be denied. Since a corporation can be expected to pay a federal income tax equal to 50% of its net profit, the initial profit sharing with the United States might more likely be on a 25–75 basis.

The critical objection to the "net profits" approach is the repressive effect it has on proceeding into commercial production. The principal difference in expenditures for traditional oil recovery and for recovery of oil from oil shale is the exploration costs. Oil exploration expenses have been substantial; lifting or extraction costs are usually relatively minor. As to oil shale the reverse is true. Once oil is discovered by exploration, the economic test as to producing it for market is whether the sale receipts exceed the lifting and marketing costs. Lease acquisitions and exploration costs may be greater than can be recovered from production, but production of oil is still economically justified. If a "net profits" charge is made by the lessor, the charge is added to lifting, or extraction costs, whether the product be oil from wells or oil from oil shale. Production is thereby repressed, and the product unproduced is wasted and withheld from its place in the continually growing energy complex of our national economy. Excellent testimony on this and related points was presented at the recent monopoly hearings as to oil shale held by Senator Hart. Specifically testimony was given by Dr. Walter J. Mead and Dr. Henry Steele.

The "net profits" approach is also open to question because of the expense to both lessor and lessee of maintaining and supervising records, and because of potential inefficiencies being made economic to the lessee.

Among the incentives to proceed which we note as needed, but missing in your proposed regulations, are the certainty as to whether any commercial lease will issue, the size of such lease, the right to benefit from successful research at the lessee's own expense, the right to hold federal oil shale leases in more than one state under their varying conditions, and the existence of some predetermined royalty or rental payment that can be calculated.

Regarding patents, the requirement of the proposed regulations that all patents and inventions arising out of the lessee's research become the property of the United States is not consistent with the position which we believe the government should maintain as the lessor of an oil shale lease. Laws against monopoly and emergency power of government in times of need can protect the public interest. There is no reason why the government should demand the further consideration of the right to inventions made at the lessee's expense, nor do we believe that President Kennedy's Statement of Government Patent Policy of October 12, 1963, need be construed to require such a harsh interpretation. To do so, of course, deprives the inventor of the reward given for his discovery. This reward—this hope of greater profitability or better competitive position—is the incentive which not only spurs inventors to make discoveries but spurs their competitors to make others lest they otherwise fall behind. It is not reasonable to require that an inventor who has taken substantial risk of time and money to make an invention should give it up without just compensation, and, worse yet, have it made available free of cost to competitors who have not shared in that risk. This approach necessarily places the forward looking, aggressive lessee at an economic disadvantage relative to his competitors. It is submitted that this device will discourage rather than encourage research. Such a plan may also lead to the pooling of research efforts and the elimination of effective competitive research.

We consider that your concern with preventing lessees from acquiring and holding leases for speculative purposes and without progress toward production is justified. The costs of holding non-producing leases are one of the best preventive measures. Suggestions which we feel worthy of consideration are a fixed term lease that can be extended only by production, with a substantial rental per acre, and with such rental or minimum advance royalty increasing each year. Such procedure has the added importance of bringing revenue to the federal government and states from resources that today produce no return.

Fourth: Financial Return. The failure of the federal government to realize any rentals is hard to understand. The States and Reclamation fund share in Mineral Lease Revenue, in contrast to the Outer Continental Shelf where the federal government keeps 100%. Even if no royalties materialize, rentals could be substantial.

The shifting from public to private investors of the cost of research could be another substantial financial benefit.