

Senator Allott.

Senator ALLOTT. In view of the time, Mr. Chairman, I would just like to pin down only one point. It is the view of TOSCO, as I listened to your statement, that you do not feel that you can safely proceed in this whole area of production without knowing the ground rules for production leases, and you have emphasized to some extent the matter of escalating royalties, and the question of granting leases upon the basis of need, rather than need for production. I think that this is a very vital point, because it really lies, as I see it, at the basis to the general objection to the proposed regulations. Am I summarizing your situation fairly accurately?

Mr. WINSTON. Yes, Senator. We have no doubt that the absence of such ground rules is restraining development.

Senator ALLOTT. Thank you. I would like to discuss this in greater detail, if time made it possible.

Thank you.

Senator MOSS. Senator HANSEN.

Senator HANSEN. Just one question that I would like to ask you, sir. Here on page 12 of your testimony, you state, "The product stream must be treated for recovery of valuable byproducts; and the crude oil, which contains significant amounts of nitrogen and sulfur," et cetera.

Somehow I got the impression in listening to previous testimony that oil from shale would be low in sulfur content. Is that correct?

Mr. WINSTON. I will try to be very brief. There is a substantial amount of sulfur in the raw material, say about one-half of 1 percent in the first produced raw oil. That is not a lot of sulfur against other sulfur crudes found elsewhere in the world, but definitely it is there.

Nitrogen removal is automatically required at the same time you are working on the sulfur. At least one party has pointed out that hydrogen-treated oil would be sulfur free.

Senator HANSEN. That is approximately what I had in mind. Thank you.

Senator MOSS. Thank you, Mr. Winston. We appreciate this very much, and your full statement will be included.

Mr. WINSTON. Thank you.

STATEMENT OF MORTON M. WINSTON, EXECUTIVE VICE PRESIDENT,
THE OIL SHALE CORP.

Some Aspects of Public Domain Oil Shale Policy

Mr. Chairman and Members of the Committee, I am Morton M. Winston. I am an Executive Vice President of The Oil Shale Corporation, known as "TOSCO," which is a company holding substantial oil shale reserves in Western Colorado and Utah, and which is in the final stages of a ten-year development program to initiate commercial shale oil production in the United States.

On behalf of my company, I would like to thank the Chairman and Staff for inviting us to be here today to express our views on various questions affecting use of the public domain oil shale reserves in the developing domestic oil shale industry. We understand that though the Committee's interest is a continuing one, the specific occasion for these hearings was Secretary of the Interior Udall's promulgation, on May 10, 1967, of Proposed Regulations (under the Mineral Leasing Act) covering a limited program of leasing a small portion of the public domain reserves for production research and development.

Without doubt, any leasing policy adopted by the Department of the Interior must affect the development of the oil shale industry, since the Department is the custodian of the approximately 84% of the reserves which are in the public domain. To a lesser extent, but nevertheless significantly, policies of other De-