



May 15, 2014

Mr. Joseph C. Szabo  
Administrator  
Federal Railroad Administration  
1200 New Jersey Avenue, SE  
Washington, DC 20590

Dear Mr. Szabo:

On March 14, 2014, the Federal Railroad Administration released "Operation Deep Dive," its comprehensive safety assessment of Metro-North Railroad. This report was based on the FRA's intense 60-day review of Metro-North's safety-related processes and procedures, its compliance with safety regulations and requirements, and its overall safety culture.

In response to the directed actions contained in the report, Metro-North submits the attached plan. Out of the 27 actions detailed in the FRA report, Metro-North has completed 14, is progressing on five, and for eight has developed a training strategy to be carried out starting immediately. While good progress has been made, much more needs to be done. The problems identified by the FRA clearly developed over a long period and will take continued, relentless focus and ongoing attention to fully correct.

Safety is the top priority for Metro-North Railroad, and the railroad is taking steps to ensure this. We are currently reorganizing our Safety Department so that its sole focus is safety, and we are improving employee training programs.

Employees at every level are pulling together to make sure this railroad is operated safely and to the highest standards. We are very fortunate to have had the full attention of the FRA teams of experts that helped us to improve our safety procedures.

We thank the FRA for their insight and will continue to collaborate with you and other stakeholders in the effort to continuously improve Metro-North's safety culture and practices.

Sincerely,

A handwritten signature in blue ink, appearing to read "Joseph J. Giulietti".

Joseph J. Giulietti

*attachment*

cc: T.Prendergast

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# **MTA Metro-North Railroad Response to the Federal Railroad Administration's "Operation Deep Dive" Report**

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May 15, 2014

## Executive Summary

The Federal Railroad Administration (FRA) recently conducted Operation Deep Dive, an intensive assessment of Metro-North Railroad operations. Over a 60-day period, experts in 14 distinct areas reviewed the railroad's safety and regulatory compliance. The resulting report presented a sobering view, identifying critical issues in Metro-North's culture and priorities.

In parallel with this review, the National Transportation Safety Board (NTSB) has also been performing a series of investigations related to the incidents that occurred over the past year, and has been providing Metro-North with preliminary information as to their findings.

In response to this input, Metro-North has taken a number of immediate steps to improve the railroad's safety practices and safety culture. More broadly, both Metro-North's 100-Day Action Plan and the actions set forth below in this report provide the basis for a strategic path forward. This path forward builds on the efforts begun in 2013 to improve track maintenance and inspection standards and practices. Combined, these plans will help to fundamentally change the organization and lay the foundation that will enable Metro-North to achieve "best in class" status.

While this report focuses on the directed actions specified in the Deep Dive report, it also highlights other key initiatives already underway. It is therefore important to note that this report is not an exhaustive listing of all of Metro-North's actions and plans. Further, the Railroad will continue to collaborate with the FRA, NTSB and other stakeholders in the effort to continuously improve safety culture and practices.

Key overarching actions that Metro-North has already taken include the following:

- Comprehensive outreach to ensure that all employees understand that safety is the foundation of this railroad, and the undisputed first priority. Metro-North is supporting this message on a daily basis by ensuring that ongoing operational decisions and practices place safety in the forefront.
- Reorganization of the Safety Department to focus solely on safety – as has been required by MTA Chairman and Chief Executive Officer (CEO) Tom Prendergast for all MTA operating agencies.
- Centralizing oversight of all training functions at Metro-North in the Training & Development Department, to reduce fragmentation and ensure a coordinated training program across the railroad. This will provide the appropriate checks and balances in the short term, while a longer-term transition is carried out.

- Establishing a work plan to address each of the directed actions identified in the Deep Dive report.

