



New York State Office of the State Comptroller
Thomas P. DiNapoli

Division of State Government Accountability

Operational Training and Medical Assessments of Train Crews

Metropolitan Transportation Authority – Staten Island Railway



Report 2017-S-71

March 2018

Executive Summary

Purpose

To determine whether the Metropolitan Transportation Authority (MTA) – Staten Island Railway (SIR) established and implemented training and retraining programs for train crews to ensure safe train operations; and whether SIR ensured that train crews are medically fit and periodically monitored for continued medical fitness. The audit covered from January 1, 2013 to September 20, 2016.

Background

The MTA is a public benefit corporation that operates North America’s largest transportation network. New York City Transit (Transit), one of the MTA’s constituent agencies, operates bus and subway service within the City of New York. SIR is a subsidiary agency that operates a single rapid transit line on Staten Island, which runs from the St. George Ferry Terminal to the southern terminus at the Tottenville Terminal. Administratively, SIR is a separate operating unit, reporting to Transit’s Department of Subways.

Train crews consist of two members: a Locomotive Engineer (Engineer) and a Conductor. At SIR, the train crew reports to the Superintendent of Transportation or his designee. Induction Training is required for all employees new to their positions and is conducted both in the classroom and in various train yards. Training for Conductors and Engineers also includes “posting,” where the inductee works alongside a permanent employee to use the skills taught in class. Induction Training also includes quizzes, tests, final exams, and practical tests. Additionally, train crews are required to take Refresher Training courses (Book of Rules [BOR] biennially and Roadway Worker Protection [RWP] and Signals annually), intended to update the employees on current operating, communications, fire, and evacuation procedures.

Employees new to these positions are also required to pass a medical assessment at a Transit Medical Assessment Center. Medical assessments are required every two years for Engineers and every five years for Conductors. Revisits may be required as determined by medical personnel.

From January 1, 2013 through May 9, 2016, there were 56 Conductors and 37 Engineers who served in these titles.

Key Findings

- SIR employee training files should evidence satisfactory completion of each test and the Induction Training course overall. This is necessary to support that the employee was properly trained. However, we found that SIR’s records were insufficient to document that training was satisfactorily completed. For example, our testing found that, for our randomly selected sample of Conductors who underwent Induction Training during our audit period, 61 percent (55 of 90) of test papers were either not graded or missing. In addition, for our randomly selected sample of Engineers, 81.7 percent (49 of 60) of test papers for those newly hired and 41.7 percent (30 of 72) of test papers for those promoted were either not graded or missing.
- SIR’s Conductors and Engineers are required to take Refresher Training courses on BOR

biennially and RWP and Signals annually. The BOR specifies conduct that SIR deems important to safety, and is intended to protect against negligence, damage, injury, and death in the performance of work. Five of the ten Conductors randomly sampled were required to take BOR Refresher Training during our scope period. However, only two of the five had training records that supported satisfactory completion of all exams. We found similar results for the Signals Refresher Training, with only two of eight Conductors having records to support satisfactory completion. The Signals tests are critical because they test the student's knowledge of the safe routing of trains.

- Train crews were also not in compliance with medical assessment requirements. For example, for two of the ten Conductors sampled, their periodic examinations were late: one by 209 days and the other by 79 days.

Key Recommendations

- Require all instructors to review the class files periodically during and at the end of training to ensure that all quizzes, tests, and final examinations are documented and graded, and are retained in the training files.
- Emphasize the importance of Refresher Training to ensure compliance by instructors and train crews, evidenced by complete records, including documents showing the employee attained passing grades.
- Develop a system that properly tracks and monitors employee medical examinations against the scheduled time intervals.

State of New York
Office of the State Comptroller

Division of State Government Accountability

March 1, 2018

Mr. Joseph J. Lhota
Chairman
Metropolitan Transportation Authority
2 Broadway
New York, NY 10004

Dear Mr. Lhota:

The Office of the State Comptroller is committed to helping State agencies, public authorities, and local government agencies manage their resources efficiently and effectively. By so doing, it provides 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 entitled *Operational Training and Medical Assessments of Train Crews*. This audit was performed pursuant to the State Comptroller's authority as set forth in 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

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Background

The Metropolitan Transportation Authority (MTA) is a public benefit corporation that operates North America's largest transportation network. New York City Transit (Transit), one of the MTA's constituent agencies, operates bus and subway service within New York City. Staten Island Railway (SIR) is a subsidiary agency that operates a single rapid transit line on Staten Island, which runs from the St. George Ferry Terminal to the southern terminus at the Tottenville Terminal. Administratively, SIR is a separate operating unit, reporting to Transit's Department of Subways.

