



Metropolitan Transportation Authority

Safety Committee Meeting September 2017

Committee Members

J. Lhota, Chair

A. Albert

N. Brown

F. Ferrer

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**

Wednesday, 9/27/2017

8:30 - 9:30 AM ET

1. Public Comments

2. Approval of Minutes - July 26, 2017

Safety Committee Minutes - Page 3

3. 2017 Safety Committee Work Plan

2017 Safety Committee Work Plan - Page 7

4. Safety Metrics

July

MTACC Metric - Page 10

MNR Metric - Page 12

LIRR Metric - Page 13

NYCT Metric - Page 14

B & T Metric - Page 15

June

MTACC Metric - Page 16

MNR Metric - Page 18

LIRR Metric - Page 19

NYCT Metric - Page 20

B & T Metric - Page 21

5. Safety Promotion: Recent Agency Activities (Presentation)

6. Safety Risk Management:

Grade Crossing Assessments

Obstructive Sleep Apnea Program Update (Discussion)

Date of next meeting: December 13th @8:30 am

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

**Thursday, July 26, 2017
8:30 AM**

The following members were present:

**Hon. Joseph Lhota, Chair
Hon. Fernando Ferrer, Vice Chair
Hon. Mitchell Pally
Hon. Andrew Albert
Hon. Neal Zuckerman
Hon. Charles Moerdler
Hon. Vincent Tessitore
Hon. Susan Metzger
Hon. John Molloy
Hon. Norman Brown
Hon. James Vitiello**

The following safety officers were present:

David Mayer - MTAHQ
Carl Hamann - NYCT
Loretta Ebbighausen - LIRR
Justin Vonashek – MNR
Anne Kirsch – MTAHQ
Peter Kohner - MTA-CC
Eric Osnes – B & T

Ronnie Hakim, Interim Executive Director, Metropolitan Transportation Authority, Patrick Nowakowski, President, Long Island Rail Road (“LIRR”), Albert Rivera, Acting Executive Vice-President, Bridges and Tunnels (“B&T”), Darryl Irick, Acting President, New York City Transit (“NYCT”) and Steven Vidal, Acting President, MTA Bus also attended the meeting.

Chairman Lhota called the meeting to order.

PUBLIC SPEAKERS

There was one public speaker, Michael Vessio. 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.

APPROVAL OF MINUTES

Upon motion duly made and seconded, the minutes of the April 26, 2017 Safety Committee were approved.

2017 COMMITTEE WORK PLAN

Chair Lhota asked Mr. Mayer if there were any changes to the work plan. Mr. Mayer stated there were no changes.

REPORT OF THE CHIEF SAFETY OFFICER

Mr. Mayer began his report by following up on a request by Ms. Hakim at the April Safety Committee meeting. Mr. Mayer explained that after Mark Bienstock's presentation on the track intrusion detection system used by New York City Transit ("NYCT"), Ms. Hakim asked that Mr. Bienstock brief the chief safety officers of the railroads to determine if the system could be beneficial at the railroads. Mr. Mayer confirmed the first briefing occurred and a second briefing is planned after Phase II.

Mr. Mayer apprised the Board that the MTA-Wide Obstructive Sleep Apnea screening is in its third month and almost 6,000 employees have now been risk assessed. He added that more than 1,300 of those employees have been referred for diagnostic sleep studies.

Mr. Mayer reported that he, Ms. Kirsch and Mr. Vonashek attended the National Transportation Safety Board's ("NTSB") meeting regarding the Valhalla grade crossing accident. He stated that the NTSB made its final determination regarding probable cause, findings and recommendations and that the report was officially adopted by the NTSB board members. Mr. Mayer also summarized the list of grade crossing safety improvements made by the MTA such as partnering with Operation Lifesaver, individual grade crossing assessments by a specialized engineering consulting firm and grade crossing law enforcement by the MTA Police Department and local police departments.

Mr. Pally asked if MNR's third rail configuration is unique in the industry, and he asked if so, why? He also asked if the NTSB made any recommendations about using technology to improve safety at grade crossings. Mr. Mayer stated that the NTSB did not state that MNR's third rail arrangement is unique. They noted that it does not have crash attenuating features, nor is it required to have such features. They recommended that MNR and LIRR and other railroads conduct a risk assessment to see if the arrangements could be made safer. Mr. Vonashek noted that both SEPTA and MNR have underrunning third rail.