These broad-based steps set the foundation for a wide range of more detailed actions and initiatives. Key programmatic initiatives since December 2013, when Operation Deep Dive began, include the following:

- **Safety Stand-Downs:** On March 11 and April 10, a combined total of more than 8,000 employees - a majority of the workforce - participated in companywide Safety Stand-Downs. Safety Stand Downs will be repeated at least once every quarter.
- **Enhanced Employee Protection System:** This system was designed and implemented to provide roadway workers who are in charge of work on the right-of-way with the ultimate authority over when a track is both taken out of service and restored to service.
- **Speed Reductions:** With the issuance of Emergency Order 29, Metro-North immediately made reductions in maximum authorized speeds across our operating territory, so that no location requires a reduction in speed of greater than 20 miles per hour. At five critical curves and five moveable bridges, modifications were made to the signal system so that compliance with these speed reductions is enforced automatically. These modifications were completed by the end of March.
- **Speed Compliance:** To ensure locomotive engineers are complying with authorized speeds, more than 5,000 audits have been performed since December. In April alone, 568 audits were performed, and, going forward, at least 500 audits will be scheduled each month.
- **Alerters:** Two-thirds of Metro-North's railcar fleet is already outfitted with Alerters, and the railroad has designed and ordered Alerters for the remaining railcars. The goal is to have a fully equipped fleet by the end of the year.
- **Positive Train Control:** In conjunction with colleagues at the Long Island Rail Road, the implementation of positive train control has been accelerated.
- **On-Board Cameras:** The process has begun to purchase inward- and outward-facing cameras to assist in incident investigations.
- **C3RS:** Negotiations continue with labor organizations on participation in the FRA's Confidential Close Call Reporting System (C3RS).

- Automated Track Inspection Plan: As a result of Metro-North's collaboration with TTCI, a comprehensive automated track inspection plan was developed. This plan includes the use of track geometry measurements, machine vision track inspection, and rail internal defect testing. These efforts will augment the visual inspections conducted by the railroad.
- Automated Track Inspection Equipment: Metro-North is seeking approval from its Board this month to purchase a track monitoring system. This system would be mounted on passenger rail cars and will provide continuous information about the condition of the right-of-way. The railroad also intends to purchase its own track geometry vehicle; currently the railroad contracts with others to provide this service.

In addition to the reorganization of the Safety Department, Metro-North has implemented the following organizational changes, to support the shift in the railroad's safety culture and practices:

- A new Vice President of Engineering has been appointed to oversee the reorganization and rebuilding of the Maintenance of Way Department. This department now reports directly to the President.
- A new Chief Transportation Officer has also been brought on board. Notably, the new CTO has prior experience implementing the FRA's Confidential Close Call Reporting System at a commuter railroad.
- Organizational layers have been streamlined: A newly-appointed Vice President of Human Resources now oversees the Human Resources and Training Departments. Likewise, a newly-appointed Vice President oversees Labor Relations. Both now report directly to the President.
- Staff and program resources are being added to the Safety and Training Departments, and throughout the railroad, to reinvigorate safety culture and practices.

Further information on these specific improvements, as well as on the broader status of the directed actions identified by the FRA, are contained within this report. Together with Metro-North's 100-Day Action Plan, as noted above, these plans outline Metro-North's overall path forward.

Yet while good progress has been made, much more needs to be done. The problems identified by the FRA clearly developed over a long period, and will take continued, relentless focus and ongoing attention to fully correct.

Metro-North employees at every level are pulling together to ensure the railroad is operated safely and to the highest standards. Railroad leadership will continue to engage labor leaders and front-line employees to address the issues brought out in this report. Continued collaboration - with employees, with safety and regulatory experts, and with other stakeholders - will be critical to ensuring Metro-North provides safe, reliable, customer-focused service now and in the years to come.

## **Background**

On December 16, 2013, the Federal Railroad Administration launched Operation Deep Dive, an assessment of operations and safety compliance at Metro-North Railroad. More than 14 teams, comprising 60 technical and human factor experts, conducted this 60-day comprehensive safety assessment. The review addressed Metro-North's safety-related policies and procedures, its compliance with safety regulations and requirements, and its overall safety culture.

