



Metropolitan Transportation Authority

Safety Committee Meeting February 2017

Committee Members

F. Ferrer, Acting Chair

A. Albert

N. Brown

C. Moerdler

M. Pally

J. Samuelson

V. Tessitore, Jr.

J. Vitiello

P. Ward

N. Zuckerman

Safety Committee Meeting

**2 Broadway, 20th Floor Board Room
New York, NY 10004**

Thursday, 2/23/2017

8:30 - 9:30 AM ET

1. Public Comments

2. Approval of Minutes - December 14, 2016

Safety Committee Minutes - Page 3

3. Safety Committee Work Plan

2017 Work Plan - Page 6

4. Safety Metrics

MNR Metrics - Page 9

LIRR Metrics - Page 10

NYCT Metrics - Page 11

B & T Metrics - Page 12

MTACC Metrics - Page 13

5. Safety Assurance: Bus Safety - a Focus on Operator Visibility

Bus Safety - a Focus on Operator Visibility - Page 14

6. Safety Assurance: C3RS Programs - Corrective Actions Implemented

C3RS Programs - Corrective Actions Implemented - Page 22

Date of next meeting: April 26, 2017 @ 8:30 AM

**Metropolitan Transportation Authority
Minutes of
Safety Committee Meeting
2 Broadway, 20th Floor
New York, NY 10004**

**Wednesday, December 14, 2016
8:30 AM**

The following members were present:

**Hon. Thomas Prendergast, Chair
Hon. Fernando Ferrer, Vice Chair
Hon. Mitchell Pally
Hon. Andrew Albert
Hon. Neal Zuckerman
Hon. James E. Vitiello
Hon. Charles Moerdler
Hon. Vincent Tessitore
Hon. Peter Ward
Hon. Ira Greenberg**

The following safety officers were present:

David Mayer - MTAHQ
Cheryl Kennedy - NYCT
Loretta Ebbighausen - LIRR
Pashko Camaj – B&T
Peter Kohner – MTA CC
Justin Vonashek – MNR
Anne Kirsch – MTAHQ
Stephen Vidal – MTA Bus

Joseph J. Giulietti, President, Metro-North Railroad (“MNR”), Patrick Nowakowski, President, Long Island Rail Road (“LIRR”), Donald Spero, President, Bridges and Tunnels (“B&T”), Michael Horodniceanu, President, MTA Capital Construction (“MTA-CC”), and Ronnie Hakim, President, New York City Transit (“NYCT”) and Craig Cipriano, Executive Vice President, MTA Bus also attended the meeting.

Chairman Prendergast called the meeting to order.

PUBLIC SPEAKERS

There were no public speakers.

APPROVAL OF MINUTES

Upon motion duly made and seconded, the minutes of the September 2016 Safety Committee were approved. Mr. Greenberg asked that the minutes from September reflect his name correctly.

2016 COMMITTEE WORK PLAN

Chairman Prendergast asked Mr. Mayer if there were any changes to the work plan. Mr. Mayer stated there were no changes. Mr. Mayer added that a draft 2017 Work Plan was included in the Safety Committee book and reminded the Board that the proposed work plan has been organized to include the 4 pillars of SMS (Safety Management Systems). He also encouraged the Board to advise the Safety Leads of any topics they would like added to the proposed work plan.

EVALUATION OF SAFETY COMMITTEE CHARTER

Mr. Mayer reminded the Board that the charter was revised in early 2016 to include a definition of SMS and SMS principles and requires no further revisions.

Mr. Mayer stated that he and Ms. Kirsch inquired with other rail agencies with respect to C3RS (Confidential Close Call Reporting Systems) and reporting information to their respective Boards. Mr. Mayer found that no agency had formal reporting, but did find that importance was put on the evaluation, corrective action and sharing information with employees. Mr. Mayer also stated Safety Leads are working on further developing a communication strategy to disseminate information to employees. Chairman Prendergast stressed the importance of keeping confidential reporting confidential.

Mr. Pally asked if statics could be reported to the Board rather than specific incidents in order to keep confidentiality. Chairman Prendergast answered that parameters must be set on how information is presented to the Board. Ms. Ebbighausen went on to explain that there can be “patterns” of reporting which would result in few corrective actions due to reporting on the same issues. Mr. Pally then asked if those reports (without detail) could be shared with the Board at each Safety Committee meeting.

Mr. Tessitore stated that though the Unions support C3RS, employees are concerned about discipline for violations, which can result in a reluctance to report incidents.

Mr. Greenberg asked if relating corrective actions taken by the Agencies would be a violation of confidentiality. Ms. Ebbighausen stated that reporting corrective actions is not violating confidentiality and actions taken by the Railroads were reported to the Board in July 2016.

Mr. Tessitore asked if relating which departments reported close calls would be a violation of confidentiality. Mr. Mayer stated that singling out a department would be a violation.

Mr. Mayer then stated that the MNR Sleep Apnea Screening Program has been completed successfully and the information gathered has been used to develop a competitive RFP for a sleep apnea screening program to roll out across the agencies to employees in relevant positions. Mr. Mayer also stated that MTA plans to award the contract by early 2017, then expand the project at MNR and roll it out across the operating agencies.

In prior meetings, the Board has asked how information and best practices are shared across the agencies, Mr. Mayer therefore apprised the Board of an Agency-wide Roundtable on Roadway Worker Protection.

Mr. Albert asked if alerters were discussed at a Blue Ribbon Panel forum that Mr. Mayer and Ms. Kirsch attended. Mr. Mayer stated that alerters were discussed but the primary focus was on scheduling to allow employees adequate sleep between shifts.

SAFETY METRICS

Mr. Mayer stated that the Metrics included in the Safety Committee book are the same Metrics reported in the Agency Committee books.

