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UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

CIVIL DIVISION

DEC 8 1970



Dear Admiral Bender:

The General Accounting Office has examined into the effectiveness of the Coast Guard's efforts to reduce the cost of its vessel construction and repair activities through the use of value engineering studies received from the Department of the Navy. We did not make an overall evaluation of the Coast Guard's value engineering program.

Value engineering (VE) has been defined as a systematic study of systems requirements, equipment, facilities, procedures, and supplies to achieve essential functions at the lowest cost. The Coast Guard recognizes that benefits can be realized through an effective VE program. For the construction and repair of its vessels, the Coast Guard encourages private shipbuilders, by the terms of their contracts, to develop acceptable VE studies which would promote cost savings to be shared by both parties. The in-house development of VE studies is likewise encouraged.

A large volume of VE studies are developed each year in connection with the construction and repair of the Navy's vessels. Navy regulations provide that copies of these studies be forwarded to other interested Government agencies, including the Coast Guard.

The Coast Guard had not established written procedures for the review and evaluation of the Navy studies. In many instances, Navy studies received by the Coast Guard had not been reviewed by officials responsible for the vessel construction program, and in those instances where the studies were reviewed, the Coast Guard's evaluation and disposition of the studies was accomplished in an informal manner.

The Navy circulated some of its studies to both Coast Guard Headquarters and to the Coast Guard Yard at Curtis Bay, Maryland; however, a substantial number of studies generated by commercial shipbuilders under Navy contracts were forwarded by the Navy only to the Yard.

In the absence of formal review procedures, there was an apparent misunderstanding between Headquarters and the Yard concerning how the studies were to be reviewed and evaluated. Yard officials stated that

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it was their understanding all Navy VE studies were received at Headquarters directly from the Navy, whereas Headquarters officials expressed their belief that the Yard was screening the studies and forwarding to Headquarters only those that appeared to be useful.

Yard officials stated that they reviewed the studies primarily from the standpoint of vessel repair and alteration. Although most of the commercially generated Navy studies forwarded to the Yard concerned new vessel construction for which Headquarters has responsibility, only a few of the studies were forwarded to Headquarters by the Yard. Consequently, a substantial number of studies received from the Navy were not evaluated by appropriate Coast Guard officials.

As a test of the potential value of the use of Navy studies in the Coast Guard program, we selected 55 of the studies for review and discussion with Coast Guard officials. These officials agreed that 20 of the 55 studies were suitable for use in the Coast Guard vessel construction and repair activities. The following case is illustrative of cost reductions that could be realized by the Coast Guard through the timely review and implementation, where appropriate, of Navy VE studies.

Use of commercial grade piping in lieu of
military specification grade piping

In 1967, a VE study submitted by a private shipbuilder to the Navy recommended the use of commercial grade piping in lieu of military specification grade piping for fuel and lubricating oil systems on ocean escort vessels. Although this study was circulated to the Coast Guard in 1968, it was not implemented.

About 19 months later the shipbuilder submitted the same study to Coast Guard Headquarters for use under a Coast Guard contract. The study was accepted and savings of about \$8,300 were shared equally by the shipbuilder and the Coast Guard.

The Coast Guard could have realized the total savings had the Navy study been properly evaluated and implemented prior to the award of the contract.

We recognize that the benefits to be realized by the Coast Guard through the use of Navy studies may not be as significant as the benefits realized by the Navy because the Coast Guard has a smaller vessel construction and repair program. The Coast Guard, however, has plans to construct several new vessels in the future and has a substantial continuing vessel repair and alteration program.

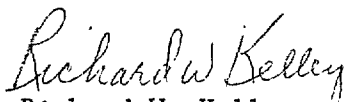
We believe, therefore, that the potential for savings through the use of Navy VE studies warrants the adoption of a more effective review procedure. Accordingly, we recommend that you take the action necessary to establish an effective review procedure to insure that Navy VE studies are properly evaluated and implemented, where appropriate, on a timely basis.

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We wish to acknowledge the cooperation given to our representatives during our review. Your comments and advice as to the action taken on the matters presented in this report shall be appreciated.

Copies of this report are being sent to the Secretary of Transportation.

Sincerely yours,



Richard W. Kelley
Assistant Director

Admiral Chester R. Bender
Commandant
The Coast Guard

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