work. Postponement in the issuance of leases so as to more properly consider the various matters relating thereto should not interfere with such efforts if such postponement does not extend over a protracted period.

One approach to solution of the many problems involved would be the appointment of a committee of qualified experts from both federal and state governments and from industry, which committee would have the task of making recommendations as to solution of such problems, appropriate legislation, and proper lease terms and provisions.

Although, as indicated, we find great difficulty in attempting presently to comment on suggested lease terms and provisions, we should like to suggest the following in the light of present information and our experience in connection with oil and gas leasing procedures, terms and provisions:

1. Since the oil shale deposits are rather well defined both as to existence and probable quality, we strongly support the concept of competitive leasing. We believe that the most equitable means of accomplishing competitive leasing is on the basis of sealed bids on a cash bonus basis only, with the royalty, rentals and other lease terms fixed.

2. Generally, the procedures which have been used in the leasing of offshore lands appear to us to be an effective and practical method of handling nominations and bidding for leases. We should like to suggest, however, that sales should not be held too often and that nominations be limited in some manner. We would suggest that sales be held no oftener than once in a two-year period and that a limitation of three nominations (each to cover not more than 5,760 acres) per prospective bidder should adequately protect the needs of any bidder.

3. We believe that any lease should cover an area up to 5,760 acres, the equivalent of nine sections of land as nearly in the form of a square as possible. This would provide a compact block to be worked for oil shale production which we believe would be the minimum size and the configuration for optimum development in the light of presently known technology. With leases of such size and in view of the lands available, we should like to see the acreage limitation of a prospective lessee eliminated. It is our thought that the competitive bidding procedure removes the necessity of acreage limitations.

4. We should like to see the elimination of lease provisions constituting a plan of development. At this time and in the light of present technology, definitive plans of development are difficult to determine. This would result in any plan of development being qualified to take into account any changed technology. Furthermore, it would impose a significant burden on those charged with the responsibility for making an award of a lease on competitive bids and would cause continuing review of the status of lessee's compliance with the plan of development. Clearly, until the technology is better established, this will be a very difficult administrative problem. We should like to recommend that in lieu of plan of development provisions in the lease