Safety Committee Meeting
April 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
1. Public Comments

2. Approval of Minutes - December 14, 2016
   Safety Committee Minutes - Page 3

3. Safety Committee Work Plan
   2017 Safety Committee Work Plan - Page 6

4. Safety Metrics
   MNR Metric - Page 9
   LIRR Metric - Page 10
   NYCT Metric - Page 11
   B & T Metric - Page 12
   MTACC Metric - Page 13

5. Safety Risk Management: Leveraging Technology to Improve Safety
   Leveraging Technology to Improve Safety Presentation - Page 14

6. Safety Policy: Update on Sleep Disorder Screening and Treatment
   Update on Sleep Disorders Presentation - Page 39

Date of next meeting: July 26th @ 8:30 AM
The following members were present:

Hon. Fernando Ferrer, Acting Chair
Hon. Mitchell Pally
Hon. Andrew Albert
Hon. Neal Zuckerman
Hon. Charles Moerdler
Hon. Vincent Tessitore
Hon. Peter Ward
Hon. Ira Greenberg
Hon. Susan Metzger
Hon. John Molloy
Hon. Norman Brown

The following safety officers were present:
David Mayer - MTAHQ
Cheryl Kennedy - NYCT
Loretta Ebbighausen - LIRR
Justin Vonashek – MNR
Anne Kirsch – MTAHQ
Stephen Vidal – MTA Bus
Peter Kohner - MTA-CC
Eric Osnes – B & T

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 Darryl Irick, Acting President, New York City Transit (“NYCT”) and Steven Vidal, Acting President, MTA Bus also attended the meeting.

**Acting Chairman Ferrer 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 December 14, 2016 Safety Committee were approved.
2017 COMMITTEE WORK PLAN
Acting Chair Ferrer asked Mr. Mayer if there were any changes to the work plan. Mr. Mayer stated there were no changes but asked that the Board vote to approve the work plan.

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 SAFETY – A FOCUS ON OPERATOR VISIBILITY
Mr. Mayer introduced Yogesh Patel of MTA Bus to report on Bus Operator Visibility. 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 about visibility on the right side of the bus after referencing the presentation that stated improved visibility to the rear and left of the bus. Mr. Patel answered that MTA Bus is working to ensure both mirrors offer better operator visibility.

Mr. Moerdler asked since the majority of bus collisions are caused by buses being rear-ended, if Safety Leads have considered accident avoidance technology. Mr. Vidal answered the Safety Leads believe the contrasting colors of the “new-look” buses will significantly reduce rear collisions.

Mr. Greenberg asked if the Sleep Apnea Screening program would include bus operators. Ms. Kennedy confirmed that bus operators would be screened.

Mr. Zuckerman asked what measures MTA Bus and Bridges and Tunnels have taken to mitigate collisions as both reported an increase over the last 2 years. Mr. Spero responded that Bridges and Tunnels had an increase over the summer months but is currently on a downward trend.

SAFETY ASSURANCE: C3RS PROGRAMS – CORRECTIVE ACTIONS IMPLEMENTED
Mr. Mayer then introduced Ms. Ebbighausen and Mr. Vonashek to report on the Close Call Reporting System Program. 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 platform stopping locations vary. Ms. Ebbighausen answered that there are routine locations but confirmed there can be variability and that conductors remain vigilant.

Mr. Vitiello asked how information regarding new equipment is disseminated to work crews. Mr. Ebbighausen answered that the Transportation Department has an extensive notification process such as bulletins & general notices.
Mr. Moerdler recommended Safety Leads consider options using new technology, such as Collision Avoidance, where applicable. Mr. Mayer assured Mr. Moerdler that Safety Leads are currently and will continue to explore initiatives that may be useful.

Mr. Greenberg asked if grade crossing improvements were being made at crossings other than Stony Brook. Ms. Ebbighausen responded that the Peer Review Team (“PRT”) does assess potential application of best practices at other locations.

Ms. Metzger asked if the small number of corrective actions implemented address most if not all of the reports received. Ms. Ebbighausen indicated that the corrective actions address about 80% of the reports received. The remaining 20%, may not be appropriate for resolution under the C3RS program, but the PRT is ensuring these reports are not forgotten and referring them to more appropriate venues for resolution.

