Telephone: (212) 867-0052
Fax: (212) 972-9849

Petroleum Industry Research Foundation, Inc.

122 EAST 42nd STREET

New York, N. Y. 10168

MEMORANDUM

in Response to the Department of Energy's

Notice of Inquiry on "Alternative Financing Methods for Funding

the Strategic Petroleum Reserve Supplies and Facilities"

We have submitted this memorandum for the Department of Energy's Notice of Inquiry on "Alternative Financing Methods for Funding the Purchase of Strategic Petroleum Reserve Supplies and Facilities." It was initially prepared and submitted to the Department of Energy at the request of Secretary James Watkins, who made the request of John Lichtblau, PIRINC's president, at Mr. Lichtblau's August 1, 1989 testimony on the National Energy Strategy. The memorandum was designed to provide broad background on the concept of SPR leasing, not a detailed evaluation of competing proposals.

October 17, 1989
New York City

* * * * * * * * * * *

The Need for Additional Supplies

The DOE projects a sustained increase through the end of the century in both the volume of U.S. oil imports and the share of imports in total U.S. oil supplies. Most forecasts by industry, academic analysts and independent research organizations agree with these trends, i.e. there is a wide consensus that for the next 10 years U.S. oil imports will rise substantially, both in volume and share. Since we are already at a 41-42% net import dependency level this year (compared to 27% only four years ago), the question of future security of supply takes on increasing importance.

The only instrument designed to mitigate the impact of a future oil disruption as well as provide a potential deterrent against its occurrence is the Strategic Petroleum Reserve (SPR). As our import dependency grows, so does the necessary volume for the SPR. At end-September 1989 our SPR amounts to 575 million bbls, equal to 79 days of this year's average net import level of 7.3 million B/D. This is substantially below the 90-day net import coverage target set by the previous Administration and approximately maintained in 1988.

If the Administration were to maintain a fill rate of 75,000 B/D until 1995, the SPR at the end of that year would be close to its target, but the import coverage will only be 78 days, based on the DOE's Base Case projection of 9.4 million B/D net imports in 1995. However, this year's rate will be at least 10,000 B/D lower, and in fiscal 1990 the appropriated funds will permit a fill rate of only about 50,000 B/D.

Recent Congressional hearings indicate that both Houses of Congress favor raising the SPR target to 1 billion bbls, accelerating the current fill rate and, if possible, returning the SPR to the 90 days' import coverage ratio. However, both Houses recognize the fiscal constraints on all of these otherwise desirable goals. This has given rise to inquiries into alternative means of financing the increases in volume and fill rate. One such alternative -- leasing the oil for a fee from a foreign producer -- is discussed below.

It should be pointed out that the additional quantities are not only limited by budgetary constraints but also by physical limitations. If only existing storage facilities or those under preparation are considered, the total fill rate during the next several years could probably not exceed 125-130,000 B/D. Thus, incremental supplies could not exceed 50-55,000 B/D during this period. At present market prices, the annual delivered cost of this volume would be $380-400 million. However, it may be possible to increase the salt dome storage capacity beyond those included in the current 750 million bbl target program. At a hearing before the Senate Committee on Energy and Natural Resources, The Louisiana Land and Exploration Company offered to lease a salt dome with a storage capacity of 300 million bbls to the SPR. The Company estimated that it could start filling the facility within 3 years after the leasing commitment and could have up to 250 million bbls in place 4 years after starting to fill. Thus, if the commitment to lease this facility, or a similar one, were to be made next year, we could have an SPR volume of up to 1 billion bbls in place by 1997, if so desired.

Foreign Supplier's Participation

Foreign supplier participation in whatever fill rate increase the Administration sets would be based on the following assumptions and observations.

1. Because of budgetary constraints, the U.S. government is not able to buy the desired incremental volumes of SPR oil at market prices.

2. Unless alternative financing can be arranged, the volumes in question will not be lifted but will remain in the foreign producer's ground.

3. The oil procured under these participation arrangements will not normally enter commercial channels but will remain part of the U.S. Government's emergency reserve, to be used only after an official finding that a energy emergency exists which requires remedial action.

4. The economic interest of foreign oil producing countries in entering a leasing agreement for incremental SPR supplies would be directly proportional to these countries' excess producing capacity and the reserves underlying it. Only producing countries with significant excess producing capacity and the expectation of long-term maintenance of this excess would have an economic interest in participating in any arrangement under which they would let go of some oil below current market value. Their interest in doing so is strengthened if their reserves are of such magnitude that the extra oil produced now for non-commercial purposes would not be produced commercially until the depletion of their reserves sometime in the distant future. The more distant that future, the lower the discounted present value of the extra production.

