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BY THE COMPTROLLER GENERAL

Report To The Congress

OF THE UNITED STATES

Purchase Price Of Strategic Petroleum Reserve Oil Fair But Payment Timing Is Costly

The Defense Fuel Supply Center does a good job of negotiating competitive market prices for Strategic Petroleum Reserve crude oil purchases. However, new Treasury policies, which preclude paying bills before they are due and taking prompt payment discounts costing more than they save, have not been adequately implemented. If payment procedures were improved, the Government could save \$17.7 million on the remaining crude oil purchases.

Another \$18.5 million could be saved in crude oil costs alone by new policies requiring

- all agencies to consider the Government's cost of money while evaluating bids and
- the Department of the Treasury to develop and periodically revise an estimate of the cost of money to be used during offer and payment evaluations.



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To the President of the Senate and the
Speaker of the House of Representatives

This is our report discussing the Defense Logistics Agency's crude oil procurement practices and recommending improved cash management procedures to reduce crude oil and other Government procurement costs.

We made this review because substantial funds were being spent to buy crude oil for the Strategic Petroleum Reserve, and past reviews had identified problems in refined oil product procurement for the Department of Defense.

Copies of this report are being sent to the Director, Office of Management and Budget; the Secretaries of Defense and the Treasury; and the Administrator of General Services.

James B. Stairs

Comptroller General
of the United States



D I G E S T

The Defense Fuel Supply Center is responsible for buying oil for the Strategic Petroleum Reserve. The Department of Energy expects the reserve to ultimately contain 1 billion barrels at a cost of \$22.6 billion for the first 750 million barrels. (See p. 1.)

GAO reviewed the cost of 113 million barrels of oil purchased through June 30, 1979, and found that the prices paid were competitive with prices in commercial markets during the period. (See pp. 3 to 5.)

However, the Defense Logistics Agency, which pays the Defense Fuel Supply Center's bills, has not complied with Department of the Treasury regulations which require Federal agencies to refuse prompt payment discounts offering a rate of return below 9 percent per annum and to pay no bills sooner than due. The Agency continues to take uneconomical discounts and to pay invoices before they are due. Following Treasury's policies could save the Government as much as \$17.7 million over the remaining life of the Strategic Petroleum Reserve Program. (See p. 6.)

UNECONOMICAL DISCOUNTS

The Treasury regulation on refusing prompt payment discounts is designed to prevent agencies from paying bills before they are due whenever the discount offered is less than the Government's cost of financing the payment.

As long as Treasury may defer borrowing or prolong the period for earning interest on cash balances maintained in banks, unnecessary interest costs are avoided. While this may increase costs to the procuring agency, Treasury interest savings would more than offset this increase,

resulting in a net savings to the Government. (See pp. 6 and 7.) Despite this regulation, the Defense Logistics Agency continues to take all discounts because

--officials are improperly calculating the rate of return offered,

--officials erroneously believe they are required to take uneconomical discounts in certain circumstances, and

--the Agency's guidance does not provide procedures to deliberately forgo uneconomical discounts.

Refusing uneconomical discounts could save the Government as much as \$14.1 million over the remaining crude oil purchases. (See p. 7.)

PAYING BILLS BEFORE THEY ARE DUE

After October 1, 1978, the effective date of Treasury regulations, the Agency paid 50 percent of its bills before they were due. This occurred because there were no procedures to

--identify and correct clerical errors,

--pay bills on Saturday, or

--preclude combining several invoices with different due dates on a single payment voucher.

Paying bills when they are due, and not before, could reduce future Government costs by \$3.6 million. (See pp. 8 and 9.)

CHANGING TREASURY REGULATIONS

Although Treasury's recent policy will improve the Government's procedures, two major problems remain. First, the time value of money concept should be applied to the evaluation of contract offers. This is important because different shipping, payment, and discount terms can affect payment timing by up to 78 days or more. After discounting the offers received, GAO found that six crude oil contracts should have been awarded

to different offerors or different options offered by the same supplier should have been taken. The Government's costs might have been reduced \$2.1 million. Projected savings related to price proposal evaluations over remaining crude oil purchases could be as much as \$18.5 million. (See pp. 12 and 13.)

Secondly, decisions involving the cost of money concept should be based on a current estimate of this cost. Treasury regulations, however, provide for a fixed 9-percent rate when evaluating prompt payment discounts. Using a fixed rate could result in taking uneconomical discounts when the cost of money is higher than 9 percent. This could have occurred on 66 crude oil payments using the interest rate earned on Government bank accounts as the cost of money. During March 1980 the Government's short-term borrowing cost was about 15 percent. (See pp. 13 and 14.)

In summary, improved payment and contract offer evaluation procedures could save the Government as much as \$36 million over the remaining Strategic Petroleum Reserve purchases. Substantial additional savings could be achieved in other Government purchases as well.

RECOMMENDATIONS

GAO recommends that the Director, Office of Management and Budget, in connection with the Secretaries of Defense and the Treasury and the Administrator of General Services:

- Establish, as a matter of policy, that agencies must consider the time value of money as part of their bid evaluation procedures.
- Establish and periodically update an index reflecting the Government's current cost of money to be used when evaluating prompt payment discounts and contract offers. (See p. 16.)

GAO recommends that the Secretary of Defense should take several specific steps (see p. 10) to assure that bills are not paid until due

and uneconomical discounts are not taken at the Defense Logistics Agency.

