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December 22, 1980

The Honorable Henry M. Jackson
Chairman, Committee on Energy
and Natural Resources
United States Senate

The Honorable Harley O. Staggers
Chairman, Committee on Interstate
and Foreign Commerce
House of Representatives

Subject: Status of Strategic Petroleum Reserve Activities--December 1980 (EMD-81-37)

This is the third in a series of monthly reports requested by certain members of the Senate Committee on Energy and Natural Resources and the House Committee on Interstate and Foreign Commerce on the administration's activities to implement title VIII of the Energy Security Act. (See encl. II for the July 23, 1980, letter requesting these reviews.) Title VIII requires the President to resume filling the Strategic Petroleum Reserve (SPR) at an average rate of at least 100,000 barrels per day for fiscal year 1981 and succeeding years. Title VIII also requires the President to amend the Department of Energy's (DOE's) entitlement regulations so that the Government, in effect, pays lower tier prices for SPR crude oil. Our most recent report on the status of SPR activities (EMD-81-24, Nov. 3, 1980) stated that, as of October 17, 1980, the administration had only partial success in its SPR oil acquisition efforts.

This third report discusses the administration's activities taken between October 17, 1980, and December 11, 1980, to fill the SPR. Enclosure I presents additional details on

--the results of the October 3, 1980, supplemental solicitation to acquire oil for the SPR,

--the basis of DOE's decision to allow companies to offer Alaskan North Slope oil for the SPR,

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--deliveries made to the SPR,

--the readiness of SPR facilities to accept oil,

--the status of the entitlements program, and

--the administration's activities to exceed the 100,000-barrels-per-day fill requirement.

This report is based on interviews with officials in DOE, the Defense Fuel Supply Center, the Office of Management and Budget, and the National Security Council. We also reviewed publications, studies, and DOE and Defense Fuel Supply Center program documents related to the SPR and visited SPR facilities in Louisiana and East Texas. Our examination of program documents did not include a verification of entitlement funds received by the administration. Also, although this report discusses the results of the administration's October 1980 solicitation for oil, it does not evaluate the reasonableness of prices paid for oil or reasons for rejecting companies' offers to provide oil.

Since October 17, 1980, the administration has completed its efforts to purchase 100,000 barrels per day of oil for the SPR. Three major events have taken place.

--On October 24, 1980, and October 31, 1980, the Defense Fuel Supply Center (DFSC) awarded contracts for 12.7 million barrels of crude oil to be delivered to the SPR during fiscal year 1981 in exchange for an identical amount of oil received from the Naval Petroleum Reserve (NPR) in Elk Hills, California, plus cash premiums. These contracts bring the total oil to be delivered to the SPR during fiscal year 1981, in exchange for Elk Hills Naval Petroleum Reserve oil, to about 36.6 million barrels, or an average of about 100,000 barrels per day. Thus, DFSC has completed awarding contracts which together meet the minimum supply requirement of title VIII.

--By November 16, 1980, DFSC had received $43.3 million from the sale of entitlements for oil delivered during September 1980 to the SPR. DFSC has begun selling entitlements for the 3.8 million barrels of oil delivered to the SPR during October 1980 to refiners. Because of DOE regulations, these refiners are required to buy entitlements to refine domestically controlled oil. At a value of $26 per entitlement, DFSC will receive about $100 million from its current entitlement sales. Proceeds from the sale of entitlements are transferred through DOE to the Department of the Treasury, where they are available to finance acquisition of additional oil for the SPR.

--As of December 1, 1980, the SPR contained about 102 million barrels of oil. From September 23, 1980, when deliveries resulting from the initial DFSC contracts to exchange Elk Hills NPR oil began, until December 1, 1980, DOE has received about 11 million barrels of oil. This includes the first shipment of Alaskan North Slope oil to be stored in the SPR.

Concerning DOE's use of Alaskan North Slope oil for the SPR, we asked DOE for information on tests which were conducted to determine the feasibility of storing Alaskan oil with lighter oil in SPR facilities. Test results do not conclusively demonstrate that a crude oil with Alaskan North Slope oil properties will blend with other crude oils in the SPR. However, DOE officials told us that they believe refiners will accept blended or unblended oil withdrawn from the SPR.

We believe DOE should know in advance the properties of oil to be withdrawn from the SPR in order to inform refiners accurately and promptly of the oil available if a supply interruption occurs. Until conclusive results can be obtained on the blending, there is a question of whether ANS oil should be blended with lighter oil in SPR facilities or stored separately. We will be following up on this issue in future reports.

