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REPORT TO  
THE CONGRESS OF THE UNITED STATES

NEED FOR IMPROVING  
POLICIES AND PROCEDURES  
FOR ESTIMATING COSTS, EVALUATING BIDS, AND  
AWARDING CONTRACTS FOR DREDGING

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CORPS OF ENGINEERS (CIVIL FUNCTIONS)  
DEPARTMENT OF THE ARMY



BY  
THE COMPTROLLER GENERAL  
OF THE UNITED STATES

AUGUST 1967

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COMPTROLLER GENERAL OF THE UNITED STATES  
WASHINGTON, D.C. 20548

AUG 7 1967

B-161330

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

The accompanying report presents our finding, conclusions, and recommendations regarding the need for the Corps of Engineers (Civil Functions), Department of the Army, to improve its policies and procedures for estimating contract costs, evaluating contract bids, and awarding contracts for dredging.

The results of our review indicate that some Corps dredging is not accomplished as economically as possible. Also, in our opinion, the Corps' practices in awarding contracts for dredging do not comply with the law and have resulted in some contracts' being awarded at prices in excess of statutory limitations.

The law under which the Corps awards contracts for dredging stipulates that appropriated funds shall not be used to pay for any work done by contract if the contract price is more than 25 percent in excess of the estimated cost of the Government's doing the work with its own equipment and crews (in-house).

Our review has disclosed that the Corps generally does not prepare in-house estimates but, rather, awards contracts for dredging to the contractor whose bid price is low and is not more than 25 percent in excess of the Corps' estimate of fair and reasonable cost to a contractor, exclusive of profit.

We examined dredging costs incurred under 32 contracts for one large dredging project and compared these with our estimates of the costs that the Corps would have incurred if it had done the same work in-house. We believe that 11 of the contracts were awarded at prices which were about \$2.1 million in excess of the statutory limitation. We believe also that these contract prices were about \$4.4 million in excess of the costs that would have been incurred if the work had been done by the Corps itself.

The Department of the Army has disagreed with our findings and stated that present policies and practices of the Corps are in accordance with the policies and intentions of both the Congress and the administration, that civil works projects are being conducted in a manner most economical and advantageous to the Government, and that the long-standing practical interpretation and application by the Corps of the law should not now be overturned.

We are recommending that the Secretary of the Army direct the Chief of Engineers to revise the Corps' regulations to require that the Corps award future dredging contracts in compliance with the law.

This report is being made available to the Congress in accordance with the requirement of the Budget and Accounting Act, 1921 (31 U.S.C. 53c), which provides that the Comptroller General shall report to the Congress every expenditure or contract made by a department in violation of law.

We are bringing our finding to the attention of the Congress in the event that it wishes to express its views regarding present policies followed by the Corps in awarding contracts for dredging. If the Congress should determine that the Corps' present policies and procedures applicable to its dredging operations are to be continued, we are suggesting that consideration be given to revising or repealing section 624 of Title 33, United States Code.

Copies of this report are being sent to the Director, Bureau of the Budget; the Secretary of Defense; and the Secretary of the Army.



Comptroller General  
of the United States

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REPORT ON  
NEED FOR IMPROVING  
POLICIES AND PROCEDURES  
FOR ESTIMATING COSTS, EVALUATING BIDS, AND  
AWARDING CONTRACTS FOR DREDGING  
CORPS OF ENGINEERS (CIVIL FUNCTIONS)  
DEPARTMENT OF THE ARMY

INTRODUCTION

The General Accounting Office has made a review of the policies and procedures of the Corps of Engineers (Civil Functions), Department of the Army, which relate to the estimating of contract costs, the evaluating of contract bids, and the awarding of contracts for dredging. Our review included a detailed examination of the contracts awarded by the Corps' New Orleans District Office for dredging the Mississippi River-Gulf Outlet project. Our review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

Our review was directed toward an examination of dredging contracts awarded by the Corps of Engineers and was undertaken because of the substantial costs incurred each year by the Corps for dredging. Primary emphasis was directed to those matters which appeared to need attention, including the Corps' policies and practices relating to the preparation of cost estimates used to evaluate the reasonableness of contractor proposals for dredging and the Corps' compliance with the requirements of sections 622 and 624 of Title 33, United States Code, which relate to the methods of performing river and harbor improvements and to the limitations on contracting for such work. (See p. 4.)

Our review was conducted at the Office of the Chief of Engineers in Washington, D.C., and at the Corps' district offices in New Orleans, Louisiana; Galveston, Texas; Mobile, Alabama; Seattle, Washington; New York, N.Y.; and Chicago, Illinois.