AGENCY COMMENTS AND GAO'S EVALUATION

Officials of the responsible agencies generally agreed with the thrust of GAO's recommendations. Some actions have already been initiated to prevent the taking of uneconomical discounts and to establish an index of the Government's current cost of money. There were some differences in the agencies' positions concerning inclusion of the time value of money as part of bid evaluation procedures. These will have to be weighed by the Office of Management and Budget's Office of Federal Procurement Policy as it develops appropriate regulatory coverage for contracting situations. (See pp. 16 and 17.)

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ABBREVIATIONS

DOD	Department of Defense
DOE	Department of Energy
GAO	General Accounting Office
SPR	Strategic Petroleum Reserve

CHAPTER 1

INTRODUCTION

The Energy Policy and Conservation Act of 1975 (Public Law 94-163) created the Strategic Petroleum Reserve (SPR) to reduce U.S. vulnerability to severe petroleum supply interruptions. The Department of Energy (DOE), which administers SPR, has delegated crude oil buying responsibility to the Defense Fuel Supply Center because of its experience in buying refined oil products for the Department of Defense (DOD). The Defense Logistics Agency, the Center's parent organization, pays crude oil bills. Of the 113 million barrels of crude oil ordered between July 8, 1977, and June 30, 1979, 88 million barrels had been delivered at a cost of \$1.3 billion. This report discusses the reasonableness of the price paid for crude oil obtained for the reserve and savings which could be obtained if cash management policies are revised.

SPR STORAGE GOALS NOT MET

In December 1976, DOE submitted to the Congress an SPR plan for storing 150 million barrels of oil by December 1978 and 500 million barrels by December 1982. Following the President's April 1977 announcement that SPR be expanded to 1 billion barrels by 1985, DOE revised its storage targets to 250 million barrels by December 1978 and 500 million barrels by December 1980.

Although DOE planned to spend \$22.6 billion to buy the first 750 million barrels, it has fallen far short of its storage targets. In contrast to the 250-million barrel goal by December 1978, only about 67 million barrels were in SPR. This shortfall resulted primarily from construction delays of SPR's storage facilities located in caverns and a mine along the Gulf Coast. While some deliveries have been made under prior contracts, the Center has been unable to buy additional oil since December 1978 because of the tight world oil market, stemming from the disruptions in Iran. Indeed, in April 1979, DOE suspended all SPR procurements in order to free limited supplies for domestic use. This suspension has not yet been removed.

The future direction of the SPR program is unclear. When oil becomes available, the President's recently announced import quota may limit the rate of purchases for SPR. In addition, DOE is currently reevaluating the size of SPR, including the advantages and disadvantages of reducing the goal from 1 billion barrels to either 550 or 750 million barrels.

SCOPE

We examined all 33 SPR crude oil contracts let through June 30, 1979. In addition, we examined policies and procedures and interviewed officials at the Office of Management and Budget, the Department of the Treasury, DOD, the Defense Logistics Agency, the Defense Fuel Supply Center, and the Defense Audit Service.

CHAPTER 2

CRUDE OIL PRICES WERE FAIR

Apart from any cash management considerations (see ch. 3), the Defense Fuel Supply Center has obtained crude oil at competitive or "fair and reasonable" prices in comparison to prices charged in the commercial marketplace. Although the actions of the Organization of Petroleum Exporting Countries affect world oil market prices, in our opinion, price competition was generally adequate.

PRICES JUSTIFIED BY COMMERCIAL MARKETS

Until early 1973, the Center procured its refined petroleum needs through formal advertising--the preferred method of procurement. Formal advertising is assumed to provide the greatest degree of competition and, consequently, the lowest price available in the marketplace.

Beginning in early 1973, fuel shortages significantly decreased competition and forced the Center to begin negotiating prices with the limited number of firms willing to supply the Government's needs. In fact, supplies were so limited in late 1973 that the Defense Production Act of 1950 had to be invoked to require U.S. companies to meet DOD's needs. This situation continued through July 1977, when the Center began purchasing crude oil for SPR.

DOD's principal objective in any negotiated procurement is to obtain a fair and reasonable price calculated to result in the lowest overall price to the Government. The Defense Acquisition Regulation provides that a fair and reasonable price can be determined by various price analysis techniques including comparison with (1) other offers submitted, (2) prior price quotations, or (3) market prices of similar commodities together with any discount or rebate arrangement.

While the Center generally uses all three methods, its principal justification is based on market prices of similar commodities. The Center's Office of Market Research obtains the actual prices paid for all imported crude oil from the contractors and various Government sources. A market range representing the majority of transactions is developed by eliminating unusually high or low prices for each type of crude. These ranges are used to help negotiate a lower price and to evaluate the final offer. This procedure provides an acceptable method of determining the market

price of substantial quantities of crude oil sold to the general public.

We tested this procedure by evaluating the prices charged on 20 contracts awarded under 4 solicitations. These contracts amounted to approximately 71 million barrels of crude oil or about 63 percent of the 113 million barrels purchased for the SPR. The awarded price for every contract was within or below the market range for the type of oil purchased.

COMPETITION APPEARS ADEQUATE

A second method of assuring a fair and reasonable price is by analyzing the contractors' costs. This analysis is not required whenever the negotiated price is based on (1) adequate price competition or (2) established market prices of commercial items sold in substantial quantities to the public. Cost analysis is not required in SPR purchases because, in developing the market range mentioned earlier, the Center satisfies the market price criterion noted above. On the other hand, while adequate price competition has not been used to justify the purchase price, its existence in most of the Center's SPR procurements tends to confirm the conclusion that a fair and reasonable price was obtained.

