



LIRR'S POST-INCIDENT INVESTIGATIVE PRACTICES – FINAL (MTA/OIG #2019-24)

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I. EXECUTIVE SUMMARY

In 2019, the Office of the MTA Inspector General (OIG) concluded a review of MTA Long Island Rail Road's (LIRR) procedures for investigating the causes of derailments and other significant safety-related events. We reviewed LIRR's Corporate Policy & Procedure on Incident Investigations (the Policy)¹ to determine whether it was sufficiently aligned with industry best practices and also compared the Policy with protocols used by New York City Transit (NYC Transit) and Metro-North Railroad (MNR). In several important respects, we found that LIRR's post-incident investigative practices did not reflect industry best practices, particularly in the establishment of its incident investigation structure and the assignment of roles for securing the scene, preserving perishable evidence, and releasing employees from an incident site. LIRR's positive responses to our recommendations are summarized below.

- It is considered industry best practice for the rail agency to designate an Investigator in Charge to initiate, coordinate, and conduct the post-incident investigation; serve as a point of contact with other responding agencies; and obtain any technical assistance necessary to assess the vehicles, infrastructure, and equipment involved in the incident. OIG found that LIRR's Policy did not identify an Investigator in Charge, but rather assigned these responsibilities to a committee that LIRR's Corporate Safety Department (Safety) officials formed at the incident site. Moreover, LIRR's Policy offered no clear direction regarding who was responsible for securing the scene, taking field statements from employees, determining whether an employee should be tested for drug and alcohol use, and releasing employees from the scene. This had several drawbacks, as we explain below.
- OIG also identified deficiencies in the role assigned to LIRR's legal and claims personnel and found that the Policy was silent on several important topics. Specifically, according to industry best practice, officials with legal, litigation, and/or insurance responsibilities should not be involved in the post-incident investigative

¹ The Policy, SAFE-019, is in draft form and dated May 2019; according to LIRR Safety officials, it served as the governing policy during the period of our review.

process—as LIRR’s Law Department occasionally was.

- Lastly, we found that the agency’s investigation committee structure—which supports LIRR’s interdepartmental effort to identify causal factors and develop appropriate corrective actions—led to a diffusion of responsibility for implementing those improvements.

To address these areas of weakness, we make several recommendations. Most significantly, we recommend that Safety be given additional authority to manage investigative activities and monitor follow-up corrective actions.

Because every incident has the potential to cause injury to passengers and employees, damage rail facilities and equipment, and impede service, it is vital that LIRR’s Safety and operational employees collaborate effectively to identify any factors and conditions that might have contributed to the incident. A thorough and timely investigation into those factors and conditions must begin as soon as possible, and well-trained personnel must gather all necessary evidence without delay or interference. This is particularly true of derailments, which carry significant risk of injury and damage.

On November 27, 2019, we shared our Draft Report with LIRR for comment. LIRR’s January 9, 2020 response noted that the agency shared OIG’s “interest in implementing best practices for investigating significant safety-related events (e.g. derailments, etc.) as completely and expeditiously as possible, while ensuring corrective actions are identified and implemented to prevent reoccurrences.” LIRR further agreed with the recommendations and outlined steps the agency will take in the first quarter of 2020 to strengthen its investigative practices. LIRR’s specific responses appear at the end of the Report.

II. BACKGROUND

A. Industry Best Practices

To determine the standards by which OIG should measure LIRR’s post-incident investigative practices, we interviewed officials at the American Public Transportation Association (APTA) as well as current and former safety officials at several regional rail authorities. In addition to APTA itself, these officials recommended several sources for our consideration:

APTA. As an association of transportation professionals, APTA supports rail properties of all ages, sizes, and complexities. The safety officials we spoke with considered APTA’s *Rail*

*Transit Accident/Incident Notification and Investigation Requirements*² to be useful guidelines, which each rail agency should adjust to meet its specific operating conditions and organizational needs. We therefore considered the APTA standards as industry best practices for the purposes of this review.