Mr. Vitiello asked if there is a Research and Development (R&D) budget for Safety Programs. Mr. Mayer confirmed that there is a budget. Mr. Vitiello then asked if there is Safety personnel whose sole responsibility is R&D and if so, how many people are allocated to that position? Mr. Mayer answered that NYCT has employees solely focused on research but they do share their findings with other agencies. He also stated Safety Leads would come back to the Board with a presentation.

Mr. Albert asked Mr. Vonashek to confirm that trains East of Stamford use a different channel and if so, can that cause delays in communications? Mr. Vonashek responded that using different channels is common in the train industry because having one channel causes too much traffic on one line. Mr. Albert then asked if conductors are aware if there are other trains in the vicinity. Mr. Kesich responded that conductors do not communicate across districts, all communications go through the Operations Control Center which is aware of the locations of all trains.

Mr. Greenberg asked if the LIRR will also use speed restriction hang tags. Ms. Ebbighausen answered that though it has been considered, the PRT does not feel it is a corrective action that needs to be implemented at this time. Mr. Giulietti invited Mr. Greenberg to the MNR Control Center to better understand how communications work and stated that once Positive Train Control is put in place, hang tag reminders will no longer be needed as reminders will be taken care of electronically.

Mr. Tessitore suggested that more resources should be made available to employees through Employee Assistance Programs.

**ADJOURNMENT**

Upon motion duly made and seconded, the Board voted to adjourn the meeting at 9:17 am.
2017 Safety Committee Work Plan

I. RECURRING AGENDA ITEMS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Comments</td>
<td>Committee Chair &amp; Members</td>
</tr>
<tr>
<td>Approval of Minutes</td>
<td>Committee Chair &amp; Members</td>
</tr>
<tr>
<td>Committee Work Plan</td>
<td>Committee Chair &amp; Members</td>
</tr>
</tbody>
</table>

II. SPECIFIC AGENDA ITEMS

**February 2017**
- 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 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

**January 2018**
- Safety Policy – Approval of 2016 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.
## February 2017 Safety Report

### Performance

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>FRA Reportable Customer Accident Rate per Million Customers</td>
<td>1.80</td>
<td>1.24</td>
<td>1.13</td>
</tr>
<tr>
<td>FRA Reportable Employee Lost Time Injury Rate per 200,000 worker hours</td>
<td>2.28</td>
<td>2.56</td>
<td>2.76</td>
</tr>
<tr>
<td>Grade Crossing Incidents</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Mainline FRA Reportable Train Derailments</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Mainline FRA Reportable Train Collisions</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Category</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Responders Trained</td>
<td>-</td>
<td>1,314</td>
</tr>
<tr>
<td>Employee Safety Training Courses</td>
<td>-</td>
<td>307</td>
</tr>
<tr>
<td>Employees Trained</td>
<td>-</td>
<td>6,161</td>
</tr>
<tr>
<td>Employee Safety Training Hours</td>
<td>-</td>
<td>268,469</td>
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</tbody>
</table>

#### Customer and Community: Focus on Grade Crossings

<table>
<thead>
<tr>
<th>Category</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broken Gates</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>MTA Police Details</td>
<td>128</td>
<td>238</td>
</tr>
<tr>
<td>Summons</td>
<td>38</td>
<td>55</td>
</tr>
<tr>
<td>Warnings</td>
<td>14</td>
<td>30</td>
</tr>
<tr>
<td>Community Education and Outreach</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

