



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

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COMMUNITY AND ECONOMIC
DEVELOPMENT DIVISION

June 25, 1981

B-203758

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The Honorable E (Kika) de la Garza
House of Representatives

RELEASED



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Dear Mr. de la Garza:

Subject: [Information on the U.S. Coast Guard's Decision To Purchase the M/V Cowslip Vessel] (CED-81-128)

Your letter dated February 23, 1981, requested that we review the Coast Guard's decision to purchase a buoy tender--the M/V Cowslip--as opposed to a second vessel that was available for purchase--the M/V Woodbine. The Cowslip was purchased to replace the USCGC Blackthorn, a Coast Guard vessel which sank in Tampa Bay, Florida, in February 1980.

We have reviewed the Coast Guard's decision to purchase the Cowslip and found no basis to conclude that the purchase decision was improper. However, the Coast Guard relied on its own assessments of the relative conditions of both vessels. These assessments were not verified by a separate Coast Guard in-house assessment or by commercial vessel surveyors. Furthermore, cost comparisons developed by the Coast Guard and used in the purchase decision were based on cost estimates provided by the Coast Guard's Office of Engineering and were not independently verified. The final decision to purchase the Cowslip was approved by the Assistant Secretary for Administration, Department of Transportation.

In conducting our work we reviewed Coast Guard vessel inspection reports and purchase, renovation, and repair cost data used in evaluating the relative merits of the two vessels and arriving at the purchase decision. We met with and held discussions with Coast Guard officials who (1) performed the vessel inspections, (2) developed the cost data used in making the purchase decision, and (3) made the decision to purchase the Cowslip. We also held discussions with Department of Transportation officials involved in the purchase decision. Our work was conducted at Coast Guard and Department of Transportation headquarters in Washington, D.C.

BACKGROUND

In seeking a replacement for the Blackthorn, the Coast Guard determined that the Cowslip and Woodbine were the only 180-foot-long buoy tender vessels available at that time for purchase and asked that the vessel owners provide an asking price. Earlier,

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the Coast Guard had declared both vessels excess--the Cowslip in 1977 and the Woodbine in 1972--and had transferred them to the General Services Administration for disposal. Both vessels were among the Coast Guard's oldest 180-foot buoy tenders and had been used primarily to service aids to navigation, such as buoys and lighthouses.

Both vessels were inspected by the Coast Guard during the week of March 24, 1980. According to Coast Guard Chief of Staff's Office and Office of Engineering officials, the inspections were made primarily to determine the structural condition of each ship. The inspection findings and estimated repair costs for both vessels were summarized in a memorandum by the Chief, Office of Engineering. On January 19, 1981, with the approval of the Assistant Secretary for Administration, Department of Transportation, the Coast Guard purchased the Cowslip for \$1.6 million.

INSPECTION PROCEDURES AND CONDITION OF THE VESSELS

The Coast Guard generally does not purchase used vessels. It therefore does not have specified procedures for their inspection and purchase. Periodically, however, it determines the overall condition and remaining service life of its vessels. The Coast Guard's Ship Structure and Machinery Evaluation Board (SSMEB) makes these inspections. It deals with four major vessel components--main propulsion machinery, auxiliary machinery and systems, prime mission equipment, and structure or exterior hull. The satisfactory condition of these components is essential to safe transportation, habitability, and accomplishment of a vessel's mission. In addition, the Coast Guard has a vessel inspection and safety group that routinely assesses commercial vessels in use on navigable waterways to ensure that they are in a safe operating condition. ^{1/} This group also has assisted in SSMEB inspections. Occasionally, vessel owners themselves employ commercial vessel surveyors to verify vessel condition.