The administration continues to direct its attention to meeting the minimum supply requirement set forth in title VIII. On December 10, 1980, DOE issued an amendment to a March 1980 order for oil acquisition which obligates about $300 million of fiscal year 1980 funds. However, the amendment to the order for oil acquisition is an administrative procedure to increase funds available to DFSC to pay for oil acquired through the exchange of Naval Petroleum Reserve oil. The administration has taken no action to acquire oil above the initial 100,000 barrels per day of oil purchased through the competitive exchange.

According to the Assistant Secretary for Resource Applications, although the Secretary, DOE, has recommended that DOE purchase oil for the SPR in excess of 100,000 barrels per day, the President has not, to date, given the Department the authority to exceed title VIII's minimum requirement. Although she further stated that she does not have direct knowledge of the reasons for the President's decision not to exceed the minimum requirement, she believes international considerations, including the desire not to introduce any more confusion into the international oil marketplace, were key factors in the President's decision.

DOE's fiscal year 1981 appropriation legislation reinforces congressional intent that the administration exceed the minimum 100,000-barrel-per-day supply requirement set forth in the Energy Security Act. It provides that DOE should seek to fill the SPR at an average rate of about 300,000 barrels per day. This provision, together with title VIII, underscores congressional support for filling the SPR at rates above the current 100,000-barrels-per-day rate.

Although the administration is meeting title VIII's minimum supply requirements, we believe the administration should comply with congressional intent and acquire oil above the minimum 100,000-barrels-per-day requirement. If no additional oil is purchased during fiscal year 1981, the SPR will contain only about 128 million barrels of oil by the end of the fiscal year. This is only about 21 days of supply if a cutoff occurred, equivalent to average 1980 crude oil import rates.

In order to meet the requested time frames, we did not obtain official agency comments. We are sending copies of this letter to the ranking minority members of the Senate Committee on Energy and Natural Resources and the House Committee on Interstate and Foreign Commerce. As requested by your office, we plan no further distribution of this report until 30 days from its date of issuance. At that time we will send copies to interested parties and make copies available to others upon request.

Elmer B. Staats
Comptroller General
of the United States

Enclosures - 2

STATUS OF STRATEGIC PETROLEUM RESERVE ACTIVITIES

BACKGROUND

The Energy Policy and Conservation Act of 1975 (P.L 94-163) authorized creation of a Strategic Petroleum Reserve (SPR) to store up to 1 billion barrels of crude oil. The Department of Energy (DOE) is implementing a three-phase construction plan to achieve a 750-million barrel oil storage capacity. The first construction phase has been completed and has resulted in a storage capacity of 248 million barrels. DOE has started the second construction phase and expects to complete it by 1986.

However, DOE has experienced serious difficulties in acquiring oil to fill SPR facilities. The worldwide shortage of oil which occurred in early 1979 resulted in a suspension of new purchases of SPR oil. The last oil delivered to the SPR during 1979 arrived in August of that year. Oil deliveries to the SPR resumed on September 23, 1980, when the first oil acquired through a competitive exchange of Elk Hills Naval Petroleum Reserve (NPR) oil arrived.

The competitive exchange of Elk Hills Naval Petroleum Reserve oil is the approach DOE is pursuing to meet the minimum supply requirement set forth in title VIII of the Energy Security Act (P.L. 96-294). Title VIII requires the President to fill the SPR at an average rate of at least 100,000 barrels per day. The Conference Committee's report on S. 932, the Energy Security Act's precursor, specifies that this rate is intended to be a minimum and not the appropriate rate of oil injection. Title VIII also requires DOE to use its entitlements program 1/ to lower the purchase price for SPR oil.

1/An entitlement is the right to refine a barrel of price-controlled domestic oil. Refiners buy and sell entitlements, calculated monthly by DOE as the difference between the average price of controlled and uncontrolled oil adjusted by volume of each category of oil sold, to permit them to process their monthly volume of controlled oil. Refiners must buy entitlements to process more than the national average volume of controlled oil. Cash received in exchange for entitlements sold in effect reimburses refiners who are selling entitlements for part of the higher purchase cost of uncontrolled oil.

Our first two letters in this series of monthy status reports discussed the administration's activities in response to title VIII of the act. Our second letter stated that the administration had only partial success in its SPR acquisition effort. Its first solicitation to obtain 100,000 barrels per day of oil for the SPR during fiscal year 1981 resulted in contracts for a total of only 65,000 barrels per day. On October 3, 1980, the administration issued a supplemental solicitation to acquire the remaining 35,000 barrels per day which were needed to meet title VIII's minimum supply requirement. It had taken no action to acquire oil above this minimum 100,000-barrel-per-day requirement.