## BACKGROUND

The Corps of Engineers is responsible for improving and maintaining navigation channels throughout the United States. In carrying out this responsibility, the Corps makes substantial expenditures each year for dredging. Most of the dredging is accomplished with two types of hydraulic dredges--hopper and pipeline. A hopper dredge is a seagoing vessel which discharges the excavated material into large hoppers within the vessel for subsequent disposal at sea. A pipeline dredge has no storage space but discharges the dredged material through a pipe to an adjacent area. As of June 30, 1966, the Corps owned 15 hopper dredges and 18 pipeline dredges. All of the Corps' hopper dredging is performed with Corps-owned dredges, while most of its pipeline dredging is performed with dredges under contract.

During fiscal year 1965, the Corps expended about \$148 million for dredging--about \$41 million for dredging performed with Corps-owned dredges and about \$107 million for dredging performed under contracts. Estimated dredging costs for fiscal year 1966 were about \$161 million, of which about \$116 million represented the cost of work performed under contract.

The principal management officials of the Department of Defense and the Department of the Army responsible for the administration of the activities discussed in this report are listed in appendix I.

FINDING, RECOMMENDATIONS, AND  
MATTER FOR CONSIDERATION OF THE CONGRESS

NEED TO COMPLY WITH LAW IN  
AWARDING DREDGING CONTRACTS

Our review has shown that, although 33 U.S.C. 624 requires that no part of the funds appropriated for works of river and harbor improvement shall be used to pay for any work done by private contract if the contract price is more than 25 percent in excess of the estimated cost of doing the work with Government plant, the Corps generally does not prepare dredging cost estimates on the basis of in-house costs. Rather, the Corps prepares an estimate of cost representing the fair and reasonable cost to a well-equipped contractor, exclusive of profit, and follows a policy of awarding a contract whenever a bid is not more than 25 percent in excess of the Corps' estimate.

On the basis of a comparison of the costs which had been incurred under 32 contracts for the dredging of the Mississippi River-Gulf Outlet project with the costs which we estimated would have been incurred by performing the work in-house with Corps-owned dredges, we believe that 11 of these contracts had been awarded at prices that were about \$2.1 million in excess of the price limitation prescribed by law and about \$4.4 million in excess of the cost of performing the work in-house.

Cost estimate of performing the  
dredging in-house not prepared

Section 622 of Title 33, United States Code, provides that (1) it is the duty of the Secretary of the Army to apply the money appropriated for improvements of rivers and harbors in a manner which is most economical and advantageous to the Government and (2) in all cases where the project for a work of river or harbor



improvement provides for the construction or use of Government dredging plant, the Secretary of the Army may, in his discretion, have the work done by contract if reasonable prices can be obtained.

Section 624 provides that (1) no part of the funds appropriated for works of river and harbor improvement shall be used to pay for any work done by contract if the contract price is more than 25 percent in excess of the estimated cost of doing the work by Government plant and (2) the cost of labor and materials, depreciation of plant, supervision and overhead, and interest on the capital invested in the Government plant shall be included in the estimated cost of doing the work by Government plant.

The Corps' policy, generally, is to accomplish dredging by contract whenever reasonable contract prices can be obtained. In implementing this policy, the Chief of Engineers issued the following regulations which, in our opinion, have had the effect of negating the requirements of 33 U.S.C. 624 because these regulations have resulted, generally, in the discontinuance of preparing estimates of the cost of dredging with Government plant.

Engineer Regulation 415-2-301 dated November 13, 1961, provides that:

"Pursuant to \*\*\* [33 U.S.C. 622] it is the general policy of the Chief of Engineers, to have all civil works performed by contract whenever the nature of the work and the time available for execution will permit unless, after bids have been solicited, it is clearly evident that it would be to the best interest of the United States to have the work performed by Government plant and hired labor. \*\*\*"

Engineer Regulation 1180-1-1, change 82, dated March 15, 1962, provides that an in-house cost estimate shall be prepared for basic construction contracts under the following conditions.

- "(1) If suitable Government plant is physically available in the District or is obtainable elsewhere in the Corps of Engineers for use within the time limitations that would be allowed a contractor \*\*\*.
- "(2) If the judgment of the District Engineer, the work could be done at a reasonable cost with plant purchased or leased for the purpose and if the District Engineer is prepared, in the event of rejection of bids, to recommend the prosecution of the work by Government plant and hired labor.

"\*\*\* When suitable Government plant is available or could be acquired \*\*\* the award of the contract is subject to the statutory 25 percent limitation in 33 U.S.C. 624. \*\*\*"

At the six district offices where we made our review, these regulations have been interpreted as requiring the preparation of cost estimates for performing dredging in-house only when Corps-owned dredges are available or when such dredges will become available within the time allowed for a contractor to start work after the opening of bids.

Since the Corps owns only 18 pipeline dredges and has 38 districts engaged in civil works projects, its dredges are available for only a small portion of the required dredging; consequently, very few estimates of the cost of performing dredging in-house with Corps-owned dredges have been prepared.

