their regulations, the Chief of Engineers had not, at the time of our review, established corpswide procedures for the review of work performed by architect-engineers. Consequently, we found that the contract price of \$15.4 million for the construction of the Summersville dam, dikes, and spillway was substantially increased primarily because the quantity estimate prepared by an architect-engineer firm was inaccurate and did not show the full scope and magnitude of the work

to be performed.

As a result, the Corps increased the contract price by \$8.2 million through negotiation, rather than through competitive bidding, and thereby lost the benefits normally attained through formal advertising. We estimate that about \$5.3 million of this increase in costs could have been subjected to competitive bidding. This portion of the increase was directly associated with increased work which could have been foreseen prior to contract award. An adequate review of the quantity estimate, in our opinion, would have disclosed (1) a substantial underestimate of the quantity of materials to be excavated for the dam foundation, a substantial overestimate of the available rock in designated sources, and (3) the need to locate sources of rock.

In addition to the loss of the benefit of full and free competition from procurement through formal advertising, costs of about \$348,500 were incurred which could have been avoided. These costs consisted of about \$276,000 for equipment which was idle because it could not be used for some of the additional work and about \$72,500 for addi-

tional administrative expenses.

In order to minimize the necessity for negotiated contract modifications, we proposed that the Chief of Engineers issue guidelines requiring the districts to review the work of architect engineers. We further proposed that a statement of the nature and extent of the review be made a part of the official files. The Department of the Army concurred in our report, in general and advised us that the Chief of Engineers was preparing instructions to the field offices in accordance with our proposals. These instructions were issued on February 17, 1967, and, if effectively implemented, they should reduce the necessity for negotiated contract modifications.

[Index No. 23—B-161330, Aug. 7, 1967]

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

In August 1967, we reported to the Congress that the Corps of Engineers needed to improve its policies and procedures for estimating contract costs, evaluating contract bids, and awarding contracts for dredging.

Our review indicated that some corps dredging was not accomplished as economically as possible and, in our opinion, the corps' practices in awarding contracts for dredging did not comply with the law and have resulted in some contracts being awarded at prices in excess of statutory limitations.