As of October 17, 1980, the last date for collecting information to include in our second report, DOE had received 3.1 million barrels of oil as a result of the competitive exchange. This brought the total amount of oil in storage to about 94.3 million barrels, or about 40 percent of current storage capacity.

SPR OIL FILL ACTIVITIES

As of October 31, 1980, the Defense Fuel Supply Center (DFSC)--DOE's purchasing agent--awarded contracts to exchange 100,000 barrels per day of Elk Hills NPR oil for oil to be delivered to the SPR during fiscal year 1981. Thus, the administration has completed its efforts to purchase the minimum supply for fiscal year 1981 as required by title VIII.

Competitive exchange activities

As discussed in our earlier reports, DFSC awarded contracts to three major oil companies and a crude oil trading company to exchange about 23.9 million barrels of Elk Hills NPR oil for an equal amount of oil to be delivered to the SPR during fiscal year 1981, plus cash premiums. Since the amount of oil to be delivered to the SPR equaled about 35,000 barrels per day less than the minimum title VIII supply requirement, DFSC issued a supplemental solicitation on October 3, 1980, to exchange this amount of oil. On October 24, 1980, and October 31, 1980, DFSC awarded contracts resulting from the supplemental solicitation to exchange and deliver the remaining 35,000 barrels per day to the SPR.

Table 1 on page 3 presents information on the types of oil acquired, proposed delivery schedules, and prices paid for oil acquired as a result of DFSC's initial and supplemental solicitations.

Table 1

Information on SPR Contracts

Contractor	Date of award	Barrels to be exchanged	Daily fill rate	Type of oil (note a)	NPR oil value (note b)	Transportation costs (note c)	Quality differential allowance (note d)	Total premium paid (note e)	Total price paid (note f)	First proposed delivery date	Last proposed delivery date
		(millions)			(dollars per barrel)						
First Solicitation											
Atlantic Richfield Company	9-18-80	1 6	4,110	Sour	28 62	2 96	1 04	4 00	32 62	9-80	12-80
		2 1	5 890	Sweet	28 62	1 72 - 1 74	4 26	6 00 - 6 80	34 62 - 35 42		
	10 01 80	5 7	15 671	Sweet	28 62	1 50 - 1 74	4 26 - 5 30	6 00 - 6 80	34 62 - 36 42	9-80	12-80
Getty Oil Company	10-01-80	1 8	5 000	Sweet	26 99	1 65	8 14	9 79	36 78	1-81	10-81
Coastal States Trading Company	10-01-80	5 5	15,000	Sweet	28 62	1 50 - 1 74	7 03 - 8 18	8 57 - 9 78	37 19 - 38 40	10-80	3-81
Chevron Oil Company	10-01-80	7 3	20,000	Sweet	27 03 - 28 62	1 70	7 33 - 8 92	9.03 - 10 62	37 66	11-80	3-81
Subtotal		23 9	65,671								
Supplemental Solicitation											
Chevron Oil Company	10-31-80	3 4	9,178	Sour	28 62	5 04 (note g)	43	5 47	29.06	12-80	9-81
USA Petroleum Chemical Corporation	10-31-80	2 0	5,507	Sour	28 62	5 05	25	4 30	33 92	12-80	6-81
Derby and Co , Inc	10-24-80	3 4	9,178	Sweet	26 99 - 28 62	1 50 - 1 74	7 01 - 9 63	8 75 - 11 13	37 37 - 38 12	11-80	3-81
Derby and Co Inc (note h)	10-31-80	4 0	10 831	Sweet	26 99 - 28 62	1 50 - 1 74	7 01 - 9 63	8 75 - 11 13	37.37 - 38.12	11-80	4-81
Subtotal		12 8	34 694								
Total		36 7	100 365								

a/Oil quality is measured among other things by sulfur content and American Petroleum Institute (API) gravity Sour crude is defined by DOE as crude having more than 0 5 percent sulfur Sweet crude has less than 0 5 percent sulfur API gravity is the measure of the mass of the fluid relative to water, which ranges from about 10 degrees for very heavy crude oils to 45 degrees for very light crude oils All oil accepted is light oil, with API gravity ranging between 26 5 and 44

b/The NPR value is the average of the three highest selling prices for similar oil produced in other Kern County, California, oil fields for September 1980

c/DFSC estimates used to evaluate offers received in response to the solicitation

d/GAO calculation of the quality differential allowance obtained by subtracting DFSC's estimated transportation costs from the total premium paid

e/Total cost for transportation and quality differential

f/Total of NPR oil value and total premium paid

g/For this contract only the Government is responsible for delivering the oil to the SPR facility Cost shown is DFSC's estimate of Government cost

h/This award represents additional oil to be exchanged by Derby and Co , Inc However, it is considered part of DFSC's 10-24-80 contract with the company

