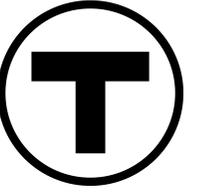


Massachusetts Bay Transportation Authority

MBTA Safety Report

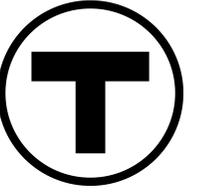
Nancy Prominski, Chief Environmental Health & Safety Officer

June 24, 2019

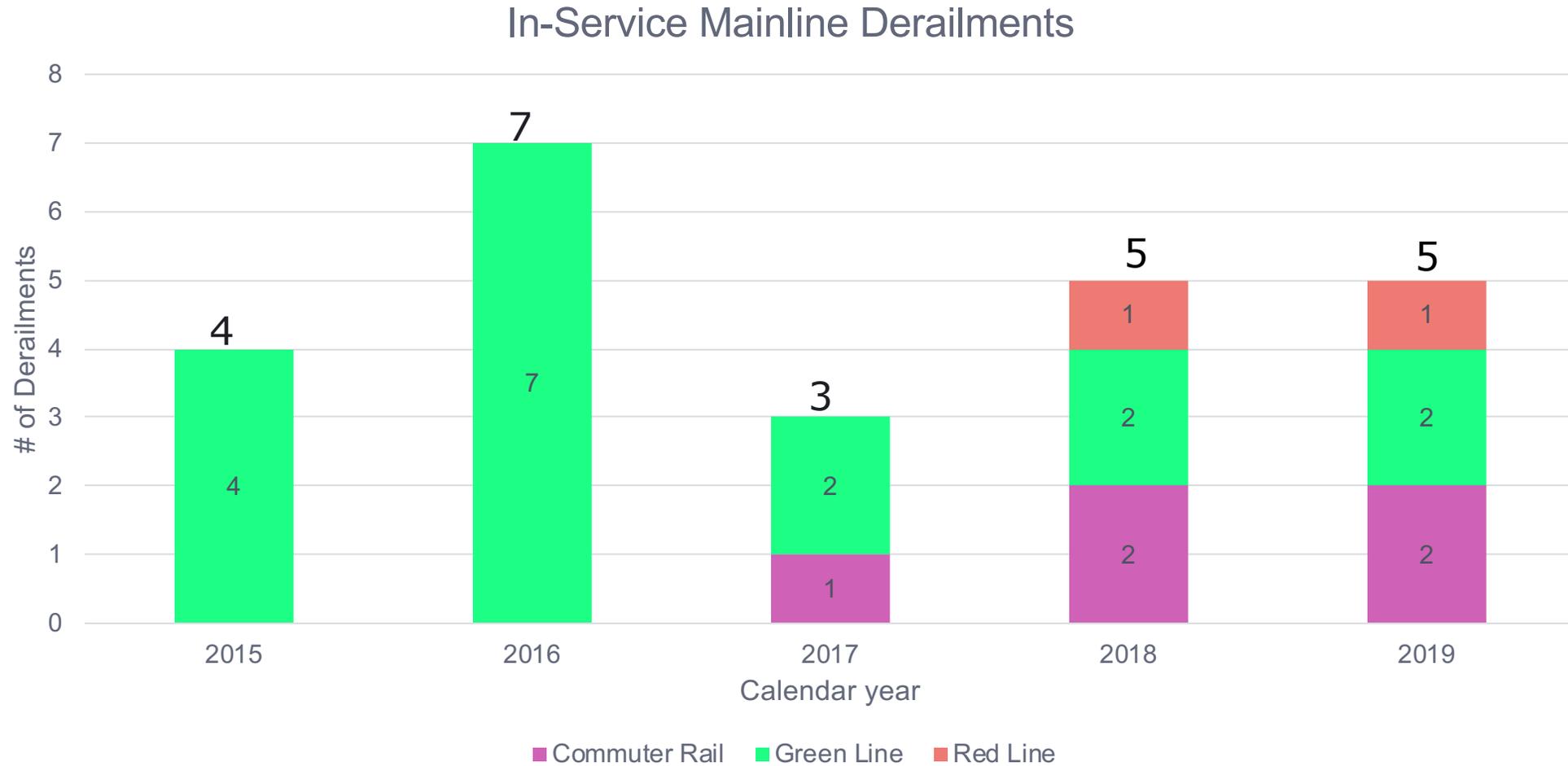


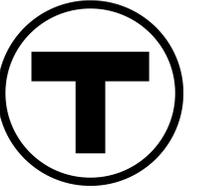
Overview

- Summary
 - Highlight the MBTA's ongoing efforts to improve safety across the system for both employees and customers
 - Explain outcome and incident tracking and resulting corrective actions taken
 - Share key achievements in safety promotion and address areas of concern
- Outline
 - Safety trends and auditing
 - Safety Management System (SMS) and Public Transportation Agency Safety Plan (PTASP)
 - Programs and Initiatives
 - Customer-facing
 - Employee-facing