The specific areas the FRA assessed during Deep Dive included:

- Track, signal, and rolling stock maintenance, inspection, and repair practices;
- Protections for employees working on rail infrastructure, locomotives and rail cars;
- Communication between the Mechanical and Transportation Departments at maintenance facilities;
- Operations Control Center procedures and Rail Traffic Controller training;
- Compliance with Federal hours-of-service regulations, including fatigue management programs;
- Operational data collected to measure the efficiency of employees' comprehension and execution of all applicable Federal regulations;
- Locomotive engineer oversight;
- Engineer and conductor certifications;
- Training programs for all operating employees; and
- Operating crew medical requirements.

FRA identified and prioritized specific safety concerns and directed Metro-North to take actions to mitigate identified risks. The attached tables summarize the directed actions identified by the FRA, and present the status of Metro-North actions in response. All directed actions have been addressed; corrective actions are either completed or underway.

Based on the evaluations conducted during the Deep Dive, FRA identified three overarching safety concerns that affect all facets of Metro-North Railroad:

- An overemphasis of on-time performance;
- An ineffective Safety Department and poor safety culture; and
- An ineffective training program.

The FRA also developed specific directed actions for Metro-North to address these concerns in a comprehensive manner. Those actions were:

1. Effective immediately, Metro-North's senior leadership must prioritize safety above all else, and communicate and implement that priority throughout Metro-North.
2. Within 60 days, Metro-North shall submit to FRA a plan to improve the Safety Department's mission and effectiveness. Metro-North must evaluate the structure, organization, and responsibilities of the Safety Department to ensure that it is communicating effectively throughout Metro-North, and that it is providing effective leadership and oversight on safety issues. Metro-North must ensure that the staff of the Safety Department conducts safety meetings at all levels of the organization and provides appropriate in-person monitoring of field activities and personnel.
3. Within 60 days, Metro-North shall submit to FRA a plan to improve the training program. The senior leadership of Metro-North must evaluate the structure, organization, and responsibilities of the Training Department to ensure that it develops, implements, and leads an effective training program for all operating departments. Metro-North shall evaluate the existing recordkeeping system and take corrective action to ensure that accurate records are created, maintained, and readily accessible to appropriate employees.

Again, all actions directed by the FRA are either in progress or completed. A report of the progress in these areas follows.

## Comprehensive Directed Actions

### 1. Overemphasis of On-Time Performance

Directed Action: Effective immediately, Metro-North's senior leadership must prioritize safety above all else, and communicate and implement that priority throughout Metro-North.

*Status of Metro-North Action Plan: In Progress and Ongoing*

Of all the findings of the FRA's report, the assertion that Metro-North's workforce believed that on-time performance held a higher priority than safety was the most disturbing, and required immediate action.

Metro-North has mounted an intense communication effort to its employees to reinforce that nothing is more important than working safely and operating the railroad to the safest standards.

- Safety messages that emphasize safety statistics and safe work practices – in both static and video formats – have been posted to all employee monitors (screens on display in high-traffic areas at each employee facility). These messages are replicated in other formats to reach the largest number of employees possible. For example, daily messages are delivered via company computers every day when employees log in. Printed material is available to employees who work in the field and are away from computer terminals for most of their work week.
- Further, the daily monitoring of on-time performance and consist compliance statistics has been removed from these same communication vehicles. It will also be removed from monthly customer communication pieces, such as employee newsletters.
- In addition, Metro-North President Joseph J. Giulietti directed that the overall 2014 on-time performance goal – which had stood at 97% – would be reduced to 93%. This action was an important signal to the workforce: The railroad will not seek to achieve its former high on-time performance numbers until there is a high degree of confidence that safe operation and safe work practices are of paramount importance. Although this decision is fully supported by the MTA's Chairman and CEO, it has been met with a great degree of resistance from certain stakeholders and elected officials. Notably, the letter from FRA Administrator Joseph Szabo that was received by Metro-North on April 28 reinforced the key finding of the Deep Dive report that "Metro-North must never compromise safety in the interest of the reliability of its train schedule or the efficiency of its railroad operations." It was a timely reminder and reinforcement that the decision to de-emphasize on-time performance targets was necessary.