ENCLOSURE I

As the table shows, DFSC awarded seven contracts for fiscal year 1981 to four oil companies and two trading companies 1/ for a total of 36.6 million barrels, or 100,365 barrels per day of crude oil. Chevron, USA Petroleum Chemical Corporation, and Derby and Co., Inc., were awarded contracts as a result of the supplemental solicitation. Two of these companies--Chevron and USA Petroleum Chemical Corporation--will deliver about 5.4 million barrels of Alaskan North Slope (ANS) crude oil.

One of the three companies receiving contracts as a result of the supplemental solicitation--Derby and Co., Inc.--is currently in litigation with the Government for failing to deliver about 2 million barrels of oil to the SPR under two fiscal year 1979 contracts. Derby believes that its failure to deliver this oil to the SPR is excusable principally because it could not obtain oil at a price the Government was willing to pay.

Although Derby failed to adhere to its fiscal year 1979 contracts, DFSC officials believe that their decision to award a new contract to the company was appropriate. They determined, as required by the Department of Defense procurement regulations, that the company was responsible--that is, financially capable--and able to deliver oil to the SPR. DFSC officials also noted that Derby successfully delivered 11 million barrels of oil to the SPR prior to the contracts in litigation and a further 3 million barrels of oil under such contract.

As of December 1, 1980, Derby had delivered 2 million barrels, or 28 percent, of the 7.3 million barrels of oil it is scheduled to deliver to the SPR in exchange for NPR oil.

The proposed schedule for delivering oil to the SPR extends over a 13-month period between September 1980 and October 1981. With the inclusion of contracts resulting from the supplemental solicitation, about 51 percent of the 36.6 million barrels of oil is expected to be delivered by January 1, 1981.

As stated in the previous report, in order for the Federal budget to reflect the total cost of SPR purchases

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1/The number of companies receiving contracts and the number of contracts awarded are not equal because one company--Chevron Oil Company--received two contracts to exchange oil.

and revenues obtained from NPR sales and from the sale of entitlements, three separate budget accounts will be maintained. DOE has authorized DFSC to pay the full value for oil delivered to the SPR, using funds it has transferred to DFSC. The full value of oil for the seven contracts ranges from $32.62 to $38.40 per barrel. 1/ Prices paid as a result of the supplemental solicitation are within the range of prices paid under the first solicitation.

DOE, which operates the NPR, will receive the contracted prices for NPR oil as NPR deliveries are made. These prices range from $26.99 to $28.62 per barrel. Also, these prices represent the September 1980 average of the three highest selling prices for similar oil produced in Kern County, California, oil fields and are the same for contracts resulting from the August 1980 and October 1980 solicitations.

Revenues from the sale of entitlements are discussed on page 11 of this report.

As noted earlier, the price of oil for the SPR exceeds the price paid for NPR oil. According to DFSC officials, this difference, or premium, which is paid by the Government, represents transportation costs to deliver oil to the SPR and quality differentials in the oil exchanged. Transportation costs range from $1.50 to $5.05 depending on whether American or foreign flag vessels are to be used and depending on point of origin of the shipment. We estimate that the quality differential allowance, computed by taking the difference between the total premium paid and transportation cost, ranges from $.25 to $9.63 per barrel.

About $84 million will be paid in premium for oil contracted for under the supplemental solicitation. In total, about $284 million in premiums will be paid for the oil exchanged under contracts resulting from both the first solicitation and supplemental solicitations.

1/Three of the seven contracts, with Coastal States Trading Company, Getty, and USA Petroleum Chemical Corporation, include price escalation clauses which allow prices for oil exchanged to fluctuate with market conditions. Companies receiving the other four contracts did not request escalator clauses. Prices quoted in this report are those quoted in the contracts for the first month of deliveries. Depending on market conditions, these prices and the net cost to the Government could change.

DFSC awarded three contracts under the supplemental solicitation after evaluating nine offers received in response to the October 1980 solicitation. These offers were for a total of 12.8 million barrels, or about 35,000 barrels per day of crude oil.

According to DFSC officials, six of the nine offers received did not result in contracts because:

--four offers were withdrawn because of the current Iran-Iraq conflict;

--one offer was withdrawn because a company experienced problems securing a supply of oil to exchange; and

--one offer was submitted after the closing date of the supplemental solicitation and, according to the terms of the solicitation, could not be considered.

