

instance, however, certain minimum requirements will be included in the public interest.

A commitment of research and development expenditures, a time schedule for conducting such a program and access to resource and technological data will be among these. Heavy emphasis will also be placed on maximum recovery and development of all the minerals present—sodium and aluminum as well as shale oil. And this again, is a new factor that has entered the picture since 2 years ago.

In our public announcement of this development program it was indicated that implementing regulations would be prepared in 60 to 90 days. This appears, I was told by my people yesterday, to be on schedule, at least to the extent that such regulations will be released for public comment within that period. And we fully intend to follow our customary procedure. We will put out regulations for comment rather than as final rules, and the States involved, industry, any citizen may submit their views on these proposed regulations. We will then finalize them and then we will be ready to proceed and to receive applications at that point.

If, after careful study of the development proposals submitted by industry or at any time thereafter, we conclude that new legislative authority or criteria are advisable, we shall recommend to the Congress the specific legislation required to achieve our objectives. And I would think just to give the committee, Mr. Chairman, a time scale here, that probably within, let us say, 5 or 6 months we should be able to form firm judgments on this. If we feel that additional legislation is needed, because we do want to move ahead with this program, I can assure you that we will recommend quickly what legislation we feel is needed and give the committees an opportunity to give it thorough consideration.

Similarly, we will analyze the proposals received for the blocking of private lands. If the broad authority of the Taylor Grazing Act proves inadequate to permit such transactions or conditions essential to their acceptance, we shall likewise seek whatever further legislative authority is needed.

The Department's approach to extend research and development on oil shale includes two essential elements, both aimed at increased knowledge on the nature, extent and technology of the resource and its efficient recovery.

The first of these, identified as point 4 in the announced program, is aimed at the ultimate objective of an *in situ* retorting process. Interest in such a technique stems from both efficiency of extraction and concern for the landscape and other conservation values. This effort will require close collaboration with the Atomic Energy Commission and, ideally, substantial input of private research capability as well. It also involves extensive preliminary work in core drilling, laboratory analysis and selection of test sites broadly representative of the total oil shale area. As presently conceived, the full development of this research program and its evaluation will cover the better part of a decade and an investment on this Department's part of about \$15 million.

On a far more general front, research and investigations must be conducted on other aspects of shale oil recovery as outlined in our