Our review of 233 cost estimates prepared by the six district offices showed that only six estimates had been prepared on the basis of performing the dredging in-house with Corps-owned dredges. In these six cases, the lowest bids received ranged from 53 percent to 110 percent higher than the in-house cost estimates. As a result, the bids were rejected and the dredging was performed in-house with Corps-owned dredges.

Thus, on the basis of these six instances and our review of the contracts awarded for dredging the Mississippi River-Gulf Outlet project (see p. 24), it appears to us that contractors' bids for dredging may often be substantially higher than the cost of performing the dredging in-house. Furthermore, because the Corps generally does not prepare in-house dredging cost estimates and, as a result, does not know whether it is awarding dredging contracts at prices that are more than 25 percent in excess of the estimated cost of doing the dredging in-house utilizing Government plant, it is our opinion that the Corps is not complying with the provisions of 33 U.S.C. 624.

Certain contracts for dredging  
Mississippi River-Gulf Outlet awarded  
at prices exceeding legal limitation

Construction of the Mississippi River-Gulf Outlet was authorized by the Congress in the act of March 29, 1956 (70 Stat. 65), to provide an alternate ship route to the port of New Orleans and to allow for the orderly expansion and growth of the port. The authorization provided for construction and maintenance of a ship channel from the Gulf of Mexico to New Orleans, a total distance of 75.4 miles which included the entrance channel at the Gulf of Mexico. Detailed planning of the project was commenced in July 1956, the first contract for construction was awarded in March 1958, and the dredging was completed in March 1965. The dredging work was accomplished by contractors under 32 contracts awarded by the Corps' New Orleans District Office at a total cost of about \$37,868,000.

Our review showed that the District Office's cost estimates used in evaluating contractors' bids for each of the 32 contracts had not been prepared, as required by law, on the basis of the

estimated cost of performing the dredging in-house but had been prepared on the basis of the Corps' estimate of fair and reasonable cost to a contractor, exclusive of profit. We prepared estimates of the in-house cost of performing the dredging that had been contracted for under the 32 contracts. As shown in appendix II, our in-house cost estimates were generally lower than the Corps' estimate of fair and reasonable cost to a contractor, exclusive of profit.

Our estimates were prepared on the basis of cost information obtained from the New Orleans District Office, cost information obtained from other Corps district offices then performing in-house dredging, cost information obtained from manufacturers of dredging equipment, and analyses of Corps' estimates of contractor costs. Our estimates were based on the actual dredging schedule for the project and included the Corps' costs of operating dredges of the size and capacity used by the contractors, an appropriate charge for depreciation and interest on the capital that the Corps would have had to invest in such dredges, and an allowance for Federal income tax revenues that the Government would have forgone if the Corps had performed the dredging in-house.

With the exception of the estimated Federal income tax revenues, we discussed our method of computing the in-house cost estimates with officials of the New Orleans District Office. Although they did not review our detailed computations, the officials agreed that the methods we used in estimating the various cost elements were reasonable. Our estimate of Federal income tax revenues which would have been forgone was based on information received from the Internal Revenue Service.

As shown in appendix II and summarized in the following schedule, the prices for 20 of the 32 contracts exceeded our estimates of the cost to perform the work in-house. We believe that 11 of these contracts had been awarded at prices that were about \$2.1 million in excess of the price limitation prescribed by law and about \$4.4 million in excess of the costs that would have been incurred had the Corps performed the work in-house with Corps-owned dredges.

	<u>Number of contracts</u>	<u>Awarded contract price</u>	<u>GAO estimated in-house cost</u>	<u>Contract price over under(-) GAO estimated in-house cost</u>
Contract prices in excess of estimated in-house cost:				
Over 125 percent	11	\$13,677,000	\$ 9,243,000	\$4,434,000 <sup>a</sup>
100 to 125 percent	<u>9</u>	<u>10,661,000</u>	<u>10,020,000</u>	<u>641,000</u>
	20	24,338,000	19,263,000	5,075,000
Contract prices less than estimated in-house costs	<u>12</u>	<u>13,530,000</u>	<u>16,936,000</u>	<u>-3,406,000</u>
Total	<u>32</u>	<u>\$37,868,000</u>	<u>\$36,199,000</u>	<u>\$1,669,000</u>

<sup>a</sup>\$2.1 million of this difference represents contract prices which were in excess of the limitations prescribed in 33 U.S.C. 624.