Written communication has played a large role; face-to-face communication plays a larger one:

- Metro-North has committed to holding Safety Stand Down meetings with its employees throughout the railroad, once every quarter. Two have been held since the beginning of the year, with participation by more than 8,000 employees. Discussion topics range from wearing appropriate Personal Protective Equipment and ensuring a hazard-free work space to reinforcing operating rules and procedures for on-track protection. Conversations can also be tailored to specific work groups or to address specific incidents. Every Safety Stand Down also includes a question & answer session where two-way dialogue is encouraged, as well as reminders of the various ways that employees can raise safety concerns.
- Critical to the perception that safety is paramount is allowing employees who inspect and maintain the right-of-way sufficient time to do their work. Metro-North continues to reinforce this requirement to all employees – particularly those in the Maintenance of Way/Engineering and Transportation departments who must work together every day to achieve this goal. The railroad has also completed a review of its train schedules to ensure that sufficient work windows exist to perform necessary maintenance.

Metro-North's work in implementing this directed action will be ongoing permanently. As noted above, the focus on this goal must be continued and relentless.

## 2. Ineffective Safety Department and Poor Safety Culture

Directed Action: Within 60 days, Metro-North shall submit to FRA a plan to improve the Safety Department's mission and effectiveness. Metro-North shall evaluate the structure, organization, and responsibilities of the Safety Department to ensure that it communicates effectively with the entire organization, and to ensure that the Safety Department provides effective leadership and oversight on safety issues. To further improve safety, Metro-North shall require the staff of the Safety Department to participate in safety meetings at all levels of the organization and to provide appropriate in-person monitoring of field activities and personnel.

*Status of Metro-North Action Plan: Work Plan Developed; Implementation in Progress and Ongoing*

Building an effective Safety organization will provide the firm foundation for the improvements Metro-North is seeking to make both programmatically and culturally. It will allow the railroad to address the deficiencies identified by the FRA, and to identify negative trends and potential hazards in the future. It will also allow the railroad to set a positive tone and continually reinforce that safety is the first priority.

With an eye toward these goals, the Safety Department organizational structure has been reviewed. It has also been benchmarked against the best practices of other transit agencies, including the NYCT Office of System Safety and other MTA Agencies.

To ensure a more proactive and programmatic approach to safety throughout the railroad, more resources will be devoted to creating a comprehensive Office of System Safety (OSS) that will focus on overall policy and program development, corporate risk reduction programs, and trend analysis and reporting. These elements, in concert with the work done at the local and district team level to foster and share safe work practices, will provide nucleus for the creation of departmental Safety Action Plans and the Metro-North System Safety Program Plan.

*Office of System Safety*

In keeping with the direction set forth by MTA Chairman and CEO Tom Prendergast, the Safety Department has been re-designed to focus solely on Safety. Specifically, Safety has been separated from the Security function, creating two distinct departments.

The mission of the Safety Department is as follows:

*The Metro-North Office of System Safety (OSS) will support the system-wide implementation of the System Safety Program. The OSS will develop and disseminate policies and programs that provide guidance to all departments in support of System Safety.*

*The OSS will audit the effectiveness of the program and ensure continuous improvement of the Safety Program.*

Revised functional areas of responsibility have been established within the new organization: Risk Reduction, Field Operations, Safety Support and Data Analysis, Investigations and Fire Safety and Emergency Management. While details within these divisions may shift slightly as the organization is created and the additional functions are implemented, the overarching functional responsibilities will remain as described.

Each of these functional areas will have the responsibility of developing, reviewing, and revising new and existing agency-wide safety policies associated with each unit's areas of responsibility. Further details on each unit are as follows:

#### *Risk Reduction*

To align with the anticipated promulgation of 49 CFR 270, a Risk Reduction unit is being established. Overall, this unit will have the responsibility for Hazard Identification, Hazard Assessment and Mitigation, and all associated policies. Industrial Hygiene, HAZCOM and a Chemical Assessment Team (CAST) will fall under this division. This group will also be responsible for the development and maintenance of the SSPP, as well as implementation and oversight of the Confidential Close Call Reporting Program (C3RS).