Mr. Pally asked if the NTSB found that there was something that could have been done that we did not do, or did the NTSB ask us to determine if there is technology that does not yet exist that should be developed. Mr. Mayer said that the NTSB found that the third rail did not cause the accident, but they asked MNR and LIRR and three other railroads to conduct a risk assessment to see if the third rail arrangements near roadways could be made safer. Mr. Mayer stated the NTSB has released a synopsis of their report and it would be emailed to the Board.

Mr. Zuckerman stated the Journal News reported that the Mount Pleasant Town Supervisor petitioned the MTA to close the Commerce Street grade crossing. Mr. Zuckerman then asked if the town requires concurrence from MTA and asked MTA's stance on the closure. Mr. Mayer stated the town must petition the New York State Department of Transportation ("NYSDOT") and that MTA is supportive of the closure. Mr. Mayer noted that the MTA's permission is not necessary, but MTA support and cooperation is helpful to such a petition.

Mr. Brown asked what recommendations the engineering consultants made relating to MNR's third rail. Mr. Mayer stated that the engineering portion of the NTSB's investigation concluded and the NTSB determined that MNR's underrunning third rail is not a safety concern.

Mr. Albert asked if there is a standard distance where third rails begin and end in relation to roadways at grade crossings. Mr. Mayer answered that he does not believe there is a federal standard in place, and Ms. Kirsch confirmed that there are no FRA standards for this. Mr. Albert then stated according to the NTSB report MNR's underrunning third did not cause the Valhalla accident and Mr. Mayer agreed.

Ms. Metzger asked that the grade crossing risk assessment plan be shared with the Board and public, and Mr. Mayer agreed to do so.

SAFETY PROMOTION: FAMILY SAFETY AND HEALTH MAGAZINE

Mr. Mayer then reported on the Family Safety and Health Magazine. 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 Family Safety and Health Magazine is a national publication. Mr. Mayer confirmed that it is. He also stated that the publication has safety tips for employees that can be applied both on and off the job.

SAFETY ASSURANCE: REVIEW OF SAFETY PERFORMANCE & SAFETY METRICS

Mr. Mayer then introduced the chief safety officers of all of the agencies to report on safety performance and metrics. 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. Zuckerman inquired about updates on the C3RS. Mr. Vonashek answered that he will report back on this topic.

Mr. Brown asked why there is a large discrepancy between customer injury rates at the Railroads and Bridges and Tunnels ("B & T"). Mr. Osnes clarified that the number in the metric represents customer collisions but the number of customer injuries sustained from those collisions is significantly lower.

Mr. Pally asked in what part of Penn Station slip, trip and falls typically occur. Ms. Ebbighausen responded that the majority of these take place in the main concourse. Mr. Pally added that if Long Island Rail Road ("LIRR") announced departing train tracks earlier it might mitigate slip, trips and falls.

Mr. Albert asked if all slips, trips and falls in Penn Station are included in the LIRR metrics, including accidents that take place on other agency's property (e.g. the staircase leading from the subway to the LIRR). Ms. Ebbighausen responded that all accidents on MTA property are included in reports. Mr. Albert then asked the "turnaround time" after a train enters the station and the track number is announced. Mr. Nowakowski responded that the delay is primarily due to the limited number of tracks as trains must wait in queue for platforms to become available before track announcements can be made.

Mr. Albert asked if the stations that have the most track debris are given priority for the portable vacuums. Mr. Hamann confirmed that they are given priority.

Mr. Moerdler suggested the Chairman revisit the issue of eating on the trains, as garbage can end up on tracks and possibly cause track fires. Chairman Lhota stated that the Board should debate and determine the correct course of action.

Mr. Moerdler suggested signage warning motorists will be fined for the two behaviors that contribute to the largest portion of accidents on Bridges and Tunnels, changing lanes and tailgating, could help mitigate accidents on Bridges and Tunnels. Chairman Lhota agreed and stated he would work with B & T regarding improving signage.

Mr. Zuckerman asked Chairman Lhota and the safety leads to examine areas that need improvement and be pro-active rather than being reactionary. Chairman Lhota agreed and pledged to work proactively with the safety team.

ADJOURNMENT

Upon motion duly made and seconded, the Board voted to adjourn the meeting at 9:33 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.