Thus, the type of leasing agreement discussed here is based on a convergence of interests between buyer and seller: the U.S. government wishes to procure incremental volumes of crude oil for non-commercial purposes and cannot pay the commercial market price for these incremental volumes. The supplier can provide this oil from his unused surplus which would otherwise remain in the ground and earn no money for a very long time.

Since a leasing scheme would be economically attractive only for oil exporters with excess producing capacity, most potential participants in such a scheme would be members of OPEC whose designated production quotas are below their productive capacity. Hence, Mexico, currently the sole supplier of oil for the SPR, would have no economic interest in a leasing arrangement. However, it may have a political interest, such as protecting its supplier status to the SPR. There are reports that Norway, which has a self-imposed excess production margin of 7.5 %, has expressed interest in a leasing arrangement.

Under OPEC's definition, crude oil production is not counted as part of a country's quota until it enters commercial channels; oil produced for storage is not counted as quota production until it is sold or otherwise transferred to a third party. Thus, OPEC oil produced for *leasing* to the SPR would be outside the quota as long as the producing country retains ownership. Nevertheless, leases to the U.S. SPR could be controversial within OPEC.

In contrast to leasing, the OPEC definition of production quotas may make members of the group unwilling to consider another means of alternative financing of incremental SPR supplies, namely simply *selling* the oil to the SPR below the going market price. Since the oil would no more enter the commercial market whether it is sold or leased to the SPR, a sales price substantially below market value but well above production cost could benefit both parties. But it would be a clear violation of the OPEC quota definition. Also, as the SPR purchase price becomes known, commercial buyers may view it as a target price for their purchases.

Leasing Arrangements

The actual leasing agreement would of course be subject to extensive negotiations on all aspects of the arrangement. Two basic requirements on the U.S. side would be that the oil is physically deposited in the Government's designated SPR facilities and can be used at the Government's discretion. A basic requirement for the lessor country would be assurance that the oil would not enter into commercial channels except under the extraordinary pre-defined conditions requiring activation of the SPR.

There is no specific formula to establish a leasing fee because of the many factors and considerations that enter into it, all of them requiring lessor - lessee negotiations. For discussion purposes, one approach to consider would have the U.S. Government reimburse the lessor for the actual cash cost of lifting and transporting the oil and the foregone interest on the money spent. This would amount to a fraction of the market price. The negotiated annual leasing fee after this initial payment would represent a net positive cash flow at any level for the lessor, incremental to all earnings from commercial sales.

Another approach to the leasing fee would have the Government pay an annual leasing fee equivalent to an interest rate on the cost of buying the oil at market prices. If the interest rate is below the U.S. Treasury Bond rate, lease payments would be lower than the combined cost to the Government of purchasing the oil at market price and paying the going interest on the borrowed funds, provided the lease payments cease, with the leased oil possibly becoming U.S. Government property, as the cumulative payments approach the market value of the oil. The termination terms would have to be stipulated in the contract.

Another issue to be contractually agreed is the transfer terms of the leased oil if the SPR is activated, since the market price will be abnormally high at that time. Giving the foreign lessor the full spot market value at that time might be considered excessive since the U.S. Government will already have made previous fee payments and provides the storage facilities. There could also be political criticism if a foreign producer were to earn a large windfall profit during a crisis from the sale of oil stored in the SPR, even though the accumulation of the leased SPR oil would presumably keep the crisis price increase lower than it would be otherwise. Thus, the contract should contain a formula to determine the transfer price of leased oil following activation of the SPR's draw-down function.

Non-Economic Factors

In assessing the producing countries' interest in leasing arrangements with the U.S. SPR we have limited ourselves to the economic aspects of the arrangements. However, there is also a political dimension. By cooperating with the U.S. on a scheme to supply the SPR with incremental oil below market value, a supplier country in effect takes a position against any form of disruption which would create a price spike. This could earn the foreign supplier political "good will" in the U.S. which is an intangible but real asset. For some

foreign suppliers the "good will" aspect of an SPR leasing scheme may outweigh the economic aspect.

The "good will" aspect may also motivate some foreign oil *importing* countries (possibly Japan) to participate in an SPR leasing scheme. In that case the foreign country would probably purchase the oil at market prices and then lease it to the SPR. If the leasing rate is below the prevailing interest rate of U.S. Treasury bonds, such a scheme could be of interest to the U.S. government. As part of the arrangement the foreign country may want to have access to a predetermined share of the leased oil in our SPR, perhaps on a swap basis, in case of an oil disruption requiring activation of the SPR. The lower cost of salt dome versus steel tank storage could be a factor in the foreign country's interest in having access to SPR facilities.