Train crews consist of two members: a Locomotive Engineer (Engineer) and a Conductor. The train crew reports to the Superintendent of Transportation or his designee. Employees new to these positions are required to attend Induction Training, where they learn the job and the components of a train and gain familiarity with operating procedures, including how to deal with emergency situations.

The training curriculum and length of training vary depending on the job or assignment. Induction Training for Engineers is 80 days for new hires and 55 days for individuals who are promoted. Conductors receive 51 days of Induction Training.

Training for all positions is conducted both in the classroom and in various train yards. Training for Conductors and Engineers also includes "posting," where the inductee works alongside a permanent employee to use the skills taught in class. Training also includes quizzes, tests, final exams, and practical tests. Quizzes provide feedback to the instructors regarding how the training is being received by students, and allow the instructors to gauge students' ability to understand the information. If students fail a quiz, or if the instructor otherwise deems necessary, they may be offered tutoring sessions in specific subjects before or after class.

Conductors and Engineers must also complete Refresher Training. This consists of Book of Rules (BOR) training every two years and Roadway Worker Protection (RWP) and Signals training annually.

Employees new to these positions are also required to pass a medical assessment at a Transit Medical Assessment Center. Periodic medical assessments are required every two years for Engineers and every five years for Conductors. Revisits may be required, as determined by medical personnel.

Audit Findings and Recommendations

SIR developed and implemented an Induction Training and Refresher Training curriculum and medical assessment requirements for its train crews; however, SIR cannot support that it is in compliance with its own requirements.

Employees new to their titles undergo Induction Training. Additionally, all train crews are required to periodically undergo Refresher Training. As part of Induction Training, employees must complete and pass a series of tests to show that the training was effective. Training files should evidence satisfactory completion of each test and the Induction Training course overall. The file should also document satisfactory compliance with all required Refresher Training as evidence that the employee was properly trained and updated in current procedures. However, a significant number of the required tests were ungraded or missing from employees' files. For example, for our sample of Conductors, 61 percent (55 of 90) of Induction Training test papers were either not graded or missing. In addition, for our sample of Engineers, 81.7 percent (49 of 60) of test papers for those newly hired and 41.7 percent (30 of 72) for those newly promoted were either missing or not graded. Because these tests cover knowledge of safety issues and how to respond to situations that may delay trains en route, it's essential that SIR ensure train crews take and pass these tests.

Furthermore, we note that medical assessments were not always done as required for both Conductors and Engineers.

Training

Induction Training

For SIR's Induction Training, there are different exams and requirements that need to be passed. The passing grade for all SIR Induction Training exams (tests and quizzes) is 85 percent, except for the Signals exam, which is 100 percent.

Conductor Induction Training is split into two phases, and the number of required exams changed over the audit scope period. Engineer promotional training (for those Conductors who have been promoted to the title of Engineer) consists of 12 exams, while the Engineer new hire training (for new employees hired from outside the agency) consists of 15 exams. Failure to meet the test score standard will result in the demotion of newly promoted employees to their prior title and the termination of those newly hired.

From January 1, 2013 through May 9, 2016, there were a total of 56 Conductors and 37 Engineers who served in those titles. For our testing, we selected a random sample of ten Conductors and 19 Engineers. Five of these Conductors and ten of these Engineers went through Induction Training (four newly hired and six promotional). Results of our review are presented in Table 1.

Table 1 – Induction Training Tests

Position	No. Employees	No. Tests Required	No. Tests Missing	No. Tests Not Graded
Conductor	5	90	37	18
Engineer	10			
Newly Hired	4	60	22	27
Promoted	6	72	26	4

All five of the Conductors who underwent Induction Training had missing or ungraded tests in their training records. Eighteen of the 90 required training exams (for both Phases I and II) were not graded, and another 37 were missing from the employees' training files.