#### *Field Operations*

This unit will have two sections. The Field Officers will be responsible for evaluating system-wide compliance with safety regulations, policies and procedures, Operating Rules, and Training programs. They will evaluate the implementation of all Departmental Safety Action Plans, and will be responsible for coordination and development of corrective action plans for the Priority One Steering Committee and the Senior Safety Committee. This group will also support the Safety Working Group meetings (Safety Committees) by providing technical guidance and support to the District and Local Teams. Labor/Management teams will be created to perform targeted audits of personnel working on the right-of-way, in order to evaluate compliance with roadway worker protection and other critical safety rules and procedures.

#### *Safety Support and Data Analysis*

This unit will be responsible for critical trend analysis and the development and dissemination of corporate reports to the MTA and other organizations. The data reports and trends identified by this unit will also be used to develop the work plans for the Field Operations unit and all Departmental Safety Action Plans.

Specifically, required regulatory reporting for all accidents and incidents (including rail accidents) will be the responsibility of this group. All necessary documentation must be maintained in accordance with regulatory requirements and appropriate filing must be completed in a timely manner to ensure compliance as well as the capturing of industry trends for further analysis. All administrative functions in support of the Safety Department will be handled by this group as well.

### *Investigations*

The Investigations unit was created to ensure that serious incidents are appropriately investigated. This includes development of thorough investigative reports to ensure impartiality and appropriate root cause analysis, as well as effective development and tracking of recommendations and corrective action plans.

This group on will be responsible for the investigation of all mainline and yard collisions and derailments. Any near-miss incidents involving potential employee contact with a train, customer fatalities that meet established criteria, employee fatalities, and serious employee industrial accidents will be investigated by this unit.

Regulatory notifications required by any of these incidents will be made by the Investigations team, who will also coordinate with outside agencies as required.

The individual departments will continue to investigate non-serious customer and employee industrial accidents and suicides, in accordance with Metro-North's newly created Incident Investigation Procedure.

### *Fire Life Safety and Emergency Management*

This unit oversees Metro-North's fire safety and prevention program, including the inspection and acceptance testing of sprinkler, standpipe, suppression, and fire alarm systems. This group also conducts investigations of significant fires.

Under the purview of the Fire Marshal, safety code compliance analysis is performed for all projects, including review of plans and specifications for the design, construction, and renovation of facilities, structures, rolling stock, and equipment to ensure compliance with policies, regulatory standards, rules, and regulations.

As required by 49 CFR 239, this unit develops and facilitates emergency exercises and is responsible for developing the Passenger Train Emergency Response training curriculum, as well as delivery of training, for the 266 emergency service agencies in the territory. All coordination and development of Metro-North's emergency preparedness and contingency plans, as well as joint planning efforts with local and regional emergency management agencies, will be the responsibility of this unit.

### *Results*

This significant shift in functional responsibilities of the Office of System Safety, supported by collaboration with all Departments, will enable more effective and systematic oversight of safety across Metro-North. Further, the deeper collaboration between the Safety organization and all aspects of Metro-North operations will foster greater ownership of the overall Priority One Program by employees at all levels of the organization.

While it will take time to implement these changes and build greater safety involvement and ownership across the organization, this plan is critical to putting Metro-North on the path to be an industry-leading safety-oriented agency.

### 3. Ineffective Training Department

Directed Action: Within 60 days, Metro-North shall submit to FRA a plan to improve the training program.

Part One: Metro-North shall evaluate the structure, organization, and responsibilities of the Training Department to ensure it develops, implements, and leads an effective training program for all operating departments.

Part Two: Metro-North shall evaluate the existing recordkeeping system and take corrective action, as necessary, to ensure accurate records are created, maintained, and readily accessible to appropriate employees.

In addition to this comprehensive directed action, the Deep Dive report included several specific directed actions that called for Metro-North to improve the quality and consistency of training programs for operating employees across the railroad.

### *Status of Metro-North Action Plan: Part One Completed*

To reduce fragmentation and ensure a coordinated training program across Metro-North, the Training & Development Department (Training) will be responsible for oversight of all training functions at the railroad. This will be accomplished in stages, through a phased transition.

