The preferable construction of the phrase appears to be that it simply designates the physical and chemical characteristics of "crude oil," as distinct from the characteristics of "unfinished oils and oil products". Under such a construction shale crude would apparently qualify as a "refinery input", a result consistent with the desire, embodied in the Proclamation, to foster domestic production. However, the matter ought not to be left clouded.

Clarification can, of course, be achieved by amendment of the Regulations. The Secretary has in fact recently expanded the definition of "crude oil" to include certain liquids recovered from vaporous hydrocarbons. A further regulatory amendment would be the most expeditious way of making shale crude-clearly eligible as a "refinery input".

COMMENTS OF THE OIL SHALE CORPORATION ON PROPOSED REGULATIONS OF THE DEPARTMENT OF THE INTERIOR CONCERNING OIL SHALE LEASING

## INTRODUCTION

TOSCO welcomes the Secretary's promulgation of the proposed oil shale leasing Regulations and this opportunity to express its views while the Department's consideration is still pending. From the recent public statements of the Secretary and other officers of the Department, it is apparent that the Proposed Regulations are intended by the Department to make public domain reserves available to industry for processing research, and thereafter for production development, on terms which give recognition to the costs and risks of experimental programs, and to the value of the availability of public reserves.

Unfortunately, an equitable balance of interests is not easily accomplished. In our view, the Proposed Regulations do not achieve the goals which the Secretary has expressed for them. They fall short because they make use of the public domain reserves for research so disadvantageous that it is probable that competent companies without oil shale reserves, who are prepared to develop solid hydrocarbon sources for liquid petroleum, will continue to be excluded from this important resource.

The Regulations do not give meaningful recognition to the risk entailed in expenditures of money and effort in production research, and thereafter in production development. They provide that the research and development lessee, in return for its funds and labor, will not receive any proprietary interest in the technology, should one be successfully developed; will surrender its normal control over its past technological developments; will receive no benefit that is not also available to those who merely wait; and will, if the research is successful, pay royalties which escalate so sharply with profit that the remaining possibility of gain is heavily overborne by the risks of loss of the research funds and the production capital investment.

These are difficulties that cannot be overcome by adjustments in matters of detail, although the matters of detail discussed below are significant. The fundamental failure of the Regulations to give fair recognition to the costs and risks of research and development, and the undue value they apparently attribute to the rental of public domain lands for research, would preclude us

We believe that the Department has not intended this result, and we trust that the comments which follow and the comments of other interested persons and companies will provide the Department with a sufficient basis for construc-

The remainder of this text is devoted to our comments on those aspects of the Proposed Regulations with which we are in disagreement. This is an appropriate opportunity to take note of the thoughtful and imaginative labors which have given rise to this initial proposal. For thirty-seven years, prior administrations took no significant steps towards utilization of these public domain reserves. The Department's present foresight and energy should not go unnoticed in the critical debate which follows upon this first step.

## THE REGULATIONS—IN GENERAL

There are four matters affecting the whole of the Regulations upon which we think it is appropriate to comment before turning to more detailed analysis. They are: (1) the failure of the Regulations to make available reserves for commercial production to those who already have, or who do hereafter, carry