#### Cars Equipped with Cameras

<table>
<thead>
<tr>
<th>Category</th>
<th>Fleet Size</th>
<th>Total Cars Equipped</th>
<th>% Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inward / Outward Facing Cab Cameras</td>
<td>957</td>
<td>8</td>
<td>0.84%</td>
</tr>
<tr>
<td>Passenger Compartment Cameras</td>
<td>1,088</td>
<td>8</td>
<td>0.74%</td>
</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FRA Reportable Customer Accident Rate per Million Customers</td>
<td>4.64</td>
<td>4.27</td>
<td>2.89</td>
</tr>
<tr>
<td>FRA Reportable Employee Lost Time Injury Rate per 200,000 worker hours</td>
<td>3.86</td>
<td>3.22</td>
<td>3.19</td>
</tr>
<tr>
<td>Grade Crossings Incidents</td>
<td>1</td>
<td>31</td>
<td>3</td>
</tr>
<tr>
<td>Mainline FRA Reportable Train Derailments</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Mainline FRA Reportable Train Collisions</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Focus on Safety Training</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Responders Trained</td>
<td>February</td>
<td>Year to Date</td>
</tr>
<tr>
<td>27</td>
<td>1,537</td>
<td>134</td>
</tr>
<tr>
<td>Employee Safety Training Courses</td>
<td>99</td>
<td>210</td>
</tr>
<tr>
<td>Employees Trained</td>
<td>1,088</td>
<td>6,013</td>
</tr>
<tr>
<td>Employee Safety Training Hours</td>
<td>21,762</td>
<td>223,736</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Focus on Grade Crossings</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broken Gates</td>
<td>14</td>
<td>23</td>
</tr>
<tr>
<td>MTA Police Details</td>
<td>41</td>
<td>104</td>
</tr>
<tr>
<td>Summons</td>
<td>114</td>
<td>241</td>
</tr>
<tr>
<td>Warnings</td>
<td>61</td>
<td>169</td>
</tr>
<tr>
<td>Arrests</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Community Education and Outreach</td>
<td>8,756</td>
<td>17,499</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cameras on Rolling Stock</th>
<th>Production to begin in May</th>
<th>TBD</th>
</tr>
</thead>
</table>

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

### Safety Report

<table>
<thead>
<tr>
<th>Performance Indicators</th>
<th>Subways</th>
<th>12-Month Average</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subways</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subway Customer Accidents per Million Customers</td>
<td>2.60</td>
<td>2.60</td>
<td>2.57</td>
</tr>
<tr>
<td>Subway Collisions</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Subway Derailments</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Subway Fires</td>
<td>963</td>
<td>1,022</td>
<td>952</td>
</tr>
<tr>
<td><strong>Buses</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bus Collisions Per Million Miles</td>
<td>Regional</td>
<td>48.63</td>
<td>53.79</td>
</tr>
<tr>
<td>Bus Collision Injuries Per Million Miles</td>
<td>Regional</td>
<td>6.43</td>
<td>6.28</td>
</tr>
<tr>
<td>Bus Customer Accidents Per Million Customers</td>
<td>Regional</td>
<td>1.09</td>
<td>1.15</td>
</tr>
<tr>
<td>Total NYCT and MTA Bus Lost Time Accidents per 100 Employees</td>
<td></td>
<td>3.65</td>
<td>3.92</td>
</tr>
</tbody>
</table>

1 12-Month Average data from February through January.
2 12-month figures shown are totals rather than averages.
3 Data from April through March.

### Leading Indicators

<table>
<thead>
<tr>
<th>Subways</th>
<th>March</th>
<th>YTD</th>
<th>Goal</th>
<th>YTD as % of Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roadway Worker Protection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint Track Safety Audits -- Actual Count</td>
<td>26</td>
<td>85</td>
<td>340</td>
<td>25.0%</td>
</tr>
<tr>
<td>Joint Track Safety Audits -- Compliance Rate</td>
<td>97.9%</td>
<td>98.1%</td>
<td>100.0%</td>
<td>98.1%</td>
</tr>
<tr>
<td>Mainline Collision/ Derailment Prevention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuous Welded Rail Initiative (# of Track Feet)</td>
<td>6,550</td>
<td>25,019</td>
<td>49,814</td>
<td>50.2%</td>
</tr>
<tr>
<td>Station -- Emergency Communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Help Point Installations</td>
<td>4</td>
<td>19</td>
<td>92</td>
<td>20.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Buses</th>
<th>March</th>
<th>YTD</th>
<th>Goal</th>
<th>YTD as % of Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collision Prevention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audible Pedestrian Warning System Pilot</td>
<td>34</td>
<td>40</td>
<td>225</td>
<td>17.8%</td>
</tr>
<tr>
<td>Collision Warning System Pilot</td>
<td>40</td>
<td>112</td>
<td>114</td>
<td>98.2%</td>
</tr>
<tr>
<td>Vision Zero Employee Training</td>
<td>607</td>
<td>1,689</td>
<td>5,600</td>
<td>30.2%</td>
</tr>
</tbody>
</table>
### Safety Report