The Defense Acquisition Regulation established several criteria by which to judge whether competition is adequate. In general, at least two responsible offerors must submit offers which are responsive to the contract solicitation. In addition, the solicitation must not unreasonably deny a responsible supplier an opportunity to compete.

Although the existence of adequate price competition is largely a matter of judgment, the following table indicates that it existed for at least three of the four SPR solicitations reviewed.

Data from Four Crude Oil Procurements

<u>Procurement</u>	<u>Number of suppliers contacted</u>	<u>Number of responsible offerors</u>	<u>Coverage ratio (note a)</u>
A	242	15	6.58
B	234	12	7.86
C	242	12	4.04
D	268	11	1.55

a/The ratio of the number of barrels offered to the number of barrels requested. A high ratio indicates substantial supplies were available to meet the solicitation requirements.

In each procurement, the opportunity for competition is demonstrated by the large number of potential offerors contacted. Likewise, for at least the first three procurements, the number of offers and the coverage ratios give some assurance of adequate competition and a fair and reasonable price. Whether the total quantity offered in procurement D provides adequate competition is questionable. In any case, the prices paid for these as well as all other SPR purchases were justified by the market price analysis discussed on pages 3 and 4.

While a fair and reasonable price was negotiated, inadequate consideration of payment timing has increased the Government's overall costs by \$2.8 million over the crude oil purchases through June 30, 1979. The Government could save an additional \$36.2 million over remaining petroleum scheduled to be purchased.

CHAPTER 3

IMPLEMENTING TREASURY'S CASH

MANAGEMENT POLICY IN SPR

DOD has adopted Treasury's cash management policies, but the Defense Logistics Agency has not complied with these policies in its payment of crude oil bills. Because of inadequate procedures and various policy misinterpretations, the Agency continues to take all discounts offered, whether economical or not, and pay about 50 percent of its invoices before they are due. Following Treasury's policies could save the Government as much as \$17.7 million over the remaining life of the SPR program.

GOVERNMENT'S MONEY MANAGEMENT POLICIES

As interest rates have increased in recent years, the Government has become increasingly concerned with its money management practices, especially the concept that money has a cost or time value. By accelerating collections or delaying payments, the Government can defer borrowings or prolong the earning interest period on cash balances maintained in banks.

Historically, many Federal agencies and departments have not recognized this concept. Their procedures have resulted in increasing Government costs by

- paying bills before they were due,
- taking all prompt-payment discounts (a price reduction in exchange for early payment) even when the Government's financing rate exceeded the prompt-payment discount rate, and
- failing to consider the time value of money in evaluating contract offers.

On March 31, 1978, the Department of the Treasury established several new cash management policies. Chapter 8000, Part 6, of the Treasury Fiscal Requirements Manual requires agencies to process payments so the payee will receive the check by the due date. Payments which include discounts must be made on the due date. This would reduce Treasury interest costs by precluding payments before the due date.

Additionally, agencies can no longer take a prompt-payment discount if the annual rate of return is less than 9 percent. Discounts with a rate of return between 9 percent and 18 percent can be taken at the Agency's discretion, and discounts over 18 percent must be taken. This 9-percent rule is intended to prevent agencies from taking a discount when the Government's cost of money is greater than the amount of the discount itself.

To the extent that adherence to these policies affects the timing of Treasury's borrowings and cash drawdowns, interest savings will result.

TAKING UNECONOMICAL DISCOUNTS COULD COST MILLIONS

Although the annual rate of return for most SPR discounts has been less than 9 percent, the Agency has consistently taken them all even after the policies became effective on October 1, 1978. For the 88 million barrels delivered by June 30, 1979, the Government might have saved up to \$458,000 if the Treasury's 9-percent rule had been properly applied. Following this rule for the remaining SPR purchases could save as much as \$14.1 million.

The Agency continues to take uneconomical discounts for three reasons. First, Agency officials mistakenly believe they must take it if it was the factor which determined the low offeror. The Defense Fuel Supply Center's contracting office goes one step further by maintaining that the discount must be taken even if the discount was merely a factor in the contract award decision. Discounts are always considered during the evaluation of offers. Neither Agency nor Center officials could cite any authority supporting their opinion. Officials of the Office of the Assistant Secretary of Defense (Comptroller) agree with us that the Center is not required to take an uneconomical discount.

Secondly, in spite of the Agency's belief that all discounts must be taken, an official still determines if the rate of return is under the 9-percent Treasury criterion. In doing so, however, this official is applying an incorrect formula which sometimes results in the mistaken belief that the discount exceeds the 9-percent minimum. For example, a February 2, 1979, invoice for 267,000 barrels at \$14.57 per barrel offered a prompt payment discount of \$.08 per barrel if payment was made 30 days early. This discount would not be questioned because the incorrect formula results in a 16.5 percent annualized rate of return. The

correct formula would have shown a rate of return of less than the 9-percent minimum. Had this discount been refused and payment not made until the due date, the Government's overall cost could have been reduced by about \$1,600.

Finally, unlike the Treasury's and DOD's policies, the Agency's implementing regulations do not provide for deliberately forgoing an uneconomical discount. Rather, this regulation merely provides for rapid processing of invoices with economical discounts. Invoices with discounts below 9 percent, on the other hand, are processed normally. Consequently, uneconomical discounts would be taken if the normal processing time resulted in payment before the discount date passed.

MANY BILLS STILL PAID EARLY

In our February 24, 1978, report "The Federal Government's Bill Payment Performance Is Good But Should Be Better," we estimated that early payments had cost the Government \$118 million in 6 months. Additional unnecessary costs were incurred because many contractors have stopped offering prompt-payment discounts because they received quick payment without them. Similar early payments were identified during a Defense Audit Service evaluation of Agency payments between January and March 1978.

