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BY THE U.S. GENERAL ACCOUNTING OFFICE

Report To The Chairman, Subcommittee On Commerce, Consumer, And Monetary Affairs Committee On Government Operations House Of Representatives

Comparison Of Strategic Petroleum Reserve Oil Prices And Commercial Oil Prices

During 1981 and 1982, the Federal Government bought about 170 million barrels of oil for the Strategic Petroleum Reserve through long-term contracts and on the crude oil spot market. This report compares the prices that the Government paid for 150 million barrels of this oil with the average prices oil companies paid for the same kind of oil. It also examines whether buying more oil from Western Hemisphere countries could reduce oil acquisition costs.

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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT DIVISION

B-208196

The Honorable Doug Barnard, Jr.
Chairman, Subcommittee on Commerce, Consumer, and Monetary Affairs
Committee on Government Operations
House of Representatives

Dear Mr. Chairman:

In a letter dated December 7, 1982, the former chairman, Subcommittee on Commerce, Consumer, and Monetary Affairs, House Committee on Government Operations, stated that the subcommittee had developed information showing that the Government was paying excessively high prices for crude oil purchased abroad for the Strategic Petroleum Reserve (SPR).[1] The subcommittee also concluded that the Government consistently bought oil from exporting countries whose average prices per barrel were at the high end of world market prices. The former chairman asked us to investigate the reasons for the apparent excessive payments for SPR oil.

In a second letter, dated December 21, 1982, the former chairman forwarded to us a letter addressed to him by the chairman, Subcommittee on Fossil and Synthetic Fuels, House Committee on Energy and Commerce, which suggested that we consider the following five factors in our investigation:

--The quality of SPR oil, which must meet minimum standards for specific gravity and sulfur content.

--The average, versus the lowest, price oil companies paid for oil.

--The impact of Government procurement requirements on oil acquisition.

--The reaction time of the Defense Fuel Supply Center (DFSC), which needs at least 5 days from the time it receives offers until it makes awards in order to follow competitive bid procedures.

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[1]The Department of Energy is responsible for developing and filling the SPR. To acquire oil, the Department mainly has relied on the Defense Fuel Supply Center in the Department of Defense.

--Compliance with the Cargo Preference Act of 1954 (46 U.S.C. 1241(b)), which requires the Government to transport at least 50 percent of the SPR oil on U.S.-flag tankers.

PRICES THE GOVERNMENT PAID FOR OIL COMPARED WITH PRICES OIL COMPANIES PAID

We compared the prices the Government paid for 150 million barrels of SPR oil during 1981 and 1982 with the average prices oil companies paid for oil from the same crude oil streams.[2] Our comparison showed that the Government paid from $0.06 to $0.16 per barrel ($9.4 to $24.6 million) more than average oil company prices.[3] This price differential represents less than 0.5 percent of the price the Government would have paid if it had paid average oil company prices.

The SPR oil was acquired through 5 long-term contracts and 127 crude oil purchases on the spot, or short-term, market. For 56.5 million barrels of oil bought through long-term contracts, the Government paid $0.03 per barrel less than the average long-term contract prices reported by oil companies. For 93.5 million barrels of oil bought on the spot market, the Government paid from $0.12 to $0.28 per barrel more than the average oil company spot market prices. However, much of this added cost occurred in the first 2 months that DFSC bought oil on the spot market. Since April 1981, DFSC prices ranged from $0.03 per barrel less to $0.15 per barrel more than average oil company spot market prices.

In addition, we assessed the Government's SPR oil acquisition strategy in 1981 and 1982. The Government bought one-third of the oil through long-term contracts and two-thirds through the spot market. In contrast, about 90 to 95 percent of total oil imports into the United States have been acquired in recent years through

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[2]A crude oil stream comes from one or more producing oil fields that are comingled and priced as a single entity. For example, Mexico has two crude oil streams, Isthmus and Maya, while Saudi Arabia has eight.

[3]The price range reflects different SPR transportation cost estimates used by DFSC and the Department of Energy. Transportation costs generally were excluded from our comparative analyses. Because many SPR spot market contracts showed only a single price that included both oil and transportation costs, we had to estimate the transportation cost and deduct it from the total contract amount to obtain the oil cost.

long-term contracts. We compared DFSC's spot market prices with the average long-term contract prices that oil companies paid for the same crude oil stream that was loaded on tankers in the same month and year. The comparison showed that the Government reduced the SPR oil acquisition cost by buying oil on the spot market--for 96.6 million barrels of oil bought on the spot market, DFSC paid $0.66 per barrel ($63.9 million) less than average long-term contract prices. (During 1981 and 1982, the crude oil spot market generally had lower prices than the long-term market, mainly because world oil supplies exceeded demand.)

We also assessed whether the Government could reduce its SPR oil acquisition costs by buying oil from Western Hemisphere countries such as Canada, Venezuela, and Mexico. We found that in 1981 and 1982, the United States imported less than 3 million barrels of Canadian and Venezuelan crude oil that met the SPR's minimum quality specifications--none of this oil was for the SPR. DFSC officials stated that DFSC has not received a single offer for Canadian or Venezuelan oil since it began buying oil on the spot market in 1981.

Mexico, however, is the largest source of oil for the SPR. Of the 352 million barrels of oil stored in the SPR as of August 31, 1983, 126 million barrels came from Mexico. The Department of Energy (DOE) has signed two long-term contracts with Petroleos Mejicanos (PEMEX), the Mexican State oil company. Most of the Mexican oil is from the Isthmus crude oil stream, which is comparable in quality to Saudi Arabia's Arab Light. The official selling price for both crude streams is $29 per barrel. The PEMEX contracts have saved the Government money by reducing the distance that tankers traveled to deliver oil to the SPR, particularly in light of the requirements of the Cargo Preference Act which requires the use of more costly U.S.-flag vessels. For example, the cost of transporting oil from the Arabian Gulf on a U.S.-flag tanker has been about $5 per barrel while the cost of transporting Mexican oil to the SPR on a U.S.-flag tanker has been about $0.90 per barrel. Unless the spot market price of Arab Light, or other comparable Arabian Gulf crudes, is considerably less than the price of Isthmus crude, DOE can continue to save money by buying crude oil through Mexico.

OBJECTIVE, SCOPE, AND METHODOLOGY

Our objective was to assess the reasonableness of prices the Government paid for SPR oil as compared with prices oil companies paid for the same crude oil stream. We used SPR program data for SPR long-term contract and spot market purchases, DOE Energy Information Administration data for oil company long-term contract purchases, and oil industry trade journal data for oil company spot market transactions. Government and oil industry officials that we talked with considered these data sources to be the most reliable sources short of obtaining data directly from individual oil companies.