Use of Alaskan North Slope oil

DFSC's October 3, 1980, supplemental solicitation marked the first time the administration broadened specifications for SPR oil to allow companies to offer Alaskan North Slope and other heavier oil 1/ for delivery to the SPR.

As stated in our March 22, 1979, report, "Information on Department of Energy's Management of the Strategic Petroleum Reserve" (EMD-79-49), DOE has not used ANS oil in the past because

--the API gravity and expected refinery yields did not meet existing SPR specifications; and

--a sufficient number of U.S. tankers did not exist to transport ANS oil to SPR sites. U.S. tankers have to be used to comply with the Merchant Marine Act of 1920, which requires that U.S. vessels be used to transport commodities between U.S. ports.

1/Light and heavy oil are defined using American Petroleum Institute (API) gravity. API gravity is the measure of the mass of the fluid relative to water which ranges from about 10 degrees for very heavy crude oils to 45 degrees for very light crude oils. ANS is about 26 degrees API as opposed to 30 to 45 degrees API gravity for other oils stored in the SPR.

The SPR specifications were developed in 1976, based on extensive computer modeling of refiners' projected supply and demand for a range of crude oil during 1980. The results of this computer modeling and recommended specifications for the SPR were presented to the Federal Energy Administration 1/ in a 32-page, October 1976 report by Turner, Mason, and Solomon, entitled "Composition of Strategic Petroleum Reserve Crude Oil Initial Analysis."

In October 1980 2/ we stated that U.S. tankers were in sufficient supply and were being used to transport 500,000 barrels per day of ANS crude oil to the Gulf Coast.

Concerning the quality and refinery yield issue, we reported that DOE officials informed us that they preferred to continue using higher quality oil for the SPR, if available, since they believed that during an oil supply interruption, higher quality oil would have a more universal application to U.S. refiners and would provide higher quality product yields. Further, DOE officials stated that U.S. refiners have developed a capability to process heavy oil to a greater extent than was anticipated when the quality specifications for the SPR were first developed. For example, Arco has West Coast refineries capable of processing about 285,000 barrels per day of ANS oil. Exxon and Sohio, the two companies which together with Arco produce 95 percent of ANS oil, either have West Coast refineries, or sell their ANS oil to refiners.

We also reported that, while DOE officials initially believed that separate facilities should be designed to store Alaskan oil, DOE investigated the feasibility of blending ANS oil with other crude oil and, according to a DOE official, found that it is feasible to store Alaskan oil with other high sulfur crude oil.

1/The functions of the Federal Energy Administration were assigned to DOE on Oct. 1, 1977, pursuant to the Department of Energy Organization Act (P.L 95-91)

2/"Using Elk Hills and Alaskan North Slope Oil to Supply the Strategic Petroleum Reserve," EMD-81-4, Oct 21, 1980, report to the Chairman, Subcommittee on Limitations of Contracted and Delegated Authority, Senate Committee on the Judiciary.

We asked DOE for further information on the tests conducted to determine the feasibility of storing ANS oil with other lighter oil in the SPR. According to a DOE official, tests were conducted between late August 1980 and the end of October 1980 at DOE's Bartlesville, Oklahoma, Energy Technology Center. The tests were conducted in two 4-week phases. During each phase of testing, DOE researchers measured weekly the blending of oil which occurred in a cylindrical container about 3 feet high and 4 inches in diameter. The first phase of testing mixed about two-thirds of a liter of a California heavy oil, which had a specific gravity similar to that of ANS oil, with about 6 liters of a light oil. The second phase consisted of taking samples of a mixture in a similar container consisting of 1.5 liters of ANS oil and 4.1 liters of a light oil. The light oil is of similar quality to most of the oil in the SPR.

These tests did not conclusively demonstrate that a crude oil with ANS properties will mix with other crude oils in the SPR. Based on their contact with managers of refineries in the Gulf of Mexico area and the National Petroleum Council Committee on Refining Capability, DOE program officials told us that they believe refiners will accept either blended or unblended oil. However, we believe DOE should know, in advance, the properties of the oil to be withdrawn in order to inform refiners accurately and promptly of the oil available if a supply interruption occurs. Therefore, we believe DOE should perform more tests which better simulate underground storage of ANS together with lighter oil. Until conclusive results can be obtained on the blending, there is a question of whether ANS oil should be blended with lighter oil in SPR caverns or stored separately. We will be following up on this issue in future reports.