Shortly after receiving our February report, Treasury issued regulations which required all Government payments to be made so the payee would receive the check as close as possible to the due date. Most SPR payments, however, are subject to another provision of this regulation which requires the Agency to issue discounted payment checks on the last day of the discounted period. The SPR contracts also include a provision which enables the Government to take the discount as long as the check is mailed by the due date. Thus, we have defined early payment as any check mailed before the due date for discounted payments. For transactions which did not include a discount, we have defined early payment as any check mailed more than two days before the due date.

To get a picture of how this regulation was implemented at the Agency, we examined all SPR payments made after October 1, 1978--the effective date of Treasury's regulation. Fifty percent of these payments were made before they were due. Using Treasury's money cost estimate of 9 percent, the Government could have saved \$270,000 had all SPR payments been made on the due date. Strict adherence to Treasury's regulation could reduce future Government financing costs by up to \$3.6 million.

Aside from clerical errors, the Agency continues to pay bills early for two reasons. First, the Center does not print checks on Saturday. Consequently, whenever a payment is due on Saturday, the payment is made at least 1 day early. According to an Agency official, printing the check during the week but dating it on Saturday would not be difficult. Securing the check and providing an official to mail it on Saturday could impose some administrative burden. However, in our opinion, this procedure should be instituted at the Agency if the Center resumes purchasing imported petroleum for the SPR, because most payments involve substantial sums and relatively few transactions.

Secondly, the Agency sometimes combines several invoices from the same vendor on a single payment voucher. Because these invoices are due on close but different dates, at least one of them will be paid early (or late). Combining payments is an administratively useful practice on small payments, but we question its practicality on large invoices. Clearly, the cost of paying a multimillion dollar SPR bill 1 or 2 days early far exceeds the cost of preparing separate checks.

TREASURY POLICY AND DEFENSE ACQUISITION REGULATION CONFLICT

Although DOD has generally implemented Treasury's cash management regulations, there is one area of conflict. DOD's implementing regulation continues the previously existing policy of expeditious payment whenever the contract does not specify a due date. In this situation, Treasury requires that the due date be considered 30 days after the invoice is received.

Because existing contract prices were based on the expectation of expeditious payment, continuing that practice for existing contracts appears reasonable. Adopting Treasury's 30-day rule in DOD's regulations for new contracts also seems reasonable so prospective contractors will be aware of DOD's intended payment policy.

In October 1979, DOD completed a study of this as well as other regulatory changes needed to accommodate Treasury's cash management policy. While this study will not affect any of the problems discussed in this report, it should help identify the various DOD documents which conflict with Treasury's current cash management policies. Changes to DOD regulations are expected to be prepared and published for public comment in the near future.

CONCLUSIONS AND RECOMMENDATIONS

Although DOD has accepted Treasury's payment policies, the Defense Logistics Agency has not adequately implemented them. Strict adherence to Treasury's payment policies could save the Government as much as \$17.7 million on future SPR purchases. Additional savings would probably be achieved in the Center's other purchases (primarily refined products), which amounted to about \$3.5 billion or about 78 percent of the Center's purchases during fiscal year 1978.

Recommendations

Accordingly, we recommend that the Secretary of Defense direct that the Director, Defense Logistics Agency, establish regulations and procedures which assure that bills are not paid until due and uneconomical discounts are not taken. These regulations should include provisions which:

- Provide procedures to deliberately forgo uneconomical discounts.
- Assure that discount rates are properly computed.
- Require that the decision to accept a prompt-payment discount be based on Treasury's stated criteria rather than any analysis conducted during the contract award process.
- Either provide procedures for issuing checks on Saturday or establish standard contractual payment provisions which allow payments due on Saturdays, Sundays, or holidays to be paid on the next business day.
- Establish controls to prevent invoices with different due dates from being combined for payment. If necessary, small dollar value payments could be exempted from this requirement to reduce the administrative burden.
- Provide a system to periodically monitor compliance with the cash management policies and procedures.

AGENCY COMMENTS AND OUR EVALUATION

DOD officials generally agreed with our draft report during an informal conference held on December 20, 1979. They noted that DOD is currently reviewing the Defense Acquisition Regulation to bring it into compliance with Treasury's new cash management policies. Additionally, they stated that the internal audit organizations, including the Inspector General, have been instructed to include cash management as part of their normal audit review objective.

These officials did indicate two reservations during our meeting. First they correctly noted that the potential savings identified in this report are a net savings to the Government and not to DOD. In fact, DOD's crude oil costs would probably increase while the Treasury's interest costs would decrease. Our estimates are based on the net difference between these changes. Secondly, they observed that some of our recommendations may not be economically advisable for small payments with little potential for interest savings. We agree with this observation and would not object to any proposed DOD regulations which exempted small purchases from requirements which cost more than they could potentially save. Subsequently, DOD officials confirmed many of these observations by letter dated February 19, 1980. (See app. V.)

CHAPTER 4

TREASURY'S POLICIES SHOULD BE CHANGED

Although Treasury's March 1978 fiscal regulations significantly improved the Government's cash management practices, these regulations should be changed in two major areas:

- The time value of money should be considered while evaluating offers for contract awards.
- The rate used in all decisions involving the time value of money should be periodically revised to reflect the current cost of money to the Government.