SAFETY OPERATIONS REPORT

For East Side Access - June 2017

| Performance | | |
|------------------------------------------------|------|----------|
| Injury Rate | 2016 | 2017 YTD |
| Lost Time Injury Rate per 200,000 worker hours | 0.71 | 0.3 |
| Recordable Injury Rate | 1.98 | 1.08 |

| Performance Indicator - CM | June | YTD | Goal | YTD as % of Goal |
|---------------------------------|------|------|------|------------------|
| Daily Safety Walkthrough | 267 | 1419 | 2380 | 60% |
| JHAT Audit | 14 | 72 | 240 | 30% |
| Quarterly Safety Audit | 6 | 13 | 40 | 33% |
| Bi Annual ACE Evaluation | 6 | 6 | 20 | 30% |
| Safety Monthly Meeting | 13 | 75 | 120 | 63% |
| Leading Indicators - Contractor | June | YTD | Goal | YTD as % of Goal |
| Training | 19 | 163 | 200 | 82% |
| Toolbox Talks | 36 | 294 | 480 | 61% |
| Site Inspections | 251 | 1514 | 2380 | 64% |
| SWP Review/Audit | 29 | 226 | - | |
| New Employee Orientation | 96 | 902 | - | |
| Emergency Preparedness | 3 | 11 | 20 | 55% |

For Second Avenue Subway - June 2017

| Performance | | |
|------------------------------------------------|------|----------|
| Injury Rate | 2016 | 2017 YTD |
| Lost Time Injury Rate per 200,000 worker hours | 0.37 | 0.0 |
| Recordable Injury Rate | 2.14 | 0.9 |

| Performance Indicator - CM | June | YTD | Goal | YTD as % of Goal |
|---------------------------------|------|------|------|------------------|
| Daily Safety Walkthrough | 75 | 832 | 1415 | 59% |
| JHAT Audit | 0 | 16 | 120 | 13% |
| Quarterly Safety Audit | 0 | 7 | 20 | 35% |
| Bi Annual ACE Evaluation | 0 | 6 | 10 | 60% |
| Safety Monthly Meeting | 5 | 30 | 60 | 50% |
| Leading Indicators - Contractor | June | YTD | Goal | YTD as % of Goal |
| Training | 3 | 40 | 158 | 25% |
| Toolbox Talks | 20 | 128 | 240 | 53% |
| Site Inspections | 133 | 1152 | 1415 | 81% |
| SWP Review/Audit | 6 | 84 | - | |
| New Employee Orientation | 9 | 41 | - | |
| Emergency Preparedness | 0 | 0 | 10 | 0% |

SAFETY OPERATIONS REPORT

For Cortlandt - June 2017

| Performance | | |
|------------------------------------------------|------|----------|
| Injury Rate | 2016 | 2017 YTD |
| Lost Time Injury Rate per 200,000 worker hours | 0.0 | 0.0 |
| Recordable Injury Rate | 0.0 | 0.0 |

| Performance Indicator - CM | June | YTD | Goal | YTD as % of Goal |
|---------------------------------|------|-----|------|------------------|
| Daily Safety Walkthrough | 22 | 175 | 2380 | 7% |
| JHAT Audit | 2 | 17 | 240 | 7% |
| Quarterly Safety Audit | 0 | 3 | 40 | 8% |
| Bi Annual ACE Evaluation | 0 | 1 | 20 | 5% |
| Safety Monthly Meeting | 6 | 37 | 120 | 31% |
| Leading Indicators - Contractor | June | YTD | Goal | YTD as % of Goal |
| Training | 4 | 31 | 200 | 16% |
| Toolbox Talks | 4 | 28 | 480 | 6% |
| Site Inspections | 50 | 340 | 2380 | 14% |
| SWP Review/Audit | 3 | 20 | - | |
| New Employee Orientation | 22 | 96 | - | |
| Emergency Preparedness | 0 | 1 | 20 | 5% |

For No. 7 Line - June 2017

| Performance | | | | |
|------------------------------------------------|------|----------|------|------------------|
| Injury Rate | 2016 | 2017 YTD | | |
| Lost Time Injury Rate per 200,000 worker hours | 2.74 | 0.0 | | |
| Recordable Injury Rate | 0.0 | 0.0 | | |
| Performance Indicator - CM | June | YTD | Goal | YTD as % of Goal |
| Daily Safety Walkthrough | 22 | 127 | 1415 | 9% |
| JHAT Audit | 2 | 2 | 120 | 2% |
| Quarterly Safety Audit | 0 | 3 | 20 | 15% |
| Bi Annual ACE Evaluation | 0 | 1 | 10 | 10% |
| Safety Monthly Meeting | 1 | 6 | 60 | 10% |
| Leading Indicators - Contractor | June | YTD | Goal | YTD as % of Goal |
| Training | 3 | 13 | 158 | 8% |
| Toolbox Talks | 4 | 24 | 240 | 10% |
| Site Inspections | 58 | 333 | 1415 | 24% |
| SWP Review/Audit | 2 | 2 | - | |
| New Employee Orientation | 8 | 59 | - | |
| Emergency Preparedness | 1 | 1 | 10 | 10% |