National Transportation Safety Board (NTSB). The safety officials agreed that although NTSB investigations represent the “gold standard” for incident investigations, as a non-operating agency NTSB does not face the financial and time constraints that operating agencies do. Specifically, after an incident LIRR needs to move quickly to identify any necessary corrective actions while also restoring full service capacity as soon as possible, and—unlike the NTSB—must weigh the financial implications of any improvements under consideration. For this reason, we considered the NTSB standards when they seemed appropriate and there was an absence of direction from other sources.

NYC Transit & MNR. OIG was pleased to learn from industry professionals that NYC Transit’s investigative practices are considered some of the best in the field, thus giving OIG another reasonable standard to use. Lastly, as the MTA’s northern commuter railroad, MNR is a natural comparator for LIRR. With the eventual completion of the Penn Station Access and East Side Access projects, LIRR and MNR will be operating in closer proximity than ever before, with NYC Transit’s subway service in both locations as well. It is critical that these three MTA rail agencies align their incident-management practices.

B. The Incident Investigation Process

During our review, OIG learned that LIRR operational and Safety personnel must effectively manage six key processes to allow the railroad to recover efficiently and successfully after a serious safety-related event, learn from it, and implement any necessary improvements:

- 1) Incident response, including the activities of law enforcement and emergency responders;
- 2) Incident investigation, including data collection both on- and off-site;
- 3) Service recovery, including the removal of disabled vehicles and the repair of track, signals, switches, and other structures;
- 4) The determination of causal factors;

² See APTA Standard [RT-OP-S-002-02, Rev. 3](#), dated July 6, 2018, by the Operating Practices Working Group.

- 5) The development of recommendations; and
- 6) The implementation of corrective actions.

Although these activities seem easily distinguishable, incident response and investigation must begin nearly simultaneously to allow trained personnel to identify and gather key evidence on-site. Further, the scene after an unanticipated event is typically chaotic and potentially hazardous, and can stretch for thousands of feet, complicating efforts to secure its boundaries. For these reasons, LIRR must establish a clear command-and-control protocol (the incident command structure) if the railroad is to achieve its main objectives: an efficient return to service and a thorough, timely investigation. This is the context in which we evaluated LIRR's investigative practices.

III. FINDINGS

A. LIRR's Incident Investigation Process is Not Aligned with Best Practices

In 3 key areas, we found that LIRR's response to derailment events fell short of industry best practices. Further, we found that both MNR and NYC Transit are more closely aligned with APTA standards than LIRR.³

1. Role of Investigator in Charge

APTA standards state that if an investigation is required, the rail agency should designate an Investigator in Charge (IIC) to initiate, coordinate, and conduct the investigation; serve as a point of contact with other responding agencies; and obtain any technical assistance necessary to assess the vehicles, infrastructure, and equipment involved in the incident. NYC Transit designates the Office of System Safety's Senior Director of Operations (or their representative) as IIC, and MNR authorizes the Chief Safety Officer in its Office of System Safety to lead investigations. In contrast, LIRR's Policy does not identify an IIC; instead, it assigns the task to a committee that Safety officials form at the incident site. The committee may include representatives from Safety, Transportation Services, Engineering, Maintenance of Equipment, and other departments as Safety deems appropriate.

³ For NYC Transit, we consulted these governing policies: *Accident Investigation Policy Program Manual, Policy Instruction 10.28.1 (May 3, 2010)* and the *Department of Subways System Safety Program Plan (November 14, 2018)*. For MNR: *Incident Investigation Procedure (July 2014)* and the *Corporate Policy and Operating Procedure, Accident/Incident Investigation (September 2018; a draft document)*.

We learned that as soon as an incident occurs, LIRR Transportation Services Department (Transportation) personnel establish a response group at the Jamaica Control Center and assign an On-Site Supervisor in Charge (OSSIC) to carry out certain tasks at the scene. OSSIC is a term unique to LIRR; it is not mentioned in any of the industry sources we reviewed. Further, we learned from Transportation officials that the OSSIC's main priorities are incident response and service recovery, not investigation.

By not also naming an IIC who has clear authority for key *investigative* tasks, LIRR creates a complication for itself in an already complex environment. In addition, this deficiency might hinder the collection of key evidence. For example, after a derailment on October 8, 2016 in New Hyde Park⁴, employees were dismissed before a determination had been made about whether they should be tested for use of drugs and alcohol. We discuss this further below.