SAFETY ASSURANCE: BUS COLLISION PREVENTION

Mr. Mayer then introduced Steve Vidal to report on Bus Collision Prevention. Please refer to the video recording of the meeting produced by the MTA and maintained in MTA records for the content of speaker's remarks.

Mr. Albert asked if the increase of incidents seen at the end of the year could be due to an increase of people in the area for the holidays. Mr. Vidal agreed that the increase in people could be related to the increase in incidents.

Mr. Moerdler asked what role Police play in citing bicyclists for violating traffic laws. Mr. Vidal answered that efforts have been made by NYPD to enforce traffic laws with bicyclists. Mr. Moerdler then asked what, if any, discussions have taken place with NYPD regarding citing illegally parked delivery trucks. Ms. Hakim answered that a new initiative has begun to take pictures at bus stops where there have ongoing problems with illegally parked trucks.

Mr. Zuckerman asked if any information could be shared with the board to explain the increase in Bus incidents in the last several years. Mr. Vidal answered that he believes that traffic congestion plays a role in the increase of incidents and pointed out that 64% of bus incidents involve buses being hit rather than the other way around.

Mr. Vitiello commented on the City's policy of giving parking ticket discounts to delivery companies, suggesting that they discontinue the practice.

Mr. Tessitore asked if the information gathered from event recorders is entered in a database. Mr. Vidal responded that on board video cameras have proven more essential in detailing the cause of incidents.

SAFETY ASSURANCE: RAILROAD EMERGENCY PREPAREDNESS

Mr. Mayer then introduced Ms. Ebbighausen and Mr. Vonashek to report on Railroad Emergency Preparedness. Please refer to the video recording of the meeting produced by the MTA and maintained in MTA records for the content of speaker's remarks.

Mr. Pally asked if MTA will work with the State Department of Transportation on developing Grade Crossing best practices as directed by recent legislation signed by the Governor. Mr. Mayer answered that the MTA and its Grade Crossing safety consulting firm will work with NYSDOT on this project.

ADJOURNMENT

Upon motion duly made and seconded, the Board voted to adjourn the meeting at 9:35 am.

2017 Safety Committee Work Plan

I. RECURRING AGENDA ITEMS

| <u>Topic</u> | <u>Responsibility</u> |
|---------------------|---------------------------|
| Public Comments | Committee Chair & Members |
| Approval of Minutes | Committee Chair & Members |
| Committee Work Plan | Committee Chair & Members |

II. SPECIFIC AGENDA ITEMS

February 2017

| | |
|---|---------------------|
| Safety Assurance – Review of Safety Performance | Agency Safety Leads |
| Safety Promotion – Specific item TBD | Safety Staff |

April 2017

| | |
|-----------------------------------|--------------------------|
| Safety Policy – Specific item TBD | MTA Chief Safety Officer |
| Safety Risk Management | Safety Staff |

July 2017

| | |
|---|---------------------|
| Safety Assurance – Review of Safety Performance | Agency Safety Leads |
| Safety Promotion – Specific item TBD | Safety Staff |

September 2017

| | |
|--|--------------------------|
| Safety Promotion – Specific item TBD | MTA Chief Safety Officer |
| Safety Risk Management – Specific item TBD | Safety Staff |

December 2017

| | |
|--|---------------------------|
| Safety Policy – Evaluation of Safety Committee Charter | Committee Chair & Members |
| Safety Assurance – Review of Safety Performance | Agency Safety Leads |

January 2018

| | |
|--|---------------------------|
| Safety Policy – Approval of 2018 Work Plan | Committee Chair & Members |
| Safety Risk Management – Specific item TBD | Safety Staff |

Detailed Summary

I. RECURRING AGENDA ITEMS

Approval of Minutes

The Committee Chair will request a motion to approve the minutes of the prior meeting of the Safety Committee.

Committee Work Plan

The Work Plan will list, by meeting, the topics scheduled for review. The Committee will be advised if any changes have been made to the plan.

II. SPECIFIC AGENDA ITEMS

Note: The SMS framework has four pillars: Safety Policy, Safety Risk Management, Safety Assurance, and Safety Promotion. To facilitate general oversight of SMS activities at the MTA and its agencies, each agenda items will generally pertain to one of these pillars.

February 2017

Safety Assurance – Review of Safety Performance

The committee will receive a briefing and discussion will be invited pertaining to the safety performance of the agencies. This relates to the Safety Assurance SMS pillar, and provides an opportunity for deeper exploration of “lagging” indicators of safety.

Safety Promotion

The committee will receive a briefing and/or an action item pertaining to a specific aspect of the Safety Promotion SMS pillar.

April 2017

Safety Policy

The committee will receive a briefing and/or an action item pertaining to a specific aspect of the Safety Policy SMS pillar.

Safety Risk Management

The committee will receive a briefing and discussion will be invited pertaining to a specific aspect of the Safety Risk Management SMS pillar.

July 2017

Safety Assurance – Review of Safety Performance

The committee will receive a briefing and discussion will be invited pertaining to the safety performance of the agencies. This relates to the Safety Assurance SMS pillar, and provides an opportunity for deeper exploration of “lagging” indicators of safety.

Safety Promotion

The committee will receive a briefing and/or an action item pertaining to a specific aspect of the Safety Promotion SMS pillar.

September 2017

Safety Promotion

The committee will receive a briefing and/or an action item pertaining to a specific aspect of the Safety Promotion SMS pillar.

Safety Risk Management

The committee will receive a briefing and discussion will be invited pertaining to a specific aspect of the Safety Risk Management SMS pillar.

December 2017

Safety Policy – Evaluation of Safety Committee Charter

The Safety Committee Charter specifies that the Committee Chair & Members will review the charter annually. This relates to the Safety Policy SMS pillar.

Safety Assurance – Review of Safety Performance

The committee will receive a briefing and discussion will be invited pertaining to the safety performance of the agencies. This relates to the Safety Assurance SMS pillar, and provides an opportunity for deeper exploration of “lagging” indicators of safety.