- Many training functions located in the operating and support departments are not easily separated from other critical operating functions. Therefore, as an immediate step, for training functions currently handled by departments other than Training & Development, Metro-North is establishing a strong matrix reporting relationship from the head of the training function in each department to the Senior Director, Training & Development. The training lead for each operating and support department will have a dual reporting relationship to the head of that department and the Senior Director, Training and Development.
- At the same time, Training, Operations, and Safety are developing a strategic plan for the reorganization or restructuring of training functions at Metro-North as appropriate. This plan will identify the appropriate responsibilities and relationships for each training function, as well as the resources needed to implement the necessary reorganization and/or restructuring. The strategic plan will have at least two phases:
  - A shorter-term plan to establish appropriate checks and balances between Training and the operating and support departments, to ensure ongoing agreement on the qualification of individual employees and the effectiveness of training programs. This plan will be prioritized to address more critical needs first.
  - A longer-term plan to evolve the organization of training functions across Metro-North to a more centralized structure. Designing and achieving the desired steady-state organization of training functions, including any associated realignment of responsibilities among departments, would be achieved over the next several years (with a target completion date of 2020).

Training has identified necessary staff and program resources to assume this broader role in training oversight and reporting at Metro-North, including in areas not historically handled by the Training & Development Department. These resources are anticipated to be put into place over the next year.

Training is also identifying organizational changes within the existing department that are appropriate to support the current expansion of roles, staff, and program resources. An organizational chart outlining the anticipated arrangement of functional responsibilities is attached. While details may shift as the organization is created and the strategic plan is established, this chart illustrates how resources are being put into place to support the expanded role of the Department.

*Status of Metro-North Action Plan: Part Two Underway*

Metro-North's Operations, Engineering, System Safety and Training Departments are working with MTA Information Technology (IT) and Business Service Center (BSC) to develop and implement a solution that will provide the required functionality for effective tracking and reporting of employee training and certifications. The overall goals include ensuring effective and reliable reporting that satisfies regulatory as well as operating requirements; facilitating the identification and tracking of certification status, including projected expiration; easing general access and use of critical information by managers and support staff across the organization; and streamlining data entry and reporting processes.

- As an immediate step, the BSC and IT have already implemented a short-term solution to facilitate the identification of employee certification status by Operations and Training. This manual process will improve the quality and speed of information on certifications while additional phases of the project progress.
- The next phases of the project will provide an application that will interface with the BSC Enterprise Learning Management (ELM) system. The application will first streamline, and later automate, matching of qualified employees to jobs; further improve reporting functionality; and ease access and use of the system to track certification status for specific groups of employees.
- Additional required functionality, including streamlining of data entry for training records, will be implemented in later phases as well. In the interim, the Training Department will continue manual data entry of training records, and is putting in place the additional staff needed to meet the increased recordkeeping workload.

As an additional step, Metro-North is centralizing all training recordkeeping in the Training & Development Department, and increasing oversight of all data management and reporting.

- Training is putting in place the additional resources necessary to centralize data entry, based on current manual methods (as noted above), as well as to oversee the expanded recording and reporting function.
- An audit plan has been established to monitor accuracy and completeness of records.

### *Status of Specific Directed Actions for Training Programs*

The work to evaluate and improve training programs for operating employees, as well as to develop necessary new programs, is progressing, and will accelerate as additional resources are put into place in the Department. This work includes the following:

- Continuing the evaluation and improvement of existing training programs, and establishing a regular cycle and process for future review. This process will be integrated with the response to the anticipated Federal Minimum Training Safety Standards, when those standards are issued (expected later this year).
- Developing new programs to address identified needs.
- Providing oversight and support to training functions conducted in other departments, as noted above.

As noted above, the longer-term strategic plan for the overall training function at Metro-North will take time to fully develop and implement. In the interim, the plan described here demonstrates that Metro-North is taking immediate steps to address critical training needs, provide comprehensive and coordinated oversight, and ensure effective recordkeeping and reporting of training and certifications.

