Department of Transportation
Maintenance and Operations

July 1, 1995 to July 8, 1997

Richard L. Fair
State Auditor
The Honorable Christine Todd Whitman  
Governor of New Jersey

The Honorable Donald T. DiFrancesco  
President of the Senate

The Honorable Jack Collins  
Speaker of the General Assembly

Mr. Albert Porrini  
Executive Director  
Office of Legislative Services

Enclosed is our report on the audit of the Department of Transportation, Maintenance and Operations for the period July 1, 1995 to July 8, 1997.

If you would like a personal briefing, please call me at (609) 292-3700.

Peter M. Guilfoyle  
Assistant State Auditor  
July 28, 1997
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Department of Transportation
Maintenance and Operations

Scope

We have completed an audit of the Department of Transportation, Maintenance and Operations for the period July 1, 1995 to July 8, 1997. Our audit included financial activities accounted for in the state’s General Fund and the Special Transportation Fund.

Total expenditures of the agency during the audit period were $289.5 million. The prime responsibility of Maintenance and Operations is the maintenance of state roads, bridge and railroad properties, and ensuring safe and efficient movement of traffic. Revenues of the agency totaled $2.7 million during the audit period. The major components of revenue were highway permits and fees.

Objectives

The objectives of our audit were to determine whether financial transactions were related to the agency’s programs, were reasonable and were recorded properly in the accounting systems. We also tested for resolution of significant issues noted in our prior report.

This audit was conducted pursuant to the State Auditor’s responsibilities as set forth in Article VII, Section 1, Paragraph 6 of the State Constitution and Title 52 of the New Jersey Statutes.

Methodology

Our audit was conducted in accordance with Government Auditing Standards, issued by the Comptroller General of the United States.

In preparation for our testing, we studied legislation, administrative code, circular letters promulgated by the State Comptroller, and policies of the agency. Provisions that we considered significant were documented and compliance with those requirements
was verified by interview and observation and through our samples of financial transactions. We also read the budget message, reviewed financial trends and interviewed agency personnel to obtain an understanding of the programs and the internal control structure.

A nonstatistical sampling approach was used. Our samples of financial transactions were designed to provide conclusions about the validity of transactions as well as internal control and compliance attributes. Transactions were randomly and judgmentally selected.

To ascertain the status of findings included in our prior report, we identified corrective action, if any, taken by the agency and walked through the system to determine if the corrective action was effective.

**Conclusions**

We found that the financial transactions included in our testing were related to the agency’s programs, were reasonable, and were properly recorded in the accounting system. In making this determination, we noted certain internal control weaknesses meriting management’s attention.

We also found that the agency has resolved the significant issues noted in our prior report except for the matter related to inventory control. This issue has been updated and restated in our current report.

**Auditee Response**

I have reviewed the Division of State Auditing Report of the Department of Transportation Maintenance and Operations and I am pleased to note that you have determined the financial transactions were properly authorized, were reasonable and were recorded properly in the accounting systems.
Fleet Management System

The Bureau of Equipment Engineering and Operations within the Division of Operations Support is responsible for procurement, assignment, record keeping, maintenance, repair and disposal of all the Department of Transportation’s vehicles and equipment (equipment). The estimated value of the equipment is $70 million. The bureau also performs maintenance services for other state agencies. The repairs are performed by the bureau’s 12 garages located throughout the state. In addition, the bureau is responsible for developing budgets and projections relating to repair costs and replacement cycles.

An automated fleet management system should provide reasonable assurance of achieving the objectives for the equipment function using relevant, timely and accurate information. The current Equipment Management System has not provided the bureau’s staff with reliable and timely equipment management reports since June 1995. Support for the system was discontinued due to downsizing. Thus, the bureau’s personnel do not have the information necessary to make sound equipment replacement decisions; efficiently manage inventories; provide effective preventive maintenance; and identify significant variances from expectations.