July 2017 Safety Report

| Performance | | | |
|------------------------------------------------------------------------|------------------------|------------------------|------------------------|
| Performance Indicator | 12-Month Average | | |
| | August 2014 -July 2015 | August 2015 -July 2016 | August 2016 -July 2017 |
| FRA Reportable Customer Accident Rate per Million Customers | 1.77 | 1.26 | 0.91 |
| FRA Reportable Employee Lost Time Injury Rate per 200,000 worker hours | 2.26 | 2.66 | 3.06 |
| Grade Crossing Incidents ¹ | 1 | 3 | 1 |
| Mainline FRA Reportable Train Derailments | 1 | 1 | 2 |
| 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 | | | | |
|-----------------------------------------------------|------------|---------------------|------------|--------------|
| Safety Training | 2016 | | 2017 | |
| | July | Year End | July | Year to Date |
| First Responders Trained | - | 1,314 | 58 | 958 |
| Employee Safety Training Courses | - | 307 | 107 | 272 |
| Employees Trained | - | 6,161 | 1,369 | 5,407 |
| Employee Safety Training Hours | - | 268,469 | 17,799 | 149,073 |
| Customer and Community: Focus on Grade Crossings | 2016 | | 2017 | |
| | July | Year to Date | July | Year to Date |
| Broken Gates | 3 | 34 | 2 | 18 |
| MTA Police Details | 112 | 944 | 104 | 868 |
| Summons | 20 | 252 | 56 | 392 |
| Warnings | 9 | 79 | 23 | 112 |
| Community Education and Outreach | NA | NA | 1,560 | 39,510 |
| Cars Equipped with Cameras | Fleet Size | Total Cars Equipped | % Complete | |
| Inward / Outward Facing Cab Cameras | 957 | 50 | 5.23% | |
| Passenger Compartment Cameras | 1,088 | 52 | 4.78% | |

Definitions:

First Responders Trained - The number of first responders trained by MNR's Emergency Management to assist in crisis events, such as train evacuation.

Employee Safety Training Courses - The number of distinct safety-related courses offered, including technical courses that have a safety element. Repeats are excluded so that each course is counted only once.

Employees Trained - The number of unique employees that attended one or more of these safety-related courses.

Employee Safety Training Hours - The total hours of training completed by employees in all safety-related courses attended.

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 July 2016.

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

July Safety Report

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

| Performance | | | |
|------------------------------------------------------------------------|----------------------------|----------------------------|----------------------------|
| Performance Indicator | 12-Month Average | | |
| | August 2014 - July 2015 | August 2015 - July 2016 | August 2016 - July 2017 |
| FRA Reportable Customer Accident Rate per Million Customers | 4.45 | 3.34 | 2.98 |
| FRA Reportable Employee Lost Time Injury Rate per 200,000 worker hours | 3.59 | 3.18 | 3.47 |
| Grade Crossing Incidents ¹ | 10 | 8 | 11 |
| Mainline FRA Reportable Train Derailments | 0 | 1 | 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 | | | | |
|----------------------------------|--------------------------------------------------------------------|--------------|--------|--------------|
| Focus on Safety Training | 2016 | | 2017 | |
| | Year End | | July | Year to Date |
| First Responders Trained | 1537 | | 42 | 1095 |
| Employee Safety Training Courses | 210 | | 76 | 198 |
| Employees Trained | 6,013 | | 723 | 6,060 |
| Employee Safety Training Hours | 223,736 | | 15,998 | 149,258 |
| Customer and Community: | July | Year to Date | July | Year to Date |
| Broken Gates | 14 | 73 | 5 | 58 |
| MTA Police Details | 30 | 297 | 54 | 476 |
| Summons | 103 | 967 | 87 | 1163 |
| Warnings | 69 | 538 | 25 | 521 |
| Arrests | 1 | 5 | 0 | 1 |
| Community Education and Outreach | 5,097 | 67,342 | 4831 | 61889 |
| | Completed | | Total | % Complete |
| Cameras on Rolling Stock | May - Installation complete on two M7 cars and one C3 for testing. | | TBD | TBD |

Definitions:

First Responders Trained - The number of first responders trained to assist in crisis events.