Because Corps officials agreed that our method of computing in-house cost estimates was reasonable and because, in those cases where the Corps had prepared in-house estimates, the low contractor bids were substantially higher than the in-house estimates, we

believe that it is reasonable to assume that, had estimates on the basis of in-house costs been prepared, the Corps would have been aware that many of the low contract bids were in excess of the limitation prescribed by 33 U.S.C. 624. Under such circumstances, the Corps, to comply with legal limitations, would have been required to reject all bids and to take further action such as (1) readvertising, (2) negotiating with the contractors, or (3) performing the dredging with Corps-owned equipment.

Need to consider in-house costs of performing major dredging projects

In reviewing the planning for the Mississippi River-Gulf Outlet project, we found no evidence that any consideration had been given to possible economies which might result from performing all or part of the dredging with Corps-owned dredges.

Under the Corps' general policy of accomplishing most of its dredging by contract, the Corps does not give consideration during the planning phase of a major project--when there would be sufficient lead time to acquire necessary plant and equipment--to performing the dredging in-house. Officials of the New Orleans District Office have informed us that, generally, estimates of in-house costs are prepared only when contractor bids are more than 25 percent in excess of the Corps' estimate of cost to a contractor. We believe, however, that the district offices can seldom consider the performance of in-house dredging at the time bids are received from contractors, because the Corps owns a limited number of dredges and normally will not have sufficient time to acquire the necessary equipment.

Although the New Orleans District Office did not consider performing the dredging in-house, we estimated the savings that the Corps could have realized had it acquired dredges and performed the dredging in-house. Our estimates were prepared on the basis of the Corps' acquiring one, two, and three dredges at a cost of \$2,214,000 each and performing the dredging (1) on the schedule used under the contracts and (2) on a schedule which would have obtained maximum utilization of the acquired dredges. We estimate that, by rescheduling the work, the Corps could have purchased three dredges and support equipment and performed about 69 percent of the dredging at savings of about \$5.5 million.

It is interesting to note that the Corps could have saved about \$700,000 (\$5.5 million less \$4.8 million--undepreciated value of dredges) if it had purchased the three dredges, performed the dredging in-house, and scrapped the dredges after completion of the Mississippi River-Gulf Outlet project. As a practical matter, however, the dredges and support equipment would have been available to the Corps for future construction and maintenance work whenever economies warranted performing the work in-house.

We have assumed that the remaining 31 percent of the dredging could have been performed by the commercial contractors at the contract prices actually obtained. Our estimates are summarized in the following schedules.

Description	Performance of dredging in-house			
	On an unadjusted work schedule with			On an adjusted work schedule with
	One dredge	Two dredges	Three dredges	Three dredges
Portion of total dredging	21%	37%	47%	69%
Contract cost (note a)	<u>\$7,824,000</u>	<u>\$13,285,000</u>	<u>\$16,916,000</u>	<u>\$23,369,000</u>
Estimated in-house cost:				
Operating cost	\$4,482,000	\$ 7,839,000	\$10,591,000	\$15,087,000
Interest on investment in dredges (note b)	200,000	395,000	585,000	600,000
Depreciation	623,000	1,246,000	1,877,000	1,877,000
Federal income tax revenue forgone	<u>117,000</u>	<u>199,000</u>	<u>254,000</u>	<u>350,000</u>
Estimated in-house cost	<u>5,422,000</u>	<u>9,679,000</u>	<u>13,307,000</u>	<u>17,914,000</u>
Estimated savings if dredging had been done in-house	<u>\$2,402,000</u>	<u>\$ 3,606,000</u>	<u>\$ 3,609,000</u>	<u>\$ 5,455,000</u>

<sup>a</sup>Includes Corps overhead costs applicable to contract administration.

<sup>b</sup>Interest on investment in the dredges for the period April 1958 through December 1964.



We are of the opinion that the Corps, in planning for the authorization and construction of major dredging projects--projects which will require the award of several contracts and the approval of the Congress--should prepare an estimate of the cost of having the dredging performed in-house with Corps-owned dredges and an estimate of the cost of having the dredging performed under contract. These estimates should be made available to the Congress so that in considering the project it may be aware of the alternative costs of the project.

Agency comments and our evaluation thereof

By letter dated October 19, 1966 (see app. III), the Department of the Army, in commenting on the matters discussed in this report, stated that (1) the policies and practices of the Corps of Engineers for prosecution of civil works projects were in accordance with the policies and intentions of both the Congress and the administration, (2) the civil works projects were being prosecuted in a manner which was most economical and advantageous to the Government, and (3) the long-standing practical interpretation and application by the Corps of Engineers of the laws (33 U.S.C. 622, 624) should not be overturned.

The Department did not agree that 33 U.S.C. 624, as interpreted by us, required an estimate of the cost of performing work in-house whether Government plant was available or not. The Department stated that it was its position, to the contrary, that Corps of Engineers policies and practices, which had been in effect for many years, represented the practical and true application of the law, in line with the acts and intentions of both the Congress and the administration with respect to the method for prosecution of civil works. The Department stated also that the limitation in

33 U.S.C. 624 presupposed the situation where Government plant was available in sufficient quantity to perform the authorized public works.