January 2018

Safety Policy – Approval of 2018 Work Plan

The committee will be presented with and discuss the 2018 work plan and asked to approve the same. As the work plan governs the activities of the committee, this pertains to the Safety Policy SMS pillar.

Safety Risk Management

The committee will receive a briefing and discussion will be invited pertaining to a specific aspect of the Safety Risk Management SMS pillar.

December 2016 Safety Report

| Performance | | | |
|--|------------------------------|------------------------------|------------------------------|
| Performance Indicator | 12-Month Average | | |
| | January 2014 - December 2014 | January 2015 - December 2015 | January 2016 - December 2016 |
| FRA Reportable Customer Accident Rate per Million Customers | 1.30 | 1.84 | 1.24 |
| FRA Reportable Employee Lost Time Injury Rate per 200,000 worker hours | 2.43 | 2.45 | 2.82 |
| Grade Crossing Incidents ¹ | 3 | 1 | 3 |
| Mainline FRA Reportable Train Derailments | 1 | 1 | 1 |
| Mainline FRA Reportable Train Collisions | 0 | 0 | 0 |

¹ Per FRA - Any impact between railroad on-track equipment and a highway user at a highway-rail grade crossing. The term "highway user" includes automobiles, buses, trucks, motorcycles, bicycles, farm vehicles, pedestrians, and all other modes of surface transportation motorized and un-motorized.

| Leading Indicators | | | | |
|--|------------|---------------------|------------|--------------|
| Employee: Focus on C3RS | 2015 | | 2016 | |
| | December | Year end | December | Year to Date |
| Total Reports Received | 0 | 574 | 150 | 801 |
| Total Reports Reviewed by PRT | 0 | 261 | 56 | 852 |
| Total Reports that Meet C3RS Program Criteria | 0 | 212 | 44 | 690 |
| Total Corrective Actions being Developed | 0 | 0 | 0 | 5 |
| Total Corrective Actions Implemented | 0 | 3 | 0 | 4 |
| Customer and Community: Focus on Grade Crossings | December | Year to Date | December | Year to Date |
| Broken Gates | 2 | 26 | 1 | 55 |
| MTA Police Details | 93 | 1,263 | 123 | 1,560 |
| Summons | 24 | 583 | 46 | 408 |
| Warnings | 6 | 181 | 1 | 102 |
| Community Education and Outreach | NA | NA | 7,431 | 51,658 |
| Cars Equipped with Cameras | | | | |
| | Fleet Size | Total Cars Equipped | % Complete | |
| Inward / Outward Facing Cab Cameras | 956 | 4 | 0.42% | |
| Passenger Compartment Cameras | 1,083 | 5 | 0.46% | |

Definitions:

Confidential Close Call Reporting System (C3RS) - Labor, Management, and Federal Railroad Administration (FRA) partnership designed to enhance safety through analysis of confidential reports of employee close calls. The Peer Review Team (PRT) meets to review reports and recommend corrective actions. Program began in April, 2015.

Broken Gates - The number of events at grade crossing locations where a vehicle broke a crossing gate.

MTA Police Detail - The number of details specifically for the purpose of monitoring behavior at Grade Crossings.

Summons for Grade Crossing Violation and other Infractions- The number of violations issued to a motorist for going around a crossing gate or due to behavior that put the motorist at risk (i.e. cell phone use, etc.).

Warnings - The number of warnings issued to motorists due to behavior that put the motorist at risk (i.e. cell phone use, etc.).

Community Education and Outreach - The number of individuals reached at a TRACKS event. Program began in May 2016.

Cars Equipped with Cameras - Number of complete inward/outward and passenger compartment camera installations on rolling stock. Installation began in August 2016.

December Safety Report

Statistical results for the 12-Month period are shown below.

| Performance | | | |
|--|---------------------------------|---------------------------------|---------------------------------|
| Performance Indicator | 12-Month Average | | |
| | January 2014 - December 2014 | January 2015 - December 2015 | January 2016 - December 2016 |
| FRA Reportable Customer Accident Rate per Million Customers | 4.84 | 4.16 | 2.80 |
| FRA Reportable Employee Lost Time Injury Rate per 200,000 worker hours | 3.76 | 3.57 | 2.99 |
| Grade Crossing Incidents ¹ | 3 | 12 | 7 |
| Mainline FRA Reportable Train Derailments | 0 | 0 | 2 |
| Mainline FRA Reportable Train Collisions | 3 | 2 | 1 |

¹ Per FRA - Any impact between railroad on-track equipment and a highway user at a highway-rail grade crossing. The term "highway user" includes automobiles, buses, trucks, motorcycles, bicycles, farm vehicles, pedestrians, and all other modes of surface transportation motorized and un-motorized.

| Leading Indicators | | | | |
|---|---------------------------------|--------------|----------|--------------|
| Employee: Focus on C3RS | 2015 | | 2016 | |
| | December | Year to Date | December | Year to Date |
| Total Reports Received | 23 | 89 | 27 | 261 |
| Total Reports Reviewed by PRT | 15 | 79 | 0 | 187 |
| Total Reports that Meet C3RS Program Criteria | 10 | 54 | 0 | 211 |
| Total Corrective Actions being Developed | 1 | 1 | 1 | 12 |
| Total Corrective Actions Implemented | 0 | 0 | 0 | 5 |
| Customer and Community: Focus on Grade Crossings | December | Year to Date | December | Year to Date |
| Broken Gates | 16 | 129 | 6 | 133 |
| MTA Police Details | 40 | 869 | 24 | 488 |
| Summons | 87 | 1,214 | 91 | 1,716 |
| Warnings | 60 | 600 | 30 | 823 |
| Arrests | 0 | 1 | 0 | 5 |
| Community Education and Outreach | 11,804 | 109,872 | 8,964 | 118,230 |
| | | Completed | Total | % Complete |
| Cameras on Rolling Stock | Production to begin in May 2017 | | TBD | TBD |

Definitions:

Confidential Close Call Reporting System (C3RS) - Labor, Management, and Federal Railroad Administration (FRA) partnership designed to enhance safety through analysis of confidential reports of employee close calls. The Peer Review Team (PRT) meets to review reports and recommend corrective actions.