Both LIRR Safety and Transportation officials agreed that LIRR's investigative practices would be strengthened by the designation of an IIC and further agreed that the role of IIC should be assigned to a member of the Safety staff.

2. *Securing the Scene & Preserving Evidence*

The APTA standards assign clear authority for preserving perishable evidence to the IIC: "When possible and if not in conflict with any authority having jurisdiction, the IIC will secure the scene in order to preserve site conditions and evidence to ensure accurate data development."⁵ To accomplish this overall purpose, the IIC may assign others to gather evidence and obtain preliminary statements from eyewitnesses in order to develop a reasonable understanding of the sequence of events. Similarly, NYC Transit and MNR authorize the IIC to establish communications with third-party investigators, assign key tasks, and carry out other duties as necessary to conduct an effective investigation.

Our review found that LIRR's Policy offers no clear direction regarding who is responsible for securing the scene. It states, "The incident scene must remain as intact and undisturbed as possible until the arrival of emergency responders and incident investigators," and

⁴ On October 8, 2016, a collision occurred between an LIRR track car and an eastbound passenger train near the New Hyde Park station. Both the track car and the train then derailed. There was significant damage to the track bed, switches, track car, and involved passenger train cars. The replacement cost for the track car and damaged passenger cars alone was estimated at \$8.2 million. Additionally, ambulances removed 26 passengers and 7 employees from the scene.

⁵ See APTA Standard [RT-OP-S-002-02, Rev. 3](#), Appendix § A.3.2.4.

adds that if “senior management or his/her designee with specific authority” seeks to make any changes to the scene, “the official must consult with the incident investigation committee.”⁶

This lack of clear authority could hinder an investigation in its earliest stages; in a stark example, we learned that after a February 26, 2019 LIRR collision and derailment at the School Street crossing in Westbury, New York,⁷ local elected officials were allowed to walk inside the incident scene (with escorts) even before LIRR’s Safety and Transportation investigators had finished photographing the damaged equipment and structures. Because many incident sites are thousands of feet long, and first responders and local law enforcement are likely involved, central coordination and a robust command structure must be in place and understood by all parties involved in the incident response and investigation.

We also found that the Policy lacks specific language regarding the critical task of photographing the scene. APTA authorizes the IIC to coordinate photography from multiple vantage points, NYC Transit assigns the task to the Department of Subways, and for MNR a System Safety principal investigator will photograph the scene. However, LIRR assigns the task generally to “responding managers,” without assigning specific areas of responsibility or requiring coordination among the responding personnel.⁸

The LIRR Safety and Transportation officials we spoke with agreed that LIRR could improve its investigative practices by adopting clear and concise language outlining the roles and responsibilities for every party involved in an investigation, including the assignment of such key tasks as securing and photographing the scene.

3. Processing and Releasing Employees from the Scene

Whether as participants or bystanders, LIRR employees are key witnesses to an incident; their observations can help the agency identify an event’s causal factors. Because memories can fade rapidly after a traumatic experience, this perishable evidence must be gathered quickly if it is to prove useful. Even determining who was onboard or at the scene can become problematic after the fact. Therefore, interviews of employees to reconstruct what happened are best done right away. To preserve the integrity of the investigation, it is standard practice to separate

⁶ See SAFE-019, § IV.C. (b)-(d).

⁷ In this incident, two LIRR passenger trains traveling in opposite directions collided with an automobile that had driven around the lowered crossing gates on School Street in Westbury. The westbound train derailed and crashed into a platform at the LIRR Westbury station.

⁸ See SAFE-019, § IV.C. (a).

witnesses and to take their statements before there is outside influence or suggestion that might taint recollections. In addition, involved employees need to be sent promptly for drug and alcohol testing. For all these reasons, the release of employees from an incident scene must be managed thoughtfully. As mentioned above, APTA charges the IIC with securing the scene, which implicitly includes the attendant responsibility of controlling employee release.