EVALUATIONS OF OFFERS SHOULD CONSIDER COST OF MONEY

Considering the time value of money during the contract award process is important because offers provide various shipping, payment, and discount terms that affect payment timing. SPR purchases are a good example of this principle. For example, one offeror may allow payment 60 days after the invoice is received, whereas another may offer 30-day terms. Likewise, payment may be required up to 48 days sooner when title is transferred at the port of origin in the Persian Gulf versus the port of destination in the Gulf of Mexico. The point here is that payment timing interacts with the Government's cost of money (see p. 6) and should, therefore, be considered during the evaluation of offers. Without doing this, the Defense Fuel Supply Center cannot properly identify the lowest cost offer.

Even though Treasury emphasizes the time value of money in areas such as payment due dates and prompt-payment discounts, no regulation required such consideration in evaluating offers.

We quantified the savings potential associated with properly evaluating offers by discounting all offers received by the Center to reflect the cost of various provisions affecting payment timing. Based on these discounted prices, 6 offers for 17.1 million barrels of oil would have been accepted from different offerors or alternate options proposed by the same offeror would have been chosen. Using the Treasury's benchmark rate of 9 percent, the Government might have saved \$2.1 million if the cost of money had been considered during the evaluation process. Assuming similar conditions, overall costs to the Government could be reduced

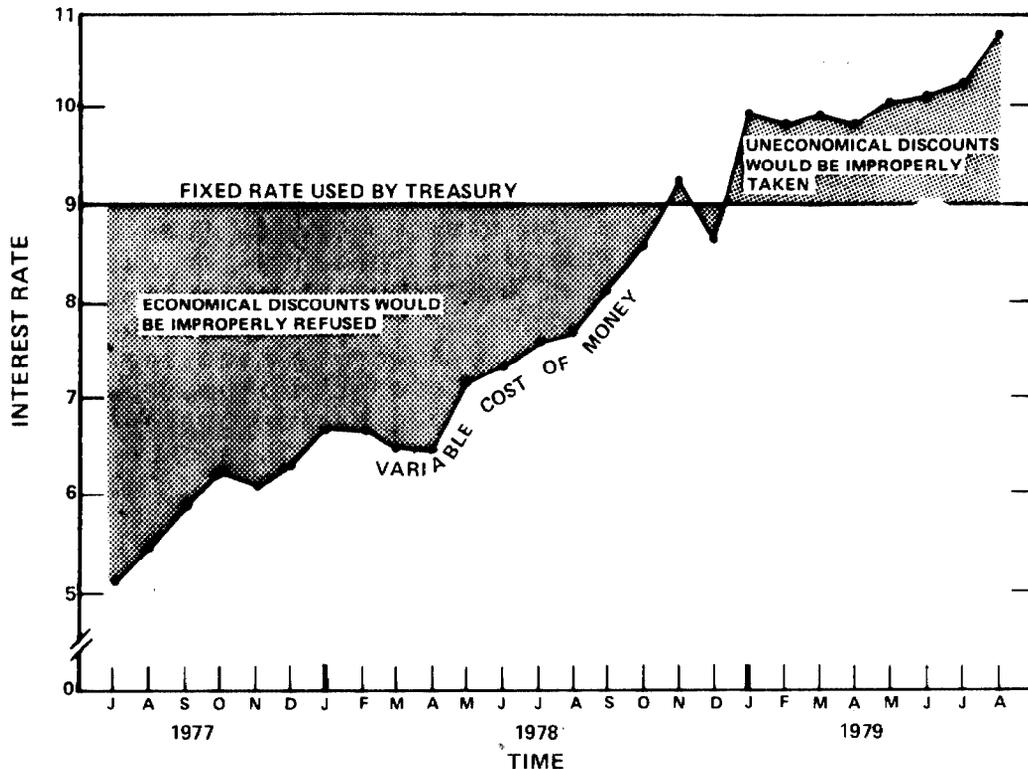
by \$18.5 million over remaining purchases of SPR crude oil if appropriate evaluation procedures are used.

The current policy is not only expensive, it is illogical. For example, the bid evaluation procedure will select the low offeror based on his base price less the prompt-payment discount. This occurs because the evaluation procedures were developed when Government policy required prompt payment and assumed all discounts would be taken. Current payment policy, however, requires that agencies refuse discounts below 9 percent. Thus, the conflict between payment and offer evaluation policy will result in selecting a contractor based on a discounted price which the Government should not pay.

COST OF MONEY ESTIMATES SHOULD BE CURRENT

Whether measured by its borrowing rates or its interest earnings on cash balance, the Government's cost of money varies significantly over time. Because of such variations, decisions hinging on the benefits of a lower but earlier payment versus a higher but later payment should be based on the cost of money when the decision is made.

Treasury regulations, however, provide for a 9-percent fixed cutoff rate below which no discounts may be taken. This fixed rate, established in March 1978, will result in taking uneconomical discounts when the Government's cost of money exceeds 9 percent. Likewise, when the cost of money drops below 9 percent, the fixed cutoff will lead to foregoing discounts advantageous to the Government. The following chart, which uses interest rates on Government deposits in banks (Federal funds rate less one-quarter of 1 percent) as the Government's cost of money, illustrates the potential effects of using a fixed (as opposed to periodically updated and therefore current) cutoff rate for evaluating discounts.



Decisions to accept or reject prompt-payment discounts will be erroneous when the rate offered is between the current cost of money and the fixed 9 percent specified by Treasury. For example, prior to November 1978, a prompt-payment discount of 8.5 percent would be rejected as uneconomical using Treasury's 9-percent criterion but accepted using the variable rate which more accurately measures the Government's cost of money. This situation would have occurred on 45 of the 137 SPR invoices paid during this period. Likewise, after November 1, 1978, uneconomical discounts would be taken when the discount rate was higher than the fixed 9-percent criterion but less than the variable rate. This occurred in 21 of the 72 payments during this period.

