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STATE COMPTROLLER



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ALBANY, NEW YORK 12236

STATE OF NEW YORK
OFFICE OF THE STATE COMPTROLLER

June 28, 2021

Patrick J. Foye
Chairman and Chief Executive Officer
Metropolitan Transportation Authority
2 Broadway
New York, NY 10004

Re: Metro-North Railroad – Response
Planning for Unexpected Events
Report 2019-S-55

Dear Mr. Foye:

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, we have conducted an audit of the Metro-North Railroad (Metro-North) to determine whether it has plans or procedures to address unexpected or unplanned events and whether those plans were followed, and whether the plans or procedures addressed the needs of its customers. We also examined whether Metro-North reassesses and revises its plans or procedures in response to actual unexpected events. This audit covered events that occurred from November 1, 2018 to October 31, 2019. The fieldwork was conducted from October 31, 2019 to December 15, 2020.

Background

The Metropolitan Transportation Authority (MTA) is responsible for developing and implementing a unified mass transportation policy for New York City and Dutchess, Nassau, Orange, Putnam, Rockland, Suffolk, and Westchester counties. MTA carries out these responsibilities directly and through its subsidiaries and affiliates, including Metro-North.

Metro-North operates its three main lines out of Grand Central Terminal in New York City and its departments include Operations and Maintenance of Equipment. Transportation, a sub-department of Operations, is responsible for safe train operations and movement, train dispatching, engineer and conductor compliance with Federal Railroad Administration and Metro-North rules, crew dispatching, and all track outage coordination and planning.

Transportation's Operations Control Center (OCC) is responsible for safely routing trains across the Metro-North network. The OCC is staffed by rail traffic controllers assigned to manage 12 dispatching districts (specific sections of track defined by control points along the roadway). The supervisors of these districts are responsible for timely and accurate internal communication of information to all Metro-North departments. They also coordinate with all other departments during scheduled and unscheduled track outages.

The Maintenance of Equipment department is responsible for operating the shops that maintain rail cars and locomotives, and provides emergency service in the field when train equipment becomes disabled while in service.

When an unexpected event occurs, the OCC is notified by train engineers, train conductors, police (MTA Police Department or local), or field employees. Customers can also notify the OCC via phone or social media. The rail traffic controller for the district where the event occurred manages the event response, and a field supervisor on duty may be dispatched to the location. The person in charge in the field remains in constant communication with the OCC regarding any updates during the event. The rail traffic controller records an entry in a log of all the events of the day in chronological order. Each entry remains open until the event is resolved. The log is part of the Daily Operations Report, and the rail traffic control assistant and chief rail traffic controller review the log and share it with appropriate departments for review and adjustment.

In all significant emergency situations¹ that have the potential to disrupt or actually disrupt service to Metro-North customers, the Emergency Management Task Force (EMTF) may be mobilized to plan a coordinated, company-wide response to the incident. The EMTF is a group of Metro-North, MTA, and MTA Police Department personnel responsible for ensuring all appropriate information is gathered for decisions to be made in response to an incident, and that an appropriate response plan is determined.

As part of its internal communications, the OCC notifies the Customer Communications Department (Communications) about unexpected events. Communications determines if an event meets the criteria for a customer email/text notification. Depending on the time of day the events occur, there are different procedures for when customers are notified.

Customers can sign up for My MTA Alerts online. In addition to My MTA Alerts, Metro-North utilizes social media applications to update customers on train status. At train stations, customers have access to electronic station signs, Metro-North station representatives, public announcements, and digital dashboards that display train status. Customers can also call 511 for information about train status and delays.

The Customer Service Center receives customer communications via email, customer reports/letters, phone calls, social media, and executive correspondence. Once a complaint is received, it is coded and assigned to a customer service representative. The complaint is then reviewed and researched and, if applicable, sent to the appropriate department for further investigation. If an investigation is warranted, the department is required to follow up with the customer service representative assigned. Finally, the customer service representative must respond to the customer within 48 hours.