Broken Gates - The number of events at grade crossing locations where a vehicle broke a crossing gate.

MTA Police Detail - The number of details specifically for the purpose of monitoring behavior at Grade Crossings.

Summons for Grade Crossing Violation and other Infractions- The number of violations issued to a motorist for going around a crossing gate or due to behavior that put the motorist at risk (i.e. cell phone use, etc.).

Warnings - The number of warnings issued to motorists due to behavior that put the motorist at risk (i.e. cell phone use, etc.).

Community Education and Outreach - The number of participants who attended a TRACKS, Operation LifeSaver, or Railroad Safety Awareness Event.

Cameras on Rolling Stock - Number of complete inward/outward camera installations on rolling stock.

Monthly Operations Report

Statistical results for the 12-Month period are shown below.

| Safety Report | | | |
|--|---------------------|---------------------|---------------------|
| Performance Indicators | 12-Month Average | | |
| | Jan 2014 - Dec 2014 | Jan 2015 - Dec 2015 | Jan 2016 - Dec 2016 |
| Subways | | | |
| Subway Customer Accidents per Million Customers ¹ | 2.64 | 2.62 | 2.52 |
| Subway Collisions ^{2,3} | 1 | 0 | 0 |
| Subway Derailments ^{2,3} | 2 | 2 | 4 |
| Subway Fires ² | 949 | 1,049 | 957 |
| Buses | | | |
| Bus Collisions Per Million Miles Regional | 49.33 | 52.89 | 56.73 |
| Bus Collision Injuries Per Million Miles Regional | 6.29 | 6.45 | 6.58 |
| Bus Customer Accidents Per Million Customers Regional | 1.07 | 1.13 | 1.26 |
| | | | |
| Total NYCT and MTA Bus Lost Time Accidents per 100 Employees | 3.64 | 3.95 | 3.89 |

¹ 12-Month Average data from December through November.

² 12-month figures shown are totals rather than averages.

³ Data from February through January.

| Leading Indicators | | | | |
|---|---------|--------|--------|------------------|
| Subways | January | YTD | Goal | YTD as % of Goal |
| Roadway Worker Protection | | | | |
| Joint Track Safety Audits -- Actual Count | 29 | 29 | 340 | 8.5% |
| Joint Track Safety Audits -- Compliance Rate | 99.0% | 99.0% | 100.0% | 99.0% |
| | | | | |
| Mainline Collision/Derailment Prevention | | | | |
| Continuous Welded Rail Initiative (# of Track Feet) | 10,531 | 10,531 | 49,814 | 21.1% |
| | | | | |
| Station -- Emergency Communication | | | | |
| Help Point Installations | 9 | 9 | 92 | 9.8% |
| Buses | January | YTD | Goal | YTD as % of Goal |
| Collision Prevention | | | | |
| Audible Pedestrian Warning System Pilot | 6 | 6 | 288 | 2.1% |
| Collision Warning System Pilot | 35 | 35 | 145 | 24.1% |
| Vision Zero Employee Training | 552 | 552 | 5,600 | 9.9% |

Safety Report

Statistical results for the 12-Month period are shown below.

| Performance Indicator | | | |
|---|------------------------------|------------------------------|------------------------------|
| Performance Indicator | 12-Month Average | | |
| | January 2014 - December 2014 | January 2015 - December 2015 | January 2016 - December 2016 |
| Customer Collisions Rate for Bridge Customers per Million Vehicles | 5.56 | 5.86 | 7.57 |
| Customer Injury Collisions Rate for Bridge Customers per Million Vehicles | 0.92 | 0.97 | 1.08 |
| Employee Accident Reports | 291 | 247 | 261 |
| Employee Lost Time Injuries Rate per 200,000 worker hours | 6.5 | 4.8 | 6.7 |
| Construction Injuries per 200,000 worker hours | 3.02 | 2.31 | 1.91 |

| Leading Indicators | | | | |
|---|----------|----------|----------|--------------|
| Roadway Safety | 2015 | | 2016 | |
| | December | Year End | December | Year to Date |
| Workforce Development (# of Participants) | 24 | 1687 | 49 | 740 |
| Fleet Preventative Maintenance Insp. | 120 | 1186 | 103 | 1281 |
| Safety Taskforce Inspections | 0 | 12 | 3 | 13 |
| Construction Safety | December | Year End | December | Year to Date |
| Construction Safety Inspections | 352 | 3419 | 285 | 4161 |
| Fire Safety | December | Year End | December | Year to Date |
| Fire Code Audits Completed | 1 | 13 | 1 | 13 |
| FDNY Liaison Visits | 0 | 23 | 0 | 25 |

Definitions:

Workforce Development provides for focused safety and skills training to all operations, maintenance and staff personnel. Classes feature OSHA 10 and 30 Classes, operations mandatory safety and skills instruction and retraining and specialty training (TIMS, CDL, FDNY instruction, Wrecker Driver Instruction and Roadway Safety Rules).

Fleet Preventative Maintenance Inspections are conducted at each location to improve the customer and worker safety environment. Inspections identify potential hazardous roadway or facility conditions and prescribe corrective actions to eliminate hazards.

Safety Taskforce Inspections are conducted by the joint Labor and Management Committee at each facility throughout the year on a rotating basis. The inspections consist of reviewing past accident and incident experiences/reports and facility safety reports. The Taskforce meets with location management and union representatives and makes a complete tour of the facility. The Taskforce is comprised of representatives of the Safety and Operations groups and has representation from each of the represented unions.