While we believe that DOE should encourage the availability of a wide range of sources, including ANS oil, DOE still needs to address the impact on U.S. refineries if ANS oil is withdrawn during a supply interruption. DOE performed a study in 1976 supporting the previous qualify specifications, which included an analysis of refiners' processing capabilities. DOE officials told us that they are currently reviewing a proposed contract for a study which will analyze refiners' capability to use ANS and other heavy oil.

<u>Mandatory program</u>

As we reported earlier, DOE developed regulations which would require refiners to provide oil for the SPR if the competitive exchange had not reached its goal of 100,000 barrels per day. DOE's Economic Regulatory Administration (ERA) issued proposed regulations on August 8, 1978, and received comments from industry officials on August 29, 1980, and September 11, 1980. Our earlier report stated that DOE planned to finalize these regulations during November 1980.

However, according to ERA officials, on December 11, 1980, ERA sent its proposed regulations to the Federal Energy Regulatory Commission for review and comment. The Commission is required by the DOE Organization Act to review all proposed regulations. The Commission completed its review and returned the regulations without comments to ERA that day. ERA now plans to finalize the regulations by December 19, 1980.

ERA officials told us the agency would use the mandatory approach, if necessary, to obtain additional oil for the SPR. However, their preferred approach for obtaining oil is through a voluntary sale or exchange.

STATUS OF SPR DELIVERIES AND FACILITIES

As of December 1, 1980, the SPR had an inventory of about 102 million barrels of oil, or about 11 million barrels more than on September 21, 1980, when DOE received its first delivery resulting from the competitive exchange. Thus, DOE has received an average of about 155,000 barrels per day of oil delivered to the SPR as a result of the competitive exchange.

Status of facilities

Each of the three terminals used by DOE to receive oil for the SPR received oil during this reporting period. These facilities are

--the Seaway, Inc., terminal, which is connected via pipeline to DOE's Bryan Mound, Texas, SPR storage facility;

--the Sun Oil Company (Sunoco) terminal, which is connected via pipeline to DOE's West Hackberry and Sulphur Mines SPR storage facilities; and

--the DOE-owned St. James terminal, which is connected to the Weeks Island and Bayou Choctaw facilities.

From October 15, 1980, to December 1, 1980, DOE received a total of about 7.7 million barrels of low-sulfur oil through the Seaway and Sunoco terminals. This oil has been transferred to storage caverns at Bryan Mound, Texas, and West Hackberry, Louisiana. DOE has received about 330,000 barrels of high-sulfur ANS oil through the St. James terminal, which was transferred to the Weeks Island facility.

DOE has not used two of its storage facilities--Bayou Choctaw and Sulphur Mines--to store oil delivered during this reporting period. Although the Bayou Choctaw facility is ready to receive oil, DOE did not use the facility because only ANS oil destined for Weeks Island was received through the terminal.

DOE has not started to use its Sulphur Mines facility to store oil because, as discussed in our November 3, 1980, report, DOE plans to complete deliveries of low-sulfur oil to West Hackberry before starting deliveries of high-sulfur oil to Sulphur Mines. After completing deliveries to West Hackberry DOE plans to clear the pipeline, which connects both storage sites to the Sunoco terminal, of low-sulfur oil.

Also, since our November 1980 report, DOE's Sandia Laboratories, which is responsible for developing test plans and evaluating test results for oil storage, announced plans to retest all caverns at Sulphur Mines. DOE officials were not able to estimate when testing and evaluation of test results would be completed.

However, whether Sulphur Mines is available to store oil is not critical to DOE's oil delivery schedule. Bayou Choctaw and Weeks Island are also designated to receive high-sulfur oil; this oil could be stored there if Sulphur Mines is not available.

<u>Status of deliveries</u>

Oil deliveries to the SPR were suspended twice between October 17, 1980, and December 1, 1980, because of adverse weather conditions in the Gulf of Mexico. Oil deliveries were suspended for about 7 days during the middle of November 1980 when commercial terminals serving the Gulf area, including the Seaway, Inc., and Sunoco terminals used by DOE for the SPR, were closed because of hurricane and gale force winds in the Gulf. DOE was within one vessel of making up for delays caused by these weather conditions when, on November 26, 1980, deliveries were again temporarily suspended because of weather conditions. Deliveries have resumed as of December 1, 1980.

To compensate for initial delays caused by weather, DOE received about 1.7 million barrels of oil through the Seaway, Inc., and Sunoco terminals between November 21, and November 23, 1980. This is about 565,000 barrels per day, almost 70 percent above the 325,000-barrels-per-day limit on oil deliveries to these terminals set by current DOE contracts with terminal operators. According to DFSC officials, this high delivery rate was an exceptional situation and was possible because of

--temporary agreements with terminal operators to unload ships simultaneously at more than one dock.