Clearly, a periodically updated rate should also be used for all analyses using the Government cost of money, including the evaluation of offers.

CONTRACTING OFFICER ATTEMPTED
TO REVISE OFFER EVALUATION PROCEDURES

During May 1978, Center officials requested authority to consider time value of money concepts during the SPR offer evaluation process. After apparently accepting the necessity

of evaluating offers in this manner, DOD officials asked Treasury officials to provide an appropriate cost of money rate. Four months later, on November 30, 1978, Treasury officials replied that the time value of money concept was beyond refute, but could not agree on a precise measure of that value. Consequently, Treasury officials were reluctant to endorse any change in the evaluation process without further study. They did, however, note guidance would be provided on specific offers if the contract analysis proved so advantageous as to be clearly in the best interests of the Government. As of August 31, 1979, 16 months after the initial request, no change has been made to the Center's bid evaluation procedures.

While recognizing the difficulty of agreeing on an index reflecting the Government's cost of money, in our opinion, this is inadequate justification for failing to develop such an index. Essentially, Treasury has pegged the cost of money at a fixed 9-percent rate for decisions concerning prompt-payment discounts when bills are paid. However, Treasury they has not endorsed the use of this or any other rate for evaluation of offers during the contracting process.

As already noted, we favor a variable rather than a fixed rate to reflect the current estimated cost of money to the Government. (See p. 13.) However, the concept that the Government's borrowing costs should be quantified and used for evaluating alternatives is just as valid for identifying the lowest cost offer as it is for evaluating prompt-payment discounts when payment is made. Failing to implement uniform policies will result in selecting the lowest cost contractor based on an estimated price rather than the actual price the Government will pay.

CONCLUSIONS AND RECOMMENDATIONS

Because the offers received in any procurement may contain a variety of payment and shipping terms affecting the timing of payments, the time value of money must be considered to assure that unnecessary interest costs are not incurred. To the extent that adherence to cash management policies affects the timing of Treasury's borrowings and cash drawdowns, interest savings will result. In the SPR program alone, such considerations could reduce overall Government costs on the remaining crude oil procurements by as much as \$18.5 million based on the Treasury's 9-percent cost of money criterion. Substantial additional savings would be achieved in other Government purchases as well.

Also, in our opinion, decisions involving the evaluation of offers, prompt-payment discounts, or other time value of money considerations should not be based on a fixed rate. Rather, an index should be established and periodically updated to reflect actual fluctuations in the Government's cost of money. Failure to provide a current rate could lead to unnecessarily higher interest costs based on outdated criteria.

Government procurement policy is established by the Office of Management and Budget through its Office of Federal Procurement Policy. Implementing procedures are written by DOD for military agencies and the General Services Administration for civil agencies. Payment policies, on the other hand, are primarily assigned to the Department of the Treasury.

Recommendations

Accordingly, we recommend that the Director, Office of Management and Budget, in coordination with the Secretaries of the Treasury and Defense and the Administrator of General Services:

- Establish, as a matter of policy, that agencies must consider the time value of money as part of their bid evaluation procedures.
- Establish and periodically update an index reflecting the Government's current cost of money to be used when evaluating prompt-payment discounts and contract offers.

AGENCY COMMENTS AND OUR EVALUATION

Officials of the responsible agencies generally agreed with our recommendation to establish and periodically update an index reflecting the Government's current cost of money. Treasury (see app. II) has already begun preparing this index while, according to the General Services Administration and DOD, the index would be used by civilian and Defense agencies, respectively. (See apps. III and V.)

The officials also generally agreed, with some reservations, that agencies should be required to consider the time value of money as part of their bid evaluation procedures. The General Services Administration is currently incorporating this requirement in the Federal Procurement Regulations. (See app. III.) DOD officials also agreed but expressed reservations concerning small dollar value contracts. We generally

agree with this observation and would pose no objection if implementing Defense regulations exempted small dollar value contracting actions with little potential for savings. Clearly, this would not exempt crude oil purchases.

Treasury and the Office of Management and Budget also had reservations. Treasury officials preferred that the time value of money be considered by requiring bidders to incorporate it into their bid terms. They believe this would reduce the administrative burden of conducting the evaluation and prevent problems resulting from changes in the cost of money between the contract award and the payment dates. (See app. II.) The Office of Management and Budget also expressed reservations based on the volatility of interest rates but indicated that its Office of Federal Procurement Policy will weigh the various considerations in developing appropriate regulatory coverage. (See app. IV.) As it does this, we believe it is appropriate to evaluate bids based on the cost of money current at the time the evaluation is made. Such decisions should be based on the best available data. Interest rate changes subsequent to the contract award date could increase or decrease costs.

ESTIMATED SAVINGS IF
PAYMENT TIMING IS IMPROVED

<u>Payment timing</u>	<u>Cost incurred to 6/30/79</u>	<u>Estimated savings on future purchases</u>
	(000 omitted)	
Taking uneconomical discounts	<u>a/\$ 458</u>	<u>c/\$14,058</u>
Paying early	<u>a/270</u>	<u>c/3,645</u>
Not considering payment timing during offer evaluations	<u>b/2,077</u>	<u>18,532</u>
Total	<u>\$2,805</u>	<u>\$36,235</u>

a/Figures are based on 88 million barrels delivered through 6/30/79.

b/Figure is based on approximately 101 million barrels which have been or are expected to be delivered. It excludes oil which was purchased but is not expected to be delivered because of defaults or contract disputes.

c/Under the entitlements program designed to equalize the cost of imported and controlled domestic oil, the contractor is required to collect (through DOE) \$3 of the per barrel contract price from users of domestic oil. Since entitlements will be discontinued under the President's oil decontrol program, we have estimated future savings based on costs which would have occurred had the entitlements program not been in effect--\$1,362,498 for improperly taking prompt payment discounts and \$353,121 for paying bills before they are due.



