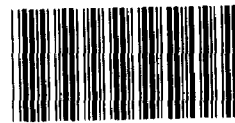


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STATEMENT OF
J. DEXTER PEACH, DIRECTOR
ENERGY AND MINERALS DIVISION
BEFORE THE
SUBCOMMITTEE ON FOSSIL AND SYNTHETIC FUELS
OF THE
HOUSE COMMITTEE ON ENERGY AND COMMERCE
ON
THE STRATEGIC PETROLEUM RESERVE



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Mr. Chairman and Members of the Subcommittee:

We welcome the opportunity to discuss GAO's work on the Strategic Petroleum Reserve (SPR) program. We have had a continuing interest in the SPR for quite some time and have issued numerous reports which addressed the progress and problems associated with its development. My testimony will cover issues concerning the size of the SPR, capacity constraints, and oil quality. Our most recent report 1/ issued December 1981, covered several issues before the Subcommittee today and will serve as the basis for much of my testimony.

THE SPR AND CONTINGENCY PLANNING

Before discussing the details of that work, however, I would first like to provide some overall views on the importance and size of the reserve as they relate to the Nation's ability to cope with oil supply disruptions.

1/"Strategic Petroleum Reserve: Substantial Progress Made, But Capacity and Oil Quality Concerns Remain" (EMD-82-19, Dec. 31, 1981).

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We reported in September 1981 1/ that with the exception of the recent buildup of the SPR, the United States is no better prepared to deal with significant disruptions in oil imports now than it was during the 1973 oil embargo. The Nation needs to increase the oil available for emergency use. Although industry stocks and surge oil production can help meet these needs, the SPR remains vital to the Nation's efforts to protect itself against such a disruption. As you know Mr. Chairman, at your request, we have followed up on actions taken in response to our September report and will report our findings to the Subcommittee during hearings next week.

As of February 23, 1982, the SPR contained about 239 million barrels of oil. This amount currently could be withdrawn at about 1.7 million barrels per day for about three and one-half months, at which point the drawdown rate would decrease until the SPR is exhausted about six months later. Even though the SPR can currently provide some relief from an oil supply disruption, specific plans have not yet been developed for its use during an emergency. We believe a specific SPR use plan should be developed to avoid ad hoc decisionmaking during a crisis. This use plan should be integrated with energy emergency preparedness plans.

Now let me turn to the question of the size of the reserve. The size issue is one with significant budget and national security implications. More specifically, it is key to decisions which need to be made regarding the adequacy of SPR storage capacity over

1/"The United States Remains Unprepared for Oil Import Disruptions" (EMD-81-117, Sept. 29, 1981)

the next several years. I will comment on the capacity issue in a few minutes.

The Omnibus Budget Reconciliation Act of 1981 requires the President to submit to the Congress a report on the ultimate size of the SPR. I understand that the report is presently being reviewed by the White House.

In 1979, when DOE was calling for a 1-billion-barrel SPR by 1985, we reported 1/ that no study had shown that 1 billion barrels is the optimum-sized reserve. Further, DOE rated the probability low of a future supply disruption of the size necessary to require this reserve size. We also noted that the reserve does not have to be sized to meet supply shortfalls on a barrel-for-barrel basis. It can be supplemented by such measures as:

- using existing industry stocks;
- fuel switching;
- restraining demand or managing supplies through conservation or allocation;
- creating an industrial petroleum reserve; or
- using political, military, or economic leverage to affect the size and duration of the shortfall.

It remains to be seen, however, whether plans will be developed and put in place in some or all of these areas.

We concluded after reviewing many studies that, even after considerable analysis is completed, an informed but subjective judgment must be made about the size of the reserves required.

1/"Factors Influencing the Size of the U.S. Strategic Petroleum Reserve" (ID-79-8, June 15, 1979).

Given the significant budgetary and national security implications, the administration and the Congress must ultimately make the judgments concerning how much insurance the SPR should provide against an oil supply disruption and how fast progress should be made toward achieving that end.