--the ability to increase the injection rate from an average of about 143,000 barrels per day at Bryan Mound and West Hackberry.

--the storage volume available in the terminals' storage tanks allowed DOE to temporarily store oil until it could be shipped to SPR facilities.

PROCEEDS FROM THE SALE OF ENTITLEMENTS

As discussed on page 5 of this report, DOE receives entitlements to lower the purchase price of oil delivered to the SPR. Based on September 1980 and October 1980 deliveries to the SPR, DOE earned about 5.4 million entitlements, valued at a total of about $143 million. Proceeds from the sale of these entitlements reduce DOE's purchase price for oil delivered during these 2 months to about $8.50, or about $1.25 above the average lower tier price for these 2 months.

As required by the Energy Security Act, DOE has amended regulations and adopted procedures to sell entitlements earned for SPR oil. Our September 23, 1980, report stated that, on August 29, 1980, DOE issued its amended entitlement regulations, which allowed DOE to earn and sell entitlements. DFSC, on behalf of DOE, sells the Government's entitlements to refiners required to buy them to process more than the national average volume of controlled oil. DFSC transfers proceeds from these sales to DOE, which transfers the funds to a Treasury account for future SPR purchases.

DFSC has completed one monthly cycle for selling entitlements, and is in the midst of a second. The entitlements earned by the Government for deliveries to the SPR during September 1980 and October 1980 were issued on October 5, 1980, and November 25, 1980, respectively. The number of entitlements earned, based on monthly deliveries to the SPR, were 1.6 million and 3.8 million. Based on the volumes sold and selling prices of world oil and price-controlled domestic oil, which is gradually being decontrolled, the value of an entitlement earned during these months was about $26. Thus, the value of entitlements earned by the SPR for September 1980 and October 1980 is about $43 million and $100 million, respectively.

As of December 1, 1980, DFSC had received the full $43 million in entitlements earned on the basis of September 1980 deliveries and was beginning to sell October 1980 entitlements. Proceeds from the sale of September 1980's entitlements will be transferred to DOE during December 1980.

ADMINISTRATION ACTIVITIES TO EXCEED MINIMUM FILL RATE

As discussed in previous reports, the Congress has appropriated funds to exceed title VIII's minimum 100,000-barrels-per-day SPR supply requirement. However, the administration continues to concentrate its SPR fill activities on meeting the minimum supply requirement. No decision has been made to acquire oil above the minimum amount or to define the method or timing of future acquisitions.

Our November 3, 1980, report discussed the obligated and unobligated funds available to DOE to purchase additional oil for the SPR. Based on an Office of Management and Budget (OMB) estimate, the fiscal year 1981 competitive exchange of 36.6 million barrels of NPR oil will use about $1.4 billion of the $1.8 billion obligated for SPR purchases. We also reported that, in addition to these funds, about $300 million of unobligated funds were available to purchase additional oil. If not obligated for SPR oil purchases by December 31, 1980, these unobligated funds will revert to the Treasury.

On December 10, 1980, DOE obligated these funds by issuing an amendment to a March 1980 order for oil acquisition. According to an interagency agreement between DOE and DFSC, oil acquisition orders are used to provide DFSC with the authority and funds to procure oil for the SPR. Since the beginning of the SPR program, five oil acquisition orders have been issued. Each order adjusts the cumulative total of oil DFSC is authorized to buy under the previous order and the funds available for such purchases. The most recent order prior to the competitive exchange, dated May 1979, authorizes DFSC to buy 117 million barrels of oil for the SPR and provides about $1.8 billion to DFSC for these purchases. A March 1980 amendment to this order authorized DFSC to use these funds to acquire oil through the competitive exchange.

DOE's December 10, 1980, amendment to the current order transfers about $300 million in additional funds to DFSC. The amendment, however, does not give DFSC authority to purchase more oil for the SPR.

On November 6, 1980, the Chairman of the Senate Committee on Energy and Natural Resources asked us to respond to several questions concerning DOE's use of oil acquisition orders to obligate SPR funds. The Chairman's questions generally focused on DOE's use of these orders to prevent unobligated funds from reverting to the Treasury, and on whether reporting requirements of the Congressional Budget and Impoundment Control Act apply to the SPR program. Our responses to these questions will be reported in a separate letter.