Construction Safety Inspections are conducted by an independent safety monitor to ensure that the necessary components for a safe construction are present. Inspections include review of safety organization, job hazard analysis, safe work plans for specific high risk activities, personal protective equipment, fire protection, industrial hygiene, and training.

Fire Code Audits are required by the NYS Uniform Fire Prevention Code. They are conducted by the Safety and Health Department at each building and facility throughout the Agency. They feature a review of fire prevention activities and the condition of fire fighting and suppression equipment.

FDNY Liaison Visits are conducted on a regular basis (typically twice a year) whereby local fire companies visit and tour the facilities to become familiar with the structures and buildings and the fire equipment provided. This facilitates the development of strategies for fighting fires and responding to emergencies. Additionally, special drills and training exercises are conducted to drill on communications and special rescue operations should they be required.

SAFETY OPERATIONS REPORT

For East Side Access - Dec 2016

| Performance | | |
|--|------|----------|
| Injury Rate | 2015 | 2016 YTD |
| Lost Time Injury Rate per 200,000 worker hours | 0.88 | 0.71 |
| Recordable Injury Rate | 2.36 | 1.98 |

| Performance Indicator - CM | Dec | YTD | Goal | YTD as % of Goal |
|---------------------------------|-----|------|------|------------------|
| Daily Safety Walkthrough | 241 | 2474 | 2510 | 99% |
| JHAT Audit | 16 | 143 | 240 | 60% |
| Quarterly Safety Audit | 5 | 20 | 40 | 50% |
| Bi Annual ACE Evaluation | 5 | 6 | 20 | 30% |
| Safety Monthly Meeting | 21 | 231 | 120 | 193% |
| Leading Indicators - Contractor | Dec | YTD | Goal | YTD as % of Goal |
| Training | 28 | 308 | 183 | 168% |
| Toolbox Talks | 52 | 675 | 480 | 141% |
| Site Inspections | 189 | 2984 | 2510 | 119% |
| SWP Review/Audit | 32 | 465 | - | |
| New Employee Orientation | 127 | 2366 | - | |
| Emergency Preparedness | 11 | 67 | 20 | 335% |

For Second Avenue Subway - Dec 2016

| Performance | | |
|--|------|----------|
| Injury Rate | 2015 | 2016 YTD |
| Lost Time Injury Rate per 200,000 worker hours | 0.98 | 0.37 |
| Recordable Injury Rate | 2.14 | 2.14 |

| Performance Indicator - CM | Dec | YTD | Goal | YTD as % of Goal |
|---------------------------------|-----|------|------|------------------|
| Daily Safety Walkthrough | 295 | 3129 | 1255 | 249% |
| JHAT Audit | 5 | 118 | 120 | 98% |
| Quarterly Safety Audit | 1 | 29 | 20 | 145% |
| Bi Annual ACE Evaluation | 0 | 7 | 10 | 70% |
| Safety Monthly Meeting | 7 | 87 | 60 | 145% |
| Leading Indicators - Contractor | Dec | YTD | Goal | YTD as % of Goal |
| Training | 19 | 696 | 158 | 441% |
| Toolbox Talks | 29 | 398 | 240 | 166% |
| Site Inspections | 349 | 4906 | 1255 | 391% |
| SWP Review/Audit | 17 | 315 | - | |
| New Employee Orientation | 143 | 2219 | - | |
| Emergency Preparedness | 1 | 7 | 10 | 70% |

MTA Safety Committee

February 23, 2017



Bus Safety



2016 Safety Symposium – Let's See the Big Picture

- Focus on increasing Operator Visibility while enhancing passenger and pedestrian safety
- Attendees included NHTSA, FTA, Researcher, Labor Unions, Vendors and Various Agencies
- Presenters were industry experts on bus design, operator compartment design, operator training and collision avoidance technology



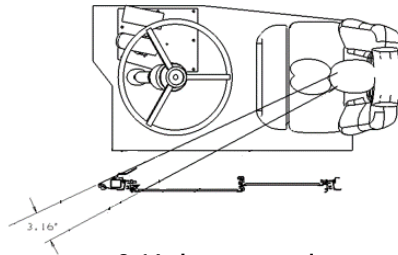
Action Items

- FTA to investigate funding of studies for mirror placement
 - Some symposium attendees preferred high mounted mirrors, others low mount
 - NYCT applied for FTA 2016 Safety Research and Demonstration grant to study mirror configurations
- Work with bus manufacturers to reduce size of A-Pillar
 - NF has high visibility (Hi-Vis) window that reduces the angle of obscuration by half – currently installed on two pilot buses, one standard 40' and one 60' articulated bus
 - Nova has high visibility (Hi-Vis) window installed for testing
 - The changes were reviewed with the Union and will be delivered on the upcoming orders
 - Nova working on a redesign to provide increased visibility by eliminating secondary pillars

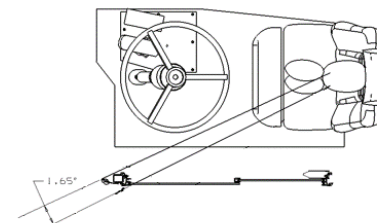


Driver Visibility Improvements

- High Visibility Windows (Hi-Vis)
 - NF has Hi-Vis window that reduces the angle of obscuration by half currently installed on pilot buses