We sampled 80 events that caused 1,944 delays: 1,511 trains were late (met Metro-North's definition of six minutes or more late); 29 trains were canceled; 16 trains were terminated before leaving the station; 368 were delayed, but not late; and 20 were impacted, but not delayed. These events caused a total of 21,170 delay minutes, with the largest delay being 110 minutes. Most of these delays were caused by environmental issues.

Results of Audit

Overall, Metro-North has procedures to address how its employees respond to most issues that cause unexpected or unplanned events. However, we found that the procedures were not always followed. For example, in 38 of the 80 sampled events, there was not always documented evidence that the procedures were followed completely. In addition, 26 of the

¹ An unforeseen circumstance or set of circumstances that threatens the health or safety of a person or persons, requiring immediate action.

80 events required the EMTF to be placed on standby or activated; however, we found that the EMTF was notified of only one event. There were also no procedures for two events – cancellation of a special schedule and trees on the tracks. For the other 40 events, Metro-North followed its procedures.

Metro-North's procedures require customers to be notified of unexpected or unplanned events within a set time frame. We found that, during our sampled events, customers either were not notified or were informed beyond the time frame set in the procedure. Metro-North was not required to send notifications to customers for 32 of the 80 sampled events. For the 48 events requiring customer notification, customers were not notified promptly in 24 events (within 15 minutes of OCC notifying Communications) and were not notified at all for 6 events. In the other 18 events, notifications followed Communications' procedures.

Metro-North conducts daily meetings with all operating departments to review the Daily Operations Report, which includes all safety incidents from the previous day. However, neither the meetings nor the recommendations generated are documented to track implementation. Metro-North's Office of System Safety supervisory personnel perform incident investigations based on the type of incident that has occurred. Additionally, other departments assist in the investigation process when collecting details about the incident, providing subject matter information, determining the root cause and contributing factors, and developing corrective actions. Eight of the 13 corrective actions we reviewed were not implemented.

We reviewed customer complaints regarding service disruptions and found that Metro-North did not always follow its procedures, including the requirement to respond to complaints. Additionally, responses provided did not always specifically answer the customer's question or resolve the issue. We reviewed a sample of 20 complaints related to "Travel Disruption/Trip Problems" and found that 8 were handled in total compliance with Metro-North procedures. The other 12 were missing one or more steps.

Response to Events

The OCC primarily uses the Rail Traffic Controller Manual, Notification Book, and Operating Rules when unexpected events occur. Depending on the event, the OCC coordinates with other departments to assist in resolving the issue.

We found that, for the 80 events in our sample, 40 followed all steps in the procedures. For the other 38 events for which there were procedures, Metro-North did not have documented evidence that the procedures were followed completely. For example, when an event results in a track circuit being down and there are no operating signals, trains must travel at restricted speeds. If there is a track defect (e.g., broken rail), no trains can enter the area. In such a case, a speed restriction can be conveyed using various notices. However, the restriction was not documented using such notices in 16 sampled events. Two events – cancellation of a special schedule and trees on the tracks – did not have any applicable procedures.

Eight of the 80 events sampled met Metro-North's definition of an emergency. In such events, the Employee Emergency Instructions have 57 required steps, 8 of which are related to on-board customer communications. We found that none of the eight events completed all the required steps in the Employee Emergency Instructions.

According to Metro-North's Rail Traffic Controller Manual, once there is a potential for service disruptions, the EMTF should be placed on standby. As the codes escalate (e.g., from code green to code yellow or red), the EMTF could either be placed on standby or activated.

Twenty-six events required this action; however, we found that the EMTF was only notified of one.

Metro-North's procedures require that, in six types of events, the All Operations Group be notified. In practice, Metro-North sends notifications to this group for most of its events, as indicated by the fact that it was notified by the OCC in 55 of the 80 sampled events.

We reviewed documents from six other departments to verify that they were notified and that the actions required in the procedures were completed. We found that one department (Structures) responded to both events when required to do so. The other six departments did not respond to events as required. Additionally, the MTA Police Department should have been notified about 18 events but was notified of only 16 events and did not respond to 2 of those 16.