To the extent possible, we incorporated into our comparison the quality of oil and the average price that oil companies paid for oil. We minimized the impact of the Cargo Preference Act by excluding transportation costs from the comparison, unless the only available price data included transportation costs in which case we matched U.S.-flag or foreign-flag transportation for individual transactions. We did not include in our price comparison the impact of Government procurement requirements or DFSC's reaction time because their impact on oil prices is not readily quantifiable. We also did not assess the terms of individual transactions, particularly payment terms, because details on individual oil company transactions were not available. Appendix I presents more details about the scope and methodology of our review.

We made our review in accordance with generally accepted government auditing standards. Our audit work was conducted from February 1983 through April 1983.

AGENCY COMMENTS AND OUR EVALUATION

The draft of this report was sent to DOE and the Department of Defense (DOD) for review, and we made changes in the report, as appropriate, based on their comments. (See apps. II and III for their comments.) DOE agreed with our findings and concurred with our methodology. DOE also presented three factors that it considered germane to the oil price comparison. DOD agreed with our findings; however, it believed that an alternative methodology should have been used.

DOE commented that DFSC's spot market oil purchases were through oil traders functioning as middlemen between an oil producer and the SPR program. DOE stated that this could increase the SPR oil price when compared with commercial oil importers that acquire crude oil directly from oil producers because of additional third party costs and profits. We agree; however, our finding that the Government paid from $0.12 to $0.28 per barrel more for spot market transactions was not based on a comparison with companies that bought oil directly from oil producers. Rather, we compared DFSC spot market transactions with other spot market transactions, which would normally involve middlemen.

DOE commented that it has established minimum SPR crude oil specifications to achieve programmatic needs and that the country of origin has no bearing on decisions for purchasing crude oil. We agree. The chairman, Subcommittee on Fossil and Synthetic Fuels, listed SPR oil quality as one of five factors for us to consider and we incorporated it into our comparison.

Both DOE and DOD commented that, by comparing SPR oil prices with average prices that oil companies paid on the spot market, we have oversimplified the dynamics of the crude oil spot market. While DOE concurred with our methodology, DOD said that the SPR oil prices should have been compared with the range of prices that oil companies paid at the time that DFSC was buying oil. This would be similar to DFSC's methodology when it assesses suppliers' offers to sell oil to the SPR.

We disagree. We believe that, for the purposes of our comparison, it is more appropriate to compare SPR prices to average prices than to either high or low commercial oil prices. In contrast to our methodology, DFSC uses a market range to establish the upper limit that it will pay for a crude oil stream. If the price of the offered crude oil stream is less than or equal to the upper limit, DFSC considers that it has paid a fair and reasonable price. (We have a review in process that is assessing DFSC's procedures for buying SPR crude oil.)

DOD commented that our report did not quantify the impact of differences in contract terms; particularly, the terms of payment. Our comparison did not assess the terms of payment for SPR and oil company transactions because this information was not available for the oil company transactions. However, we found that 11 of the 127 SPR spot market transactions were likely to have specified longer payment periods than the corresponding oil company spot market transactions. DOD estimated that a contract that allowed payment in 30 days instead of 10 days could add about $0.28 to $0.37 per barrel to the contract price.

DOD commented that the DOE estimates of SPR transportation costs were understated because these cost estimates did not include indirect transportation costs such as in-transit losses and demurrage. Many SPR spot market contracts showed only a single price that included both oil and transportation costs. We used the DOE transportation estimates to derive the SPR oil price because (1) the DOE estimates were not part of the contract award process and (2) DOE developed the estimates based on information about the actual ships that were used to deliver oil. If the DOE estimates understated SPR transportation costs for these contracts, our SPR oil costs would be overstated. To compensate for this, we also used DFSC's SPR transportation estimates, which were developed for DFSC's contract award process. Our oil price comparison results now show a range to reflect the different SPR transportation estimates.

DOD also commented that, because of the methodological problems it cited with our comparison, we should use one of two alternative methodologies. The first would be an in-depth study, considering each spot market buy on its own. This analysis would be the same as the analysis DOD proposed in its first comment and is discussed above. The second alternative would compare the average monthly price that DFSC paid for a crude oil stream with Energy Information Administration data for the average monthly price oil companies paid for the same crude oil stream. We disagree that this second methodology would be appropriate because it would compare DFSC's spot market prices to oil company long-term contract prices. (An estimated 90 to 95 percent of U.S. oil imports were acquired through long-term contracts.) During 1981 and 1982, spot market prices generally were below long-term contract prices.

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We plan no further distribution of this report until 30 days after its issue date unless you publicly announce its contents earlier. At that time, we will send copies to the Secretary of Energy, the Secretary of Defense, and other interested parties and make copies available to the public upon request.

Sincerely yours,

J. Dexter Peach
Director

Contents

ABBREVIATIONS

BNOC	British National Oil Company
DFSC	Defense Fuel Supply Center
DOD	Department of Defense
DOE	Department of Energy
EIA	Energy Information Administration
PEMEX	Petroleos Mejicanos
SPR	Strategic Petroleum Reserve

COMPARISON OF STRATEGIC PETROLEUM RESERVE OIL

PRICES AND COMMERCIAL OIL PRICES

In a letter dated December 7, 1982, the former chairman, Subcommittee on Commerce, Consumer, and Monetary Affairs, House Committee on Government Operations, stated that the subcommittee had developed information indicating that the Government was paying excessively high prices for crude oil purchased abroad for the Strategic Petroleum Reserve (SPR). The subcommittee, using U.S. Customs Service data on crude oil imports for its analysis, concluded that:

--The prices paid by the Government for imported oil were consistently and significantly higher than prices paid by most private U.S. oil companies importing crude oil of comparable quality. The subcommittee estimated that over a 22-month period (December 1980 to September 1982), the Government would have saved $1.56 billion if it had purchased oil each month at the lowest prices private U.S. oil companies paid for importing oil from the same countries supplying the SPR.

--The U.S. Government consistently bought oil to fill the SPR from exporting countries whose average prices per barrel were at the high end of world market prices. The subcommittee found that the average prices for oil imported from Canada, Venezuela, and Mexico were substantially less, for example, than the prices the SPR program paid for oil from Qatar and the United Arab Emirates.

The former chairman requested that we investigate the reasons for the apparent excessive payments for SPR oil.

Subsequently, the former chairman forwarded to us a letter addressed to him from the chairman, Subcommittee on Fossil and Synthetic Fuels, House Committee on Energy and Commerce, which suggested that we consider the following five factors in our investigation:

--The quality of SPR oil, which must meet minimum standards for specific gravity and sulfur content.

--The average, versus the lowest, price oil companies paid for oil.

--The impact of Government procurement requirements on oil acquisitions.