3.16 degree angle



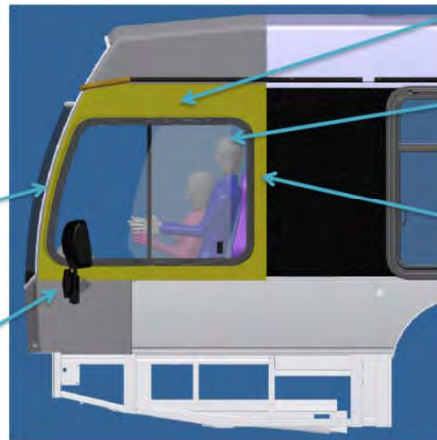
1.65 degree angle



Driver Visibility Improvement Projects



Design Objectives



Thinner section for improved visibility

Closer mirror position for manual adjustment

Front shell with frame

Improved visibility window

Structural changes to further improve visibility



FTA Safety Research and Development

- NYCT granted 1.1 million for study of operator exterior mirrors
- Project is divided into three phases
 - Research
 - Development
 - Demonstration
- Key Partners
 - Virginia Tech Transportation Institute
 - New Flyer of America
 - Safe Fleet
 - Recaro North America



Project Description

- Research mirror regulations applicable to other industries (Trucks, School Buses, etc.) and other countries
- Measure and model operator cabinet on existing NYCT buses
- Develop mirror guidelines based on the research and measurements
- Manufacture and install mirrors on NYCT buses for in-service evaluation
- Solicit operator feedback and finalize guidelines



MTA Safety Committee



Long Island Rail Road



Stony Brook Crossing Improvements

Crossing Gate Key box controller installed at end of platform



Passenger Train Briefing Guide

| Date | Notes/Details |
|----------------------------|-----------------------------|
| Job # | |
| Train # | Expected Coverage |
| Crew Members | Note Names/Title |
| Collectors | |
| Orders/Messages | Discuss Content |
| GN, SRN, Form L | Confirm Possession |
| Consist/Equipment | Type/Car Count |
| Setup/Splits (S.I. 1901-B) | Open Cars |
| Moves/Layups (Appendix G) | Track Assignment - Terminal |
| Stops/Connections | Crew Discussion |
| Door Operations | Who/What Car? |
| H.O.S Issues | Assignment Change? |
| PIO Contact # | 718-558-8428 |
| MTA Police # | 718-558-3300 |

- Train Service Reverse Move Guidelines**
- Before the movement is made, all crewmembers involved must hold a JOB BRIEFING to discuss the move which should include:**
 - How communication will be established, Where the move is being made, The safest method to make the move, Safety Stop, Speed, What towers/yardmasters need to be contacted, A/C responsibilities
 - Once in position for the move the conductor must establish a means of communication with the engineer and continue throughout the move.**
 - Obtain permission for the move.**
 - Contact the appropriate tower/yardmaster
 - Proper signal indication
 - Fixed Signals**
 - The aspect displayed and type of fixed signals affecting the movement of the train must be communicated to the Engineer and the Engineer must repeat this information back.
 - Once the movement has started.**
 - The employee controlling the move must be prepared to stop the movement by utilizing the communicating signal or the emergency brake valve.
 - Observe and communicate conditions ahead at all times during the move looking for switch positions, types of switches to be trailed through, signals, derails and other obstructions.
 - When making a move against a fixed object (including derails) the employee controlling the move must have their hand on the emergency brake valve. Never hesitate to Dump the Train.
 - When making a move against a fixed obstruction (including derails), the employee controlling the movement must signal the engineer to make a safety stop at least 2 car lengths from the fixed obstruction then proceed not exceeding 2mph.
 - If Conditions Warrant DUMP THE TRAIN.**
 - Utilize the Emergency Brake Valve Handle on all equipment. DE/DM cab cars may utilize the automatic brake valve to dump the train.

** Utilize PC/yard maps to route moves that you are unfamiliar with.
 * If making a move in or out of D-Yard, review S.I 5014 for the proper procedures.
 * Utilize a "Goat" to stop the train is prohibited*

| Long Island Railroad Passenger Train Job Briefing Guide | |
|---|-----------------------------|
| Date | Notes/Details |
| Job # | |
| Train # | Expected Coverage |
| Crew Members | Note Names/Title |
| Collectors | |
| Orders/Messages | Discuss Content |
| GN, SRN, Form L | Confirm Possession |
| Consist/Equipment | Type/Car Count |
| Setup/Splits (S.I. 1901-B) | Open Cars |
| Moves/Layups (Appendix G) | Track Assignment - Terminal |
| Stops/Connections | Crew Discussion |
| Door Operations | Who/What Car? |
| H.O.S Issues | Assignment Change? |
| PIO Contact # | 718-558-8428 |
| MTA Police # | 718-558-3300 |




- Job Service Reverse Move Guidelines**
 - Before the movement is made, all crewmembers involved must hold a JOB BRIEFING to discuss the move which should include:
 - How communication will be established, Where the move is being made, The safest method to make the move, Safety Stop, Speed, What towers/yardmasters need to be contacted, A/C responsibilities
- Once in position for the move the conductor must establish a means of communication with the engineer and continue throughout the move.**
- Obtain permission for the move.**
 - Contact the appropriate tower/yardmaster
 - Proper signal indication
- Fixed Signals**
 - The aspect displayed and type of fixed signals affecting the movement of the train must be communicated to the Engineer and the Engineer must repeat this information back.
- Once the movement has started.**
 - The employee controlling the move must be prepared to stop the movement by utilizing the communicating signal or the emergency brake valve.
 - Observe and communicate conditions ahead at all times during the move looking for switch positions, types of switches to be trailed through, signals, derails and other obstructions.
 - When making a move against a fixed object (including derails) the employee controlling the move must have their hand on the emergency brake valve. Never hesitate to Dump the Train.
 - When making a move against a fixed obstruction (including derails), the employee controlling the movement must signal the engineer to make a safety stop at least 2 car lengths from the fixed obstruction then proceed not exceeding 2mph.
- If Conditions Warrant DUMP THE TRAIN.**
 - Utilize the Emergency Brake Valve Handle on all equipment. DE/DM cab cars may utilize the automatic brake valve to dump the train.