In response to our preliminary findings, Metro-North officials did not agree that some of the events were unplanned. We note that our events were sampled from the population of unplanned events, according to Metro-North's documents. They also stated that the EMTF is not notified for code green events (events for which there is a potential for service disruption). However, Metro-North's procedures require the EMTF be placed on standby in such events (see Exhibit).

Communications

We found that Metro-North was not required to send notifications to customers for 32 of the 80 sampled events. For the other 48 events for which customers should have been notified, they were not notified promptly for 24 events and were not notified at all for 6. For the other 18 events, notifications followed Communications' procedures.

For the events that were not in compliance with Communications' customer email/text alert procedures, we found that notifications were sent late, ranging from 3 minutes to 5 hours 44 minutes past the required notification time frame. (Communications is required to send alerts within 15 minutes of when it is notified by OCC of an unexpected event.) For example, on November 19, 2018, there was a four-track outage that caused delays starting at midnight. Notifications to customers about this event were 5 hours 29 minutes late. This event impacted 35 trains, lasted a total of 6 hours 28 minutes, and resulted in one train being canceled.

In response to our preliminary findings, Metro-North officials stated that the 15-minute target to send out notification of a service alert is a goal, not a hard procedure. While they strive to achieve that goal, not all incidents are alike and, in many cases, there will be complex alternate service plans required. They find that often, in those more complex cases, it is more prudent to send the alert out a few minutes past the 15-minute goal to ensure they are providing the customers the most accurate information.

Post-Event Assessments

Metro-North officials stated that they conduct daily "lessons learned" meetings after unexpected or unplanned events. These events are reviewed at meetings by the Operations, Office of System Safety, and Customer Service departments. However, officials stated that it is not their practice to prepare minutes for these meetings or to document recommendations generated during these meetings.

Major and critical incidents are investigated by the Office of System Safety, along with applicable operating departments. These departments assist in collecting details about the incidents, providing information, determining the root cause and contributing factors, and developing corrective actions. We found that, of the 13 corrective actions reviewed, 8 were not implemented.

The Office of System Safety did not agree with our preliminary findings, stating it provided supporting documents to show that the corrective actions were implemented. We reviewed all documents provided and maintain our position that the documentation does not support that the corrective actions were implemented.

Customer Complaints

Customers communicate with Metro-North through email, customer correspondence, phone calls, social media, and executive correspondence. Once a complaint is received, it is coded and assigned to a customer service representative. The complaint is reviewed and researched and, if applicable, sent to the appropriate department for further investigation. If an investigation is warranted, the applicable department is required to follow up within 7 to 10 business days. The representative must respond to the customer within 48 hours.

We reviewed customer complaints regarding service disruptions and found that Metro-North did not always follow its procedures, including the requirement to respond to complaints. When Metro-North responded to complaints, the response did not always answer the customer's question or resolve the issue. Of the 20 complaints related to "Travel Disruption/ Trip Problems" reviewed, 8 were handled in total compliance with Metro-North procedures. The other 12 were missing one or more steps. For example, a customer complained about a specific train being late every night. We found that Metro-North coded the complaint but did not assign, review and research, or respond to the customer.

Metro-North responded to 16 of the 20 complaints reviewed. However, of those 16 responses, 6 did not address the customers' concerns. In one instance where the customer complained about a train that (in his/her opinion) was repeatedly late, Metro-North researched and confirmed the issue but did not explain how the issue would be resolved. It also did not explain why, based on the review, the referenced train was late 30 percent of the time. In another complaint, the customer reported concerns about the removal of a passenger and the safety of customers during such events. The customer suggested closing the doors when such situations occur in the future. The response apologized for the event but did not explain what actions would be taken in the future.

Metro-North's Customer Service department forwarded only 7 of the 20 complaints to the responsible departments for further investigation. Customer Service received a response for just three of the seven complaints; all complied with Metro-North's 10-day response procedure.

