Office of the New York State C omptroller



DIVISION OF STATE GOVERNMENT ACCOUNTABILITY

Metropolitan Transportation Authority

Selected Aspects of Bus Fleet Maintenance

Report 2009-S-51

Thomas P. DiNapoli

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State of New York Office of the State Comptroller

Division of State Government Accountability

December 23, 2010

Mr. Jay Walder Chairman and Chief Executive Officer Metropolitan Transportation Authority 347 Madison Avenue New York, NY 10017

Dear Chairman Walder:

The Office of the State Comptroller is committed to helping State agencies, public authorities and local government agencies manage government resources efficiently and effectively and, by so doing, providing accountability for tax dollars spent to support government operations. The Comptroller oversees the fiscal affairs of State agencies, public authorities and local government agencies, as well as their compliance with relevant statutes and their observance of good business practices. This fiscal oversight is accomplished, in part, through our audits, which identify opportunities for improving operations. Audits can also identify strategies for reducing costs and strengthening controls that are intended to safeguard assets.

Following is a report of our audit of Selected Aspects of Bus Fleet Maintenance. This audit was performed pursuant to the State Comptroller's authority under Article X, Section 5 of the State Constitution and Section 2803 of the Public Authorities Law.

This audit's results and recommendations are resources for you to use in effectively managing your operations and in meeting the expectations of taxpayers. If you have any questions about this report, please feel free to contact us.

Respectfully submitted,

Office of the State Comptroller Division of State Government Accountability



State of New York Office of the State Comptroller EXECUTIVE SUMMARY

Audit Objectives

Our objectives were to determine whether the Metropolitan Transportation Authority (MTA) (1) has standards and procedures for the maintenance of its bus fleet, (2) performs bus maintenance in compliance with these standards and procedures, and (3) has a comprehensive maintenance plan for its bus fleet.

<u>Audit Results – Summary</u>

The MTA oversees seven constituent agencies, three of which provide bus service in New York City and Long Island. These bus operations are overseen by the MTA's Regional Bus Operations. We audited selected aspects of Regional Bus Operations' bus maintenance program and found that a number of improvements are needed, as routine maintenance procedures often are not performed as required, buses at two-thirds of the 29 depots did not meet their performance goals, and the maintenance cost per mile is unusually high.

For example, we randomly selected 23 buses and reviewed the maintenance documentation to determine whether routine maintenance inspections were performed as required from January 2007 to November 2009. Based on the MTA's standards, the 23 buses should have had a total of 1,255 such inspections during this period and the inspections should have been performed within certain timeframes. However, we found that 584 of these required inspections (46.5 percent) were not performed on time, were not performed correctly, or were not performed at all. In addition, 17 of the 23 buses were hybrids, which require engine inspections every 48,000 miles. However, we found that the engine inspections required at 48,000 or 96,000 miles were not performed for any of the 17 buses.

The MTA's inspection standards are designed to comply with the manufacturers' specifications and keep the buses in good working order. If the buses are not inspected in accordance with these standards, there is an increased risk they could break down or wear out prematurely. This could compromise passenger service and lead to additional, unnecessary costs.

The mean distance between failures is a measurement that shows how many miles a group of buses has gone, on average, without mechanical failure. The measurement is used as an indication of a bus fleet's reliability. On the basis of this measurement, the MTA's buses are not very reliable, as the buses at 18 of the MTA's 29 depots (62 percent) had not reached their goals

in this area in 2009. For example, one depot had a goal of 4,674 miles between failures, but its actual rate was 3,581 miles between failures.

Moreover, at 15 of the depots (52 percent), the actual mean distance between failures was lower than the buses' required inspection intervals (e.g., a required inspection interval of every 6,000 miles, but a mean distance between failures of 3,000 miles). As a result, at these 15 depots, the buses tended to break down before their next scheduled inspection. We recommend that Regional Bus Operations take actions to improve the reliability of its buses.

