

regulations pursuant to any legislation would present real problems to the western phosphate mining industry while doing little to enhance the achievement of the reclamation of western phosphate lands.

*A. Submission of a plan for operation prior to commencement of exploration operations*

Any legislation should forbid any requirement for the submission of a plan of operation prior to the commencement of exploration activities.

While the Phosphate Lands Conference, as indicated in the proposed regulations submitted by it to the Department of the Interior, believes that the most feasible approach to the reclamation of surface mined lands is to have a plan for reclamation submitted and approved, it is virtually impossible to have such a plan submitted and approved before exploration is commenced.

Prior to exploration, no one knows what extracting operations will be conducted, if any, on the lands in question. Large areas containing phosphate deposits are classified as subject to the leasing provisions of the mineral leasing act, notwithstanding almost a total lack of knowledge of the extent, attitude, quantity, quality, mineability or workability of the deposits. At the time of the commencement of exploration activities, neither the United States nor the mining company possesses any appreciable knowledge about the nature of the mineral deposits on the leased lands. For example, it is impossible to determine:

- (a) The precise location of the proposed mining operation.
- (b) The area where the overburden will be stored.
- (c) The amount of surface that will be destroyed.
- (d) The nature of the excavation that will be necessary in order to obtain the ore.
- (e) The size of the piles of removed overburden and their location and design.
- (f) The nature and extent of erosion problems, if any.
- (g) What livestock operations might be interfered with.
- (h) What streams, if any, will be interfered with.
- (i) What crops, including foliage, timber, etc. will be disturbed, and the extent thereof.
- (j) Size and types of equipment to be utilized for exploration, development, or extractive operations.
- (k) Capacity, character, standards of construction, size and location of structures and facilities to be built.

It is impossible at the time of the commencement of exploration activities to determine what steps will have to be taken in order to remove the ore. Consequently, it would not only be impossible to describe these operations, but, in addition, it would be impossible to determine what reclamation activities would be needed.

Although it must be recognized that unexpected situations may arise at any time during the course of mining which would alter the factors referred to above, an effort should be made to arrive at the most opportune time for the determination of the activities to be undertaken in the furtherance of mining according to good and miner-like practices and with a view to conserving the other resources. It is suggested that the most opportune time to make such a determination is shortly before mining commences in a given area.

*B. Authority to control exploration activities*

It is recommended that provisions be inserted in any legislation which would prevent interference with exploration activities.

Exploration activities performed in western phosphate mining which would disturb the surface consist largely of digging comparatively small trenches and drilling exploration holes. Regulations previously proposed by the Department of the Interior require the operator to present to the Department a plan of his operations including where holes will be drilled, etc. and further granted to the Department the authority to designate changes in these plans and thus control where holes would be drilled and trenches dug.

In phosphate exploration or mining, it is impossible to "control" the location of drill holes. The location of a given hole is determined by geologic conditions. In the process of exploration, the lessee must be allowed to drill where his training and experience in the light of geologic conditions indicate he should. In most instances he does not know where his next drill hole should be until he has completed his last drill hole—and the time lapse may be a matter of hours. This is