### **Conclusion**

As this report and the attached table demonstrate, Metro-North has taken a number of immediate steps to improve the railroad's safety practices and safety culture. Among the key overarching actions, Metro-North is engaging in comprehensive outreach to ensure that all employees understand that safety is the foundation of this railroad, and the undisputed first priority. The railroad has reorganized the Safety Department to focus solely on safety, is centralizing oversight of all training functions at Metro-North in the Training & Development Department to reduce fragmentation, and has established a work plan to address each directed actions identified in the FRA review.

More broadly, both Metro-North's 100-Day Action Plan and the actions set forth in this report provide the basis for a strategic path forward. This path forward builds on the efforts begun in 2013 to improve track maintenance and inspection standards and practices. Combined, these plans will help to fundamentally change the organization and lay the foundation that will enable Metro-North to achieve "best in class" status. The railroad is committed to continuously improve its safety culture and practices. Toward that end, the productive collaboration with the FRA, NTSB and other stakeholders will continue.

# DIRECTED ACTIONS - METRO-NORTH RAILROAD SAFETY ASSESSMENT

5. Overarching Safety Concerns - The FRA identified three overarching safety concerns that affect all facets of Metro-North.		Strategy Developed	Strategy Implementation	Comments
5.1	<b>Overemphasis on On-Time Performance</b> : Senior leadership must put safety front and center, and communicate and implement that priority throughout the organization. This action must be taken immediately.	✓	✓	See MNR's Response to FRA Report
5.2	<b>Ineffective Safety Department and Poor Safety Culture</b> : Within 60 days, Metro-North shall submit to the FRA a plan to improve the Safety Department's mission and effectiveness.	✓	✓	See MNR's Response to FRA Report
5.3	<b>Ineffective Training Department</b> : Within 60 days, Metro-North shall submit to the FRA a plan to improve the training program.	✓	✓	See MNR's Response to FRA Report
4.1.2 DIRECTED ACTIONS REGARDING TRACK SAFETY		Work Plan Developed	Start Date Implementation	Completion / Completed
T1.	Develop a plan to use advanced inspection technology to increase the effectiveness of track inspections.	Mar. 25, 2014	Time Line Developed	✓
T2.	Ensure track is maintained to Metro-North Track Standards and provide FRA with a plan that ensures Metro-North maintains these standards.	Apr. 2, 2014	Time Line Developed	IN PROGRESS
T3.	Collaborate with labor unions to increase the availability of off-hour maintenance time.	Apr. 2, 2014	Jun. 9, 2014	IN PROGRESS
T4.	Improve the quality and consistency of training for track inspectors and other engineering department employees as part of an overall Metro-North training program.	Feb. 19, 2014 (T&S Specific and MoW General)	Feb. 19, 2014	IN PROGRESS
T5.	Analyze train schedules to determine if there is sufficient time for inspection and maintenance of track.	✓	✓	✓
4.2.2 DIRECTED ACTIONS REGARDING RAILROAD OPERATING RULES		Work Plan Developed	Start Date Implementation	Completion / Completed
O1.	Make changes to the operating rules for the operation of trains at grade crossings to comply with FRA regulations.	Feb. 20, 2014	Resolved with FRA Apr. 22, 2014	✓
4.3.2 DIRECTED AND RECOMMENDED ACTIONS FOR ENGINEER AND CONDUCTOR QUALIFICATION AND CERTIFICATION		Work Plan Developed	Start Date Implementation	Completion / Completed
E1.	Improve operational testing and inspections for operating crews.	✓	✓	✓
	A. Improve operational testing and inspections for operating crews.			
	B. Full implementation of test plan with the right-sizing of the General Road Foreman Office.			
E2.	Conduct operational testing for train and engine crews on revenue trains on main track, including approach signal, stop signal, and restricted speed tests.	Apr. 4, 2014	May 1, 2014	✓
E3.	Improve the quality and consistency of training for operating crews as part of an overall Metro-North training program.	Mar. 28, 2014	Ongoing	IN PROGRESS
E4.	Document testing requirements and test results to improve the utility of the program as part of a robust testing and observation program.	Apr. 4, 2014	Apr. 10, 2014	IN PROGRESS
E5.	Analyze on a routine basis the data from event recorders as part of the operational testing program.	Dec. 3, 2013	Dec. 10, 2013	✓
E6.	Recommend that Metro-North establish a mentoring program to enhance the training of new train and engine service employees.	Mar. 18, 2014	Ongoing	IN PROGRESS