The maintenance cost per bus mile is another measurement that is used in the evaluation of a maintenance program's effectiveness. We compared this measurement at the MTA and eight other metropolitan transportation agencies in 2008, and found that the MTA's maintenance cost of \$5.53 per bus mile was at least 64 percent higher, and as much as 199 percent higher, than the cost at the other eight agencies. We question whether it is necessary for the MTA's bus maintenance costs to be so much higher than the costs at other comparable transportation agencies. We recommend that the MTA identify the reasons for this discrepancy and develop a plan to reduce its bus maintenance costs, which exceed \$770 million in 2008.

Regional Bus Operations does not have a sufficiently comprehensive bus maintenance plan. While Regional Bus Operations has many elements of a maintenance plan, such as inspection standards available to its maintenance staff, other important elements, such as information relating to bus maintenance objectives and unscheduled maintenance operations are not provided for. We recommend that Regional Bus Operations prepare a sufficiently comprehensive maintenance plan.

Our report contains a total of seven recommendations for improving the effectiveness of the MTA's bus maintenance program. MTA officials generally agreed with most of our recommendations and have taken steps to implement changes.

This report, dated December 23, 2010 is available on our website at: http://www.osc.state.ny.us. Add or update your mailing list address by contacting us at: (518) 474-3271 or Office of the State Comptroller Division of State Government Accountability 110 State Street, 11th Floor Albany, NY 12236

Introduction

Background The Metropolitan Transportation Authority (MTA) is a public benefit corporation providing transportation services in and around the New York City metropolitan area. The MTA is governed by a 17-member Board of Directors, whose members are nominated by the Governor and confirmed by the State Senate.

The MTA oversees seven constituent agencies, three of which provide bus service, as follows:

The MTA New York City Transit (Transit) provides bus service throughout New York City. Transit operates 4,529 buses and 19 depots, and has 14,788 employees.

The MTA Bus Company (MTA Bus) provides bus service in certain areas of New York City. MTA Bus operates 1,357 buses and eight depots, and has 3,516 employees.

The MTA Long Island Bus provides bus service in Nassau County. It operates 329 buses and two depots, and has 1,149 staff.

In 2008, the MTA established its Regional Bus Operations to consolidate the maintenance and transportation operations of the three bus service constituent agencies into one organization. Accordingly, Regional Bus Operations maintains a fleet of about 6,200 buses operating out of 29 depots and serviced at two maintenance facilities. In 2008, the total maintenance costs for these buses was \$777.7 million.

The MTA has designated a Chief Maintenance Officer, who sets maintenance standards for the entire bus fleet. The standards include a Schedule of Operation Inspections and Cycles, which details the type and frequency of preventive maintenance and major component inspections to be performed on the bus fleet. The Department of Buses' Information Center posts these standards, along with various directives, technical bulletins and maintenance reports, to an intranet site that is accessible to Regional Bus Operations staff.

In addition, as required by the Transportation Bond Resolution of 2002, the MTA contracts with an engineering firm to provide an annual certification of its bus inspection, maintenance and repair program and methodology. The firm completes much of its work through an analysis of information provided by the MTA. Long Island Bus did not purchase

its buses under the Transportation Bond Resolution and therefore is not included in the firm's review. The effectiveness of a bus maintenance program can be assessed by such measures as the on-time performance of required inspections; the mean distance between failures; and the maintenance cost per bus mile. In addition, it is a sound business practice to incorporate all aspects of a bus maintenance program, such as its mission statement, its goals and objectives, and its inspection standards and requirements, into a comprehensive bus maintenance plan that is available to all employees with bus maintenance and operation responsibilities. Audit Scope and We audited selected aspects of the MTA's bus maintenance program for Methodology the period January 1, 2007 through November 30, 2009. To accomplish our objectives, we interviewed the Chief Maintenance Officer, members of his staff and depot management officials. We also reviewed maintenance reports from three information systems. We initially surveyed four depots and one maintenance facility to obtain an understanding of the bus maintenance process, and subsequently selected three depots for detailed testing. At these three depots, we randomly selected 23 buses and reviewed the related inspection documentation to test for compliance with the MTA's bus inspection standards. We also contacted eight other transportation agencies to obtain information about their bus maintenance programs. We met with the MTA's contracted engineering firm to obtain an understanding of its contract work and to determine whether this work would have an impact on our audit. We also accompanied members of the firm on visits to two Transit depots. Based on our meetings and observations, we determined that the engineering firm's work would not have an impact on our audit as planned. We conducted our performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. In addition to being the State Auditor, the Comptroller performs certain other constitutionally and statutorily mandated duties as the chief fiscal officer of New York State. These include operating the State's accounting system; preparing the State's financial statements; and approving State