CAPACITY CONSTRAINTS

That brings me to a key issue raised in our most recent SPR report--capacity constraints facing the SPR.

During fiscal year 1981, the administration far surpassed the required minimum 100,000-barrels-per-day fill rate of the Energy Security Act of 1980 and almost met the higher 300,000-barrels-per-day goal of the Omnibus Budget Reconciliation Act of 1981 by adding to the SPR at an average rate of about 292,000 barrels per day. This is by far the highest fill rate achieved for any fiscal year since oil fill began. The previous high fill rate was 165,000 barrels per day during calendar year 1978. By the end of the fiscal year, the SPR contained about 199 million barrels of oil, or more than twice the 92 million barrels that were in the SPR at the beginning of the year. As of February 23, 1982, the reserve contained about 239 million barrels of oil, or about 32 percent of the planned 750-million-barrel capacity.

While DOE's progress in filling the SPR over the past 17 months has been commendable, DOE is now approaching the limits of its available storage capacity. Currently DOE's fill rate is tied to the rate at which underground storage capacity can be created. Because of the long lead time required to add such capacity, funding and program decisions made now can dictate the

volume of oil that can be added and the completion date for the SPR.

The effects of capacity constraints have already become obvious. In January 1982, DOE decided to delay purchasing additional oil for the SPR until the third quarter of fiscal year 1982 because of storage capacity limitations.

Ironically--and unfortunately--this delay in oil purchases comes at a time when there is a surplus of oil on the world market at relatively favorable prices. As you know, several major oil producing countries have recently cut their prices.

The delay further underscores the matters discussed in our report concerning the availability of storage capacity and the need for DOE to consider further the costs and benefits of alternatives to its current capacity expansion plans, including leasing existing storage capacity on a temporary basis, or substituting above ground storage tanks for part of its planned underground capacity.

Options to Accelerate the Availability of Capacity

In July 1981, DOE reported on some options for accelerating the availability of storage capacity. However, DOE considered only options which increase the size of the reserve and assumed that the schedule for completing a 750-million-barrel reserve would be maintained. DOE's study did not consider other options such as leasing temporary storage space, substituting above ground steel tanks for part of its planned underground capacity, or completing a smaller sized reserve.

Two of the four options DOE assessed called for increasing the SPR to 1 billion barrels--one through the addition of several

new underground sites and the other through a combination of a new underground site and above ground steel tanks.

DOE's fill schedule and cost estimates for these two options showed that, while additional capacity could be made available about a year earlier by constructing steel tanks than by developing a comparable sized underground site, the underground site would cost \$500 million less. However, DOE's study did not address the comparative costs and benefits of substituting above ground steel tanks for some portion of the currently planned 750-million-barrel SPR or reducing the size of the SPR.

DOE also may be able to lease existing storage capacity to increase the SPR's oil fill capability while long-term storage capacity is being developed. Existing capacity may be available in the form of above ground steel tanks, oil tankers, or underground caverns. Although DOE has discussed leasing storage space with several companies, it has not developed plans for leasing nor documented the costs and benefits of leasing storage space. In December, DOE officials estimated that 10 to 30 million barrels of capacity were available at a monthly cost of 15 cents a barrel. However, DOE did not pursue the leasing option because it intended to fill the SPR at the rate allowed by its expansion plans.

We believe that DOE should more fully assess the costs and benefits of alternatives to its current expansion plans which would allow it to achieve a fill rate consistent with congressional goals. We recommended in our December 1981 report that the Secretary of Energy evaluate options for achieving an average annual fill rate of 300,000 barrels per day, assuming the planned or other SPR sizes. Also we recommended that DOE assess the

costs and benefits of alternatives to its current plans. Because of the budgetary implications, the evaluation should be available for congressional deliberations on the fiscal year 1983 budget and should assess the costs and benefits of alternatives to constructing new underground storage facilities.

