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September 30, 1999

Mr. Lewis M. Eisenberg  
Chairman  
Port Authority of New York and New Jersey  
One World Trade Center  
New York, NY 10048

Re: Report 99-F-25

Dear Mr. Eisenberg:

Pursuant to the State Comptroller's authority as set forth in Section 7071 of the Unconsolidated Laws of New York, we have reviewed the actions taken by officials of the Port Authority of New York and New Jersey (Port Authority), as of July 29, 1999, to implement the recommendations contained in our audit report, *Administration of Change Orders for Capital Programs* (Report 96-S-54). Our report, which was issued on January 29, 1998, examined controls over change orders in construction.

### **Background**

Change orders are administered by the Port Authority in connection with its capital program. Also known as an additional work order or an extra work order, a change order authorizes a contractor to add or delete work because of unanticipated field conditions or changes in design or project specifications. The cost of change order work is usually negotiated with an individual contractor. If a lump sum price cannot be negotiated, change order charges are often made on a time-and-material basis.

### **Summary Conclusion**

In our prior audit, we found that change orders were sometimes used instead of competitive bids; as a result, the cost of the work may have been higher than necessary. We also found that the approval processing time for some change orders was excessive. We concluded that many large-dollar change orders could have been avoided if projects had been better planned and more carefully designed. In our follow-up review, we found that Port Authority officials have taken steps to strengthen controls over the change order process.

## **Summary of Status of Prior Audit Recommendations**

Of the 11 prior audit recommendations, Port Authority officials have implemented seven recommendations, partially implemented one recommendation, and have not implemented three recommendations.

### **Follow-up Observations**

#### **Recommendation 1**

*Ensure that goals to limit the dollar value of change orders issued against contracts are met. Consider establishing a formal policy to limit subsequent additional extra work after contracts are awarded.*

Status - Partially Implemented

Agency Action - The Port Authority has established a goal for extra work (change orders) of 6 percent for heavy construction contracts and 8 percent for building construction contracts. We analyzed the Port Authority's listing of construction contracts (heavy construction and building combined) closed out during 1997 and 1998. Our analysis shows that in the aggregate, the Port Authority is generally meeting its goal. In 1997 and 1998, extra work accounted for 6.8 percent and 6.5 percent, respectively, of the total construction contracts' closed-out amount. However, our analysis also showed that the extra work for 43 of the 182 individual contracts closed out for 1998 exceeded the Port Authority's highest limit of 8 percent for building construction contracts. Moreover, extra work in 10 of the 43 exceeded 15 percent - - one was as high as 31 percent.

#### **Recommendation 2**

*Award contracts only to contractors who are financially qualified to perform the job.*

Status - Implemented

Agency Action - The Port Authority has a process in place to determine a contractor's financial capacity to perform the job. This process also was in effect during the prior audit. However, since the completion of the prior audit, the Port Authority has added a procedure to enhance this process. Now, for those contractors that the Port Authority requires a performance and payment bond, it also requires that the surety company issuing the bond attests to the bond's validity.

**Recommendation 3**

*Ensure that design reviews are thorough enough to detect major problems with the design.*

Status - Not Implemented

Agency Action - Port Authority officials have not make any changes in their design review process as a result of our prior audit. Port Authority officials believe that the quality assurance process they have in place to audit completed design work, helps ensure that obvious or critical design omissions are not made.

**Recommendation 4**

*Coordinate activities of participating departments before contract awards are made to minimize the number of change orders during construction stage.*

Status - Implemented

Agency Action - The Port Authority has a process in place to ensure that contract documents are reviewed by all participating departments and agencies, prior to awarding contracts. The Engineering Department coordinates these activities by transmitting contract documents (e.g., contract drawings, specifications, etc.) to the appropriate parties for their review and comments.

**Recommendation 5**

*Minimize the number of design and scope changes by defining the scope of the project adequately before the contracting process is initiated.*

Status - Implemented

Agency Action - Port Authority officials have a process in place covering project design and scope that they believe helps minimize the number of design and scope changes.