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contracts, refunds, and other payments. In addition, the Comptroller appoints members to certain boards, commissions and public authorities, some of whom have minority voting rights. These duties may be considered management functions for purposes of evaluating organizational independence under generally accepted government auditing standards. In our opinion, these functions do not affect our ability to conduct independent audits of program performance.

Authority This audit was performed pursuant to the State Comptroller's authority under Article X, Section 5 of the State Constitution and Section 2803 of the Public Authorities Law.

ReportingA draft copy of this report was provided to MTA officials for their reviewRequirementsA draft copy of this report was provided to MTA officials for their reviewand comment.Their comments were considered in preparing this finalreport and are included at the end of the report along with the StateComptroller's comments addressing certain items in the MTA's response.

Within 90 days of the final release of this report, as required by Section 170 of the Executive Law, the Chairman of the Metropolitan Transportation Authority shall report to the Governor, the State Comptroller, and the leaders of the Legislature and fiscal committees, advising what steps were taken to implement the recommendations contained herein, and where recommendations were not implemented, the reasons why.

ContributorsMajor contributors to this report include Carmen Maldonado, Robertto the ReportMehrhoff, Anthony Carbonelli, Joseph Smith, Daniel Bortas, Adele
Banks, Lidice Cortez, Slamon Sarwari, and Sue Gold.

Audit Findings and Recommendations

Measuring Bus Maintenance Effectiveness We found that improvements are needed at the MTA in three important measurements of bus maintenance effectiveness.

On-Time Performance of Required Inspections

We examined whether Regional Bus Operations established standards and procedures for the maintenance of its bus fleet, and found that it did. These standards show the inspections and other maintenance work that should be performed for each type of bus, and the required frequency for this work (e.g., every 3,000 miles, every 6,000 miles or annually). Generally, there are routine maintenance inspections for the entire bus, inspections for major bus components (such as the air conditioning system and wheelchair lifts), and inspections for other miscellaneous components (such as the diesel particulate filter, the engine, and the electrical system).

The inspections must be documented by the maintenance staff, who are to record the inspection results on the appropriate computer system. In addition, for most inspections, Regional Bus Operations requires a paper form to be completed, signed and filed in the bus maintenance history folder.

We examined whether the inspections were being performed in compliance with the standards. We randomly selected 23 buses at three depots, and reviewed the inspection documentation for these buses from January 2007 to November 2009. Based on the standards, the 23 buses should have had a total of 1,255 inspections during this period and the inspections should have been performed within certain time frames. However, we found that 584 of these 1,255 required inspections (46.5 percent) either were not performed on time, were not performed correctly or were not performed at all, as follows:

- A total of 488 routine maintenance inspections should have been performed. We found that 405 of these inspections (83 percent) were performed on time. However, the remaining 83 (17 percent) either were not performed on time or were not performed correctly (e.g., in some instances, there was no evidence that the required lubrications were performed).
- A total of 626 major component inspections should have been performed. However, only 226 of these inspections (36.1 percent)

were performed on time, while 333 (53.2 percent) were not timely and 67 (10.7 percent) were not done.

• A total of 141 miscellaneous component inspections should have been performed. However, only 40 of these inspections (28.4 percent) were performed on time, while 35 (24.8 percent) were not timely and 66 (46.8 percent) were not done.

We note that one of the three depots (the LaGuardia depot) did not provide us with records to confirm that any inspections were done in 2007. This depot did have inspection records for 2008 and 2009, but these records showed that the depot was not performing any major component or miscellaneous component inspections, and had not performed these types of inspections since 2005.