--The reaction time of the Defense Fuel Supply Center (DFSC), which needs at least 5 days from the time it receives offers until it makes awards in order to follow competitive bid procedures.

--Compliance with the Cargo Preference Act of 1954 (46 U.S.C. 1241(b)), which requires that the Government transport at least 50 percent of the SPR oil on U.S.-flag tankers.

BACKGROUND

The Energy Policy and Conservation Act of 1975 (Public Law 94-163, Dec. 22, 1975) authorized the creation of the SPR to store up to 1 billion barrels of crude oil. As of August 31, 1983, 352 million barrels of oil were in storage. The Department of Energy (DOE) is responsible for developing and filling the SPR. DOE has given responsibility for purchasing much of the oil to DFSC in the Department of Defense (DOD) because of DFSC's experience in buying refined oil products for the military.

DOE began to acquire oil through DFSC in 1977. However, DOE stopped buying oil from April 1979 to September 1980 as a result of the Iranian revolution and the consequent rise in world oil prices. When DOE resumed buying oil, it initially directed DFSC to use a competitive exchange of Elk Hills Naval Petroleum Reserve oil to acquire oil.[1] DFSC began to buy oil on the spot, or short-term, market in February 1981, and DOE and DFSC subsequently signed five long-term contracts for oil deliveries to the SPR in 1981 and 1982.

About 169 million barrels of crude oil (about 50 percent of the oil currently in the SPR) were delivered in 1981 and 1982 through purchases on the crude oil spot market and through long-term contracts. DFSC bought 113 million barrels of oil on the crude oil spot market. DFSC generally requests offers from oil suppliers on a biweekly cycle through an open, continuous solicitation. If an offer is acceptable, DFSC awards a negotiated, fixed-price contract. DFSC also acquired 5 million barrels of oil in 1982 through three long-term contracts.

In addition to acquiring oil through DFSC, DOE signed two long-term contracts with Petroleos Mejicanos (PEMEX), the Mexican State oil company, in August 1981 and August 1982. The first contract provided for the delivery of up to 110 million barrels of oil over a 5-year period. The second provided for the delivery of

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[1]Title VIII of the Energy Security Act (Public Law 96-294, June 30, 1980) provides that the Government's share of the Elk Hills oil cannot be sold or otherwise disposed of, except to the SPR, unless certain specified conditions are met.

about 40 million barrels of oil during fiscal year 1983. During 1981 and 1982, the SPR received 51 million barrels of oil through the PEMEX contracts.

The principal advantage of long-term contracts is that DOE secures a regular oil supply over a long time period. DOE officials say this reduces their administrative burden and helps them plan for new oil storage capacity. In contrast, the spot market provides DOE with flexibility in oil acquisition if the storage capacity development program does not meet, or if it exceeds, the planned schedule.

The spot market generally leads the long-term market in price trends. In a period of falling oil prices, the spot market will offer lower prices. Conversely, in a rising oil market, spot prices will generally be higher than long-term contract prices.

OBJECTIVE, SCOPE, AND METHODOLOGY

The objective of this review was to assess the Government's performance in buying SPR oil by comparing SPR oil prices with commercial oil prices. We interviewed officials from DOE's SPR program office, Energy Information Administration (EIA), and International Affairs Office; DFSC; the U.S. Customs Service; and the Bureau of the Census. We evaluated the suitability of using U.S. Customs Service data, and we investigated other possible data sources for comparing the prices the Government paid for oil with the prices oil companies paid. (Data sources are discussed in detail in the following section.) We made our review in accordance with generally accepted government auditing standards.

Using data from EIA and oil industry trade journals, we compared the prices the Government paid for oil with average prices oil companies paid for oil. Our comparison included oil acquired on the spot market and through long-term contracts from February 1981 through December 1982. (We excluded oil acquired through the exchange of Naval Petroleum Reserve oil because the price depended on the value of both the Naval Petroleum Reserve oil and the oil delivered to the SPR.)

The results of our comparison are indicative of DFSC's performance; however, because of the nature of the data, they lack precision. To the extent possible, we incorporated into our comparison the quality of oil and average price paid for oil and we minimized the impact of the Cargo Preference Act, as the chairman, Subcommitee on Fossil and Synthetic Fuels, suggested. To account for the quality of SPR oil acquired, our analysis matched the price the Government paid for a generic crude oil stream (for example, Mexico exported 2 crude oil streams, Isthmus and Maya, and Venezuela exported 17 crude oil streams to the United States in 1981 and 1982) with the price oil companies paid for the same crude stream. We compared SPR oil prices with the average long-term contract and spot market prices that oil companies paid. Except for transactions that included transportation in both SPR and oil company prices, particularly in the Alaskan North Slope oil trade,[2] we excluded transportation costs. This is because the Cargo Preference Act requires the Government to transport at least 50 percent of the oil in U.S.-flag tankers while oil companies normally would use lower cost foreign-flag tankers to transport oil between a foreign country and the United States.

For the comparison of spot market prices, we used only transactions reported for the week of an SPR contract award. If several transactions were reported, we used the average of the prices. In many cases, oil industry trade journals reported only one spot market transaction for a generic crude oil stream. If no transaction was reported, we used reported offers or assessed values, if available. Otherwise, we excluded the SPR contract award for the given crude oil stream from our comparison.

We did not include in our price comparison the impact of complying with Government procurement requirements, the impact of DFSC's reaction time, or indirect costs of complying with the Cargo Preference Act because these factors are not readily quantifiable. (A qualitative discussion of their impact is presented later.) We did not independently develop transportation costs for each SPR oil delivery because of the complexity of developing such estimates.[3] Rather, we used SPR transportation estimates that DOE developed as part of its compliance with the Cargo Preference Act and that DFSC developed as part of its contract award process. (The DFSC transportation estimates are based on information provided by DOD's Military Sealift Command.) We did not assess the terms of individual contracts; particularly, the payment terms and, for spot market transactions, the month of delivery for the oil.

DATA SOURCES

DOE's SPR program officials provided us with data on the 1981 and 1982 SPR oil deliveries, including for each cargo the quantity of oil delivered, the price per barrel paid, the contract number and award date, the loading date, and the actual or estimated transportation cost. We verified the SPR program price data with contract files. We also evaluated DOE's estimates for transportation costs.

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[2]The Alaskan oil trade is covered by the Jones Act (46 U.S.C. 883), which requires that all cargoes transported between two U.S. ports be carried in U.S.-flag ships.

[3]For many SPR contracts, transportation costs are included in the price of the contract; consequently, transportation costs must be estimated to determine oil prices.

To assess the Government's performance in acquiring oil in 1981 and 1982, we considered using data from three sources:

--U.S. Customs Service, which routinely gathers data on imported oil. This data base is used by the U.S. Census Bureau to estimate the United States' balance of payments.