Employee Safety Training Courses - The number of distinct safety-related courses offered, including technical courses that have a safety element. Repeats are excluded so that each course is counted only once.

Employees Trained - The number of unique employees that attended one or more of these safety-related courses.

Employee Safety Training Hours - The total hours of training completed by employees in all safety-related courses attended.

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 | | |
| | | Aug 2014 - Jul 2015 | Aug 2015 - Jul 2016 | Aug 2016 - Jul 2017 |
| Subways | | | | |
| Subway Customer Accidents per Million Customers ¹ | | 2.65 | 2.51 | 2.73 |
| Subway Collisions ^{2,3} | | 0 | 0 | 0 |
| Subway Derailments ^{2,3} | | 1 | 2 | 5 |
| Subway Fires ² | | 1,033 | 947 | 960 |
| Buses | | | | |
| Bus Collisions Per Million Miles Regional | | 51.33 | 55.49 | 55.26 |
| Bus Collision Injuries Per Million Miles Regional | | 6.42 | 6.58 | 6.22 |
| Bus Customer Accidents Per Million Customers Regional | | 1.10 | 1.21 | 1.27 |
| Total NYCT and MTA Bus Lost Time Accidents per 100 Employees | | 3.77 | 4.13 | 3.47 |

¹ 12-Month Average data from July through June.

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

³ Data from September through August.

| Leading Indicators | | | | |
|-----------------------------------------------------|--------|--------|--------|------------------|
| Subways | August | YTD | Goal | YTD as % of Goal |
| Roadway Worker Protection | | | | |
| Joint Track Safety Audits -- Actual Count | 34 | 238 | 340 | 70.0% |
| Joint Track Safety Audits -- Compliance Rate | 98.3% | 98.2% | 100.0% | 98.2% |
| Mainline Collision/Derailment Prevention | | | | |
| Continuous Welded Rail Initiative (# of Track Feet) | 8,609 | 52,723 | 49,814 | 105.8% |
| Station -- Emergency Communication | | | | |
| Help Point Installations* | 3 | 45 | 79 | 57.0% |
| Buses | August | YTD | Goal | YTD as % of Goal |
| Collision Prevention | | | | |
| Audible Pedestrian Warning System Pilot | 41 | 184 | 225 | 81.8% |
| Collision Warning System Pilot | 0 | 112 | 114 | 98.2% |
| Vision Zero Employee Training | 598 | 4,543 | 5,600 | 81.1% |

* The goal has been revised from 92 to 79 stations due to construction work at 13 Stations (9 on the Sea Beach line, 3 Enhanced Station Initiative locations, and Cortlandt Street) that will not be ready to accept HP installations in 2017.

Safety Report

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

| Performance Indicator | | | |
|---------------------------------------------------------------------------|-------------------------|-------------------------|-------------------------|
| Performance Indicator | 12-Month Average | | |
| | August 2014 - July 2015 | August 2015 - July 2016 | August 2016 - July 2017 |
| Customer Collisions Rate for Bridge Customers per Million Vehicles | 5.74 | 6.82 | 8.42 |
| Customer Injury Collisions Rate for Bridge Customers per Million Vehicles | 0.91 | 0.95 | 0.98 |
| Employee Accident Reports | 249 | 266 | 255 |
| Employee Lost Time Injuries Rate per 200,000 worker hours | 5.0 | 6.5 | 7.3 |
| Construction Injuries per 200,000 worker hours | 3.26 | 1.88 | 1.91 |

| Leading Indicators | | | | |
|-------------------------------------------|------|----------|------|--------------|
| Roadway Safety | 2016 | | 2017 | |
| | July | Year End | July | Year to Date |
| Workforce Development (# of Participants) | 34 | 740 | 169 | 549 |
| Fleet Preventative Maintenance Insp. | 89 | 1281 | 113 | 814 |
| Safety Taskforce Inspections | 1 | 13 | 0 | 7 |
| Construction Safety | July | Year End | July | Year to Date |
| Construction Safety Inspections | 340 | 4161 | 222 | 2050 |
| Fire Safety | July | Year End | July | Year to Date |
| Fire Code Audits Completed | 1 | 13 | 0 | 8 |
| FDNY Liaison Visits | 1 | 25 | 0 | 18 |