We further note that 17 of the 23 buses in our sample were hybrids, which require engine inspections every 48,000 miles. However, we found that these inspections had not been performed for any of the 17 hybrid buses in our sample (at either 48,000 or 96,000 miles). According to MTA officials, the inspections were not done because the buses were covered by the manufacturer's warranty, and bus depot managers were not sure whether they or the manufacturer was responsible for the inspections. In addition, two of the buses in our sample were not being maintained correctly, because they had been transferred from a Staten Island depot to a Manhattan depot and as a result, they were not placed on an inspection schedule.

The inspection standards established by Regional Bus Operations are designed to comply with the manufacturers' specifications and keep the buses in good working order. If the buses are not inspected in accordance with these standards, there is an increased risk they could break down or wear out prematurely. This could compromise passenger service and lead to additional, unnecessary costs. In addition, failure to comply with the inspection standards could affect the manufacturers' acceptance of warranty claims.

Mean Distance Between Failures

The mean distance between failures is a measurement showing how many miles a group of buses has gone, on average, without mechanical failure. The measurement is used as an indication of a bus fleet's reliability. Regional Bus Operations uses this measurement, as it develops a mean distance between failure goal for each of the MTA's 29 bus depots and compares each depot's actual performance against its goal.

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The depots' actual performance in this area is shown in certain monthly management reports. We reviewed the reports for the first nine months of 2009. We found that 18 of the 29 depots (62 percent) had not reached their goals, as their actual, year-to-date measurements for mean distance between failures were lower than their goals. For example, one depot had a goal of 4,674 miles between failures, but its actual rate was 3,581 miles between failures. Similarly, another depot had a goal of 4,280 miles between failures, but its actual rate was 2,740 miles between failures. It thus appears that the buses at these 18 depots were not as reliable as intended.

We also note that, at 15 of the depots (52 percent), the actual mean distance between failures was lower than the buses' required inspection intervals (e.g., a required inspection interval of every 6,000 miles, but a mean distance between failures of 3,000 miles). As a result, at these 15 depots, the buses tended to break down before their next scheduled inspection. Such poor performance should be a source of concern to MTA management, and we recommend Regional Bus Operations take actions to improve the reliability of the buses at these depots.

We further note that, at 12 of the depots, the goal for mean distance between failures was lower than the buses' required inspection intervals (e.g., a goal of 4,000 miles between failures, but a required inspection interval of every 6,000 miles). As a result, at these 12 depots, there was the expectation that the buses would break down before their next scheduled inspection. Since the inspections are supposed to reduce the likelihood of such breakdowns, this expectation appears to be contrary to good maintenance practices. And, in fact, at seven of the eight other transportation agencies that we contacted, the mean distance between failure goals are greater than the required inspection intervals (e.g., the Chicago Transit Authority has a goal of 5,000 miles between failures, and a required inspection interval of every 4,000 miles).

According to the Regional Bus Operations officials who are responsible for developing the depots' goals for mean distance between failures, the goals are low because they are reduced as the buses age. Regional Bus Operations officials also told us that the performance of their buses is affected by the poor condition of the roads in New York City, and Manhattan in particular.

However, the two depots in Nassau County, which are not affected by road conditions in New York City, also have very low goals (2,415 and 2,008 miles between failures, respectively, compared to their required inspection intervals of 6,000 miles). We recommend that the MTA's goals for mean distance between failures be modified so that no depot's goal is

lower than its required inspection intervals. We further recommend that Regional Bus Operations take corrective action whenever a depot fails to meet its goal.