--EIA, which gathers considerable data on oil supply, including the prices paid for imported oil.

--Oil industry trade publications. Several U.S. and British daily and weekly newsletters routinely report on oil transactions, including the crude oil spot market.

U.S. Customs Service

We found that the Customs Service data base was inadequate for a comparison of oil prices because the Customs Service had not designed procedures to gather and record the kind of information about the imported crude that is necessary for a comparison. In particular, the Customs Service does not require the importer to identify the generic name of the crude oil stream or to state its quality specifications. This is because the Customs Service assesses import duties on the quantity of oil imported, as opposed to its value or quality. While the Customs Service records the value of the cargo, this information is mainly for the U.S. Census Bureau's computation of the U.S. balance of payments.

The only information about the quality of an imported crude oil that the Customs Service records is whether its weight is higher or lower than 25° API gravity.[4] The Customs Service charges one of two duty rates, depending on the oil's weight. In contrast, crude oil streams from a given country can have a wide range of weights. For example, Saudi Arabia has eight crude streams varying from 27.9° API gravity for Arab Heavy to 33.4° for Arab Light to 38.8° for Arab Berri. In 1981 and 1982, Venezuela exported to the United States quantities of oil from 17 crude streams ranging from 10° API gravity for Boscan to 36° for Tucipido.

The Customs Service data base also is unreliable because transportation costs were not consistently excluded in the valuation of imported crude oil during 1981 and 1982. For example, the

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[4]The weight of an oil is an important measure of its quality. A good quality oil has a high API gravity. In contrast to the Customs Service standard, all oil acquired for the SPR in 1981 and 1982, except for Alaskan North Slope and Mexico's Maya oil, were required to have a minimum weight of 30° API gravity.

DOE official responsible for declaring the value of SPR cargoes to the Customs Service told us that he included transportation costs in the valuation because he believed that it was required. (A Customs Service official in Houston, Texas, confirmed that DOE routinely included transportation costs in its valuation. The official also said that until April 22, 1982, when the Customs Service issued new guidelines for invoice requirements, it used the oil importer's declared valuation without any supporting documentation.) For a cargo of Arabian Gulf oil, transportation could add about $1.50 per barrel for a foreign-flag tanker and about $5.00 per barrel for a U.S.-flag tanker to the actual price of the crude oil.

Energy Information Administration

EIA collects a considerable amount of data on crude oil supply, including pricing data for both imported and domestic oil. EIA officials stated that the best data source for the prices oil companies paid for imported oil would come from EIA's Form EP-51 data base. Oil companies are required to submit each month a Form EP-51, which reports the quantities and costs of foreign crude oil purchased for importation into the United States. The information includes the generic crude name, quantity of oil loaded, the purchase price for the oil, transportation and other costs, and the load date. EIA officials said that, while all transactions are to be reported, they believe that the long-term contract data base was more complete and reliable than the spot market data base. According to the EIA officials, this is because 90 to 95 percent of imported oil is bought through long-term contracts. They also stated that small oil traders, which were likely to be proportionately more active on the spot market, were less likely to submit data than the major oil companies.

One limitation of using the EIA Form EP-51 data to assess the Government's performance in acquiring crude oil is that the EIA data base uses the date that the crude oil is loaded into tankers. This has minimal impact when comparing long-term contracts. Spot market purchases, however, are best compared by the award date--i.e., the day that DFSC bought the oil--because spot prices can vary greatly from week to week. The load date varies in time from the award date, depending on the terms of the contract. For example, the variance from a DFSC award date until the oil was loaded has ranged from less than 1 month to several months.

Trade journals

Oil industry trade journals provide contemporary information about activity in the crude oil spot market by reporting transactions and offers and by assessing the prices of crude oil streams. Generally, the report of a transaction follows by 2 days to a week the actual date of the transaction. The trade journal will identify the crude oil stream and the price, and it may identify the amount of oil transacted, the month of delivery, and the terms of payment.

Several journals report crude oil spot market activities. Platt's Oilgram issues a daily oil and natural gas price report, which includes crude oil spot market information. Petroleum Economics Limited issues a monthly crude oil price report that compiles spot market transactions reported by Platt's and by "London Oil Reports," "Middle East Economic Survey," "Petroleum Argus," "Petroleum Intelligence Weekly," and "Oil Buyers' Guide International." Although the Platt's and the Petroleum Economics Limited's reports provide good information for commonly traded crudes, such as Arab Light or British North Sea, limited spot market information exists for less commonly traded crudes, such as Egypt's Gulf of Suez Blend and Mexico's Isthmus.

PRICES THE GOVERNMENT PAID FOR OIL COMPARED WITH PRICES OIL COMPANIES PAID

We compared the prices the Government paid for 150 million barrels of SPR oil with average prices oil companies paid for oil from the same crude oil streams. The SPR oil was acquired from February 1981 through December 1982 through 5 long-term contracts and 127 crude oil purchases on the spot market. For our analysis, we compared SPR long-term contract price data with data from EIA Form EP-51 and we compared the DFSC spot market purchases with spot prices reported by Platt's and Petroleum Economics Limited.

Overall, the Government paid from $0.06 to $0.16 per barrel ($9.4 to $24.6 million) more than the average oil company prices. (The price range reflects alternative oil price comparisons using DOE's and DFSC's SPR transportation estimates.) The price differential represents less than 0.5 percent of the price the Government would have paid if it had paid average oil company prices.

For 56.5 million barrels of oil bought through long-term contracts, the Government paid $0.03 per barrel ($1.6 million) less than the average long-term contract prices that oil companies paid. For 93.5 million barrels of oil bought on the spot market, the Government paid from $0.12 to $0.28 per barrel ($11.0 to $26.2 million) more than it would have if it had paid average oil company spot market prices.

Long-term contract transactions

The SPR program paid about $0.03 per barrel less than oil companies in acquiring 56.5 million barrels of oil in 1981 and 1982 through long-term contracts. For 51.4 million barrels of oil obtained through the PEMEX contracts, DOE paid about $200,000 less than average oil company long-term contract prices. For 5.1 million barrels obtained through three other long-term contracts, DFSC paid about $1,400,000 less.

Prices in the 1981 PEMEX contract initially were established at the end of each calendar quarter for the next quarter.[5] If prices changed during the quarter, no change was made until the next quarter. This arrangement benefited the SPR program in November and December 1981, when the price of Isthmus crude rose from $34 to $35 per barrel. However, it hurt the SPR program in March 1982, when the price of Isthmus crude dropped from $35 to $32.50 per barrel and the price of Maya crude dropped from $26.50 to $25 per barrel.

