

It would be difficult to administer and it would also operate to penalize the more efficient operators. We recommend that the lease provide for a fixed royalty rate not to exceed 5% of the gross value of the product from the retort or at the in situ wellhead.

4. The proposed regulations will operate to curtail research by not allowing a research lessee to retain the benefits of his research discoveries and thereby have an opportunity to recover his large investment. Because of this, many companies or individuals may wait for someone else to do the research and use the results without cost in a commercial operation.

If our oil shale resources are to be effectively developed to meet the needs of the nation, we believe that the proposed rules should be broadened and made more flexible so as not to discourage development of this resource by restricting the entry of a broad variety of companies and other groups into the research and development of oil shale.

Our recommendations are as follows:

1. We believe that the regulations as written are unworkable as discussed above because of the complexities introduced by tying the research and commercial phases together. Nevertheless, if they are modified to eliminate some of the problems discussed above, there may be some who would desire to proceed under such a program.

2. We recommend that tracts of public lands be made available solely for research purposes, limited in size, with the provision that once the research program was completed, the premises would revert to the United States. These tracts should be made available without cost, or at a nominal charge, to any qualified party desiring to do research, with such party retaining all patents and research information as is customary in any private research project. The benefit to be derived by the United States would be encouragement of research and development of this vital natural resource.

3. There may be some companies who now would like to have the opportunity to acquire commercial oil shale leases on specific tracts and proceeds with construction of facilities for production of shale oil without the necessity of doing further research as required under the rules as proposed. Leases could be put up for sale on a competitive bidding basis similar to that now used for off-shore leases. For the protection of the government and the lessee, the leases should be on a prescribed lease form. Reasonable annual rentals or other payments could be established which would be sufficiently high to provide an incentive for early development by the lessee. Such rentals would not be payable once commercial production was established. The lease term should be for five years and so long thereafter as diligent operations for the production of shale oil are being conducted. The rentals and relatively short primary term of the lease would discourage speculation and foster continuous progress toward production.

Some of the suggestions which we have made in these comments may require the enactment of legislation to clarify and supply needed authority for the Secretary. To the extent required, legislation to accomplish this purpose should be drafted and introduced in Congress. Uncertainty in the laws and regulations is one of the greatest deterrents to progress in the development of oil shale. Necessary guidelines must be set in order to attract the necessary capital.

While oil shale has enormous potential, it cannot be utilized without solution of a number of economic and technical problems which now impede its development. Great effort by both industry and government will be required to resolve these problems. Oil shale also faces severe competition from other energy sources. We believe, therefore, that if this great resource is to ever be made available to the nation, the emphasis of the government's policy must be on encouragement rather than restricted development by private enterprise.

We hope that the views of our Association will be of assistance to the Committee on Interior and Insular Affairs in its consideration of this complex subject.

Respectfully submitted,

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*President, Rocky Mountain Oil and Gas Association.*

The CHAIRMAN. The committee will stand in recess until 2 o'clock this afternoon. The first witness this afternoon will be Dr. Charles F. Jones, President of Humble Oil and Refining Company.