At a meeting to discuss these findings, Operations officials indicated that they receive complaints for investigations only when additional information is needed to respond to the customer. Customer relations specialists have access to data to verify complaints that trains were late and can respond directly to customers about these events. From their regular business processes, Operations officials are already aware of the events and take action to improve their operations based on analyses of these events. However, customer complaints should be sent to the departments regularly to investigate and take action to correct recurring issues.

Recommendations

1. Ensure Metro-North personnel follow all procedures in the applicable manuals.
2. Revise procedures for train crew members and the OCC to include keeping a record of the timing of announcements to customers to ensure they are made in a timely manner.
3. Revise policies and procedures to clearly specify when an initial customer notification must be sent and exactly how often updates are to be sent after the initial notification when there are longer delays.
4. Develop a system to ensure customer notifications are being sent at the required time intervals.
5. Update procedures for notifying EMTF members of the declaration of an OCC code using the established specific mail group for members of the EMTF to ensure all are specifically notified in the event a code is declared, upgraded, or discontinued.
6. Forward all events to the responsible departments.
7. Provide customers with timely responses that focus on answering the issues raised in the complaints.
8. Document and maintain the minutes and recommendations of all lessons learned meetings and the corrective actions taken in response to unexpected or unplanned events.
9. Notify the departments of all events and, as the event unfolds, each department will determine the appropriate response and dispatch personnel to the scene.

Audit Scope, Objectives, and Methodology

The audit objectives were to determine whether Metro-North has plans or procedures to address unexpected or unplanned events and whether those plans or procedures were followed, and whether the plans addressed the needs of its customers. We also examined whether Metro-North reassesses and revises its plans or procedures in response to actual unexpected events. This audit covered events that occurred from November 1, 2018 to October 31, 2019. The fieldwork was conducted from October 31, 2019 to December 15, 2020. (It was extended due to restrictions on access to Metro-North personnel and records as a result of COVID-19.)

To accomplish our objectives, we reviewed procedures related to responding to unexpected or unplanned events, and examined actions taken to reassess and revise those procedures. We reviewed the chief rail traffic controller's log and OCC records to ensure events were handled in compliance with Metro-North's procedures. We interviewed Metro-North management and employees to evaluate internal controls related to Response Planning for Unexpected Events.

We also interviewed officials and reviewed records related to our sampled events received from the following departments: Power, Track, Communications & Signals, Structures, Fleet Management, Maintenance of Equipment, Communications, and MTA Police Department. Further, we reviewed reports prepared by the Office of System Safety about investigated events and corrective actions taken.

We selected a judgmental sample of 80 events from a population of 3,609 unexpected or unplanned events, based on six strata. Each stratum represented the number of trains affected by an event (1 train, 2 to 5 trains, 6 to 11 trains, 12 to 30 trains, 31 to 49 trains, and 50 to 999 trains). We used Arbutus to select 15 events from each of the first four strata and 10 events from the last two strata. We also selected a judgmental sample of 26 of the 119 investigation reports conducted during the scope period by comparing the dates in the chief rail traffic controller's logs we received to the dates of the investigation reports and selecting reports included in the log. We also selected a judgmental sample of 20 of 1,709 customer complaints where the subject matter was "Trip Disruption/Trip Problem." Our samples were not intended to be projected to the population.

Statutory Requirements

Authority

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.

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, including some duties on behalf of public authorities. For the MTA, these include reporting MTA as a discrete component unit in the State's financial statements and approving selected contracts. These duties could be considered management functions for purposes of evaluating organizational independence under generally accepted government auditing standards. In our professional judgment, these duties do not affect our ability to conduct this independent audit of MTA's oversight and administration of its Response Planning for Unexpected Events.

Reporting Requirements

We provided a draft copy of this report to Metro-North officials for their review and formal comment. Their comments were considered in preparing this final report and are included in their entirety at the end of it, along with our own State Comptroller's Comments.

Metro-North officials agreed with most of our recommendations. They indicated they are in compliance with other recommendations regarding notifying other departments, and customer notifications; however, we found exceptions during our audit that indicate compliance needs to be improved or documentation needs to be improved as it was not available to support the actions taken. Our recommendations are designed to improve the recording of the actions taken during unexpected events.

Within 180 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.