Maintenance Cost Per Bus Mile

The maintenance cost per bus mile is another measurement that is used in the evaluation of a maintenance program's effectiveness. We compared this measurement, in 2008, at the MTA and the eight other transportation agencies we contacted. We found that the maintenance cost per bus mile was much higher at the MTA than at the other agencies. In fact, the MTA's cost of \$5.53 per bus mile was at least 64 percent higher, and as much as 199 percent higher, than the cost at the other agencies, as follows:

Agency	MTA	WMATA (Washington, DC)	Westchester (Bee-Line)	New Jersey Transit	NFTA (Buffalo)	CTA (Chicago)	CNY Centro, Inc (Syracuse)	CDTA (Albany)	SEPTA (Philadelphia)
Maintenance Cost Per Bus Mile	\$5.53	\$3.38	\$2.44	\$2.31	\$2.18	\$2.07	\$1.85	\$1.91	\$2.10
Percent Higher at the MTA		64%	127%	139%	154%	167%	199%	190%	163%

Data Source: Federal Transit Administration National Transit Database

We question whether it is necessary for the MTA's bus maintenance costs to be so much higher than the costs at other comparable transportation agencies. We recommend that the MTA identify the reasons for this discrepancy and develop a plan to reduce its bus maintenance costs.

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Recommendations 1. Communicate to all maintenance facilities the necessity to complete all required inspections in a timely manner, and monitor the maintenance facilities to ensure that the inspections are being done as required by staff that have been properly trained.

> (MTA officials replied to our draft report that the recently implemented depot report card process addresses the recommendation. In addition, senior management of bus operations undertakes systematic depot inspections in which they actively review individual depot goals and achievements for the MDBF and scheduled inspections. This review also includes recommending and tracking progress on corrective actions when goals are not met.)

> Auditor's Comments: We are pleased that senior management has started to monitor the bus depot operations and take corrective actions to improve performance.

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- 2. Review the maintenance computer system to ensure that the maintenance schedules for transferred buses are accurate, and require the Chief Maintenance Officer and local depot management to monitor the initial cycle of maintenance scheduling for such buses.
- 3. Inspect and monitor the buses at the LaGuardia depot which did not receive the required inspections, and determine whether they should be overhauled or have major components replaced.
- 4. Adjust the mean distance between bus failures goals so that no depot's goal is lower than its required inspection intervals.
- 5. Take corrective action when a depot fails to meet its goal for mean distance between failures, and in particular, when a depot's actual mean distance between failures is lower than its buses' required inspection intervals.
- 6. Determine why the MTA's bus maintenance cost per mile is so much higher than the cost at other transportation agencies. Identify best practices at the other transportation agencies that could be used by the MTA, and develop a plan to reduce the MTA's bus maintenance cost per mile.

(MTA officials replied to our draft report they agree it is useful to consider the experiences of other bus systems as they seek to improve their own system. Using the same Federal Transit Administration database that we used for our audit, the officials provide four factors which explain the MTA's relative bus maintenance cost per mile compared to the transit systems cited in our report. They also state that the MTA and Bus Operations management have taken significant steps to improve financial performance. They report that combined maintenance costs for all three bus agencies actually declined by \$47 million between 2008 and 2009, while providing the same level of service. Also, in 2010, MTA management began a concerted effort to reduce unnecessary overtime expenses at all agencies, resulting in projected savings in bus operations and \$54 million MTA-wide. The 2011 proposed budget includes additional bus maintenance savings of \$4 million, growing to \$11 million by 2011.)

<u>Auditor's Comments</u>: We are pleased that MTA officials reported savings in their bus operations since 2008. In addition, we urge MTA officials to continue to review, monitor and assess performance of bus operations to ensure they are conducted in the most cost efficient manner.

Comprehensive It is a sound business practice for a bus maintenance program to have a Maintenance Plan that is available to all employees with bus maintenance responsibilities. We examined whether Regional Bus Operations has such a plan. We found that the Regional Bus Operations Department of Buses' Information Center posts bus inspection standards, along with various preventive maintenance checklists, directives, technical bulletins and maintenance reports, to an intranet site that is accessible to all Regional Bus Operations staff. While these are important elements for a maintenance plan, additional items are needed to provide a sufficiently comprehensive maintenance plan.

For example, other important elements not presently documented and shared with maintenance staff include a mission statement, specified bus maintenance objectives, guidelines for the maintenance of the maintenance facilities and equipment, and unscheduled maintenance operations.