DFSC signed one long-term contract in December 1981 and two long-term contracts in September 1982 that resulted in oil deliveries in 1982. The December 1981 contract called for the delivery of 2.14 million barrels of Alaskan North Slope oil. However, the contract was cancelled in April 1982 because of a disagreement over the oil price after world oil prices fell in February 1982, and only 300,000 barrels of oil were delivered. The two September 1982 contracts were for British North Sea oil. They tied contract prices to the posted British National Oil Corporation (BNOC) prices and specified that the base prices would escalate or de-escalate cent-for-cent with any changes in the official BNOC prices. In contrast, the EIA Form EP-51 data base shows that oil company long-term contract prices were higher than the official BNOC prices.

Spot market transactions

For the 113 million barrels of oil DFSC bought on the spot market in 1981 and 1982, we found comparable price data for 93.5 million barrels of oil, or 83 percent of the DFSC total. DFSC spent from $0.12 to $0.28 per barrel more for this oil than it would have if it had paid average prices paid by other spot market oil traders.

DFSC's performance improved after the first 2 months of buying oil on the spot market. Between February 1981 and April 24, 1981, when DFSC temporarily stopped buying oil on the spot market, DFSC paid from $0.34 to $0.47 per barrel more for 37.5 million barrels of oil than private oil traders. Since April 1981, however, DFSC paid from $0.03 per barrel less to $0.15 per barrel more for 56 million barrels of oil.

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[5]Since January 1983, PEMEX has agreed to monthly price reviews. In contrast, the prices in the 1982 PEMEX contract and oil company long-term contracts, which are also fixed at the official selling price, change on the effective date that Mexico adjusts its official selling price.

DOE and DFSC officials stated that when DFSC began to buy oil on the spot market in February 1981 the objective was to buy oil at prices less than the exporting countries' official selling prices. However, DFSC reevaluated its strategy and its market information sources after it was surprised by a spot market price drop in the spring of 1981. With spot market prices below official selling prices, DFSC bought 24 million barrels of oil on the spot market on March 31, 1981. Much of this oil was scheduled for delivery in June and July 1981. In April 1981, Saudi Arabia announced that it would continue to overproduce crude oil, and oil prices on the spot market fell more than $3 per barrel.

After oil prices fell, DFSC officials went to the contractors who were to deliver oil in June and July to negotiate price reductions. The size of the cutbacks varied from $0.02 per barrel for a 4.2-million-barrel contract to $2.94 per barrel for a 1.4-million-barrel contract. Overall, DFSC officials estimate that they achieved price reductions of $8.1 million. However, they could have saved more money if they had bought in May for June and July deliveries. As a result of this experience, DFSC officials decided to improve their information sources and reduce the period between contract award and oil delivery to within 1 or 2 months.

DOD in its comments on a draft of this report said that DOE's SPR transportation cost estimates understated the actual SPR transportation costs because the estimates did not include indirect costs, such as in-transit losses and demurrage. Many SPR spot market contracts showed only a single price that included both oil and transportation costs.[6] We have used DOE's transportation estimates to derive SPR oil prices because (1) the DOE estimates were not part of the contract award process and (2) DOE developed the estimates based on information about the actual ships that were used to deliver the oil. If the DOE estimates understated SPR transportation costs for these contracts, our SPR oil costs would be overstated. To compensate for this, we have also used DFSC's SPR transportation estimates, which were developed for DFSC's contract award process. Our results now show a range to reflect the different SPR transportation estimates.

DOD also noted that we did not factor contract terms, such as the terms of payment and the delivery date, into the comparison of spot market prices. We did not include contract terms because details on individual oil company contracts were not available. The DFSC contracts normally provided for payment within 30 days after DOE took possession of the oil. (A few DFSC contracts

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[6]We did not use transportation cost estimates for SPR contracts when DOE took possession of the oil at the port of origin or for SPR contracts that we compared with commercial transactions that included transportation (this includes all of the Alaskan North Slope oil).

provided for payment within 60 days.) The 30-day payment clause is also common for oil industry contracts when title transfer occurs at the port of origin. However, many oil industry contracts specify payment within 10 days when title transfer occurs at the port of destination. Our review of the SPR oil contracts showed that 11 of the 127 SPR spot market transactions in 1981 and 1982 were likely to have specified longer payment periods than the corresponding oil company spot market transactions. DOD estimated that a 30-day payment provision, instead of payment within 10 days, could add about $0.28 to $0.37 per barrel to the contract price.

SPR spot market costs compared with oil company contract prices

In 1981 and 1982, the Government bought two-thirds of SPR oil through spot market purchases and the rest through long-term contracts. In contrast, oil companies acquired about 90 to 95 percent of their oil imports through long-term contracts. To assess the SPR oil acquisition strategy, we compared spot market prices DFSC paid with average long-term contract prices oil companies paid for the same crude oil stream. The comparison showed that the Government reduced the SPR oil costs by buying on the spot market during the 1981-82 period. For 96.6 million barrels of oil bought on the spot market (86 percent of spot market purchases), DFSC paid $0.66 per barrel ($63.9 million) less than the average long-term contract prices.

As was discussed previously, buying oil on the spot market has advantages and disadvantages. In a period of falling prices, which was the case in 1981 and 1982, spot market prices will generally out perform long-term contract prices. For this period, it was to the Government's advantage to buy oil on the spot market. At a future time, however, prices may start to rise, and it would be advantageous to buy through long-term contracts, both to secure an oil supply and to minimize the cost of oil acquisition.

FACTORS LIMITING THE SPR PROGRAM'S PERFORMANCE

The chairman, Subcommittee on Fossil and Synthetic Fuels, identified two additional factors that affect the SPR program's oil acquisition performance

--The impact of Government procurement requirements, especially on the willingness of traders to offer oil for the SPR.

--The reaction time of DFSC, which needs at least 5 days to assess offers and award contracts in accordance with Government regulations for competition.

The impact of these factors on oil prices is not readily quantifiable. However, some observations can be made about the procedures that DFSC follows and the constraints it faces in obtaining the best oil prices.

Government procurement regulations, which include requirements to stimulate competition, may in some instances restrict competition or reduce DFSC's flexibility. A crude oil supplier may chose not to offer oil to DFSC because doing business with the Government is different from dealing with private traders on the crude oil spot market. For example, spot transactions between traders normally are made through a series of telephone calls that can close a deal very quickly. In contrast, DFSC has bought oil on the spot market on a biweekly basis, taking about a week to assess offers and to negotiate before making awards. In addition, (1) DFSC requires new traders to provide proof that they have possession of the oil they offer to the SPR, (2) contracts contain a clause permitting cancellation at the convenience of the Government, and (3) contract awards are made public. Despite these constraints, 36 suppliers offered to sell oil to the SPR during 1982.