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 - June 2017

| Performance | | |
|------------------------------------------------|------|----------|
| Injury Rate | 2016 | 2017 YTD |
| Lost Time Injury Rate per 200,000 worker hours | 0.71 | 0.3 |
| Recordable Injury Rate | 1.98 | 1.08 |

| Performance Indicator - CM | June | YTD | Goal | YTD as % of Goal |
|---------------------------------|------|------|------|------------------|
| Daily Safety Walkthrough | 267 | 1419 | 2380 | 60% |
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| Bi Annual ACE Evaluation | 6 | 6 | 20 | 30% |
| Safety Monthly Meeting | 13 | 75 | 120 | 63% |
| Leading Indicators - Contractor | June | YTD | Goal | YTD as % of Goal |
| Training | 19 | 163 | 200 | 82% |
| Toolbox Talks | 36 | 294 | 480 | 61% |
| Site Inspections | 251 | 1514 | 2380 | 64% |
| SWP Review/Audit | 29 | 226 | - | |
| New Employee Orientation | 96 | 902 | - | |
| Emergency Preparedness | 3 | 11 | 20 | 55% |

For Second Avenue Subway - June 2017

| Performance | | |
|------------------------------------------------|------|----------|
| Injury Rate | 2016 | 2017 YTD |
| Lost Time Injury Rate per 200,000 worker hours | 0.37 | 0.0 |
| Recordable Injury Rate | 2.14 | 0.9 |

| Performance Indicator - CM | June | YTD | Goal | YTD as % of Goal |
|---------------------------------|------|------|------|------------------|
| Daily Safety Walkthrough | 75 | 832 | 1415 | 59% |
| JHAT Audit | 0 | 16 | 120 | 13% |
| Quarterly Safety Audit | 0 | 7 | 20 | 35% |
| Bi Annual ACE Evaluation | 0 | 6 | 10 | 60% |
| Safety Monthly Meeting | 5 | 30 | 60 | 50% |
| Leading Indicators - Contractor | June | YTD | Goal | YTD as % of Goal |
| Training | 3 | 40 | 158 | 25% |
| Toolbox Talks | 20 | 128 | 240 | 53% |
| Site Inspections | 133 | 1152 | 1415 | 81% |
| SWP Review/Audit | 6 | 84 | - | |
| New Employee Orientation | 9 | 41 | - | |
| Emergency Preparedness | 0 | 0 | 10 | 0% |

SAFETY OPERATIONS REPORT

For Cortlandt - June 2017

| Performance | | |
|------------------------------------------------|------|----------|
| Injury Rate | 2016 | 2017 YTD |
| Lost Time Injury Rate per 200,000 worker hours | 0.0 | 0.0 |
| Recordable Injury Rate | 0.0 | 0.0 |

| Performance Indicator - CM | June | YTD | Goal | YTD as % of Goal |
|---------------------------------|------|-----|------|------------------|
| Daily Safety Walkthrough | 22 | 175 | 2380 | 7% |
| JHAT Audit | 2 | 17 | 240 | 7% |
| Quarterly Safety Audit | 0 | 3 | 40 | 8% |
| Bi Annual ACE Evaluation | 0 | 1 | 20 | 5% |
| Safety Monthly Meeting | 6 | 37 | 120 | 31% |
| Leading Indicators - Contractor | June | YTD | Goal | YTD as % of Goal |
| Training | 4 | 31 | 200 | 16% |
| Toolbox Talks | 4 | 28 | 480 | 6% |
| Site Inspections | 50 | 340 | 2380 | 14% |
| SWP Review/Audit | 3 | 20 | - | |
| New Employee Orientation | 22 | 96 | - | |
| Emergency Preparedness | 0 | 1 | 20 | 5% |

For No. 7 Line - June 2017

| Performance | | | | |
|------------------------------------------------|------|----------|------|------------------|
| Injury Rate | 2016 | 2017 YTD | | |
| Lost Time Injury Rate per 200,000 worker hours | 2.74 | 0.0 | | |
| Recordable Injury Rate | 0.0 | 0.0 | | |
| Performance Indicator - CM | June | YTD | Goal | YTD as % of Goal |
| Daily Safety Walkthrough | 22 | 127 | 1415 | 9% |
| JHAT Audit | 2 | 2 | 120 | 2% |
| Quarterly Safety Audit | 0 | 3 | 20 | 15% |
| Bi Annual ACE Evaluation | 0 | 1 | 10 | 10% |
| Safety Monthly Meeting | 1 | 6 | 60 | 10% |
| Leading Indicators - Contractor | June | YTD | Goal | YTD as % of Goal |
| Training | 3 | 13 | 158 | 8% |
| Toolbox Talks | 4 | 24 | 240 | 10% |
| Site Inspections | 58 | 333 | 1415 | 24% |
| SWP Review/Audit | 2 | 2 | - | |
| New Employee Orientation | 8 | 59 | - | |
| Emergency Preparedness | 1 | 1 | 10 | 10% |