We learned that immediately after an LIRR incident, the MTA Police Department (MTAPD) controls the scene. Once the police determine that the site is not a potential crime scene, LIRR takes control. However, in both policy and practice LIRR does not clearly assign responsibility for three key tasks related to impacted personnel:

- 1) Taking field statements from employees;
- 2) Determining whether an employee should be tested for drug and alcohol use; and
- 3) Releasing employees from the scene.

Our review revealed that although the Policy empowers at least five departments to take field statements from employees involved in incidents, these departments' officials are not required to coordinate their efforts. This can result in an inefficient and haphazard process. For example, after the 2016 New Hyde Park derailment noted above, multiple employees were allowed to leave the scene without permission from MTAPD or LIRR Safety personnel, without giving statements, and, even more critically, before a well-considered determination had been made about whether they should be tested for use of drugs and alcohol. This represented a clear failure to adhere to industry standards as well as LIRR's own policies.

In addition, we found that during employees' formal interviews with LIRR Labor Relations officials (which typically occur one day after the event), they often expressed confusion about whom they had talked with at the scene; at times they recalled only a first name but no title or operational role. This is partly explained by the cognitive distress common after a safety-related incident, but LIRR's employees would benefit from a more consistent and transparent process. For example, to address this, managers and investigators taking field statements could coordinate their actions with the IIC and could also provide a business card to the employees with whom they speak.

4. Need for Training

We found that in addition to clarifying the roles of on-scene investigators, LIRR should improve the consistency of the incident-response training it provides to operating employees. Some LIRR employees, particularly those in Safety and Transportation, undergo training in the

National Incident Management System (NIMS), a U.S. Federal Emergency Management Agency program.

NIMS defines the key roles and responsibilities required for professionals in any industry to respond capably and timely to incidents of all types. Additional training for LIRR managers and employees in Engineering and other operating departments should help prevent errors—e.g. the premature release of employees from the site of the New Hyde Park derailment—and would also help the agency align its post-incident actions with industry best practices. In our discussions with LIRR Transportation and Safety officials, they agreed that the agency could improve its investigative practices by clarifying who was authorized to release employees from the scene and by providing NIMS training to a larger group of key operating employees. They also agreed that better communication during the process of taking field statements would help employees cope with the stressful early stages of an investigation.

B. The Role of Legal/Insurance Personnel is Not Aligned with Best Practices

We found that in their treatment of the role of legal, insurance, and claims personnel, NTSB guidelines are both clearer and more restrictive than the other industry standards we consulted. Specifically, NTSB’s guidance states that individuals with legal, litigation, and/or insurance responsibilities should not be involved in the NTSB investigative process.⁹ APTA and NYC Transit standards make no mention of personnel in these roles, possibly implying that they are not involved in the post-incident investigative process.

In contrast, LIRR’s Policy assigns LIRR’s Law Department (which includes the Claims Bureau, or Claims) the following “essential functions”: to “assist with the investigation of incidents that involve claims and potential claims against the LIRR,” and to “interview injured employees, witnesses and supervision.”¹⁰ While LIRR has a duty to defend itself capably in litigation and the claims process, industry best practice is to handle that fact-finding process separately from the incident investigation protocol. Further, it appears that the role of Claims as outlined in the current draft version of the Policy has grown significantly since the prior Corporate Procedure was updated in 2003, as that document assigns no explicit role or responsibility to the Law Department or its personnel.¹¹ Because these individuals are charged

⁹ See NTSB [Information and Guidance for Parties to NTSB Accident and Incident Investigations](#), § II, p. 2 and § X, p. 6, with reference to 49 CFR §831.11(a) (3).

¹⁰ See SAFE-019, § III.F.2 and 3.

¹¹ See LIRR Corporate Procedure: Train Accident Reporting and Investigation Process (April 1, 2003).

with protecting the agency's interests, the thoroughness, independence, and objectivity of the investigative fact-finding process might be impaired if their participation is not properly defined.