The $400 million of obligated fiscal year 1980 funds which OMB estimates will not be used for the fiscal year 1981 competitive exchange, plus the $300 million in recently obligated funds and $143 million DOE has earned through the sale of entitlements, bring the total funds DOE has available for future SPR purchase to $843 million. Assuming a $35-per-barrel price for crude oil, DOE could use these funds to buy about 24 million barrels of crude oil.

DOE and DFSC have drafted a solicitation to buy oil on the short-term spot market. According to DFSC officials, a short-term, spot market solicitation is used to contract for oil purchases totaling 10 million barrels or less. DFSC would use a long-term, direct purchase solicitation to purchase more than 10 million barrels of oil.

According to DOE officials, once a decision is made by the administration to purchase additional oil on the spot market, DOE and DFSC would need about 1 week to finalize and issue the draft solicitation. Allowing about 2 weeks to receive offers and about 1 week to evaluate these offers, DOE believes contracts can be awarded within about 1 month of a decision to buy more oil.

However, according to DFSC and DOE officials, it will take longer to award contracts to purchase oil using long-term, direct purchase solicitation. In the past, it has taken DFSC 87 days to prepare long-term, direct purchase solicitations, evaluate offers, and award contracts for deliveries.

According to the Assistant Secretary for Resource Applications, although the Secretary, DOE, has recommended that the Department purchase oil for the SPR in excess of 100,000 barrels per day, the President has not, to date, given the Department the authority to exceed title VIII's minimum requirement. Although she further stated that she does not have direct knowledge of the reasons for the President's decision not to exceed the minimum requirement, she believes international considerations, including the desire not to introduce any more confusion into the international oil marketplace, were key factors in the President's decision.

DOE's fiscal year 1981 appropriation legislation reinforces congressional intent that the administration exceed the minimum 100,000-barrels-per-day supply requirement set forth in the Energy Security Act. It provides that DOE should seek to fill the SPR at an average rate of about 300,000 barrels per day. This provision, together with title VIII, underscores congressional support for filling the SPR at a rate above 100,000 barrels per day.

If no additional oil is purchased during fiscal year 1981, the SPR will contain only about 128 million barrels of crude oil by September 30, 1981. This is only about 21 days of supply if a cutoff of crude oil occurred equivalent to average 1980 crude oil import rates.

Given the high priority of the SPR, we believe the administration should comply with the congressional intent and aggressively pursue acquiring additional oil for the SPR.

United States Senate

COMMITTEE ON
ENERGY AND NATURAL RESOURCES
WASHINGTON, D.C. 20510

July 23, 1980

Honorable Elmer B. Staats
Comptroller General of the United States
GENERAL ACCOUNTING OFFICE
441 G Street, N.W.
Washington, D. C. 20548

Dear Mr. Staats:

On June 30, 1980 the President signed the Energy Security Act (Public Law 96-294) Title VIII of this Act is intended to provide for a resumption of purchases by the United States government of crude oil for the Strategic Petroleum Reserve authorized in 1975 by the Energy Policy and Conservation Act. Purchases of oil for this purpose have been suspended for well over a year, despite the fact that the present level of the SPR is clearly inadequate insurance against any contemplated interruption in petroleum imports

The Congress attaches a high priority to the timely implementation of the provisions of title VIII. Both the language of the Act and the accompanying joint statement of managers are very emphatic on this matter. Accordingly, we are asking that you assist Congress in monitoring implementation of this title by the Executive Branch.

In particular we request that the General Accounting Office report by letter on a monthly basis to the Senate Committee on Energy and Natural Resources and the House Committee on Interstate and Foreign Commerce describing the activities taken by the Executive Branch under the provisions of title VIII of the Energy Security Act. This report should include GAO's evaluation of these activities in relation to the clear intent of Congress, expressed in the Act, to resume as soon as possible the filling of the SPR. These monthly reports should continue through October, 1981. We are further requesting that GAO provide Congress by January 1, 1982 with a comprehensive report on activities of the Executive Branch under title VIII for the period July, 1980 through October, 1981.

Please let us know if the Senate Committee on Energy and Natural Resources or the House Committee on Interstate and Foreign Commerce can be of assistance in carrying out this request.

Sincerely yours,

Harley O. Staggers
MEMBER OF CONGRESS

J. Bennett Johnston
U. S. SENATOR

John D. Dingell
MEMBER OF CONGRESS

Henry M. Jackson
U. S. SENATOR

James T. Broyhill
MEMBER OF CONGRESS

Wendell H. Ford
U. S. SENATOR

Clarence J. Brown
MEMBER OF CONGRESS

Bill Bradley
U. S. SENATOR

Mark O. Hatfield
U. S. SENATOR

Lowell P. Weicker, Jr.
U. S. SENATOR