According to the Chief Maintenance Officer, the current bus maintenance program is consistent with a magazine article written by a previous Chief Maintenance Officer and published in 2002. The article explains, in general terms, that Regional Bus Operations' goals are reliability, safety and quality at the right levels and for the lowest cost.

In addition, one of the three constituent agencies providing bus service Long Island Bus has a formal bus maintenance plan. However, it is not complete. For example, the plan only includes job titles and descriptions, and discusses plan components, maintenance procedures, maintenance intervals, warranty programs, and inspection checklists. In response to our preliminary findings report Regional Bus Operations told us they are in the process of preparing a bus maintenance plan for Transit and MTA Bus.

To better ensure full, agencywide compliance with the MTA's bus maintenance program goals and objectives, we recommend Regional Bus Operations develop a comprehensive bus maintenance plan and ensure that the plan is made available to all employees with bus maintenance responsibilities.

Recommendation 7. Develop a comprehensive bus maintenance plan and ensure that the plan is made available to all employees with bus maintenance responsibilities.

(In response to our draft report, MTA officials maintain that they do have a comprehensive bus maintenance plan. They also indicate

that the 2002 article was provided to supplement our discussions and their demonstrations of DOBIC and other maintenance systems.)

<u>Auditor's Comments</u>: During the audit we were provided with many elements of a comprehensive maintenance plan. Based on the response of MTA officials to our draft audit report, we have revised our final report to clarify that MTA should add additional maintenance elements to provide for a sufficiently comprehensive maintenance plan.

Agency Comments

347 Madison Avenue New York, NY 10017-3739 212 878-7000 Tef



Metropolitan Transportation Authority

State of New York

November 19, 2010

Ms. Carmen Maldonado Audit Director Division of State Government Accountability Office of the State Comptroller 123 William Street, 21st Floor New York, NY 10038

This letter responds to draft audit report 2009-S-51, "Metropolitan Transportation Authority: Selected Aspects of Bus Fleet Maintenance." The MTA appreciates the opportunity to review the draft report and to submit this response.

The MTA agrees that our bus maintenance program must deliver both reliability and cost effectiveness. During the past year, we have undertaken a number of initiatives to reduce bus maintenance costs, and we will continue to seek further improvements while minimizing the impact on customer service.

The MTA generally agrees with the recommendations for improving the effectiveness of its bus maintenance program. We have ongoing initiatives in place that address many of the underlying concerns in the report. One key example is the depot report card, which serves as the focus of systematic depot reviews by senior management of our bus operations, emphasizing metrics and inspection targets. Another is the rollout of the latest standardized computerized maintenance information system to all depots. This information is reviewed by depot and division personnel daily.

One of the audit recommendations calls for corrective action when a depot fails to meet its goal for mean distance between failures (MDBF). However, the depot report card process already provides for this. With the recently implemented depot report card in hand, the senior management of our bus operations undertakes systematic depot inspections, in which they actively review individual depot goals and achievements for MDBF and scheduled inspections. This review also includes recommending and tracking progress on corrective actions when goals are not met.

Another recommendation in the report calls for inspection frequencies to be set at intervals that are shorter than the depot's MDBF goal. However, inspection intervals are set borough-wide, based on duty cycle data specific to the borough. If the MDBF result falls below the inspection interval, we analyze that situation to determine the appropriate action to take in a depot, which may vary by fleet type and age in the depot. In some

* Comment 1

The agencies of the MTA

MTA New York City Transit MTA Long Island Rail Road MTA Long Island Bus MTA Metro-North Railroad MTA Bridges and Tunnels MTA Capital Construction MTA Bus Company

* See State Comptroller's Comments, page 25.

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divisions or depots, where the fleet is relatively uniform, it is appropriate and feasible to align the inspection frequency with the MDBF goal. We have already taken this step at Long Island Bus and will also do so in Staten Island.

Another of the report's key recommendations calls for determining why the MTA's bus maintenance cost per mile is so much higher than the cost at other transportation agencies. It further calls for identifying best practices at other transportation agencies that could be used by the MTA, and for developing a plan to reduce the MTA's bus maintenance cost per mile.