The Department stated further that it did not concur with our proposal that Government estimates based on nonexistent or non-available Government plant be prepared for evaluation of contractor proposals and that preparation of such estimates would be meaningless since the work could only be performed by contract.

It is our opinion that the Corps is accomplishing much of its dredging work in a manner which is not the most economical and advantageous to the Government because, as stated on pages 7 through 10, the Corps has awarded several contracts at prices which were substantially more than 25 percent in excess of the cost, as estimated by us, of having the dredging performed in-house with Corps-owned dredges.

Although 33 U.S.C. 622 provides that the Secretary of the Army is authorized to have dredging performed by contract, it also contains a restriction stating that the contract prices must be reasonable. It seems clear to us that 33 U.S.C. 624, as quoted below, is intended to define the limit of reasonableness.

"No part of the funds appropriated for works of river and harbor improvement shall be used to pay for any work done by private contract if the contract price is more than 25 per centum in excess of the estimated cost of doing the work by Government plant \*\*\*."

We are not aware of any amendments or modifications to 33 U.S.C. 624 which limit its applicability to instances where Government plant is available to perform the work or which provide that the 25-percent limitation be applied to a Government estimate of fair and reasonable cost to a contractor--a cost that may be

substantially higher than the cost of dredging with Government plant. We believe that the nonavailability of Corps-owned dredges for in-house dredging should not preclude the preparation of in-house estimates and the comparison of such estimates with contractor proposals. The mere preparation of a cost estimate would not obligate the Corps to use its dredges for performing the work.

It is our opinion that, before awarding a contract for dredging, the Corps must prepare an estimate of the cost of having the dredging performed in-house with Corps-owned dredges. Without this estimate the Corps cannot determine that a contractor's bid is within the limitation imposed by law.

Furthermore, we believe that the preparation of in-house estimates would not be meaningless because such estimates could be used in making determinations as to whether (1) bids were within acceptable legal limitations, (2) bids should be resolicited, (3) negotiation should be entered into, (4) work could be rescheduled and performed when Government dredges became available, (5) Government dredges could be used immediately and other work rescheduled, (6) dredges should be leased by the Corps, or (7) authority to purchase dredges should be requested from the Congress.

The Department contends that the Corps' policies and practices are in accordance with the intentions of both the Congress and the administration. We recognize that the Corps does not have the large number of dredges it had several years ago and thus is able to perform in-house only a small part of the dredging required and that the administration and the Congress have encouraged greater utilization of contractors by Government agencies. We are not questioning the applicability of this policy when reasonable prices can be obtained. We believe, however, that, in the absence of the

repeal or modification by the Congress of 33 U.S.C. 624, the requirements set forth therein must be complied with.

The Department has further stated that:

"It is considered impracticable to acquire expensive plant during the project planning stage in anticipation of not obtaining reasonable bids for performance of the work by private contract. The receipt of favorable bids could result in such acquired plant standing idle with costs to the Government being incurred while in this non-productive status. Moreover, the acquisition of plant solely to compete with the contracting industry would be contrary to the existing policies and directives of the Bureau of the Budget."

At no time have we suggested that the Corps acquire dredges solely to compete with private contractors. Rather, we are proposing that, when planning for the authorization and construction of major dredging projects, the Corps prepare estimates of the cost of performing the work both with Corps-owned dredges and with dredges under contract so that, in considering the projects, the Congress may be aware of alternative costs. Should the Congress determine that dredging projects utilizing Corps-owned dredges are to be undertaken and should the Corps find it necessary to acquire additional dredges, we believe that, in view of the amount of dredging required each year, the Corps will have sufficient opportunity to utilize its dredges.

## Conclusions

Our review disclosed that, generally, the Corps does not prepare dredging cost estimates on the basis of the in-house cost to the Government for using Corps-owned dredges. Consequently, it is our opinion that the Corps is not complying with the provisions of 33 U.S.C. 624 and that the Corps is not accomplishing its dredging in a manner most economical to the Government. Therefore, we believe that the Corps' regulations should be revised to require that estimates of the cost of performing dredging with Corps-owned dredges be prepared and used as one of the bases for accepting or rejecting contractor's bids. Also, we believe that the revised regulations should provide specific estimating procedures in order to ensure uniform practices among various Corps district offices.

We recognize that the Corps' policies are directed toward maximum utilization of contractors for dredging. We are not questioning the applicability of this policy when reasonable contract prices can be obtained. However, the Corps' authority to award dredging contracts is subject to the limitation prescribed in 33 U.S.C. 624. Thus, in those cases where all bids received are more than 25 percent in excess of the Corps' estimate of the cost of performing the dredging in-house, we believe that the Corps should reject the bids and resolicit bids on an advertised or negotiated contract basis.