Major contributors to this report were Robert Mehrhoff, Anthony Belgrave, Katrina Lau, Heidi Alverio, Paisley Fisher, and Nafisa Rahman.

We wish to thank the management and staff of Metro-North for the courtesies and cooperation extended to our auditors during this audit.

Very truly yours,

Carmen Maldonado
Audit Director

cc: D. Jurgens, Assistant Auditor General, MTA
M. Woods, Auditor General, MTA
Division of the Budget

Exhibit

Metro-North Railroad Rail Traffic Controller Manual Notification of EMTF

Alert Level	Service Level	Examples	EMTF Action
Green	<p>Full</p> <p>(Service is not currently affected but there is a potential for service disruptions)</p>	<ul style="list-style-type: none"> • Snow forecast • Bomb threat • Loss of power feed • Loss of substation • Disabled train at critical location 	Standby
Yellow	<p>Partial shutdown to one line <i>or</i> GCT</p> <p>(The problem may last for an extended period of time and has the potential to affect a large number of customers)</p>	<ul style="list-style-type: none"> • Main line derailment • Disruptive weather condition • Power outage (traction or signal) • Partial loss of CTC system • Wire(s) down 	Standby or Activate
Red	<p>Complete shutdown of all lines <i>and/or</i> GCT</p> <p>(The problem is severe and potentially long-lasting)</p>	<ul style="list-style-type: none"> • Severe disruptive weather • Total loss of CTC System • Utility Blackout 	Activate

Agency Comments

2 Broadway
New York, NY 10004
212 878-7000 Tel

Patrick J. Foye
Chairman and Chief Executive Officer



Metropolitan Transportation Authority

State of New York

May 27, 2021

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 #2019-S-55 (Response Planning for Unexpected Events)

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 Catherine Rinaldi, President, Metro-North Railroad, which address this report.

Additionally, I will be working with staff to ensure that management is following up on and enforcing the audit's recommendations, where appropriate, and requesting regular, interim reports to that effect.

Sincerely,

A handwritten signature in black ink that reads "Pat Foye".

Patrick J. Foye
Chairman and Chief Executive Officer

c: Anni Zhu, MTA Chief of Staff to the MTA Chairman & Chief Executive Officer
Michele Woods, Auditor General, MTA Audit Services

The agencies of the MTA

MTA New York City Transit
MTA Long Island Rail Road

MTA Metro-North Railroad
MTA Bridges and Tunnels

MTA Construction & Development
MTA Bus Company



May 26, 2021

Mr. Patrick Foye
Chairman and Chief Executive Officer
Metropolitan Transportation Authority
2 Broadway, 20th Floor
New York, NY 10017

Re: Draft OSC Report 2019-S-55 - MNR Response Planning for Unexpected Events

Dear Chairman Foye:

The Office of the New York State Comptroller recently issued a Draft Report on Response Planning for Unexpected Events at Metro-North Railroad (MNR). The audit period was prior to the pandemic, when we were operating over seven hundred trains a day. Our Operations Control Center (OCC) is MNR's nerve center for train movement, and it is a very dynamic environment where staff are trained to handle and respond to unexpected events—and do so on a daily basis.

We are fully committed to ensuring that when unexpected incidents or events occur, we do everything in our power to minimize the impacts to our operation and our customers. Over the past several years, our solid safety record and our consistently high levels of on-time-performance are the results of this focus and commitment. On a monthly basis, we publicly report on incidents which cause 10 or more late, canceled or terminated trains. Note that of the 80 sampled events reviewed for this report, many only impacted a small number of trains and the event reviewed causing the longest delay was under 2 hours.

We will use these findings and recommendations as an opportunity to further improve how we document our response to unexpected events and seek additional ways to enhance the overall customer experience. This letter serves as our formal response and approach to addressing the Draft Report's findings and recommendations.

Recommendation 1:

Ensure Metro-North personnel follow all procedures in the applicable manuals.

MNR Response to Recommendation 1:

MNR agrees with this recommendation and will reinstruct appropriate staff to ensure all procedures are followed.