<b>4.4.2 DIRECTED AND RECOMMENDED ACTIONS FOR RAILROAD WORKPLACE SAFETY</b>		<b>Work Plan Developed</b>	<b>Start Date Implementation</b>	<b>Completion / Completed</b>
R1.	Improve the quality and consistency of training for maintenance-of-way employees as part of an overall Metro-North training program.	May 1, 2014 (Power Department)	May 1, 2014	<b>IN PROGRESS</b>
R2.	Recommend that Metro-North consider a change to Metro-North's electronic device distraction policy to include maintenance-of-way employees when they are on or near tracks.	Mar. 24, 2014	General Safety Instruction Updated	✓
<b>4.5.2 DIRECTED ACTIONS FOR TRAIN CONTROL SYSTEMS</b>		<b>Work Plan Developed</b>	<b>Start Date Implementation</b>	<b>Completion / Completed</b>
C1.	Improve the quality and consistency of training for signal department employees as part of an overall Metro-North training program.	Apr. 29, 2014	Ongoing	<b>IN PROGRESS</b>
C2.	Analyze train schedules to determine if there is sufficient time for inspection and maintenance of signals.	✓	✓	✓
<b>4.6.2 DIRECTED ACTIONS FOR BLUE SIGNAL PROTECTION FOR EMPLOYEES</b>		<b>Work Plan Developed</b>	<b>Start Date Implementation</b>	<b>Completion / Completed</b>
B1.	Improve the quality and consistency of training for employees who maintain rolling stock as part of an overall Metro-North training program.	Apr. 3, 2014	Ongoing	<b>IN PROGRESS</b>
B2.	Ensure that blue signal protection is effective, including the use of locking devices that prevent derailed cars from being removed.	Apr. 3, 2014	3Q 2014 Enhancements	<b>IN PROGRESS</b>
<b>4.7.2 DIRECTED AND RECOMMENDED ACTIONS FOR OPERATIONS CONTROL CENTER</b>		<b>Work Plan Developed</b>	<b>Start Date Implementation</b>	<b>Completion / Completed</b>
X1.	Evaluate the risk for fatigue for Operations Control Center employees, and develop a plan to mitigate that risk.	Apr. 2, 2014	✓	✓
X2.	Develop a strategy to address noise that can distract rail traffic controllers and affect their ability to concentrate on critical safety duties.	Apr. 1, 2014	May 1, 2014	✓
X3.	Improve the quality and consistency of training for Operations Control Center employees as part of an overall Metro-North training program.	Apr. 1, 2014 (Next Phase)	Ongoing	<b>IN PROGRESS</b>
X4.	Improve rules governing the use of panel blocking devices to ensure that they cannot be inadvertently removed.	Aug. 27, 2013	Oct. 11, 2013	✓
X5.	Recommend that Metro-North consider computer program modifications in accordance with commonly used safeguards in order to require verification of the cancellation of maintenance-of-way track authority before a panel blocking device is removed.	Jun. 10, 2013	Nov. 11, 2013	✓
<b>4.8.2 DIRECTED ACTIONS FOR MAINTENANCE-OF-WAY EMPLOYEE FATIGUE</b>		<b>Work Plan Developed</b>	<b>Start Date Implementation</b>	<b>Completion / Completed</b>
M1.	Analyze risks of maintenance-of-way employee fatigue as a result of scheduling and staffing.	✓	✓	✓
b.	Develop a strategy, in collaboration with labor unions, to mitigate the risk of fatigue.	Planning Underway	Ongoing	<b>IN PROGRESS</b>
M2.	Improve the quality and consistency of training for maintenance-of-way employees, particularly track inspectors and supervisors, as part of an overall Metro-North training program.	Planning Underway	Ongoing	<b>IN PROGRESS</b>