In a troubling illustration of an unusual role for Claims personnel, we learned that after the New Hyde Park incident, Claims officials led the formal interviewing of employees who had been involved in or had witnessed the event. This was in contrast to LIRR's standard protocol, in which Labor Relations Department officials conducted the interviews. Notably, Labor Relations' interviews are recorded in verbatim transcripts, making them an invaluable source for investigators seeking a detailed understanding of the factors contributing to an incident, while Claims interviews are not recorded verbatim.

In our discussions with LIRR officials, we learned that Labor Relations will lead the interviewing process in the future. While we consider this a positive development, the Policy does not clearly state this as one of Labor Relations "essential functions." In addition, we recommend that LIRR reconsider the role that Claims and other legal personnel have in the incident investigation process, and adjust that role to align with industry best practices.

C. LIRR's Policy on Incident Investigations is Silent on Key Points

In comparing the Policy to the industry standards, we found that it did not identify who is ultimately responsible for two key *post*-incident activities:

- 1) Collecting off-site data, including such evidence as maintenance and inspection records and proof of employees' qualifications and training; and
- 2) Identifying and implementing immediate corrective actions necessary to improve the safety of rail operations.

On both points, NYC Transit's guidelines include the clearest assignment of accountability: the Department of Subways is responsible for gathering the information needed to determine the root cause of an incident, and "if at any time prior to issuing the final report the Board [of Inquiry] determines that there is a need for immediate action to correct an unsafe condition or the revision of a work or safety rule, the Board shall make an immediate recommendation to that effect."¹²

We learned that although the LIRR Policy does not include an explicit provision

¹² See *Policy Instruction 10.28.1*, p. 47. NYC Transit convenes a Board of Inquiry after an accident resulting in the death of an employee and in some cases of serious employee injury.

authorizing the agency to take immediate corrective actions, the operating departments and Safety officials do identify and implement short-term changes when on-scene findings indicate that they would improve the safety of LIRR's operation.

Expanding the Policy to include language on these topics would bring it into closer alignment with the standard set by NYC Transit.

D. The LIRR Investigation Committee's Broad and Ongoing Role Leads to a Diffusion of Responsibility for Implementing Improvements

Every set of standards, from NTSB and APTA to the MTA agencies, emphasizes that a capable and timely incident investigation requires the input of a wide variety of subject matter experts, including officials from an agency's Safety function and operating departments. An investigative committee typically forms very quickly after an incident to support the necessary coordination of fact-finding tasks and to manage the various parties' contributions. However, the committee's work must eventually end, and at that point the responsibility for applying the lessons learned from an incident must pass to specific managers and work groups.

We learned that at both MNR and NYC Transit, the committee's work is substantially complete as soon as the on-scene work is done. Each agency's Office of System Safety then prepares a final report containing its determination of the probable cause(s) of the incident, its analysis of relevant data, and recommendations. Thus the Safety officials recommend corrective actions with the advice and input of the operating departments, but do not require the *approval* of the operating departments.

LIRR follows a different process: LIRR's investigation committee determines an incident's causal factors and—as a group—makes recommendations to prevent similar events in the future. This means that Safety is not viewed as the primary “owner” of the planned corrective actions and lacks full managerial authority to effect change. We learned that Safety personnel needed to issue frequent reminders to the operating departments after the New Hyde Park derailment to ensure the committee's recommendations were implemented. This need for persuasion, rather than authoritative direction, can lead to delayed or incomplete implementation of improved practices.

One reason for LIRR's collective process and the diffusion of accountability might be the recent organizational history of LIRR's Corporate Safety Department. In response to the 2014 recommendations of a Blue Ribbon Panel on rail safety, LIRR reorganized its Corporate Safety and Training Department into two separate departments, created a Chief Safety Officer position reporting directly to the LIRR president, and established a dedicated investigative team, which

was fully staffed only as of 2016. Safety officials and the operating departments have thus had only a few years in which to clarify and coordinate their respective roles and procedures. However, based on our review, Safety should now be given the level of authority enjoyed by its MNR and NYC Transit counterparts. Indeed, such a change—if actively supported by operating department management—would both enhance LIRR’s overall safety practices and bring its investigative protocols into closer alignment with industry best practice.

