

serious problems. At all events, in practice the selection would necessarily be resolved at the time of granting of the lease.

The extent of the commercial production leasehold is more important. But under the Regulations, it is not ascertainable at the commencement of the research term. The only standard provided in the Regulations is that the Secretary "will determine the quantity of mineral deposits needed for commercial production, allowing reasonable reserves." The effect of this provision is that a research lessee, after as many as ten years of substantial research expenditures, will have no other assurance of the extent of his leasehold than that the then Secretary of Interior regards the extent of the awarded reserves as "reasonable." (Here, again, the uncertainty is aggravated by the absence of any procedure under the Regulations by which the lessee might effectively challenge the award as insufficient and unreasonable.)

This initial leasing program, confined as it is to a minute portion of public domain reserves, should provide the potential research lessee with a definite assurance of a significant number of years of reserves to support commercial production at whatever rate is proposed by him for the production facilities; the lessee be able to amortize the predictably large investment in production facilities, despite the proposed escalating royalty rates; it must also be able to amortize the cost of up to ten years of research. The regulation (see below) propose to deny to the lessee any revenues from licensing of the technology it develops; and even propose to confine its rate of profit by a sharply escalating royalty scale. It is unreasonable that they should also deprive the lessee of the certainty of a substantial term of years for recovery of and return on its investments in research and production.

The very small portion of the public domain reserves which is to be subject to those Proposed Regulations opens no threat of undue concentration of reserves in the hands of a single holder. The public interest which is affected is simply that it may be undesirable that any lessee acquire control of public domain reserves to hold them for an indefinite time after research without commitments to production. To protect the public interest on that score, it is desirable only that the lessee undertake a program of construction of facilities—if it so desires, perhaps several of them—sufficient to utilize the allocated reserves. Since the proposed lease terms require production to hold the lease, all risks to the only public interest affected would thereby be removed.

This subject matter is one specific example of the failure of the Regulations to appraise adequately the risks and costs of research and development. The optimum size of commercial production leaseholds will only be definitely known after a variety of techniques has been developed and applied commercially. The purpose of these Regulations must be to encourage the research that will lead to development, so that industry and the Department may learn from production experience what is necessary and what is fair to the public and private interest. That purpose cannot be achieved unless the program grants the research lessee, who takes the risk of development, a positive assurance of a leasehold of substantial extent.

E. Disposition of Technology

Section 3172.9 (d) and (e).—The cumulative effect of these two provisions is to dedicate all technology developed under research leases to the public without compensation to the lessee; and to require the lessee to make available, under regulation of the Department, additional technologies owned by the lessee which "are necessary to permit others to practice inventions made in the course of or under the research term of the lease." (Provision is made for exceptions to this latter requirement to be written into the research lease if a "proper showing of exceptional circumstances is made.")

The heart of the matter here is that these provisions are unfair. But before considering their substantive terms, it should be noted again that in the absence of speedy and equitable procedures to resolve the multitude of controversies which could arise between the Department and any lessee which has conducted prior research, the provisions are so burdensome as to be unworkable. (Who, for example, is to determine what is "necessary"?)

It seems probable that the Department believed these provisions to be required by President Kennedy's "Statement of Government Patent Policy," to which the Proposed Regulations refer. If that is so, the Department has misconceived that