Recommendation 2:

Revise procedures for train crew members and the OCC to include keeping a record of the timing of announcements to customers to ensure they are made in a timely manner.

MNR Response to Recommendation 2:

MNR does not agree with this recommendation. MNR will continue to ensure all train crew members make the required announcements, but keeping a real-time record of these announcements and associated timing is unrealistic. It is important to note that announcements are only one part of their responsibility during service disruptions and their focus must remain on the overall safety of customers.

[Comment 1](#)

Recommendation 3:

Revise policies and procedures to clearly specify when an initial customer notification must be sent and exactly how often updates are to be sent after the initial notification when there are longer delays.

MNR Response to Recommendation 3:

MNR already complies with this recommendation. MNR currently has policies and procedures which specify when an initial customer notification must be sent and exactly how often updates are to be sent after the initial notification during major service disruption events.

[Comment 2](#)

Recommendation 4:

Develop a system to ensure notifications are being sent at the required time intervals.

MNR Response to Recommendation 4:

MNR agrees with this recommendation and will work to develop a system to ensure notifications are being sent to customers at the required intervals during major service disruption events.

Recommendation 5:

Update procedures for notifying EMTF members of the declaration of an OCC code using the established specific mail group for members of the EMTF to ensure all are specifically notified in the event a code is declared, upgraded, or discontinued.

MNR Response to Recommendation 5:

MNR agrees with this recommendation and will review and update EMTF Notification Protocols as needed.

Recommendation 6:

Forward all events to the responsible departments.

MNR Response to Recommendation 6:

MNR already complies with this recommendation. MNR will reinstruct appropriate staff to ensure events are forwarded to the responsible departments. In certain situations, where multiple customer

complaints are received about the same event, all duplicative communications do not need to be forwarded to the responsible departments.

Recommendation 7:

Provide customers with timely responses that focus on answering the issues raised in the complaints.

MNR Response to Recommendation 7:

MNR agrees with this recommendation and will continue to ensure customers get timely responses to any issues raised and ensure our internal procedures are updated to include a focus on ensuring a direct response to the issue raised.

Recommendation 8:

Document and maintain the minutes and recommendations of all lessons learned meetings and the corrective actions taken in response to unexpected or unplanned events.

MNR Response to Recommendation 8:

MNR is already in full compliance with the requirements of FRA regulation 49 CFR §239.105 including the debrief and critique requirements. MNR will work to enhance the documentation of debriefings, critiques and lessons learned as well as the corrective actions taken in response to major unexpected events.

[Comment 3](#)

Recommendation 9:

Notify the departments of all events and, as the event unfolds, each department will determine the appropriate response and dispatch personnel to the scene.

MNR Response to Recommendation 9:

MNR already complies with this recommendation. MNR currently dispatches all appropriate personnel to the scene.

Sincerely,



Catherine Rinaldi

cc: M. Woods
D. Jurgens
S. Doering
S. Sarch
J. Vonashek
C. Armstrong
P. Diaz
N. Gilbertson

State Comptroller's Comments

1. Without any documentation that announcements are made during service disruptions and emergencies, there is no assurance that they were made. The Employee Emergency Instructions have eight steps that focus on customer communications, but there is no record of required actions such as "Timely and Accurate Communication by Conductor, Assistant Conductor & Engineer," "Customers Informed of Situation and Appropriate Actions," and "Ensure Announcements are Heard in all Cars." Without such records, it is difficult to assess how well Metro-North is complying with customer communications requirements. Such communications impact customer satisfaction and thus should be part of the performance assessment for such incidences. Metro-North officials should revisit their position.
2. Metro-North states that it is already in compliance because its procedures "... specify when an initial customer notification must be sent and exactly how often updates are to be sent after a major service disruption." However, this applies only to "major service disruptions." For all other situations that impact customers, the procedures state "...the frequency of the e-mail updates will be dictated by the situation." This is not specific.
3. Our report does not mention the "debrief and critique" requirements. However, we are pleased that Metro-North plans to work toward enhancing its documentation of lessons learned and the corrective actions.