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STATE OF NEW YORK
OFFICE OF THE STATE COMPTROLLER

January 16, 2002

Mr. Joseph H. Boardman
Commissioner
Department of Transportation
State Office Building Campus – Building #5
Albany, New York 12232

Re: Report 2001-F-38

Dear Mr. Boardman:

Pursuant to the State Comptroller's authority as set forth in Article V, Section 1 of the State Constitution and Article II, Section 8 of the State Finance Law, we have reviewed actions taken by officials of the Department of Transportation as of December 12, 2001, to implement recommendations contained in our report *Oversight of Equipment Repair and Maintenance Activities (Report 99-S-8)* issued on April 25, 2000. In that audit we examined whether the Equipment Management Division effectively monitored Regional equipment repairs and if they implemented a system to determine whether work is completed in a timely manner, thus maximizing equipment availability.

Background

The Equipment Management Division (Division) within the New York State Department of Transportation (DOT) is responsible for the procurement, maintenance, and disposal of all equipment used by DOT to maintain 41,975 lane-miles of highway and 7,798 bridges. The Division's primary goals are to provide, manage, and maintain, at a reasonable cost, the mechanized equipment DOT needs to provide its services.

DOT has 11 Regions. Each one, except the Region that includes New York City, has a main repair shop. The Division is responsible for setting policy, establishing procedures, and monitoring performance at the 10 Regional repair shops and 70 local "residencies" that service the equipment fleet. It has 459 employees and maintains about 15,000 units of equipment, of which approximately 7,394 units are considered major equipment such as dump trucks, pick-up trucks, backhoes, pavers, and other construction equipment. According to Division records, it performed about 88,018 repair and preventive maintenance (PM) services during the State's 1999-00 fiscal year (the most recent information available) and major equipment items were out of service for 80,032 days. For fiscal

year 2000-01, the Division had a budget of \$57.2 million to repair and maintain the 15,000 units of equipment and to purchase \$17.1 million of new equipment.

Summary Conclusions

Our prior audit concluded that the Division had implemented an effective system for monitoring equipment repair and PM activities. To monitor their operations, Division and Regional managers used the Equipment Management Information System (EMIS) to capture data from repair work orders and PM orders, and track 48 performance indicators by Region so that each Region's actual performance could be evaluated in terms of planned performance. We identified areas that needed to be improved and made four recommendations. The Division needed to take steps to ensure that the Regions accurately report the amount of time the equipment is out-of-service for repairs and maintenance, and to establish uniform labor hour standards to monitor the efficiency of repairs and PM. In addition, we determined they needed to improve the completeness and accuracy of the information entered from the work orders and PM orders by adding data edit checks.

DOT officials provided documentation demonstrating they discussed our audit findings during their January 2000 quarterly meeting with regional shop managers. Subsequently, officials issued memos concerning the need to utilize standard hours, calculating downtime and requesting explanations for the work order data entry errors we found. In May 2000, DOT resumed its Internal Control Assessment Team (ICAT) reviews of the Regions including whether the Regions are utilizing standard hours and calculating downtime correctly. All ten regions have been reviewed. DOT officials are continuing to pursue establishing a paperless shop. Scheduled for completion in 2002, officials believe the paperless shop will eliminate the problems and errors we found in our prior audit. We acknowledge the merits of the paperless shop, but caution that a program with a budget of \$57.2 million requires some type of interim monitoring devices.

Summary of Status of Prior Audit Recommendations

Of the four recommendations in the prior report, one was implemented and three were partially implemented.

Follow-Up Observations

Recommendation 1

Take steps to ensure that the Regions follow procedures for both reporting when equipment goes out of service and recording standard hours. Consider achieving this by conducting the ICAT reviews on a sample basis or using a streamlined version of the ICAT.

