Section 3171.2(c) (11) appears to require a disclosure of conventional crude oil reserves. This unnecessary and irrelevant requirement should be deleted.

Section 3172.2(b) provides for a commercial production lease, "for so long as mineral products are produced from oil shale in paying quantities." Presumably, this would be interpreted as not requiring forfeiture in case of a temporary cessation of production. However, provision should be made for a term certain as a transition between the research term and the production term to allow the commencement of commercial production.

Section 3172.3(b): It appears to the Phillips Petroleum Company that the lessee should have the entire leased premises available for its operations provided it complies with standards stated elsewhere in the regulations with respect to minimization of pollution of air and water and protection of scenic and esthetic

XV. Shell Oil Company

A. Shell believes that the proposed regulations represent a positive step toward the development of this nation's oil shale resources; however, they are concerned over the following point and suggest they be changed to provide the necessary incentive for the risk involved.

1. There is considerable uncertainty as to the amount of acreage that would be granted to a company after it completed the research phase. The maximum amount is clearly stated (5,120 acres), but the criteria for determining: (a) whether a research lease will be extended into the commercial production term, and (b) how much land in addition to that part of the R&D lease used during the

research term ultimately can be obtained.

2. The provisions dealing with patents and disclosure of information seem so stringent as to interfere with the timely development of oil shale. The incentive to develop new techniques is limited by the requirement that results of research become public domain immediately. Free play of competition would encourage the development and simultaneous evaluation of several recovery methods. A term of non-disclosure after the R&D phase or the establishment of equitable licensing arrangements would be necessary to encourage competition.

The proposed amendment to the regulations under the Taylor Grazing Act to allow for exchange of privately owned oil shale lands is a most worthwhile revision of the regulations and the Shell Oil Company supports this proposal.

XVI. Sinclair Oil and Gas Company

A. Sinclair feels that the proposed leasing regulations would require a leesee to give up so much of the technical know-how and income from a project on government land that there is little likelihood that any company or consortium would invest millions in research to develop a process for a commercial lease. They believe the regulations are so indefinite regarding granting of commercial leases that there is no incentive for acompany to undertake a development

31701 states that "The Secretary will * * * publish notices * * * designating areas of oil shale bearing land * * * which will be made available for leases for research and development and for subsequent commercial operations * * *" 3172.3(c) states, "At the time for the grant of any extension of the term of lease as provided in section 3172.2(b), the Secretary will determine the quantity of mineral deposits needed for commercial production, allowing reasonable

Sinclair interprets these statements as saying that government representatives will make the decision as to when the company could move to construction of a

commercial plant, and the commercial life and size of the plant.

Sinclair wishes to recommend that award of a lease on a limited area for research and development carry with it an option on a specified tract for expanded commercial operation. The decision to go commercial should rest with the organization. The company should not suffer the additional hazard that Interior will apply criteria of success different from industry in general.

3171.2(c)(11) requires "a description of the reserves owned or controlled by the applicant of oil and other minerals believed present in the land applied

for.". This statement needs clarification.

3172.2(b) states that the Secretary will extend the term of the lease to permit commercial production if certain tests are met. These tests are not spelled out with respect to "optimum recovery of minerals" and air and water