In its inspections of the Cowslip and Woodbine vessels, the Coast Guard used general SSMEB inspection criteria as well as more technical Department of the Navy criteria. Yet it did not complete full SSMEB inspections on the vessels. Although SSMEB forms were used to record the inspection results, the inspections were not considered SSMEB inspections since a proper SSMEB inspection

^{1/}In a GAO report entitled "How Effective is the Coast Guard in Carrying Out Its Commercial Vessel Safety Responsibilities?" (CED-79-45, dated May 25, 1979) we reported on the Coast Guard's vessel inspection program and provided recommendations to strengthen its effectiveness.

normally requires the vessel to be drydocked and takes 5 to 10 days to complete. This was not the case in the Cowslip and Woodbine inspections. A Coast Guard team comprised of four persons, one of which had been previously involved in SSMEB inspections, conducted the inspections: the Chief, Facility Management Branch, Office of Navigation; the Chief, Negotiation Section, Office of Comptroller; and two naval engineers from the Office of Engineering. One of the naval engineers prepared the cost estimates. The Chief of the Aids to Navigation Section said that the naval engineers had many years of naval engineering experience as well as years of sea duty. He said that the team members were qualified to make the assessments of vessel condition and the cost estimates.

According to these inspection officials, they took only 9 to 10 hours to inspect each vessel. They stated that every accessible compartment of both vessels was visually inspected but that neither vessel was drydocked to verify structural damage because it would have required added towing and docking costs. The inspection team members said they tried to start both vessels' motors but that the Woodbine's motors could not be started. A second confirmatory inspection was not done on either of the vessels since regulations did not require it and the Coast Guard did not think it was necessary.

The inspection reports prepared by the Coast Guard team describe the Cowslip as being in substantially better condition than the Woodbine. The reports describe specific equipment and structural elements as excellent, good, fair, or poor. Although neither of the vessels had any elements rated excellent, the Cowslip had nearly twice as many elements rated in good condition as the Woodbine.

The Chief, Office of Engineering, in an April 21, 1980, memorandum described the condition of the Woodbine as follows: (1) the propulsion machinery was intact but poorly maintained, (2) much of the auxiliary equipment was deteriorated, missing, and poorly preserved and maintained, and (3) the overall structural condition of the vessel was unacceptable. He cited the need for specific structural repairs including replacing 25 percent of the shell plating above the waterline, buckled frames, bulkheads, and longitudinals. In contrast, he described the Cowslip's condition as well preserved, with only minimal repairs required beyond that normally completed during a major renovation.

Officials in the Aids to Navigation Section, Office of Engineering, also discussed with us the Woodbine's condition. They added that since there were indications of structural damage to the Woodbine's shell plating above the waterline, it could be assumed that the area below water would have at least an equal or greater amount of damage. In addition, they

stated that structural damage was found in interior sections of the vessel near or below the waterline in the forward hold, in the freshwater storage tanks, the hawser (anchor cable) storage area, and in the motor room.

In discussions with three of the four persons who conducted the inspections--one was at sea during the period of our review--we were informed that the Cowslip owner had already completed certain refurbishing work on that vessel and was preparing it to be sold. They said that nothing had been done at that time to improve the Woodbine. They all agreed that a simple visual inspection would show easily the great difference in the condition of the two vessels.

PURCHASE AND RENOVATION
COSTS OF THE VESSELS

Cost estimates for the purchase and repair of both vessels were prepared by the Coast Guard's Office of Engineering. The estimates were not verified independently to establish their reasonableness and accuracy, though the Chief of the Navigation Section provided assurances that the estimates could be reconstructed based on the Chief of Engineering's April 21, 1980, memorandum describing the condition of the vessels. The Coast Guard estimated the total cost to purchase and renovate the Cowslip at about \$8.8 million and the Woodbine at about \$9.1 million, a difference of about a quarter of a million dollars. (See enc. I.) Although the Woodbine was offered for sale to the Coast Guard at \$275,000, as compared with the Cowslip purchase price of \$1.6 million, Coast Guard officials estimated the Woodbine would require an additional \$1.5 million in repairs beyond repairs needed for the Cowslip. The Coast Guard could provide no detailed supporting worksheets to show how the additional costs were determined. None were available in the files prepared by the naval engineer or other Office of Engineering files made available to us, and the officials we talked with were not aware that any had been prepared.