We believe that negotiation should be employed by the Corps when advertisement or readvertisement does not result in the receipt of acceptable bids. Under the provisions of 10 U.S.C. 2304, the head of an agency is authorized to negotiate if:

"\*\*\* the purchase or contract is for property or services for which he determines that the bid prices received after formal advertising are unreasonable as to all or part of

the requirements, or were not independently reached in open competition, and for which (A) he has notified each responsible bidder of intention to negotiate and given him reasonable opportunity to negotiate; (B) the negotiated price is lower than the lowest rejected bid of any responsible bidder, as determined by the head of the agency; and (C) the negotiated price is the lowest negotiated price offered by any responsible supplier; \*\*\*."

### Recommendations

We therefore recommend that the Secretary of the Army direct the Chief of Engineers to revise the Corps' regulations and procedures to require that:

1. Estimates be prepared of the cost of performing dredging in-house with Corps-owned dredges.
2. Bids be solicited on an advertised basis and evaluated on the basis of in-house cost estimates.
3. In those instances where all bids received are more than 25 percent in excess of the in-house cost estimate, all bids be rejected and bids be resolicited on an advertised basis.
4. Negotiations with contractors be entered into when it becomes apparent that further advertising is not likely to result in the receipt of a bid that is less than 25 percent in excess of the in-house cost estimates.
5. In those instances where contracts are negotiated and adequate effective competition is not present, detailed cost breakdowns be submitted by contractors with certifications that the information submitted is the most current, complete, and accurate available.
6. If negotiations with contractors do not result in a cost proposal that is within the 25 percent limitation:
  - a. Dredging be performed with Corps-owned dredges if available or, if not available, with leased contractor-owned dredges if available and leasing costs are acceptable.

- b. In those instances where Corps-owned dredges are not available and contractor-owned dredges are not available or cannot be leased at acceptable costs, the Congress be advised of these circumstances and requested to approve the Corps' acquiring additional dredges or awarding contracts at prices that are in excess of 25 percent of the estimated cost of performing the dredging in-house.

Because the total cost of major dredging projects, such as the Mississippi River-Gulf Outlet project, may be significantly less costly if performed with Corps-owned dredges rather than performed under contract, we recommend that for major dredging projects the Secretary require the Chief of Engineers to prepare for submission to the Congress an estimate of (1) the cost of having the dredging performed in-house with Corps-owned dredges and (2) the cost of having the dredging performed under contract, so that before authorizing a project the Congress may be aware of the estimated alternative costs.

#### Matter for consideration of the Congress

The Corps has, for the past several years, followed policies and procedures which, in our opinion, reflect a misinterpretation of the intent of 33 U.S.C. 624. The Corps has taken the position that it is not required to prepare in-house cost estimates unless Government plant is or will be available to do the dredging. We believe that, before awarding a contract for dredging, the Corps, in order to comply with the provisions of 33 U.S.C. 624, must prepare an estimate of the cost of having the dredging performed in-house with Corps-owned dredges. We believe also that the adoption of our recommendations will provide the Corps with a reasonable basis for accomplishing its dredging in compliance with the provisions of 33 U.S.C. 624, regardless of the availability or

nonavailability of Corps-owned dredges, and will effect an economy in the Corps' operations.

We recognize that the Corps has followed its present practices and policies for a number of years and that the Congress has appropriated funds on the basis of estimates prepared by the Corps. It is our opinion, however, that there has been a deviation from the provisions of 33 U.S.C. 624, and we are therefore bringing the matter to the attention of the Congress. If the Congress should determine that the Corps' present policies and procedures applicable to its dredging operations are to be continued, we suggest that consideration be given to revising or repealing 33 U.S.C. 624.



**APPENDIXES**



PRINCIPAL MANAGEMENT OFFICIALS OF  
 THE DEPARTMENT OF DEFENSE  
 AND THE DEPARTMENT OF THE ARMY  
 RESPONSIBLE FOR THE ADMINISTRATION OF  
 THE ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office	
	From	To
<u>DEPARTMENT OF DEFENSE</u>		
SECRETARY OF DEFENSE:		
Charles E. Wilson	Jan. 1953	Oct. 1957
Neil H. McElroy	Oct. 1957	Dec. 1959
Thomas S. Gates, Jr.	Dec. 1959	Jan. 1961
Robert S. McNamara	Jan. 1961	Present
<u>DEPARTMENT OF THE ARMY</u>		
SECRETARY OF THE ARMY:		
Wilbur Brucker	July 1955	Jan. 1961
Elvis J. Stahr, Jr.	Jan. 1961	June 1962
Cyrus R. Vance	July 1962	Jan. 1964
Stephen Ailes	Jan. 1964	July 1965
Stanley R. Resor	July 1965	Present
CHIEF OF ENGINEERS:		
Lt. Gen. Samuel Sturgis	Jan. 1953	Oct. 1956
Lt. Gen. Emerson C. Itschner	Oct. 1956	May 1961
Lt. Gen. Walter K. Wilson, Jr.	May 1961	June 1965
Lt. Gen. William F. Cassidy	July 1965	Present