Status – Partially Implemented

Agency Action – After a two-year hiatus, in May 2000 DOT officials resumed performing ICAT reviews and conducted 11 ICAT reviews at the 10 Regions including two reviews at Region #1. In two instances, a written report was prepared summarizing the ICAT review. (The other ICAT reviews consisted primarily of checklists of items reviewed.). The written

reports did address the use of standard hours and the correct reporting of downtime on work orders. One of the two reports provided indicated the Region continued to have problems with the reporting of downtime. Officials provided documentation demonstrating that our prior audit exceptions were discussed at a January 2000 quarterly managers' meeting. Officials also provided three memos sent to the Regions regarding using standard hours on work orders, calculating downtime, and requesting the specific work orders cited in our prior audit report to resolve downtime discrepancy issues. The ICAT reviews indicate that seven Regions still do not use standard hours on their work orders. Officials indicate the Regions are no longer required to develop standards because the new paperless shop, once implemented, will include the standard hours each Region will use. Officials believe requiring the Regions to develop their own standard hours for work orders is no longer warranted since the new paperless system will be implemented in 2002. Unless the new paperless shop system already has pre-established time standards for repairs of most equipment items, we believe Division officials should continue to develop time standards for repairing most equipment commonly located at each Region.

Recommendation 2

Reassess the manner in which the number of days that equipment is out of service should be calculated, and clarify how unique situations should be handled. Communicate any changes resulting from this reassessment to the Regions and verify that they are following both new and established procedures.

Status – Partially Implemented

Agency Action – On February 2, 2000, officials sent a memo to the 10 Regions regarding our prior audit exceptions of calculating downtime. The memo clarified three situations and how to correctly calculate downtime for each event. When performing ICAT reviews, DOT officials ascertain whether downtime is reported accurately by reviewing work orders and confirming the date the unit was reported down. However, the summary checklist of the ICAT summaries we reviewed indicated seven of the ten Regions were still improperly filling out the work orders. One of two written reports provided to us indicated the Region was not properly reporting downtime. Officials stated that the problem with downtime was usually due to missing Vehicle Trouble Reports (VTRs), making it difficult to confirm the accuracy of the downtime. We were also informed that the error rate found is low and that comparisons of downtime reports of the Division and their biggest customer, Highway Maintenance, show only minor differences. Officials stated that ICAT members discuss their observations with the responsible shop manager, but there is no written record of the meeting nor workpapers documenting the work orders that were prepared incorrectly. Officials do not follow-up on whether corrective actions are taken until the next ICAT review. This presents a problem as officials indicated the next series of ICAT reviews have been postponed until May 2002, once winter is over and the paperless shop is implemented. Consequently, DOT officials are not currently assured that all the Regions are properly following procedures.

Recommendation 3

Continue to pursue the implementation of a Paperless Shop System that records standard hours for all repairs and PM and contains system edits that will prevent the entry of PM or work orders that are incomplete or contain invalid data.

Status – Implemented

Agency Action – DOT officials continue to pursue the paperless shop. The hardware and software has been purchased and the consultant has been selected. DOT officials expected the paperless shop would have been implemented in 2001, but the consultant contract has not been submitted to the Office of the State Comptroller (OSC) and the Office of General Services (OGS) for approval. DOT officials informed us the delay was caused by changes in State policies regarding contract approval to purchase technology products. DOT's Legal Department is reviewing the contract and will forward it to OSC and OGS in December 2001, and anticipates the contract will be approved by February 2002. The Pilot program is expected to start in mid-February, with testing over a two-month period. After the testing of the Pilot Program is completed, the Division anticipates implementing the Paperless Shop System in three-week intervals at the ten regions. However, we were told that as of December 12, 2001, the Legal Department was still working on the contract and its approval might be further delayed.

Recommendation 4

Determine the reasons for the discrepancies we identified between EMIS and the work orders, PM orders and Vehicle Trouble Reports, and take steps to prevent them from recurring.

Status – Partially Implemented

Agency Action – On May 10, 2000, DOT officials issued a memo to three Regions requesting copies of five PM or Repair Orders in which our prior audit reported significant discrepancies for review and investigation. Officials could not provide documentation that the requested Work Orders were received, the results of the investigation nor whether corrective actions were taken.

The major contributors to this report were Abraham C. Markowitz and Richard Perreault.

We would appreciate your response to this report within 30 days, indicating any additional actions planned to address the recommendations discussed in this report. We also thank the Department of Transportation management and staff for the courtesies and cooperation extended to our auditors during this review.

Very truly yours,

Carmen Maldonado
Audit Director

cc: Deirdre Taylor, DOB
Robert C. Near DOT