FISCAL ASSISTANT SECRETARY

DEPARTMENT OF THE TREASURY
WASHINGTON, D.C. 20220

DEC 20 1979

Dear Mr. Voss:

Upon consideration of the recommendations contained in the GAO draft report entitled, "Strategic Petroleum Reserve Oil Purchased for a Fair Price but Improved Payment Timing Could Save Millions", we welcome this opportunity to address a topic of such critical concern to the Treasury's cash management function, that is, the concept of the time value of money.

We acclaim GAO's positive efforts to achieve greater cash management awareness. We especially endorse the recommendations to the Secretary of Defense that procedures be established within the Defense Fuel Supply Center, based on Treasury's disbursement policy, to assure that bills are paid only when due and uneconomical discounts are foregone and that a revision be made to reflect these procedures in Defense Logistics Agency regulations.

The increased interest in cash management innovation has been tempered by the need for guided instructions and appropriate application to Government programs. The Treasury has responded to this need by establishing sound cash management guidelines for department and agency use in developing regulations to apply the concept of the time value of funds flow. In addition, we have made ourselves readily available to respond to inquiries and have been sensitive to resolving special problems.

While the subject report noted that our response to the Department of Defense inquiry on the time value of money concept explained our reluctance to endorse a change in their contract evaluation process without further study, the findings did not reflect the fact that we committed ourselves to provide guidance in this area if certain contract analyses proved to be so advantageous as to be clearly in the best interests of the Government. Since our initial reply, we have not received any requests for such guidance.

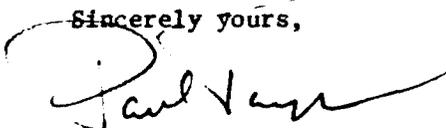
The report also makes two recommendations to the Director, Office of Management and Budget, involving the cooperative efforts of that office, the Secretaries of Treasury and Defense, and the Administrator of General Services. In accordance with the recommendation dealing with a cost of money index, we agree wholeheartedly that a variable index which reflects actual fluctuations in the cost of money would be more indicative of the time value of Government funds, particularly

in view of the current trend of interest rates. We have already addressed this issue and have been negotiating with officials within GSA to establish a periodic rate and to provide the necessary means for Governmentwide dissemination. These efforts will culminate in a revision to our cash management regulations, subject to concurrence by applicable central agencies, and determination of the appropriate vehicle for publication.

The other recommendation would require agencies to consider the time value of funds as part of their bid evaluation procedures. While we feel that this concept may indeed be incorporated in such procedures, we would prefer instead that agencies establish firm standards to require offerors to integrate the time value of money concept into each term of their bids. We generally oppose the idea that agencies evaluate different terms of offers on a time value of funds basis, since the current relative valuation of certain bids is subject to a highly unpredictable and speculative arena. An example of this situation can be seen when a bid is accepted on the basis of having the lowest assigned value (in comparison to competing offers) with a rather advanced contract payment date. Depending upon the fluctuation of the cost of money index determined on the due date, that assigned value may increase to a much higher figure and result in overall higher costs to be incurred. If offerors, on the other hand, submit bids with terms reflecting a time value of money, a truly competitive basis for evaluating the bids is provided, in addition to a simplification in the evaluation process.

Again, we appreciate the opportunity to provide our comments on this draft report and believe that studies of this nature will help to improve the handling of the Government's cash resources through application of sound cash management techniques in the Federal sector.

Sincerely yours,



Paul H. Taylor

Mr. Allen R. Voss
Director, General Government Division
United States General Accounting Office
Washington, D. C. 20548



General
Services
Administration Washington, DC 20405

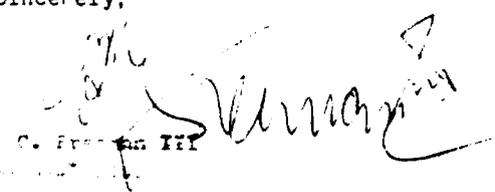
Honorable Elmer J. Staats
Comptroller General of the United States
General Accounting Office
Washington, D.C. 20548

Dear Mr. Staats:

In response to your letter of November 16, 1979, the General Services Administration (GSA) concurs in your findings and recommendations in the draft GAO report entitled, "Strategic Petroleum Reserve Oil Purchased for a Fair Price But Improved Payment Timing Could Save Millions."

The enclosed comments are forwarded for inclusion in the final report.

Sincerely,


E. C. Brennan III

Enclosure

GSA Comments on Draft GAO Report
"Strategic Petroleum Reserve Oil Purchased for a Fair
Price But Improved Payment Timing Could Save Millions"

RECOMMENDATION FOR GSA

GAO recommends that the Director, Office of Management and Budget, in concert with the Secretaries of Treasury and Defense, and the Administrator of General Services Administration:

-- Establish, as a matter of policy, that agencies must consider the time value of money as part of their bid evaluation procedures.

-- Establish and periodically update an index reflecting the Government's current cost of money to be used when evaluating prompt-payment discounts and contract offers.