APPENDIX II

COMPARISON OF IN-HOUSE COST

ESTIMATED BY THE GENERAL ACCOUNTING OFFICE

WITH PRICES OF CONTRACTS AWARDED FOR DREDGING

THE MISSISSIPPI RIVER-GULF OUTLET

<u>Contract number</u>	<u>Corps estimate of cost to contractor</u>	<u>GAO estimate of Corps' in-house cost</u>	<u>Awarded contract price</u>	<u>Percent of contract price to GAO estimate</u>
58-408	\$ 1,452,578	\$ 1,318,794	\$ 1,777,189	134.8
58-563	1,481,040	1,113,738	1,635,315	146.8
59-338	967,052	877,188	1,064,497	121.4
60-24	1,767,587	1,576,978	1,621,972	102.9
60-235	588,533	460,037	599,312	130.3
60-255	1,743,130	2,015,653	1,846,380	91.6
60-297	788,249	1,006,182	791,449	78.7
60-343	750,847	862,329	714,824	82.9
61-29	957,516	1,066,329	1,131,060	106.1
61-91	1,387,249	1,335,095	1,391,799	104.2
61-133	665,358	405,824	696,626	171.7
61-150	1,323,896	1,145,829	1,156,639	100.9
61-171	985,095	1,076,712	829,318	77.0
61-175	928,487	1,692,089	700,931	41.4
61-184	66,700	54,369	79,800	146.8
61-217	650,611	836,001	507,413	60.7
61-232	1,693,161	936,904	763,207	81.5
61-252	987,454	683,958	866,214	126.6
61-273	709,765	1,157,110	749,800	64.8
62-1	355,932	366,935	377,360	102.8
62-25	1,752,780	2,603,092	2,129,774	81.8
62-131	543,000	613,505	565,500	92.2
62-199	1,105,267	757,876	1,221,731	161.2
62-254	971,734	629,848	1,106,192	175.6
62-270	1,471,501	1,239,132	1,472,824	118.9
62-307	961,373	503,042	859,185	170.8
63-51	3,713,840	2,113,775	3,278,950	155.1
63-66	1,241,674	1,260,406	1,283,376	101.8
63-224	1,551,331	1,202,219	1,556,472	129.5
64-53	2,878,793	2,316,601	2,134,153	92.1
64-87	2,061,482	1,819,924	1,797,253	98.8
<u>64-183</u>	<u>1,505,381</u>	<u>1,151,594</u>	<u>1,161,559</u>	<u>100.9</u>
Total	<u>\$40,008,396</u>	<u>\$36,199,068</u>	<u>\$37,868,074</u>	104.6



DEPARTMENT OF THE ARMY  
WASHINGTON, D.C. 20310

OCT 19 1966

Mr. J. T. Hall, Jr.  
Assistant Director  
United States General Accounting Office  
Washington, D. C. 20540

Dear Mr. Hall:

This is in reference to your letter of 12 August 1966 forwarding a copy of your draft report to the Congress, entitled "Report on Review of Policies and Procedures for Evaluating Bids and Awarding Contracts for Dredging of Civil Works Projects, Corps of Engineers (Civil Functions) Department of the Army."

The above mentioned report has been reviewed and attached is a statement of the comments of the Department of the Army. For the reasons outlined in the statement, the Secretary of the Army considers that the present policies and practices of the Corps of Engineers for prosecution of Civil Works projects are in accordance with the policies and intentions of both the Congress and the Administration and that the Civil Works projects are being prosecuted in a manner which is most economical and advantageous to the Government. The Secretary further considers that the long-standing practical interpretation and application by the Corps of Engineers of the laws (33 U.S.C. 622, 624) should not now be overturned, and the recommendations in the GAO report pertaining thereto should not be adopted.

Sincerely yours,

A handwritten signature in black ink that reads "Alfred B. Fitt".

Alfred B. Fitt  
Special Assistant (Civil Functions)

Incl  
Comments of  
the Dept. of  
the Army

Report to the Congress of the United States on Review of Policies and Procedures for Evaluating Bids and Awarding Contracts for Dredging of Civil Works Projects, Corps of Engineers (Civil Functions) Department of the Army.

Comments of the Department of the Army, in connection with the subject report.