For example, 3 of the 11 Phase I exams are Signals exams, which require a score of 100. The Signals exams are critical because they test the student's knowledge of the safe routing of trains. All employees engaged in the operation of trains are required to be familiar with the purpose, function, and rules related to the operation of the signal system. For the five sampled conductors, there was no record that all three Signals exams were passed with a grade of 100.

For the ten Engineers selected in our sample, four received new hire Induction Training and six received promotional Induction Training. Again, we found several instances where training exams were either not graded or missing from the file. For example, for new hire Engineer Induction Training for our sample, there were 60 exams required. Of these 60 exams, 22 were missing, 27 were not graded, and 11 showed a passing grade. Similar results were found for Engineer promotional Induction Training exams.

Refresher Training

SIR's Conductors and Engineers are also required to take Refresher Training courses, which include BOR biennially and RWP and Signals exams annually. All of this training is critical:

- The BOR specifies conduct that is important to safety, and is intended to protect against negligence, damage, injury, and death in the performance of work.
- Signals training tests the student's knowledge of the safe routing of trains.
- RWP rules provide proper protection of roadway workers and others who work on or near the tracks.

Among our random sample, eight of ten Conductors and 17 of 19 Engineers were required to have Refresher Training during our audit scope period. Both for Conductors and Engineers, a significant portion of the testing that demonstrates satisfactory completion of Refresher Training in these critical areas was incomplete or the tests were not graded or dated, as shown in Table 2.

Table 2 – Refresher Training Courses

Course	No. Employees	Completed Course	Did Not Complete Course*
Conductors			
RWP	8	7	1
Signals	8	2	6
BOR	5**	2	3
Engineers			
RWP	17	16	1
Signals	17	5	12
BOR	12	7	5

* Where training files showed ungraded, undated, or missing tests or failing grade.

** Three Conductors were in title less than two years and were not due for BOR training.

The material in these refresher courses is of critical importance to employees as it provides information on the safe routing of trains and the safeguarding of roadway workers. In a “safety first” environment, missing or late Refresher Training may lead to a heightened risk for riders as well as employees.

Recommendations

1. Require all instructors to review the class files periodically during and at the end of training to ensure that all quizzes, tests, and final examinations are documented and graded, and are retained in the training files.
2. Emphasize the importance of Refresher Training to ensure compliance by instructors and train crews, evidenced by complete records, including documents showing the employee attained passing grades.

Medical Assessments

Transit issued a Policy Instruction on Medical Assessments of Applicants and Employees, which requires medical examinations of its employees. The policy applies to safety-sensitive titles, including Conductors and Engineers. Medical assessments are conducted by Transit’s Occupational Health Services (OHS) in order to evaluate an applicant’s or employee’s ability to safely perform duties of his/her job responsibilities. OHS is responsible for conducting medical testing in accordance with medical standards and the applicable laws and regulations that apply to a particular job title.

Only OHS physicians or designated medical consultants can medically certify that an employee is fit for duty. In order to determine if Conductors or Engineers are medically fit, physicians review questionnaires, diagnostic test results, and medical history.

According to Policy Instruction 4.28.2, Engineers and Conductors are subject to a pre-employment physical examination as well as a full medical examination (periodic medical assessment) – every two years for Engineers and every five years for Conductors. Periodic medical assessments are due from the date of employment or promotion.

The ten Conductors sampled should have had a total of 29 pre-employment, promotion, periodic, and miscellaneous (revisits and return to work) examinations during our audit scope period. We found that two of the periodic medical assessments were done late: one by 209 days and the other by 79 days.

Ten of the 19 Engineers sampled were promoted or inducted within the last two years and thus not subject to a periodic medical assessment. However, one of the ten Engineers did not have the required promotional examination, and another did not have a revisit. Of the remaining nine employees, five had all of the required medical assessments. For the remaining four employees, we identified four deficiencies: two periodic medical assessments were not done; one assessment was 423 days late; and one revisit was not performed.

Recommendation

3. Develop a system that properly tracks and monitors employee medical examinations against the scheduled time intervals.