We fully agree that it is useful to consider the experiences of other bus systems as we seek to improve our own system. Four factors explain the MTA's relative bus maintenance cost per mile compared to the systems cited in your report (using the same 2008 FTA data source):

- 1. High passenger utilization (1.6 to 3.8 times higher than the other systems);
- 2. Low operating speeds with poor road conditions (speeds are 20 to 78% higher at other systems);
- 3. High maintenance labor cost per labor hour (the MTA's is 9 to 122% higher); and
- 4. High number of maintenance labor hours per hour of bus service operated, which is a measure of productivity (the MTA spends 16 to 104% more time than the other systems).

The MTA's high passenger utilization and low average operating speed are a function of the high-density environment in which our service operates. This environment results in more "stop and go" operations than in other systems, and a more strenuous duty cycle for major bus component systems – engines, transmissions, suspension, brakes, heating and air conditioning, and doors – thus increasing maintenance costs. Comparing the MTA to other agencies on the basis of maintenance costs per passenger more closely reflects the underlying operations of the MTA, as follows:

Agency	MTA	Wash.	Phila.	Chicago	Buffalo	NJT	Syracuse	Westch.	Albany
Maintenance									
costs per				10 A. 10					
passenger	\$0.74	\$0.99	\$0.46	\$0.43	\$1.05	\$1.04	\$0.66	\$0.64	\$0.98
Comparison									
to MTA		34%	-38%	-42%	42%	41%	-11%	-13%	32%

Although high passenger utilization and low operating speeds are a major and relatively fixed part of the MTA's operating environment, MTA and bus operations management have taken significant steps to improve financial performance. Combined maintenance costs for all three bus agencies actually declined by \$47 million between 2008 (the source year for the audit data) and 2009 while providing the same level of service. In

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Ms. Carmen Maldonado November 19, 2010 Page 3

2010, MTA management began a concerted effort to reduce unnecessary overtime expenses at all agencies, resulting in projected savings this year of \$24 million in bus operations and \$54 million MTA-wide. The final proposed budget for 2011 includes additional bus maintenance savings of \$4 million, growing to \$11 million by 2014. It also includes approximately \$10 million in 2011 bus operations savings (of approximately \$33 million MTA-wide) from a competitive re-bid of employee health care plans. Looking ahead, MTA continues to work to achieve expense savings and productivity improvements throughout its operations, with bus maintenance a key component. We seek to partner with organized labor to achieve reductions in maintenance job times, and over the coming year, to achieve changes in work rules and health care contributions and other fringe benefits to further reduce our labor costs.

While the MTA generally agrees with much of the report, we strongly disagree with the report's conclusion that the MTA does not have a comprehensive bus maintenance plan. During the course of the audit, Bus maintenance staff went to great lengths to explain and demonstrate the formal and comprehensive maintenance program resident in the intranet-based information center (DOBIC). As delineated in our bus operations' May 3rd response, DOBIC provides employees with work scopes and schedules for all scheduled maintenance functions and interactive links to related technical support bulletins, directives, and manufacturers' service manuals. DOBIC also includes a matrix for depot and Central Maintenance functions, which the auditors incorrectly claimed was missing. The audit report also erroneously stated that according to the Chief Maintenance Officer, the current bus maintenance program is based on a magazine article authored by a previous Chief Maintenance Officer. As indicated in our bus operations' May 3rd response, the auditors were provided with a copy of the article to supplement our discussions and demonstrations to the auditors regarding DOBIC and other maintenance systems. The audit's continued mischaracterization and repeated reference to this article is troubling, particularly after this issue was clarified in a prior response.

Your draft report reinforces the goals set forth in Chairman and CEO Jay Walder's first report "Making Every Dollar Count," to reduce the cost of service provided by the MTA. We are in agreement with most of your recommendations and will pursue the necessary steps to implement them.

Thank you again for the opportunity to respond to this draft audit report.

Sincerely,

Charles Monheim Chief Operating Officer

State Comptroller's Comments

1. Our report actually says that MTA should "adjust the mean distance between failure goals so that no depot's goal is lower than its required inspection interval."