the quantity of mineral deposits needed for commercial production,

and to limit the area of commercial operations. Our position here is that for greater efficiency the lessee should have the right to select the research site and should be permitted to hold and develop the total acreage as described in the lease.

The regulations should provide for the inclusion of additional acreage in the lease, as long as the total acreage covered by the lease does

not exceed the legal limitation.

Section 3172.5 has to do with royalties. The royalty schedule proposed in this section would stifle the development of a shale oil and associated minerals industry on public lands. Such a schedule based on a graduated percentage of net income, together with the current Federal income tax structure, would operate to discourage the investment of private capital. In addition, such a schedule would increasingly penalize an operator in proportion to increased operating efficiency. Thus, it would have the overall effect of placing the commercial production of shale oil and associated minerals at a serious competitive disadvantage with alternate sources of energy having a fixed royalty schedule.

Our position on this matter is that the royalty rate on hydrocarbon production should be a fixed amount not to exceed 5 percent on the gross value of the first products recovered from retorting. Historically this percentage has been used satisfactorily for other minerals. In case of in situ operation, the royalty rate should be the same based on the first products recovered from the wellhead. In either case, royalty should be payable only on products sold or used off the premises.

On all other minerals, the royalty should be 5 percent of the proceeds received by lessee for such minerals on the premises in their raw form after retorting and concentration but prior to any treating or benefication. Should lessee sell such minerals in another form on the premises or remove such minerals from the premises, the royalty should be 5 percent of the market value of such minerals on the premises in their raw form prior to any concentrating, treating, or benefication.

The royalty payments should be waived during the first 5 years of

the research term as permitted by the Mineral Leasing Act.

Portions of this section require that disclosures of technical information be made public and that patents be assigned to the Federal Government. This section would destroy one of the most powerful competitive forces that could be brought into the oil shale development. The effect of these provisions would be to compel the lessee to disclose all of his technical "know-how" and operating data as well as background information and data accumulated from prior research efforts.

Our position here is that the lessee should be required to make available to the Federal Government only such data and information as is necessary to assure that the lessee is conducting a prudent and efficient operation. All technical information so acquired should be held confidential by the government during the research term. Patents obtained by a lessee should continue to be held and licensed by him in the same manner as other patents. Under this patent system, the United States has achieved outstanding industrial and scientific progress.