Audit Scope, Objectives, and Methodology

The audit objectives were to determine whether the MTA – SIR established and implemented training and retraining programs for train crews to ensure safe train operations; and whether SIR ensured that train crews are medically fit and periodically monitored for continued medical fitness. The audit covered from January 1, 2013 to September 20, 2016. We reviewed medical assessment files to find the date of the examination that preceded the January 1, 2013 examination.

We interviewed SIR officials to evaluate the internal controls related to the operational training of train crews and their medical assessments. We randomly selected ten Conductors and 19 Engineers from a total of 56 conductors and 37 Engineers. We used the same sample of employees to determine whether they received the necessary medical assessments.

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 during our audit 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 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

The audit was performed pursuant to the State Comptroller's authority as set forth in Article X, Section 5 of the State Constitution and Section 2803 of the Public Authorities Law.

Reporting Requirements

We provided a draft copy of this report to MTA officials for their review and formal comment. Their comments were considered in preparing this final report and are attached in their entirety at the end of this report. MTA officials agreed with our recommendations and have taken actions to implement them.

Within 90 days after 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 the recommendations were not implemented, the reasons why.

Contributors to This Report

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Vision

A team of accountability experts respected for providing information that decision makers value.

Mission

To improve government operations by conducting independent audits, reviews, and evaluations of New York State and New York City taxpayer-financed programs.

Agency Comments

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Joseph J. Lhota
Chairman



December 11, 2017

Ms. Carmen Maldonado
Audit Director
The Office of the State Comptroller
Division of State Government Accountability
59 Maiden Lane, 21st Floor
New York, NY 10038

Re: Draft Report #2017-S-17 (SIR Operational Training and Medical Assessments of Train Crews)

Dear Ms. Maldonado:

This is in reply to your letter requesting a response to the above-referenced draft report.

I have attached for your information the comments of Phillip Eng, Acting President, MTA New York City Transit, which address this report.

Sincerely,

Joseph J. Lhota

c: Veronique Hakim, MTA Managing Director
Donna M. Evans, MTA Chief of Staff
Michael J. Fucilli, Auditor General, MTA Audit Services

Attachments



The agencies of the MTA

MTA New York City Transit
MTA Long Island Rail Road

MTA Metro North Railroad
MTA Bridges and Tunnels

MTA Capital Construction
MTA Bus Company

Memorandum



Date December 11, 2017

To Joseph Lhota, Chairman, MTA

From Phillip Eng, Acting President, NYC Transit

Re New York State Comptroller Report #2017-S-71: Staten Island Railway – Operational Training and Medical Assessments of Train Crews

This information is being provided in response to the New York State Comptroller's audit report on operations training and medical assessments of train crews at Staten Island Railway (SIR). The purpose of the audit was to determine whether SIR established and implemented training and retraining programs for train crews to ensure safe operations, and whether SIR ensured that train crews are medically fit and periodically monitored for continued medical fitness.

Comptroller Recommendation #1: Require all instructors to review the class files periodically during and at the end of training to ensure that all quizzes, tests, and final examinations are documented and graded, and are retained in the training files.

NYCT Response: NYCT agrees and has already implemented this recommendation. As is done for NYCT Department of Subways trainees, a checklist has been developed and placed in each SIR file to ensure all required quizzes, tests, and final exams are documented and graded. SIR management conducts an annual review of these files to ensure compliance.

Comptroller Recommendation #2: Emphasize the importance of refresher training to ensure compliance by instructors and train crews, evidenced by complete records, including documents showing the employee attained passing grades.

NYCT Response: NYCT agrees and has already implemented this recommendation... As discussed in Recommendation #2, Training personnel ensure that all appropriate documentation is retained in the employee's folder, and compliance is reviewed annually by management.

Comptroller Recommendation #3: Develop a system that properly tracks and monitors employee medical examinations against the scheduled time intervals.

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NYCT Response: NCYT agrees and has already implemented this recommendation. All SIR employees are up to date with their medical exams. To enhance the scheduling process, a Medical Scheduling Database for SIR, which mirrors the process used in NYCT Department of Subways, is currently active and being utilized with the available data received from MedGate.