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

#### Performance Indicator

<table>
<thead>
<tr>
<th>Performance Indicator</th>
<th>12-Month Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Collisions Rate for Bridge Customers per Million Vehicles</td>
<td>5.61</td>
</tr>
<tr>
<td>Customer Injury Collisions Rate for Bridge Customers per Million Vehicles</td>
<td>0.90</td>
</tr>
<tr>
<td>Employee Accident Reports</td>
<td>295</td>
</tr>
<tr>
<td>Employee Lost Time Injuries Rate per 200,000 worker hours</td>
<td>6.4</td>
</tr>
<tr>
<td>Construction Injuries per 200,000 worker hours</td>
<td>3.18</td>
</tr>
</tbody>
</table>

#### Leading Indicators

<table>
<thead>
<tr>
<th>Roadway Safety</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>February</td>
<td>Year End</td>
</tr>
<tr>
<td>Workforce Development (# of Participants)</td>
<td>62</td>
<td>740</td>
</tr>
<tr>
<td>Fleet Preventative Maintenance Insp.</td>
<td>122</td>
<td>1281</td>
</tr>
<tr>
<td>Safety Taskforce Inspections</td>
<td>0</td>
<td>13</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Construction Safety</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>February</td>
<td>Year End</td>
</tr>
<tr>
<td>Construction Safety Inspections</td>
<td>273</td>
<td>4161</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fire Safety</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>February</td>
<td>Year End</td>
</tr>
<tr>
<td>Fire Code Audits Completed</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>FDNY Liaison Visits</td>
<td>0</td>
<td>25</td>
</tr>
</tbody>
</table>

#### 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. Taskforce is comprised of representatives of the Safety and Operations groups and has representation from each of the respective 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 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 ensure communications and special rescue operations should they be required.
## SAFETY OPERATIONS REPORT

### For East Side Access - January 2017

#### Performance

<table>
<thead>
<tr>
<th>Injury Rate</th>
<th>2016</th>
<th>2017 YTD</th>
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<tbody>
<tr>
<td>Lost Time Injury Rate per 200,000 worker hours</td>
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<tr>
<td>Recordable Injury Rate</td>
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<table>
<thead>
<tr>
<th>Performance Indicator - CM</th>
<th>Jan</th>
<th>YTD</th>
<th>Goal</th>
<th>YTD as % of Goal</th>
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<tbody>
<tr>
<td>Daily Safety Walkthrough</td>
<td>195</td>
<td>195</td>
<td>2380</td>
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<tr>
<td>JHAT Audit</td>
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<td>40</td>
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<tr>
<td>Bi Annual ACE Evaluation</td>
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<tr>
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<table>
<thead>
<tr>
<th>Leading Indicators - Contractor</th>
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<th>Goal</th>
<th>YTD as % of Goal</th>
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<tr>
<td>Training</td>
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<tr>
<td>Toolbox Talks</td>
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<td>480</td>
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<tr>
<td>Site Inspections</td>
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<tr>
<td>SWP Review/Audit</td>
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<td>-</td>
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<tr>
<td>New Employee Orientation</td>
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<td>-</td>
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<tr>
<td>Emergency Preparedness</td>
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### For Second Avenue Subway - Jan 2017

#### Performance

<table>
<thead>
<tr>
<th>Injury Rate</th>
<th>2016</th>
<th>2017 YTD</th>
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<tbody>
<tr>
<td>Lost Time Injury Rate per 200,000 worker hours</td>
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<td>Recordable Injury Rate</td>
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<th>YTD as % of Goal</th>
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<td>Daily Safety Walkthrough</td>
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<tr>
<td>JHAT Audit</td>
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<tr>
<td>Quarterly Safety Audit</td>
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<tr>
<td>Bi Annual ACE Evaluation</td>
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<tr>
<td>Safety Monthly Meeting</td>
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<td>60</td>
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<table>
<thead>
<tr>
<th>Leading Indicators - Contractor</th>
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<th>YTD</th>
<th>Goal</th>
<th>YTD as % of Goal</th>
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<tbody>
<tr>
<td>Training</td>
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<td>158</td>
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<tr>
<td>Toolbox Talks</td>
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<tr>
<td>Site Inspections</td>
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<td>16%</td>
</tr>
<tr>
<td>SWP Review/Audit</td>
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<td>-</td>
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</tr>
<tr>
<td>New Employee Orientation</td>
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<td></td>
</tr>
<tr>
<td>Emergency Preparedness</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>0%</td>
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</tbody>
</table>
Technology To Enhance Safety