We further suggested that the Congress explore with DOE the capacity expansion plans and options to achieve an average fill rate of 300,000 barrels per day until the SPR is filled and reaffirm or provide new guidance on its desired fill rate.

We understand that DOE has recently initiated actions to obtain a better understanding of the amount of storage capacity that may be available for leasing. On February 10, 1982, DOE issued a Request for Proposals that asked interested companies with available storage capacity to indicate whether they would be willing to lease capacity to DOE for 6- to 12-month periods.

PROPOSED DEFERRAL OF SPR FUNDS

I would now like to discuss the administration's recent proposal to defer fiscal year 1982 SPR funds.

On February 5, 1982, the administration proposed to defer \$53 million of fiscal year 1982 funds associated with the development of the new 140-million-barrel Big Hill, Texas, storage site. This proposal would, in effect, modify DOE's Phase III expansion plans by stretching the completion date for the 750-million-barrel SPR by 1 year to the end of fiscal year 1990. Because of the long lead times involved in developing a new underground storage site, this proposal will not affect the planned SPR capacity and resulting fill rates until fiscal year 1987. Then additions to capacity would drop by 13 million barrels. In fiscal year 1988, the deferral

would allow DOE to add only 25 million barrels of new capacity and result in a fill rate of only 68,000 barrels per day during the year, or about 32,000 barrels per day less than the minimum 100,000-barrels-per-day rate required by the Energy Security Act.

OIL QUALITY CONCERNS

Before concluding I'd like to address our concern for the quality of the oil being purchased under DOE's oil acquisition strategy. Since oil acquisition for the SPR resumed in October 1980, DOE has purchased a large quantity of heavier crude oil. Because of the refinery yields of various grades of crude oil, the quality of the SPR oil is an important determinant of the amount of specific petroleum products available to the Nation during an oil supply disruption.

DOE's original crude oil quality specifications and oil acquisition strategy were based on a 1976 assessment of refinery product needs and capabilities. DOE modified its acquisition strategy during fiscal year 1981 to accept Alaskan North Slope and Mexican crudes that are heavier than oil previously purchased without conducting a similar assessment. Although DOE awarded a \$258,000 contract in May 1981 to perform such an analysis, the study will not be completed until August 1982. In the interim, DOE has continued to purchase lower quality oil without the needed analysis. In January, DOE purchased about 1.6 million barrels of Alaskan North Slope Oil.

By January 31, 1982, nearly 49 million barrels--about 21 percent--of the 235 million barrels of oil that the SPR had received were heavier crudes. Depending on the ultimate size of the reserve and the amount of heavier crude oil it contains, this

percentage could change. Consequently, the likely impact of the heavier crudes on the mix of oil products which might be available is not known at this time.

In our December 1981 report, we recommended that DOE document the rationale for future reductions in the quality specifications for SPR oil and make a determination whether the SPR oil quality specifications should be revised. The results of the SPR size study and the ongoing study of oil quality should be useful in making that determination.

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In summary, Mr. Chairman:

- The SPR is vital to the Nation's efforts to increase the oil available for emergency use and to protect itself against oil supply disruptions.
- Although much progress has been made during the last 17 months to fill the reserve, DOE is now approaching the limits of its available underground storage capacity and will find it increasingly difficult to achieve a fill rate consistent with existing congressional goals.
- Because of the long lead time required to construct underground storage, the size of the SPR and storage alternatives should be addressed at this time in the context of desired program objectives and funding levels. Options which would accelerate SPR oil fill have significant budgetary implications because they spread the oil and facilities' costs over fewer years and necessitate higher funding levels in those years. This, of course, must be traded off against the

national security benefits which could result from early completion of the SPR.

--DOE's practice of purchasing some heavier crudes for the SPR should be monitored closely and, if necessary, modified to ensure that the oil in the SPR will yield the specific petroleum products needed by the Nation during an oil supply disruption.

This concludes my statement, Mr. Chairman. I would be happy to respond to questions.