June 2017 Safety Report

| Performance | | | |
|------------------------------------------------------------------------|----------------------|----------------------|----------------------|
| Performance Indicator | 12-Month Average | | |
| | July 2014 -June 2015 | July 2015 -June 2016 | July 2016 -June 2017 |
| FRA Reportable Customer Accident Rate per Million Customers | 1.76 | 1.24 | 0.95 |
| FRA Reportable Employee Lost Time Injury Rate per 200,000 worker hours | 2.27 | 2.61 | 3.03 |
| Grade Crossing Incidents ¹ | 1 | 3 | 1 |
| Mainline FRA Reportable Train Derailments | 1 | 1 | 2 |
| 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 | | | | |
|-----------------------------------------------------|------------|---------------------|------------|--------------|
| Safety Training | 2016 | | 2017 | |
| | June | Year End | June | Year to Date |
| First Responders Trained | - | 1,314 | 53 | 900 |
| Employee Safety Training Courses | - | 307 | 122 | 256 |
| Employees Trained | - | 6,161 | 1,353 | 4,941 |
| Employee Safety Training Hours | - | 268,469 | 19,989 | 125,656 |
| Customer and Community: Focus on Grade Crossings | 2016 | | 2017 | |
| | June | Year to Date | June | Year to Date |
| Broken Gates | 6 | 31 | 3 | 16 |
| MTA Police Details | 134 | 832 | 99 | 764 |
| Summons | 20 | 232 | 40 | 336 |
| Warnings | 9 | 74 | 9 | 89 |
| Community Education and Outreach | NA | NA | 11,995 | 37,950 |
| Cars Equipped with Cameras | Fleet Size | Total Cars Equipped | % Complete | |
| Inward / Outward Facing Cab Cameras | 957 | 31 | 1.36% | |
| Passenger Compartment Cameras | 1,088 | 32 | 1.29% | |

Definitions:

First Responders Trained - The number of first responders trained by MNR's Emergency Management to assist in crisis events, such as train evacuation.

Employee Safety Training Courses - The number of distinct safety-related courses offered, including technical courses that have a safety element. Repeats are excluded so that each course is counted only once.

Employees Trained - The number of unique employees that attended one or more of these safety-related courses.

Employee Safety Training Hours - The total hours of training completed by employees in all safety-related courses attended.

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 June 2016.

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

June Safety Report

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

| Performance | | | |
|------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|
| Performance Indicator | 12-Month Average | | |
| | July 2014 - June 2015 | July 2015 - June 2016 | July 2016 - June 2017 |
| FRA Reportable Customer Accident Rate per Million Customers | 4.55 | 3.47 | 2.95 |
| FRA Reportable Employee Lost Time Injury Rate per 200,000 worker hours | 3.55 | 3.27 | 3.26 |
| Grade Crossing Incidents ¹ | 9 | 8 | 11 |
| Mainline FRA Reportable Train Derailments | 0 | 0 | 3 |
| Mainline FRA Reportable Train Collisions | 2 | 2 | 2 |

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 | | | | |
|----------------------------------|--------------------------------------------------------------------|--------------|-------------|--------------|
| Focus on Safety Training | 2016 | | 2017 | |
| | Year End | | June | Year to Date |
| First Responders Trained | 1537 | | 27 | 1053 |
| Employee Safety Training Courses | 210 | | 89 | 276 |
| Employees Trained | 6,013 | | 998 | 5,337 |
| Employee Safety Training Hours | 223,736 | | 21,757 | 133,260 |
| Customer and Community: | June | Year to Date | June | Year to Date |
| Broken Gates | 9 | 59 | 10 | 53 |
| MTA Police Details | 32 | 267 | 71 | 422 |
| Summons | 124 | 864 | 154 | 1076 |
| Warnings | 65 | 469 | 44 | 496 |
| Arrests | 1 | 4 | 0 | 0 |
| Community Education and Outreach | 12,221 | 62,245 | 12,692 | 57,058 |
| | | Completed | Total | % Complete |
| Cameras on Rolling Stock | May - Installation complete on two M7 cars and one C3 for testing. | | TBD | TBD |

Definitions:

First Responders Trained - The number of first responders trained to assist in crisis events.