DFSC limits its review of contract offers to 1 week. However, the spot market is volatile. DFSC officials point out that the closing and award dates are artificial cutoff points that do not track actual events. While the biweekly closing schedule provides predictability for oil suppliers, it can reduce DFSC's flexibility. For example, DFSC officials cite two instances when suppliers withdrew their best and final offers that DFSC planned to accept because oil prices rose while DFSC was making its final review.

Another factor that restricts DFSC's flexibility and adds to the SPR program's cost is compliance with the Cargo Preference Act. We sought to minimize the impact of the Cargo Preference Act from our comparison by excluding transportation costs. However, the act can indirectly add to the cost of SPR oil acquisition.

DOE has directed DFSC to give priority to spot market offers that allow it to use U.S.-flag tankers. For most of these contracts, DOE takes possession of the oil at the loading terminal (an origin cargo) so that it can charter U.S.-flag tankers to transport the oil to the SPR terminals. Origin cargoes can add to the SPR's cost in two ways that would not occur if the Government took possession of the cargo when it arrived at the SPR terminal (a destination cargo). First, because the SPR program takes possession of a cargo at the loading port, it assumes the risk of oil loss onboard ship and for paying demurrage costs for certain delays, such as bad weather. Second, when the title to oil is transferred, measurements of its quality and quantity are taken. DOE can better ensure the accuracy of these measurements at an SPR terminal than in a foreign country's loading port.

The SPR program also can incur losses of oil because of the use of different temperature conversion tables.[7] For many years the oil industry used table 6, which was designed to convert volume measurements for both crude oil and petroleum products. In August 1980, the oil industry began to use table 6A, which was developed for crude oil only. (The SPR receiving terminals use table 6A.) However, some exporting countries, including Saudi Arabia and Dubai, continue to use table 6. Table 6 counts slightly higher oil amounts and is therefore advantageous to the exporting country.

The Cargo Preference Act restricts DFSC's flexibility in buying oil because delivering crudes in U.S.-flag tankers from Europe, Africa, or the Middle East takes longer. While foreign-flag tankers are positioned around the world, U.S.-flag tankers cluster around the West Coast-Alaskan North Slope oil trade route and the U.S. Gulf Coast. To pick up a cargo of British North Sea oil or Arabian Gulf oil, a ship normally is sent from the U.S. Gulf Coast. This adds about 15 days to the regular lead time before the North Sea oil is loaded and about 35 days before the Arabian Gulf oil is loaded.

Stretching out the transportation schedule adds rigidity to DFSC's oil acquisition schedule.[8] It restricts DFSC's actions because in a rising market sellers are reluctant to sell, while in a declining market DFSC will lose money since it would buy the oil 2 or 3 weeks later at a lower price if the oil were transported by foreign-flag tankers. (The potential added cost of buying oil for delivery too far into the future was cited previously--in March 1981 DFSC bought several million barrels of oil for delivery in June and July, however, oil prices dropped in the interim.)

DFSC has had limited success in taking advantage of special offers known as distressed cargoes--oil either in storage or on-board a ship that must be disposed of quickly, usually at an advantageous price for the buyer. It is unlikely that the SPR will receive a distressed cargo. DFSC officials are aware of awarding contracts for and receiving only two distressed cargoes in 1981 and 1982. While DFSC can accept offers without negotiation, DFSC officials are aware of only one case in which this was done. DFSC also can justify awarding a sole source contract; however, this normally is done only because of logistics problems or to fill out the cargo for a particular shipment. In addition, a distressed cargo is likely to have been transported on a foreign-flag ship, which would affect the SPR program's compliance with

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[7]The tables are used to convert volume measurements at the observed temperature to volume measurements at 60° Fahrenheit.

[8]DOE establishes this schedule to coincide with the SPR terminal receipt capacity.

the Cargo Preference Act. Until recently, to make up a 1981 compliance shortfall, DFSC would only award contracts that allow for transportation on U.S.-flag tankers, unless DOE authorized the use of foreign-flag tankers.

SOURCES OF SPR OIL

The analysis of the Subcommittee on Commerce, Consumer, and Monetary Affairs concluded that the U.S. Government consistently bought oil for the SPR from exporting countries whose average prices per barrel were at the high end of the world market prices. As mentioned previously, we found that the U.S. Customs Service data for SPR oil imports included transportation costs. Specifically, the two cargoes the subcommittee mentioned included U.S.-flag tanker costs. The Qatar cargo, cited as costing $40.29 per barrel included $5.40 per barrel for transportation, so the cost of the oil was actually $34.89 per barrel. DFSC awarded the contract for Qatar oil on January 6, 1982. In contrast, the January 11, 1982, issue of "Platt's Oilgram Price Report" assessed the spot market price for Qatar oil to be $34.35 per barrel.

The United Arab Emirates cargo was cited as costing $37.55 per barrel but actually cost $37.77 per barrel--$32.80 for the oil and $4.97 for transportation on U.S.-flag tankers. The cargo consisted of Dubai crude oil that DFSC acquired through two separate solicitations. On May 18, 1982, DFSC bought 960,000 barrels of Dubai crude oil for $33.10 per barrel. A few days later, Petroleum Economics Limited reported that a cargo of Dubai crude sold on the spot market at $32.90 per barrel. On June 15, 1982, DFSC bought 900,000 barrels of Dubai crude oil for $32.47. Petroleum Economics Limited reported four spot market transactions during the week with prices ranging from $32.10 per barrel to $32.65 per barrel.

The subcommittee also mentioned Canada, Venezuela, and Mexico as potential sources of sour oil for the SPR. DFSC officials stated that they have not acquired Canadian or Venezuelan oil through the spot market solicitations because suppliers have not offered the oil. We found that Canada is an unlikely source of oil for the SPR because (1) during 1981 and 1982, it exported to the United States less than 1 million barrels of crude oil with a weight of at least 30° API gravity, (2) Canadian oil exports to the United States are predominantly through pipelines to northern States, and (3) according to DOE and DFSC officials, the logistics of moving Canadian oil to the U.S. Gulf Coast make it uneconomical and impractical.

During 1981 and 1982, oil companies reported that they imported 17 Venezuelan crude oil streams--only 4 met SPR specifications. The amount of each acceptable stream is given below.

Tucipido	285,715 barrels
Tiajuana Light	708,360 barrels
Ceuta	998,647 barrels
Lago Medio	513,930 barrels

DOE officials said that, while they have had discussions with Venezuelan officials about a long-term contract for Venezuelan oil, they could not agree on minimum oil quality specifications or price.

