3171.3(f) This section requires a showing of need for minerals to be produced. An oil company can show a need for oil if it has more refining capacity than production. Can it show a need for aluminum or Dawsonite in the absence of a market? What is the nature and extent of the need required, to be

This section provides for a commercial production lease "... so long as mineral products are produced from oil shale in paying quantities... Do these words constitute words of special limitation which would result in automatic termination if you cease production or if production ceased to be in paying quantities? If so, how long a period of cessation is necessary? Is paying quantities that amount required for a profit over operating costs or must it be sufficient to return the cost of the plant plus an operating profit? What would be the result of fluctuations in oil price and markets that would render the operation at least temporarily upprofitable? operation at least temporarily unprofitable?

Requires a research lessee to develop both a mining and a processing method which is commercial. If he developed a commercial mining technique but not a commercial processing technique, may he have a commercial lease and use the commercial processing technique of others who have made it available by license to the Secretary, or will he be denied a commercial lease unless he has literally developed both mining and processing techniques which

3172.2(b) (2) (3) Requires compliance with pollution requirements which are not themselves specified or otherwise described. The nature and extent of are commercial?

nese requirements should be specified.

3172.2(b) Provides in effect that upon the expiration of the designated Research Term of the lease the Secretary will, under certain circumstances, extend the lease for a Commercial Production Term for so long as there is extend the lease for a Commercial Production Term for so long as there is these requirements should be specified. production in paying quantities. Section 3172.3(c) provides that at the time for the commencement of the extended production term, the Secretary, in his discretion, will determine the amount of deposits needed to provide reasonable reserves for commercial production. Under this section, it would be possible to apply for and get a lease on as much as 5,120 acres. The Secretary could then designate the portion on which you are to conduct research. It would seem that after research is completed and the investment is made, the "then" Secretary of Interior could redetermine how much land and reserves are needed for a commercial operation in accordance with Secetion 3172.3(c).

Provides "... no one may take, hold, own or control an interest in more than the total maximum acreage of land included in a lease hereunder, ... "This can be construed so that if you own 1% or any small undivided interest in 5,120 acres of a shale lease from the U.S., you are disqualified from owning other leases or interests in other leases. The above provision can furthermore be construed to mean that fee ownership of 5,120 acres of shale land can disqualify leasehold applicants for shale land. The provision should be clarified and state that a "net" interest of more than 5,120 acres in United States

i shall leases will not be allowed. 3172.5(b)(d) Provides "The royalty rate on production shall be 3% on the oil shale leases will not be allowed. gross value, at the point of shipment to the market, of the mineral products from the oil shale, . . ." At which point does this provision become effective? Does "mineral products from oil shale" include Dawsonite? If you merely mined the rock and shipped that to a market, would the value of mined or crushed rock be the basis for royalty? If you mined, crushed, and retorted the rock, then shipped the unhydrogenated oil to a market, would that be the value for royalty purposes; or must the rock be mined, crushed, retorted and hydrogenated before shipment to a market? If you have a refinery on the premises and made gasoline before shipping to a market, would the value of the gasoline constitute the value for royalty purposes? This provision must be clarified.

Provides in effect for royalty rates based on percentage of net income on investment. Investment is defined as original cost less depreciation of capital assets used in production and processing shale oil. A question arising here is whether or not experimental and research costs are included in the term investment. If so, are all these costs, including those research costs previously incurred on privately owned lands, to be considered? In most cases, these costs of research previously incurred will nevertheless contribute toward the ultimate success of the research on the Federal leases. These points should be clarified.

The same section also provides for readjustment of base royalties after 20 years. This provision is consistent with the statute, but the advisability of any such readjustment is presumably within the unilateral discretion of the "then" Secre-