Employee Safety Training Courses - The number of distinct safety-related courses offered, including technical courses that have a safety element. Repeats are excluded so that each course is counted only once.

Employees Trained - The number of unique employees that attended one or more of these safety-related courses.

Employee Safety Training Hours - The total hours of training completed by employees in all safety-related courses attended.

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 | | |
| | | Jul 2014 - Jun 2015 | Jul 2015 - Jun 2016 | Jul 2016 - Jun 2017 |
| Subways | | | | |
| Subway Customer Accidents per Million Customers ¹ | | 2.65 | 2.52 | 2.70 |
| Subway Collisions ^{2,3} | | 0 | 0 | 0 |
| Subway Derailments ^{2,3} | | 2 | 2 | 5 |
| Subway Fires ² | | 1,018 | 941 | 960 |
| Buses | | | | |
| Bus Collisions Per Million Miles Regional | | 50.74 | 55.05 | 55.44 |
| Bus Collision Injuries Per Million Miles Regional | | 6.47 | 6.37 | 6.43 |
| Bus Customer Accidents Per Million Customers Regional | | 1.07 | 1.22 | 1.26 |
| Total NYCT and MTA Bus Lost Time Accidents per 100 Employees | | 3.73 | 4.12 | 3.53 |

¹ 12-Month Average data from June through May.

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

³ Data from August through July.

| Leading Indicators | | | | |
|-----------------------------------------------------|-------|--------|--------|------------------|
| Subways | July | YTD | Goal | YTD as % of Goal |
| Roadway Worker Protection | | | | |
| Joint Track Safety Audits -- Actual Count | 28 | 204 | 340 | 60.0% |
| Joint Track Safety Audits -- Compliance Rate | 98.7% | 98.2% | 100.0% | 98.2% |
| Mainline Collision/Derailment Prevention | | | | |
| Continuous Welded Rail Initiative (# of Track Feet) | 2,535 | 44,114 | 49,814 | 88.6% |
| Station -- Emergency Communication | | | | |
| Help Point Installations* | 5 | 42 | 79 | 53.2% |
| Buses | | | | |
| Collision Prevention | | | | |
| Audible Pedestrian Warning System Pilot | 61 | 143 | 225 | 63.6% |
| Collision Warning System Pilot | 0 | 112 | 114 | 98.2% |
| Vision Zero Employee Training | 553 | 3,945 | 5,600 | 70.4% |

* The goal has been revised from 92 to 79 stations due to construction work at 13 Stations (9 on the Sea Beach line, 3 Enhanced Station Initiative locations, and Cortlandt Street) that will not be ready to accept HP installations in 2017.

Safety Report

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

| Performance Indicator | | | |
|---------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|
| Performance Indicator | 12-Month Average | | |
| | July 2014 - June 2015 | July 2015 - June 2016 | July 2016 - June 2017 |
| Customer Collisions Rate for Bridge Customers per Million Vehicles | 5.67 | 6.67 | 8.43 |
| Customer Injury Collisions Rate for Bridge Customers per Million Vehicles | 0.88 | 0.97 | 1.02 |
| Employee Accident Reports | 269 | 236 | 289 |
| Employee Lost Time Injuries Rate per 200,000 worker hours | 4.8 | 5.9 | 7.9 |
| Construction Injuries per 200,000 worker hours | 3.50 | 1.90 | 1.87 |

| Leading Indicators | | | | |
|-------------------------------------------|------|----------|------|--------------|
| Roadway Safety | 2016 | | 2017 | |
| | June | Year End | June | Year to Date |
| Workforce Development (# of Participants) | 65 | 740 | 156 | 380 |
| Fleet Preventative Maintenance Insp. | 84 | 1281 | 103 | 701 |
| Safety Taskforce Inspections | 1 | 13 | 2 | 7 |
| Construction Safety | June | Year End | June | Year to Date |
| Construction Safety Inspections | 391 | 4161 | 277 | 1828 |
| Fire Safety | June | Year End | June | Year to Date |
| Fire Code Audits Completed | 1 | 13 | 3 | 8 |
| FDNY Liaison Visits | 4 | 25 | 1 | 18 |

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.