IV. RECOMMENDATIONS

To improve its incident investigation practices, LIRR should:

1. Strengthen its *Corporate Policy & Procedure on Incident Investigations* (the Policy) by making the following changes and communicating them to all affected personnel:
 - a) Assign the role of Investigator in Charge (IIC) to a member of the Corporate Safety Department (Safety) staff.
 - b) Establish standard protocols and assign specific responsibilities, in accordance with American Public Transportation Association and National Incident Management System standards, for securing the scene, preserving evidence, taking field statements, determining the need for drug and alcohol testing of employees, and releasing employees from the scene, as directed on site by the IIC.
 - c) Clarify that the Labor Relations Department is responsible for managing the post-incident formal interviewing process.
 - d) Adopt the NTSB standard which states that persons responsible for managing litigation or insurance interests are not permitted to participate in a post-incident investigation.
 - e) Expand the Policy to clarify that the investigation committee, headed by Safety, is (1) responsible for collecting all necessary records and documents to reach a timely conclusion about an incident’s causal factors, and (2) authorized to identify immediate corrective actions that should be taken by the operating departments.
 - f) Expand the Policy to clarify that Safety is responsible for monitoring and reporting on the implementation of any *immediate* corrective actions.
 - g) Assign Safety the authority to develop *longer-term* recommendations with the

advice and guidance of the investigation committee members; monitor the implementation of recommended corrective actions; identify unnecessary delays in the implementation of corrective actions; and take steps as needed to ensure full compliance with the agreed-upon improvements.

Agency Response: In LIRR's January 9, 2020 response to our Draft Report, the agency agreed with our recommendation and informed us that "by the first quarter 2020 [LIRR] will complete revisions to and thereby enhance and strengthen its Incident Investigation Policy (Policy) relevant to all items identified by the MTA OIG report. Specifically, LIRR's revised Policy will:

- a. Designate an Investigator in Charge (IIC) at the scene of an incident, a role to be assumed by Corporate Safety's Deputy Chief of Compliance and Investigations or his/her designee.*
- b. Describe established responsibilities for securing a scene, preserving evidence, taking field statements, releasing employees, employee drug and alcohol testing while coordinating efforts with the IIC in accordance with American Public Transportation Association (APTA) and National Incident Management System (NIMS).*
- c. Enhance LIRR's current procedure for having Labor Relations manage and conduct formal interviews.*
- d. Specify that investigations conducted by the Law department are considered separate and parallel to Corporate Safety's investigation.*
- e. Enhance LIRR's current procedure of specifying that Corporate Safety will chair and lead the Committee, collect documents provided by department committee representatives, and be giving full authority to identify immediate corrective actions to be taken by the respective operating departments.*
- f. Enhance LIRR's current procedure of outlining Corporate Safety's role in monitoring and reporting on the implementation of any immediate corrective actions.*
- g. Specify Corporate Safety's authority to develop and monitor the implementation of long-term recommendations, including identifying delays in the implementation of corrective actions, evaluating compliance with agreed-upon improvements, and determining the effectiveness of mitigations."*

2. Provide regular National Incident Management System training for key operational managers, supervisors, and front-line employees.

Agency Response: In its response, the agency identified the federal requirements governing LIRR in the area of incident management and preparedness training and the courses currently available to LIRR personnel.¹³ The response then stated, “To improve LIRR’s process and procedures relative to training going forward, Corporate Safety will highlight the availability, importance, and necessity of NIMS training for all front-line managers / supervisors in the revised Policy.”

Lastly, the agency stated: “In 1Q 2020, the LIRR will initiate a task force consisting of Corporate Safety, Transportation Services, and Employee Training and Development to:

- *Identify improvements related to the command, control, and operations at the scene of an incident, including but not limited to the responsibilities of key personnel.*
- *Design a training program tailored to the OIG findings, including developing a training matrix with specific tasks to ensure best practices are followed. Criteria for refresher training will also be evaluated [since a refresher course is currently not required].*
- *Develop a Field Operations Guide with an operations check-list to be used particularly during complex incidents requiring a multi-agency, multi-jurisdictional response.”*

¹³ Homeland Security Presidential Directives No. 5 (Management of Domestic Incidents) and No. 8 (National Preparedness).