Initially, the Coast Guard planned to fully renovate whichever vessel it purchased. However, the Office of Management and Budget denied its request for fiscal year 1982 funding for the renovation. As a result both vessels were reevaluated in terms of activation costs--the minimal cost to put the vessels in operation. The activation cost for the Cowslip was estimated at \$2 million, while the Woodbine was judged to have such extensive structural damage, and to be in such poor condition, that it could not be considered for immediate activation since it required considerably more extensive renovation.

Finally, the Chief of the Program Division, Office of the Chief of Staff; the Chief of the Aids to Navigation Section, Office of Engineering; as well as other Coast Guard officials explained that

while costs were a major factor in the purchase decision, the substantially better condition of the Cowslip was considered to be of great importance. They said the fact that the Cowslip could be activated relatively quickly was a major factor in the Coast Guard's purchase decision.

CONCLUSIONS

The information provided to us by the Coast Guard on vessel condition and cost consistently showed the Cowslip to be the more cost-effective purchase. In addition, the Coast Guard officials we met with indicated that the Cowslip was in far better operating condition than the Woodbine.

The Coast Guard's assessments of the relative merits of the Cowslip compared to the Woodbine, both from a vessel condition and a purchase and renovation cost standpoint, were based on Coast Guard personnel judgments with no second confirmatory inspections or estimates, which we believe to be necessary in view of the large Federal expenditures involved. The Coast Guard could not provide detailed supporting data to enable us to verify the accuracy of the assessments of the vessel condition or of the cost estimates.

We therefore found no basis to conclude that the purchase of the Cowslip was improper compared to the possible purchase of the Woodbine.

RECOMMENDATION

We recommend that, in the future, the Secretary of Transportation require the Coast Guard, when it purchases used vessels, to complete a second, confirmatory inspection and cost estimate in its vessel assessment and cost estimating process. The assessments could be obtained by the Coast Guard's in-house capability or by a commercial surveyor.

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At your request, we did not obtain written agency comments on the matters discussed in this report. However, the matters contained in this report were discussed with Coast Guard officials and their comments have been included where appropriate. In commenting on our conclusion, Coast Guard officials stated that they did not believe an independent verification of vessel condition or of cost estimates was necessary when making this type of vessel purchase. They stated that they regard Coast Guard personnel as fully qualified to make the assessments independently. We continue to believe that a confirmatory verification should be required in the future in view of the many millions of dollars in Federal funds that may be involved.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of the report until 10 days from the date of its issuance. At that time we will send copies to interested parties and make copies available to others upon request.

Sincerely yours,

A handwritten signature in cursive script that reads "Henry Eschwege". The signature is written in black ink and is positioned above the typed name and title.

Henry Eschwege
Director

COMPARISON OF RENOVATION AND ACQUISITION COSTS
FOR THE COWSLIP AND WOODBINE

Cost estimates

(000 omitted)

<u>Description</u>	<u>Cowslip</u>	<u>Woodbine</u>
Basic major renovation	\$6,500	\$6,500
Structural repairs	50	1,000
Additional main propulsion machinery repairs		100
Additional auxiliary machinery repairs		200
Replace doors and hatches	20	180
Replace anchors and chains	36	
Replace anchor windlass		60
Cost savings for bow propulsion system	<u>a/ (136)</u>	
Outfit and spare parts	600	600
Transit cost	<u>150</u>	<u>150</u>
Total	<u>\$7,220</u>	<u>\$8,790</u>
Final offering price	<u>\$1,600</u>	<u>\$ 275</u>
Total acquisition plus renovation cost	<u>\$8,820</u>	<u>\$9,065</u>
Cost difference	\$ 245	

a/This amount is included in the \$6.5 million basic major renovation cost figure. It was deducted from the cost estimate for the Cowslip because the vessel had a bow propulsion system which did not need replacement.