New York City Transit
NYC T EFFORTS

- Safety Technology Task Force and Technology Outreach for Productivity and Safety Group
  - Cross Departmental Teams
  - Initiated in 2015

- Objectives
  - Reduce Employee/Customer exposure to injuries/accidents
  - Develop new processes and identify/adopt technology to enhance safety and improve productivity
Department of Subways Initiatives

- McCulloch Trac Rail Transposer (TRT) “Critter” to move from a manual process of handling rails for CWR to a mechanical means
- First “Critter” received in April 2016
- Three “Critters” currently being used
Audible Pedestrian Warning Systems – Produces audible voice to alert to pedestrians when making left or right turns

- 288 buses in pilot program

Collision Warning System – Provides proactive operator warning to prevent potential forward and side collisions

- 145 buses in pilot program

Leading indicators reported in Transit/Bus and Safety Committees
Track Intrusion Detection Systems Pilot

- Identify and pilot track intrusion detection systems to reduce the risk of contact between trains and individuals/objects on the track in station areas

- First pilot completed July 2016
  - Four vendors/technologies were tested/evaluated
    - Molinari – Laser Detection
    - TelSys – CCTV w/ Video Analytics
    - Honeywell – RF Detection
    - Parsons/Sightlogix – Thermal Imaging (disqualified due to numerous false alarms and equipment failure)

- Test and evaluation results showed different technologies suited different station configurations.
Track Intrusion Detection Systems Pilot

- To accommodate the wide variety of station configurations and novel nature of this industry, additional vendors/technologies will be tested/evaluated in Phase 2
  - Four vendors/technologies will be tested/evaluated
    - Xtralis – IP camera system with server-side analytics
    - Duos – Laser detection and real-time video analytics
    - EIA – Integrated Thermal Cameras, Laser/Sensors Video System
    - Clearsy – Laser technology pattern recognition and IP cameras
  - Anticipated award June 2017
Additional Initiatives

- Identify mechanical means of moving heavy equipment down to subway level and up to street level
- Produce videos of example of current process
- Video on the MTA website to solicit vendors to propose alternative methods
- Movex stair climbing device identified
Movex Stair Climbing Program

- 12 month lease for test and evaluation of 2 units developed
- Leased Movex stair climbing devices delivered mid February 2017
- Testing and evaluation underway in Subways
Enhanced Employee Protection System (EEPS)

Metro-North Railroad
What is EEPS?

- The Enhanced Employee Protection System (EEPS) was implemented in 2014.
- Effective on the Hudson, Harlem and New Haven Lines, including New Canaan and Danbury Branches.
- EEPS is a redundant safety measure which supplements our current on-track protection procedure where the Rail Traffic Controller (RTC) applies blocking devices.
- EEPS has become an important part of track safety.
- Metro-North received APTA’s highest safety award, the Gold Award for Safety, for EEPS.
How does EEPS work?

Roadway Worker In Charge (RWIC) requests a track for foul time.

A 5-digit code and the Limits of Authority associated with the applied Blocking Device is forwarded to the RWIC.

Once the 5-digit code is sent, the Rail Traffic Controller cannot remove the Blocking Device.

When the work has been completed and the RWIC has cleared the limits of Authority, the Rail Traffic Controller is notified.

Rail Traffic Controller is given the 5-digit Blocking Device Release code by the RWIC and the Blocking Device is removed.
EEPS in action
Technology to enhance driver experience (safety and environment)
Process of Removing Toll Plaza Gates and Toll Plazas has begun

- To date, we have removed plazas, replaced them with cashless tolling at 3 facilities (Queens Midtown, Hugh L. Carey Tunnels and Henry Hudson Bridge)

- Cashless tolling ‘go live’ scheduled for two Rockaway Bridges next week

- RFK Bridge scheduled for this summer and the remaining three bridges (Bronx Whitestone, Throgs Neck and Verrazano Narrows bridges are scheduled for Fall of this year.