Mexico is by far the largest source of oil for the SPR. As was mentioned previously, DOE signed two long-term contracts with PEMEX. Of the 352 million barrels of oil stored in the SPR as of August 31, 1983, 126 million barrels (36 percent) came from Mexico. Given the cost of compliance with the Cargo Preference Act, Mexican purchases reduce the overall cost of oil acquisition for the SPR by reducing the distance that tankers travel. For example, Arab Light and Isthmus crudes are of comparable quality.[9] The official selling price for each is $29 per barrel. However, the cost to charter a U.S.-flag tanker to transport Isthmus crude from Mexico to the SPR has been about $0.90 per barrel, while the cost to charter U.S.-flag tanker to transport Arab Light crude from Saudi Arabia to the SPR has been about $5 per barrel. Unless the price of Arab Light, or other comparable Arabian Gulf crudes, on the spot market is considerably less than the price of Isthmus crude, DOE can save money by continuing to buy oil through PEMEX.

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[9]Arab Light crude has an average weight of 33.4° API gravity and sulfur content of 1.8 percent. Isthmus crude has an average weight of 33° API gravity and sulfur content of 1.6 percent.

APPENDIX II

Department of Energy
Washington, D.C. 20585

JUN 14 1983

Mr. J. Dexter Peach
Director, Resources, Community and
Economic Development Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Peach:

The Department of Energy (DOE) appreciates the opportunity to review and comment on the General Accounting Office (GAO) draft report entitled "Government Prices for Strategic Petroleum Reserve Oil Are Generally Comparable to Commercial Oil Prices." It is DOE's understanding that the Defense Fuel Supply Center (DFSC), the DOE's agent for acquiring a significant portion of the Strategic Petroleum Reserve (SPR) crude oil, will independently provide its comments to GAO.

In general, DOE concurs with the methodology employed and the resultant findings stated in the GAO draft report, which tend to reject the assertions of the former Chairman of the Subcommittee on Commerce, Consumer, and Monetary Affairs that the prices paid for SPR crude oil have been too high. There are additional factors, not addressed in the draft report, which are germane to a comparison of crude oil prices paid by the Government and by industry; these aspects, not of a nature to change the conclusions of the draft report but essential for completeness, are as follows:

- Crude oils offered to DFSC in response to its solicitations are frequently from commercial concerns (e.g., oil companies or traders) which acquire their supplies from crude oil producers. This implies an additional third party cost and profit element included in the DFSC price which is absent from prices paid by commercial crude oil importers able to acquire crude oil directly from the producers. For the period September 1980 through April 1983, the crude oil available to DFSC in its spot purchases has to a large degree been from oil traders functioning as middlemen between the producer and the Government, thus potentially increasing the price of the crude oil purchased for the SPR.

- GAO's draft report rebuts the charge that the Government unnecessarily purchases crude oil from countries with the higher quality, more expensive crude oils rather than from countries with less expensive, lower quality crude oils, such as Canada and Venezuela. In addition, it should be pointed out that there is a programmatic need to acquire crude oil of a specific quality. Crude oil purchased for the SPR must conform to established specifications which have been developed and are continuously modified to assure that in the event of a drawdown, SPR crude oil can replace lost imports in a manner which best utilizes existing domestic refining capacity so as to maximize refinery yields. The country of origin has no bearing on decisions for purchasing crude oil; instead, it is the programmatic requirement for high quality crude oil which is the basis for such purchases.

- The GAO draft report developed its price comparisons by comparing SPR crude oil prices with the average price paid by oil companies. The DFSC in its market analysis, however, defines market prices in terms of a range of prices, and considers prices to be reasonable if they fall within that range. The existence of a range of prices is characteristic of the petroleum market and the fact that a DFSC awarded price may fall at the high end of a market range does not mean that there was overpayment incurred. GAO's analysis, however, would imply that DFSC paid a premium in such an instance.

Comments of an editorial nature are being provided directly to members of the GAO audit staff. DOE appreciates the opportunity to comment on this draft report and trusts that GAO will consider the comments in preparing the final report.

Sincerely,

Martha O. Hesse
Assistant Secretary
Management and Administration

ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

MANPOWER,
RESERVE AFFAIRS
AND LOGISTICS

29 JUN 1983

Mr. J. Dexter Peach
Director
Resources, Community, and
Economic Development Division
United States General
Accounting Office
Washington, D.C. 20548

Dear Mr. Peach:

This is the Department of Defense response to the draft report GAO/RCED-83-156, "Government Prices for Strategic Petroleum Reserve Oil Are Generally Comparable to Commercial Oil Prices," OSD Case Number 6255, dated 10 May 1983. Detailed comments are enclosed.

We concur in your findings concerning long-term transactions, and factors limiting DFSC's procurement performance in SPR oil acquisition. We disagree with certain aspects of your findings in regard to spot market transactions. First, we are concerned by your attempt to identify a single spot price for a given week. Having identified such a hypothetical single price, you judge DFSC's performance based on whether a single contract price paid by DFSC exceeds that single spot price. This is contrary to the concept of a market range as used in DFSC contracting and previously accepted by GAO. Second, the draft report does not attempt to quantify the impact of differences in contract terms. While the fact that these terms will affect prices is acknowledged, they are ignored in the report's quantitative evaluation of whether DFSC paid more than commercial buyers. Third, the report's estimate of the origin cost in F.O.B. destination prices failed to consider all transportation costs. While the report acknowledges DFSC's analysis on transportation cost, it continues to use the erroneous figures. Finally, there are two other minor methodological problems addressed in our substantive comments.

We agree with the finding that Customs Service data is not an appropriate means for judging prices paid by DFSC for SPR crude, and that DFSC's prices are comparable to commercial spot prices. In view of the serious methodological problems highlighted above, however, we believe that the report's estimate that DFSC spent $26.9 million more in the spot market than commercial buyers would have paid is not meaningful. The most valid means to compare DFSC's spot market prices to commercial prices would be an in-depth study, considering each buy on its own. Such an investigation is now being conducted by your office. As a second choice, a rough yardstick of DFSC's performance would be the average price paid by DFSC for a given generic crude in a given month, compared to the average price paid by oil companies for the same crude in the same period, as reflected in the EIA 51 report.