COMMENTS

First Part: The Federal Procurement Regulations Directorate is in the process of drafting the necessary revisions to the Federal Procurement Regulations (FPR) so that all civilian agencies must consider the time value of money as part of their bid evaluation procedure. The draft revisions will be coordinated with OMB, Treasury, and Defense.

Second Part: Before any revisions can be made, the problems associated with the development of an index reflecting the Government's cost of money and the development of contract clauses to implement the changes must be resolved by the agencies. GSA will work with OMB, Treasury, and Defense to solve the problems so that this recommendation can be accomplished.

GSA has already issued internal cash management procedures to implement the policies contained in Chapter 8000 of the Treasury Fiscal Requirements Manual. These procedures are expected to eliminate the taking of uneconomical discounts.



EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

MAR 3 1980

Mr. Allen R. Voss
Director, General Government Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Voss:

This is in response to a GAO draft report entitled "Strategic Petroleum Reserve Purchases Oil at a Fair Price But Improved Payment Timing Could Save Millions" which was furnished to OMB for comment prior to final issuance. The effort of your office in conducting this study is appreciated. The data and information developed will be useful in the continuous review of cash management practices by the executive branch agencies.

We see some difficulties in including the "time value of money" as a bid evaluation factor, as you have recommended. The circumstances at the bidding stage on which such an evaluation factor would be based would not likely remain stable for any extended period, considering the volatility in both the Treasury interest rate and commercial interest rates. These could change by the time of contract award, and certainly by the delivery and billing dates.

As to the establishment and periodic updating of an index reflecting the Government's current cost of money to be used for evaluation purposes, OMB will consider the development of such an index. However, we must also consider the administrative burden on OMB to maintain and monitor such an index, and on procuring agencies to use the index in bid evaluations.

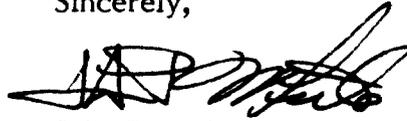
OMB has cautioned agencies from time to time concerning appropriate payment practices and has espoused a basic tenet to "pay when due and only when due." However, the due date for a payment is not always a precise time. Judgments may vary depending on the circumstances of the particular contract. We agree that payment officers should weigh the high cost of money, both to the Government and to contractors, in determining when to pay and whether to take offered discounts. Discounts should be refused when they will be more than offset by the Government's financing cost.

OMB's Office of Federal Procurement Policy will weigh these considerations in developing appropriate regulatory coverage for contracting situations. However,

even the best regulatory guidance will not overcome all of the problems, particularly the fluctuations in the interest rate and the matter of getting timely information to contracting officers.

Thank you for the opportunity to review the draft report. We look forward to receiving the final report.

Sincerely,

A handwritten signature in black ink, appearing to read 'John P. White', written in a cursive style.

John P. White
Deputy Director



RESEARCH AND
ENGINEERING

THE UNDER SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

19 FEB 1980

Mr. J. E. Stolarow
Director, Procurement and
Systems Acquisition Division
U.S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Stolarow:

This is in reply to your letter of November 16, 1979, to Secretary Brown transmitting copies of your draft report entitled, "Strategic Petroleum Reserve Oil Purchased for a Fair Price But Improved Payment Timing Could Save Millions" (OSD Case #5329).

Your draft report concludes that the Defense Logistics Agency (Defense Fuel Supply Center) does a good job in negotiating competitive market prices for the Strategic Petroleum Reserve (SPR) crude oil purchases but has not implemented new policies to preclude paying bills before they are due and the taking of prompt payment discounts that would cost the Government more than they save. The report recommends that the Office of Management and Budget require (1) Federal Agencies to consider the time value of money as part of bid evaluations procedures, and (2) the establishment of an index reflecting the Government's cost of money to be used in making such evaluations. Additionally, the report recommends that the Department of Defense (DoD) take steps to assure that bills are not paid early and that uneconomical discounts are not taken on Defense Fuel Supply Center contracts.

The Administration recognizes that overall Government savings can be attained through improved cash management. Based on a study conducted under the President's Reorganization Project, the Treasury Department issued guidelines, effective October 1, 1978, for establishing effective cash management policies and procedures in Federal Agencies. DoD has implemented many of these policies in internal payment procedures and is continuing with implementation in contract payment provisions and procedures. These policies were not implemented on the contracts reviewed in your report because they were not effective at the time many of the contracts were awarded, and implementation was delayed beyond June 30, 1979, based on our determination that it would be necessary to change a multitude of existing DoD contract payment and discount clauses in order to make the changes in established payment practices required by the Treasury regulation. It is our intention to fully implement the Treasury

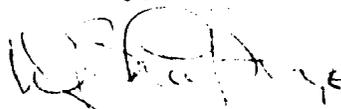
policies in our contract provisions by October 1, 1980. We generally agree with your recommendations regarding specific actions to be taken by the Defense Logistics Agency and believe these will be effected by our full implementation of the Treasury policies.

With respect to your recommendation regarding consideration of the time value of money in bid evaluation procedures and establishing and updating an index reflecting the Government's current cost of money, we support these recommendations and would be pleased to work with the Office of Management and Budget and other Agencies in this effort.

On December 18, 1979, DoD representatives met with General Accounting Office personnel to discuss your draft report. It was recommended that the conclusions, which imply that SPR program costs would be reduced by implementing your recommendations, be clarified to show that the anticipated savings would accrue to the Treasury in the form of reduced borrowing costs, while program or contract costs would, in fact, increase in cases where discounts are foregone.

We appreciate the opportunity to comment on your draft report.

Sincerely,



Walter B. LaGorge
Principal Deputy

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