Verbal Authority Reference Cards

Utilized to ease the process of repeating the verbal permission (verbatim) back to the Block Operator to pass a signal

 **Long Island Rail Road**

VERBAL AUTHORITY REFERENCE CARD
RULE 241 and 503 B

Reverse Direction with Rule 262:

_____ reverse direction on _____ track at _____
and proceed _____ to _____.

The movement to stations or points named must be made at restricted speed

Rule 241:
Example 1- To be used if for home or interlocking signal (when the signal is numbered, the number of the signal must be used in conjunction with the location/designation):

_____ pass Stop Signal _____ at _____
from _____ and proceed _____ to _____.

Example 2- To be used to pass a Manual Block or Block Limit Signal:

_____ pass Stop Block Signal _____ at _____ from _____
track and proceed _____ to _____ track
as though clear block signal were displayed.

Example 3- To be used to assist a train in sight distance of a home signal:

_____ pass Stop Block Signal _____ at _____
block occupied, proceed _____ to _____
to assist train within sight distance.

Example 4- To be used for an engine to return to its train:

No _____ Eng _____ pass Stop Block Signal _____ at _____
from _____ track and proceed _____ to _____ returning
to your train.

Example 5- To be used to pass a Stop-Signal at the entrance to an out of service track:

_____ pass Stop Signal _____ at _____ from _____
track and proceed _____ to out of service track in conjunction with Form L
No _____.