Sincerely,

Lawrence J. Korb
Assistant Secretary of Defense
((Manpower, Reserve Affairs, and Logistics)

1 Encl

GAO DRAFT REPORT, RCED-83-156, DATED 10 MAY 1983
(GAO CODE NO. 001717, OSD CASE NO. 6255)

"GOVERNMENT PRICES FOR STRATEGIC PETROLEUM RESERVE OIL ARE COMPARABLE TO COMMERCIAL OIL PRICES"

DOD POSITION
* * * * *

° FINDING A: Differences in Dealing with Long-Term Contract Transactions

GAO found that the Strategic Petroleum Reserve (SPR) program (administered by the Department of Energy (DOE) with Defense Fuel Supply Center (DFSC) as purchasing agent) paid about $.03 per barrel ($1.6 million) less than oil companies in acquiring 56.5 million barrels of oil in 1981 and 1982 through long-term contracts. For 51.4 million barrels of oil obtained through the PEMEX contracts, (DOE) paid $200,000 less compared to the average long-term contract prices. Conversely, for 5.1 million barrels obtained through three other long-term contracts, DFSC paid about $1.4 million less. Under the PEMEX contract prices are established at the end of each quarter year. If prices change during the quarter no change is made until the next quarter. (This is contrary to oil company long-term contracts which change on the effective date when Mexico adjusts its official selling price.) This arrangement benefited (DOE) when the price rose from $34 to $35 per barrel but hurt when the price dropped from $35 to $32.50 for Isthmus crude and $26.50 to $25 for Maya crude. Two contracts with the British National Oil Corporation (BNOC) in September 1982 specified that the base prices would escalate or de-escalate cent-for-cent with any changes in BNOC prices. These contracts resulted in the majority of the $1.4 million savings since the other long term contract for Alaskan North slope oil was cancelled after 3 months. (p.8, App.I.)

DoD Position:

DoD concurs

° FINDING B: Differences in Spot Market Transactions.

GAO found that DFSC spent $.29 per barrel ($26.9 million) more for 113 million barrels of crude oil bought on the spot market in 1981 and 1982 than it would have if it had paid typical prices paid by other spot market oil traders. However, recalculation of SPR oil prices (because DFSC believed $.29 included DOE estimated transportation costs that understated actual transportation), showed that DFSC paid $.12 1/2 per barrel ($11.7 million) more for oil than it would have by paying typical prices paid by other spot market oil traders. Also, DFSC officials noted that contract terms were not factored. GAO agreed, but found that the SPR contract terms in some cases were likely to specify longer payment periods and most likely would have resulted in a higher oil price. Details were not available to determine the impact of contract terms. After the first two months of spot market experience DFSC's performance improved when the spot market prices fell and contractors were requested to negotiate price reductions. Reductions varied from $.02 to $2.94 per barrel but GAO found that DFSC could have saved $8.1 million more if it had bought in May for June and July (1981) deliveries. (GAO notes that as a result of this experience, DFSC decided to reduce the period between contract award and oil delivery to within one or two months.)

DoD Position:

DoD partially concurs. We agree that Customs Service data is inappropriate for comparing Defense Fuel Supply Center (DFSC) prices to commercial prices. We also agree that prices paid by DFSC are generally comparable to commercial prices. There are several aspects of the GAO methodology with which we disagree, however, as well as several specific technical points which require clarification.

The basic methodological flaw in GAO's approach lies in the commercial spot price to which the DFSC price was compared. First, GAO selected a single commercial price with which to compare the DFSC price. Appendix I to the draft report states at page 3 that GAO "compared SPR oil prices with the average price paid by oil companies." In discussions at DFSC, however, GAO personnel indicated that the spot price was a price selected from a range of spot prices as reported in trade publications. We understand there was not a true weighted averaging of prices, but rather selection of a price located somewhere near the midpoint of the range of reported spot prices. We do not agree that the spot market can be reduced to a single number. DFSC defines market prices in terms of a range of prices reflecting substantial commercial sales. Prices are considered reasonable if they fall within that range. This concept has been recognized by GAO in previous reports on the SPR and petroleum product acquisitions (B-208141, July 1982, and B-197870, April 1980). This concept is particularly significant in the spot market, where prices fluctuate rapidly. Prices at different times, even within the same week, can vary dramatically. GAO generally used spot prices within the same week for comparison, although prices from a longer time period were sometimes used. By defining a single spot price, somewhere in the middle of the range, GAO has in effect said DFSC is paying a premium even when it is in fact paying a fair and reasonable price well within the market range. In addition, the particular spot price selected by GAO for comparison may not reflect the commercial market at the time the DFSC contract being compared was awarded. The rapid fluctuations in the spot market preclude use of single number for purposes of comparison.

Second, GAO's report causes concern in not quantifying differences in contract terms. Specifically, a change in payment terms is a method used widely in the petroleum industry to change the effective price of a crude oil, without changing the price per se. Commercial interest rates during the period when most of DFSC's spot purchases were made ranged between 15 and 20 percent. At 15 percent interest, a difference of 20 days in payment terms equals $.28 per barrel for $34 per barrel oil. At 20 percent interest the same difference in terms represents $.37 per barrel. It is misleading for GAO to fail to quantify the impact of these differences in terms, yet arrive at a hypothetical premium of $26.9 million allegedly paid by DFSC.

Third, while acknowledging the DFSC contention that the GAO procedure for backing transportation costs out of f.o.b. destination prices overstates the origin price, GAO's presentation is based primarily on the erroneous procedure. The error lies in GAO's use of DOE's estimate of freight costs. We understand, however, that the DOE estimates do not include such valid transportation costs as intransit loss factors and demurrage associated with lightering operations. When these charges were properly deducted by GAO from the destination prices, the alleged premium paid by DFSC was reduced by more than half, and since April 1981 the DFSC price has been less than GAO's hypothetical commercial spot price. Inasmuch as GAO does not dispute the transportation costs as analyzed by DFSC, it does not appear appropriate to base the GAO analysis on the unadjusted DOE freight charges.

There are two other methodological problems. One is that GAO's analysis does not consider purchases of crude for which commercial sales may not exist. The other is that GAO used bid/offer quotes. Since these do not represent actual transactions, we question their use in judging prices actually paid by DFSC. The impact of these two problems on GAO's analysis cannot be determined from the information available.

We concur generally in the comparison of DFSC spot market prices to average long-term contract prices paid by oil companies, found on page 10 of appendix I to the draft report. We would recommend addressing this in the summary report as well as in enclosure 1. We feel that this comparison is important because it focuses on whether DFSC made the right decision in choosing to fill requirements in the spot market rather than through term contracts. GAO's analysis provides evidence that DFSC's decision was appropriate, and realized substantial savings for the Government during the soft petroleum market.

Finally, there are technical points requiring clarification. Suggested word changes are provided in the attachment.

° FINDING C: Factors Limiting DFSC's Procurement Performance in SPR Program's Oil Acquisition.

GAO found that there are several factors that limit DFSC from procuring SPR oil at a lower rate. These factors include the impact of Government procurement requirements, the reaction time of DFSC, which needs at least five days to assess offers and award contracts in accordance with Government regulations, and compliance with the Cargo Preference Act. These factors, according to GAO, are not quantifiable but definitely presented restrictions on DFSC's ability to obtain lower oil prices. (pp. 10-13)

DoD Position:

DoD Concurs.

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GAO Note: Page numbers in this appendix have been changed to correspond with page numbers in the final report.

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