1. Dredging in Civil Works projects is accomplished by the Corps of Engineers in accordance with the following provision of law:

"It shall be the duty of the Secretary of the Army to apply the money appropriated for improvements of rivers and harbors, other than surveys, estimates and gaugings, in carrying on the various works, by contract or otherwise, as may be most economical and advantageous to the Government. And all works of improvement authorized to be prosecuted or completed under contracts may, in the discretion of the Secretary of the Army, be carried on by contract or otherwise, as may be most economical or advantageous to the United States. In all cases where the project for a work of river or harbor improvement provides for the construction or use of Government dredging plant, the Secretary of the Army may, in his discretion, have the work done by contract if reasonable prices can be obtained." (33 U.S.C. 622)

"No part of the funds appropriated for works of river and harbor improvement shall be used to pay for any work done by private contract if the contract price is more than 25 per centum in excess of the estimated cost of doing the work by Government plant: Provided, that in estimating the cost of doing the work by Government plant, including the cost of labor and materials, there shall also be taken into account proper charges for depreciation of plant and all supervising and overhead expenses and interest on the capital invested in the Government plant, but the rate of interest shall not exceed the maximum prevailing rate being paid by the United States on current issues of bonds or other evidences of indebtedness." (33 U.S.C. 624)

Pursuant to the foregoing statutory provision (33 U.S.C. 622), it is the general policy of the Chief of Engineers to have all civil works performed by contract whenever the nature of the work and the time available for execution will permit unless, after bids have been solicited, it is clearly evident that it would be in the best interest of the United States to have the work performed by Government plant and hired labor.

2. When such work is advertised for competitive bidding under either of the following conditions, a hired labor estimate is prepared, and the award of the contract is subject to the statutory limitation of 25% contained in 33 U.S.C. 624:

a. If suitable Government plant is physically available in the Engineer District or is obtainable elsewhere in the Corps of Engineers for use within the time limitations that would be allowed a contractor.

b. If in the judgment of the District Engineer, the work could be done at a reasonable cost with plant purchased or leased for the purpose and if the District Engineer is prepared, in the event of rejection of bids, to recommend the prosecution of the work by Government plant and hired labor.

3. When the above-cited conditions do not exist, a Government estimate based on fair and reasonable cost to a contractor without profit is prepared and if the qualified low bidder comes within 25% of this estimate it is the general policy to award the contract. The subject report of the GAO concludes that Corps of Engineer policies and practices providing for the preparation of "fair and reasonable" cost estimates to evaluate the reasonableness of contractor proposals for dredging work are not in compliance with the requirements of 33 U.S.C. 622 and 624. Those conclusions and the recommendations in the report are based apparently on an interpretation that 33 U.S.C. 624 requires a hired labor estimate whether Government plant is available or not. It is our position to the contrary that Corps of Engineers policies and practices, which have been in effect for many years, represent the practical and true application of the above laws, in line with the acts and intentions of both the Congress and the Administration with respect to the method for prosecution of civil works.

4. The limitation in 33 U.S.C. 624 presupposes the situation where Government plant is available in sufficient quantity to perform the authorized public works. This situation may well have existed when this limitation was inserted in the Rivers and Harbors Appropriation Act of July 27, 1916. However, as stated in the GAO report, the Corps of Engineers now owns a minimum number of pipeline dredges of the type owned and operated by contractors. These dredges are employed generally on maintenance dredging work, or on small jobs where it is not practical to mobilize contractor plant and equipment. A reduction in previously available Government plant and equipment resulted when circumstances changed and competitive bids generally could be obtained for performing the authorized civil works projects. Accordingly, the policies of the Congress and the Administrations since the 1930's called for a reduction in the amount of work done by the Government that could be accomplished by contracts awarded as the result of competitive bidding by dredging firms.

5. It is considered impracticable to acquire expensive plant during the project planning stage in anticipation of not obtaining reasonable bids for performance of the work by private contract. The receipt of favorable bids could result in such acquired plant standing idle with costs to the Government being incurred while in this non-productive status. Moreover, the acquisition of plant solely to compete with the contracting industry would be contrary to the existing policies and directives of the Bureau of the Budget.

6. The "in-house" estimates for the Mississippi River - Gulf Outlet project prepared by GAO cannot be confirmed or refuted since details of the estimates were not made available for review. Regardless, we do not concur with the recommendation in the GAO report that Government estimates based on non-existent or non-available Government plant should be prepared for evaluation of contractor proposals. This would be meaningless since the work could only be performed by contract.

7. We submit, therefore, that the long-standing practical interpretation and application of the above laws by the Corps of Engineers should not now be overturned and that the recommendations in the GAO report pertaining thereto should not be adopted. We believe these policies and practices for prosecution of civil works projects are in accordance with the policies and intentions of both the Congress and the Administration, and that civil works projects are carried on by these policies and practices in the manner which is most economical and advantageous to the Government.