To address this weakness, in 1993 the agency initiated the development of a fleet management system. However, the system was put on hold by the Department of the Treasury, Office of Management and Budget for further study and possible inclusion with Central Motor Pool and the State Police.

Recommendation

We recommend the Department of Transportation and the Department of the Treasury expedite the implementation of a fleet management system that will enable management to monitor and control this function.
Auditee Response

It is our understanding that the Department of Treasury has placed a hold on the Department of Transportation’s development process for a new fleet management system for the purpose of providing an opportunity to study the subject on a State government level. There are similar administrative requirements in the Central Motor Pool and State Police fleet operations, and there may be a more dollar conscious and effective alternative to managing these information needs than that proposed at the individual agency level. An initial report has been issued by the consultant studying the issue for the Department of Treasury. Once we have had the opportunity to review the document, we intend to engage the Treasury in further discussion to progress the State’s fleet management initiatives in the most efficient and effective manner.

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Maintenance Management System

Maintenance and Operations is responsible for the rehabilitation of existing roads, bridges and appurtenances on the state highway system to increase safety and convenience and to decrease maintenance costs. This includes preventive maintenance programs for highways, bridges, signs and lines; snow removal and ice control; landscape maintenance; control of access to and openings on state highways and public transportation properties; construction, maintenance and operation of traffic signals, highway lighting facilities, sign illumination and miscellaneous electrical devices on the state highway system; and maintenance and operation of movable bridges.

An automated management tool should assist the agency in developing and prioritizing work plans, provide cost information and provide reasonable assurance of achieving the agency’s objectives using relevant, timely and accurate information. The existing Maintenance Management System (MMS) is 30 years old and is inefficient and cumbersome.
Downsizing has left no staff to update and input the required system information. No reports have been generated since the end of fiscal year 1995.

In addition, management’s needs have changed and the current MMS is no longer accommodating their needs. According to a consultant’s feasibility report, the system is not functioning as designed nor is it serving the agency’s current or future needs. Therefore, the agency is not able to develop work plans, schedule work, monitor the activities of the maintenance forces, monitor costs of operations and accrue costs for reimbursable projects in an accurate, timely and efficient manner.

To address the deficiencies in the current MMS, in 1994 the agency had initiated the development of a new system. Management has recognized the need for an updated MMS, but as of the close of our field work, they have put the development and implementation of any new systems on hold.

**Recommendation**

The department has had ample time to research a new maintenance management system. We recommend that the department implement a new system in an expeditious manner that will enable the agency staff to plan, monitor and control the maintenance function in an accurate, efficient and timely manner.

**Auditee Response**

The Department completed its requirements phase for developing a new Maintenance Management System in early FY 97. The next phase is to identify and evaluate different alternatives for developing the system. The vendor who performed the requirements study for NJDOT recommended a fully customized application that would be built from the ground up to meet all Department specifications. NJDOT is also currently evaluating two other options to a new fully customized system in order to ensure the most cost effective solution is selected. The first would be to modify the existing mainframe application (OTIS
developed) in order to address the deficiencies which are currently preventing it from being used as an effective management tool. The second alternative is to procure an "off-the-shelf" software application that meets most of the established requirements without having to do significant customization. NJDOT has identified at least one such application that appears to meet most of the requirements. It is expected that data gathering and evaluation of the three alternatives will be completed by September 15, 1997.

The recommended approach will be evaluated by NJDOT’s new Information Systems Investment Board that is responsible for allocating funding for Department systems based on our business priorities. The State Auditor's findings will be presented as part of that submission. Assuming sufficient State and/or federal funding can be identified, procurement of the system will begin in approximately October and be ready for award in December or January. A fully customized application will require approximately eighteen months of development before implementation can occur. A minimally customized off-the-shelf package that meets most of NJDOT's requirements will require somewhere between 6-12 months for implementation. The Bureau of Management Information Systems (MIS) will manage the project in conjunction with OTIS until it is completed.

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