**Recommendation 6**

*Competitively bid all capital project work (above a predetermined dollar amount) outside the scope of original contracts unless it can be clearly demonstrated that this process will result in a substantial increase in cost or project delay.*

Status - Not Implemented

Agency Action - Port Authority officials indicate that having extra work performed without using the competitive bidding process may minimize project delays. However, they did not provide us with any analysis done to demonstrate or to identify the time saved by working outside the competitive bidding process.

Auditors' Comments - Our follow-up review of the Port Authority's supplemental agreement payments for 1998 found that 85 percent (worth more than \$27 million) of the supplemental agreements awarded that year had not been competitively bid. This is a high rate. Port Authority still needs to improve on this area.

#### **Recommendation 7**

*Develop procedures that specify time frames for the approval of [Post Award Contract Changes] PACCs to ensure that they are processed in a timely manner. Ensure that PACCs are approved before contractors begin change order work.*

Status - Implemented

Agency Action - Effective March 1999, the Port Authority established a goal of 20 to 30 days for the approval of PACCs.

#### **Recommendation 8**

*Ensure that management information systems can provide executive management with accurate, complete, and timely information on the costs and status of capital projects. Consider linking CAPTRAK and CONTRAK and including data from computerized systems used by field consultants to produce meaningful management reports.*

Status - Implemented

Agency Action - In January 1999, the Port Authority replaced its financial systems with the SAP R/3 System (SAP). SAP consists of application modules (e.g., financials, human resources, logistics, etc.), which will support all business transactions and are integrated interactively. Further, the Port Authority is in the process of implementing the SAP Project System Module to enhance its capital program reporting system and to support the planning, control and monitoring of long-term, highly complex projects with defined goals, such as construction projects. SAP benefits include its integration ability, flexibility and interactive processing. Also, information will be available real-time, on-line and thus will promote timeliness.

**Recommendation 9**

*Formally assess the process used by capital program managers to estimate the costs of major construction projects. Specifically, capital program managers should determine if steps can be taken to help ensure that estimates for major, long-term projects can be made more accurately.*

Status - Implemented

Agency Action - The Port Authority reassessed the process used by its capital program managers to estimate project costs. As a result, they revised their project cost template to lower estimated total project costs by reducing project contingency expenses, allocations for planning and engineering, and financial expenses. In addition, the provisions for extra work have been lowered.

**Recommendation 10**

*Establish a process for the formal periodic review of project cost estimates, especially for major long-term projects. Depending on changes in inflation rates, market factors, and any other major factors identified, revise cost estimates to more accurately project anticipated final project costs.*

Status - Not Implemented

Agency Action - Port Authority officials believe that the amount authorized by the Board based on the original estimates should not be revised unless there is a need for a project re-authorization to increased spending. They claim that the authorized amount is an important benchmark to measure estimates against actual costs. Therefore, the Port Authority has not made any changes to this process nor do they believe that changes are necessary.

**Recommendation 11**

*Ensure that appropriate Board approval is obtained to expend funds materially above the levels previously authorized by the Board. Also, ensure that CAPTRAK is timely and accurately updated for any changes in allocation amounts approved by the Board.*

Status - Implemented

Agency Action - The Port Authority has a process in place for Board re-approval of projects that are forecast to overrun the initial Board-authorized amount. Port Authority officials indicate that no additional funds can be expended on a project without prior Board authorization. Also, with the implementation of SAP (as indicated for Recommendation 8), data entered and received will be more timely and accurately updated.

Major contributors to this report were Santo Rendon, Charles Johnson, and Sheila Jones.

We would appreciate your written response to this report within 30 days, indicating any actions planned or taken to address any unresolved matters discussed in this report. We also thank the management and staff of The Port Authority of New York and New Jersey for the courtesies and cooperation extended to our staff during this review.

Very truly yours,

Frank J. Houston  
Audit Director

cc: Charles Conaway  
Robert E. Boyle  
Edward L. Jackson