FOR REFERENCE USE ONLY

Track Car Moves

To reinforce the procedures for
operating track cars over
active grade crossings



**ENGINEERING DEPARTMENT
OFFICE OF THE CHIEF ENGINEER
NOTICE NO. CE-2016-02**

DATE: July 19, 2016
TO: All Engineering Employees
SUBJECT: Track Car Moves



Conductor Car Markers

To provide visual reinforcement for platforming trains

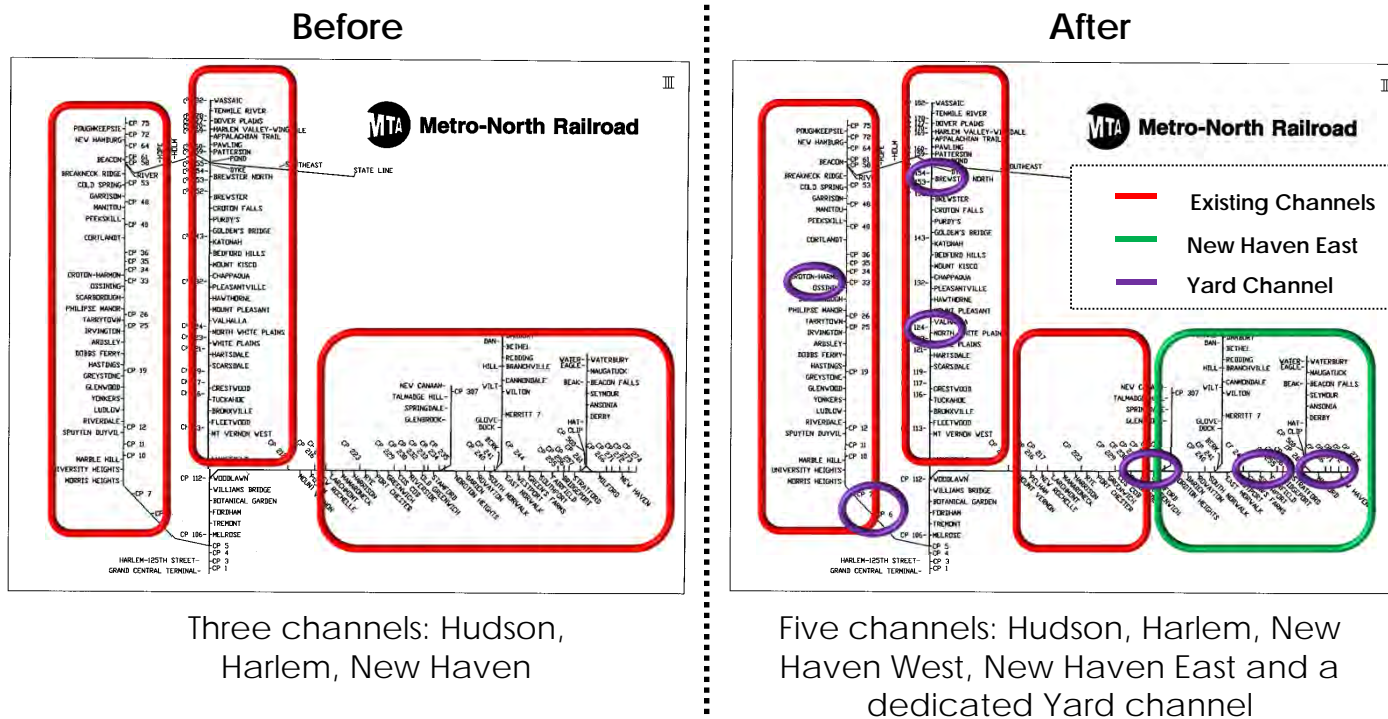


Metro-North Railroad



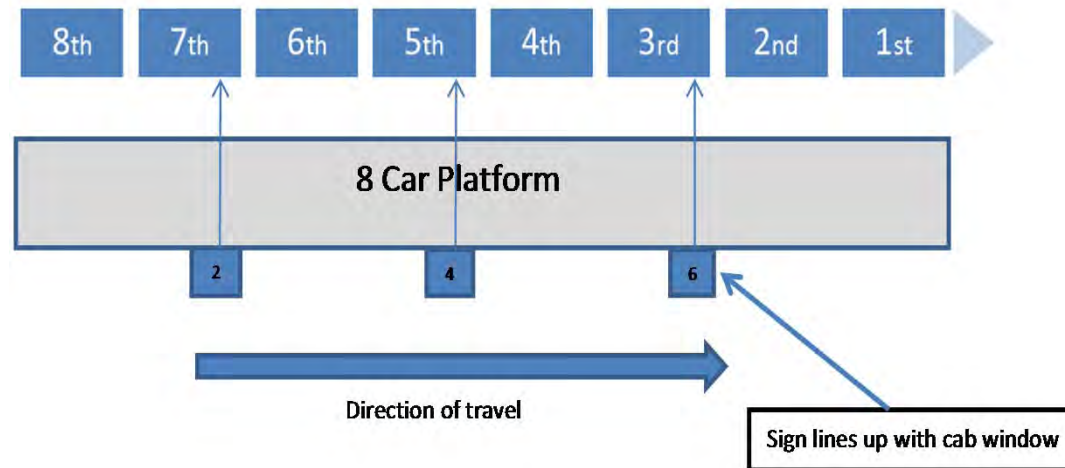
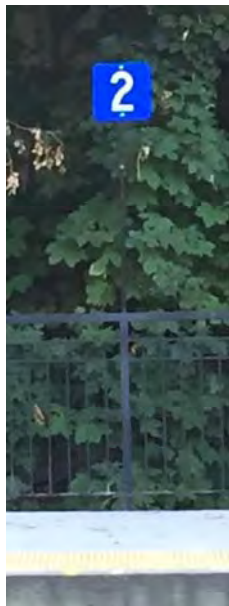
Radio Communication Enhancement System wide

Two new radio channels added for train operations



Platform Car Markers

Platform Location Signs have been installed as a reference point to assist the train crew when making station stops.

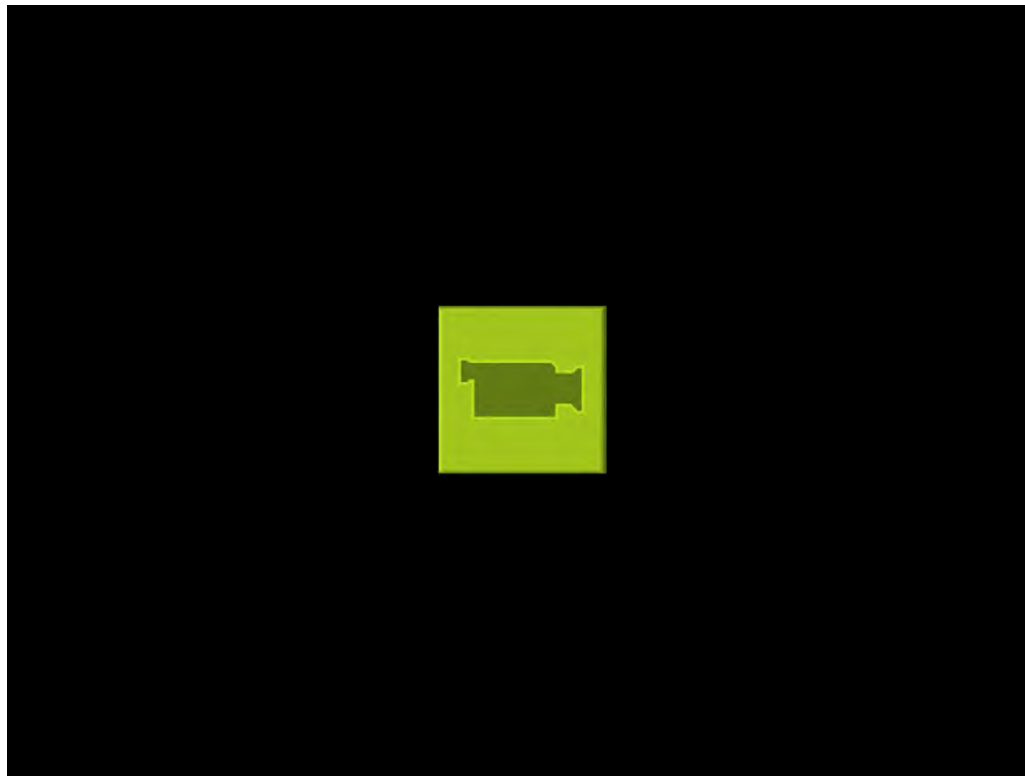


Jump Seat Signage

Decals added to remind passengers that the area may be needed for train crews



EAP and Situation Awareness Video



2015 Corrective Action Recap



Speed Restriction Hang Tag
*Hangtag developed to act
as a reminder of the
Temporary Speed Restriction*




Job Safety Briefing Job Aid
*Laminated pocket sized
cards to remind crews of
topics to discuss during JSB*

2015 Corrective Action Recap

DTOBO Modification – *Combine temporary speed restrictions within a half mile of each other*

B. TEMPORARY SPEED RESTRICTIONS IN EFFECT (OLD): All speed restrictions in effect 0001 hours until 2400 hours, unless otherwise specified.



| Item | Line | Location | Track(s) | Between | | Psgs |
|------|--------|--------------------|----------|---------|---------|------|
| 1 | Harlem | CP 5 - CP 106 | 4 | MP 5.0 | MP 6.0 | 30 |
| 2 | Harlem | CP 106 - Tremont | 4 | MP 6.3 | MP 7.4 | 30 |
| 3 | Harlem | CP 112 - Wakefield | 3 | MP 11.9 | MP 12.0 | 30 |

OLD

B. TEMPORARY SPEED RESTRICTIONS IN EFFECT (NEW): All speed restrictions in effect 0001 hours until 2400 hours, unless otherwise specified.

| Item | Line | Location | Track(s) | Between | | Psgs |
|------|--------|--------------------|----------|---------|---------|------|
| 1 | Harlem | CP 5 - Tremont | 4 | MP 5.0 | MP 7.4 | 30 |
| 2 | Harlem | CP 112 - Wakefield | 3 | MP 11.9 | MP 12.0 | 30 |

NEW