- By end of this year, all our Bridges and Tunnels will be switched to cashless tolling
B&T-Open Road Tolling
B&T-Open Road Tolling

The Benefits of Open Road Tolling:
- Improved traffic safety
- Improved employee safety
- Reduced drive time on bridges/tunnels
- Improved air quality
B&T-Open Road Tolling

- Use of additional Technological Advances
  - Partnering with a smartphone travel application to improve B&T’s traffic incident response and to more directly provide the public with information about facility conditions.
  - Implementing TRANSCOM enhancements to improve the availability of travel time information displayed on roadway variable message signage.
  - Piloting connected vehicle technology application to improve over height vehicle detection capabilities for tunnels.
Technology Based Training Applications

Long Island Rail Road
E Train

- Support Management, Administrative, and Computer Development Needs
- Transportation Services - customized curriculum for all levels of management for Talent Management
- Available 24/7
- Available on or off the property
- 2,500 off-the-shelf courses
Custom LIRR Training

- Available 24/7
- Available on or off the property
- Mobile Hotspots (bring training anywhere)
- Wifi infrastructure being built to support all forms of technology based training
- Traditional classrooms being converted into blended learning environments for simultaneous instructor led and technology instructional methods, i.e. Stormwater Management
What’s Available?

- **Transportation**
  - 49 CFR Part 228 Electronic Hours of Service
  - Fare Collection
  - Lessons (13), Virtual Bulletin Boards (VBB) (11), Training Aids (16)

- **Engineering**
  - 49 CFR Part 217 Railroad Operating Rules
  - 49 CFR Part 220 Railroad Communications
  - Lessons (2), Training Aids (4), VBB (5)

- **Maintenance of Equipment**
  - 49 CFR Part 218 Railroad Operating Practices
  - Lessons (4), Lesson Plans (8)

- **Safety Department**
  - Hazardous Waste Management
  - Lessons (3), Resource Library (7)

- **Stations**
  - Station Ticket Issuing Machine
  - Lessons (2)

- **Corporate**
  - Corporate Policies & Procedures
Virtual Bulletin Boards

Transportation Training Aids
Study & Review Material for Transportation Employees

PC Maps  ASC Malfunctions  Rules in Effect  Pre-Condutor Bor  Authorities

Yard Maps  PC Training Aid  Most Restrictive  Jamaica & Vicinity  F & Harold Map

Signal Exam  Rule 92 & 81-102  Periodic Aid  Rules Practice Exam  Jamaica Maps

CLICK A THUMBNAIL TO VIEW THE PDF DOCUMENT
Virtual Bulletin Boards
Moving beyond a Pilot Program

- Established program docs
- Created FAQs

MTA Obstructive Sleep Apnea Program
Frequently Asked Questions

What is Obstructive Sleep Apnea?
Obstructive sleep apnea (OSA) in adults occurs when a person’s airway becomes partially or completely blocked many times during sleep. The result of this interrupted breathing pattern is severely fragmented sleep, as the individual must wake up enough to regain muscle control in the throat and to reopen the airway. This constant awakening means that people with apnea do not get sufficient or good quality sleep, resulting in sleepiness and/or fatigue. But, because OSA sufferers typically do not gain full consciousness when they wake after apnea episodes, they often do not know the cause of their sleepiness and/or fatigue. Along with sleepiness and/or fatigue, OSA can cause significant physiological and psychological distress. OSA is a treatable disorder and, with proper diagnosis and treatment, many people have complete resolution of their symptoms.

What are we doing about OSA?
We are beginning a program to screen and treat employees for a sleep disorder that can affect health and safety. The purpose of this document is to provide information that will help explain this program and answer questions that you might have.

Why are we doing this?
It’s the right thing to do for the safety of our customers; employees and, the general public; and, it truly will be a life-changer for those diagnosed and treated for OSA.
Where are we Now?

- Contract awarded to 4 vendors to support testing and treatment
- Screening now underway
- Target population approx. 20,000
- Risk-based, tiered approach
- Wellness program to include sleep education
In Service for MTA Physicians

- Gathered all MTA Physicians for In-Service training devoted to the importance of sleep, sleep health, and sleep disorders
- More than an OSA program
- Blending wellness efforts with clinical assessment
Sleep Apnea Risk Factors

- Obesity
- Increasing age
- Male gender
- Upper airway abnormalities
- Family history
- Alcohol or sedative use
- Smoking
- Associated conditions
Demographics
- Male
- Average age 51
- Sedentary
- Smoker
- Poor eating habits

Medical conditions
- Less healthy than average
- >2 medical conditions
- Cardiovascular disease present
What if an Employee is Diagnosed?

- We know employees have OSA
- Important to develop trust
- Mitigate risk by screening quickly
- Keep employees working