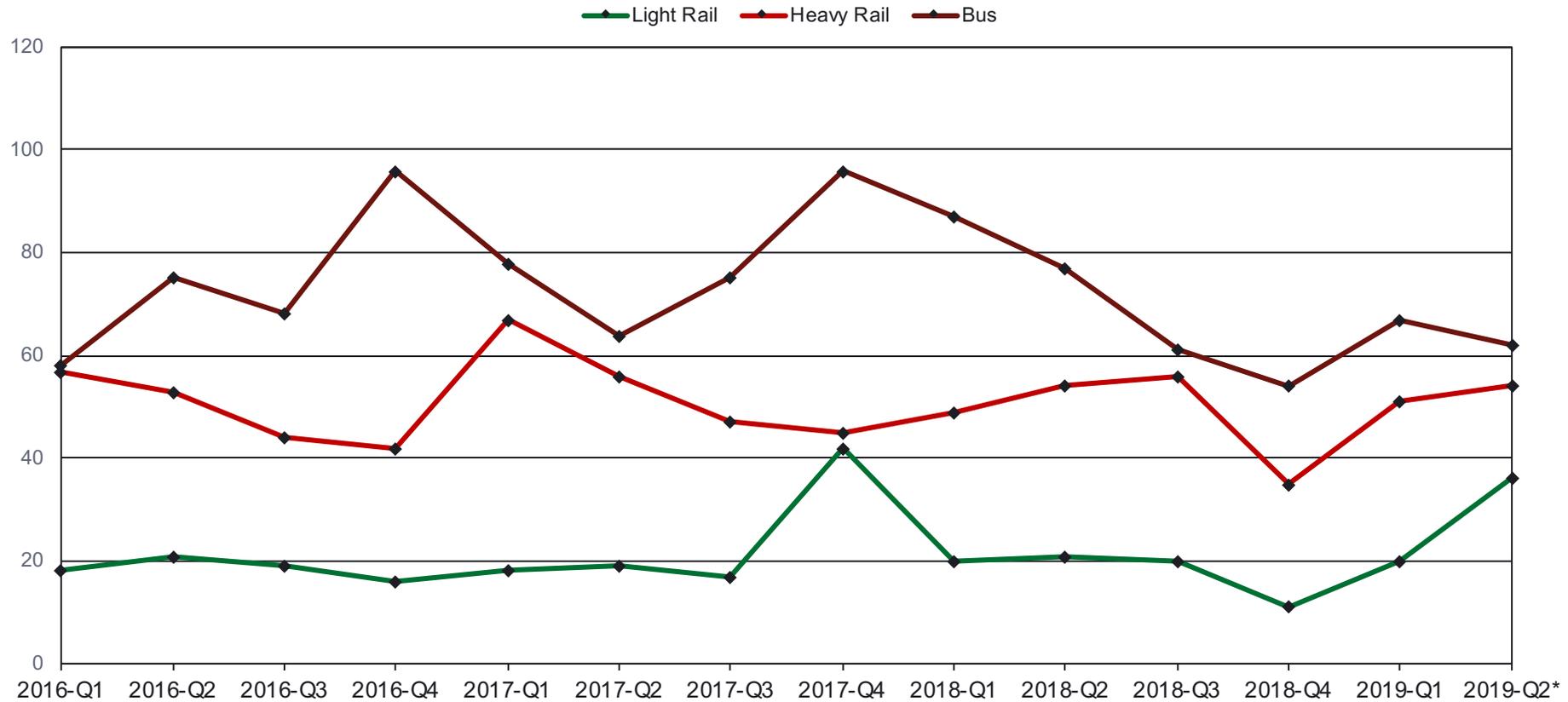
In-Service Mainline Derailments





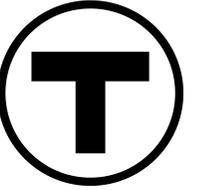
Customer Injury Trends

Customer Injuries 2016 – Present*



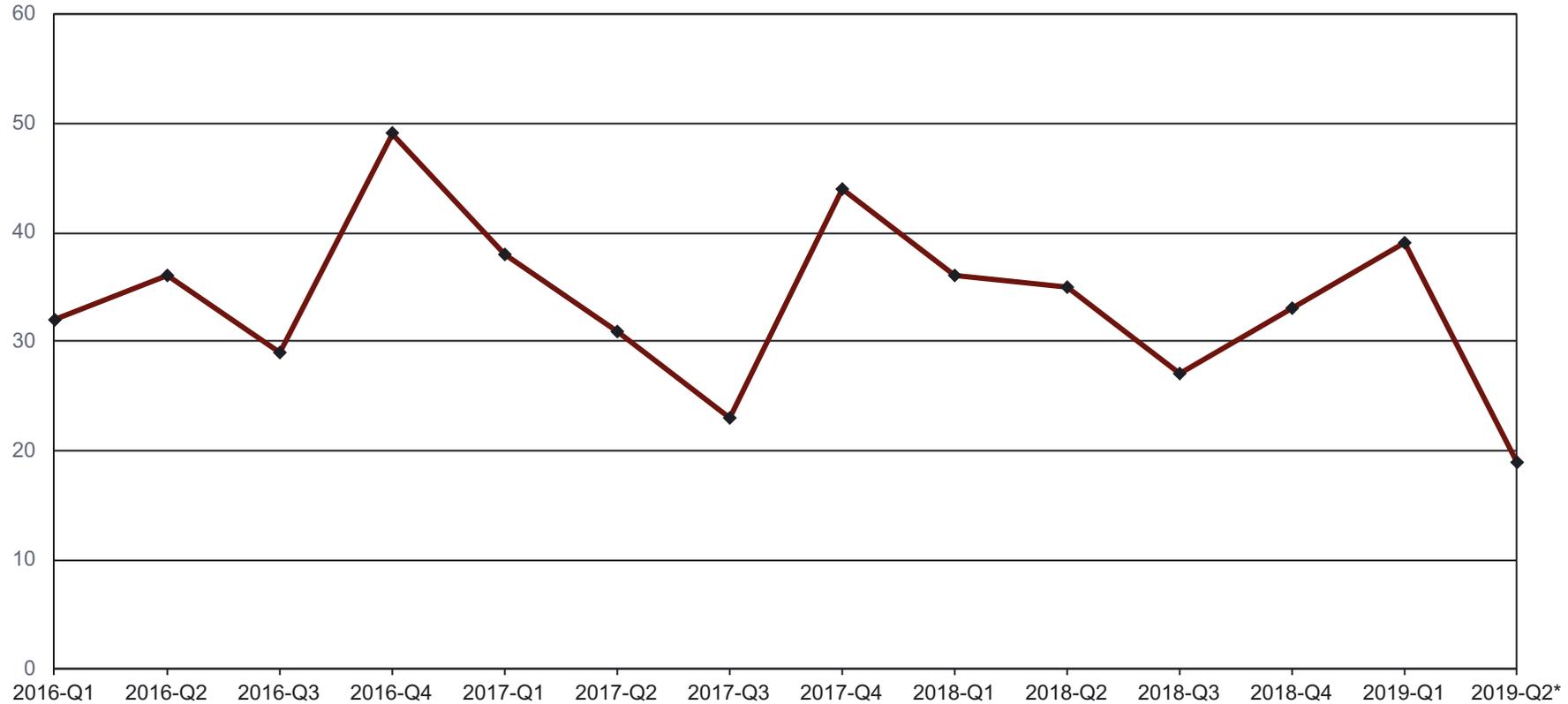
Customer Injuries are injuries on MBTA property or onboard an MBTA vehicle requiring immediate transport from the scene for medical attention.

* 2019-Q2 Totals as of 6/19/19

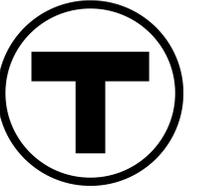


Bus Collision Trends

NTD Reportable Bus Collisions 2016 – Present*



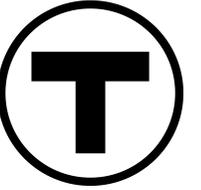
National Transit Database reportable collisions include a collision resulting in a fatality, serious injury, or immediate transport away from the scene for medical treatment; a collision resulting in >\$25,000 in property damage; or a collision resulting in a vehicle being towed from the scene due to disabling damage.



Auditing

- **DPU 2018-2020 Triennial Audit of MBTA**

- In March, the DPU published their 2018 Annual Update Report
- DPU conducted over 300 targeted and random audit activities to assess compliance with the MBTA Safety Plan
- No hazards or findings requiring a Corrective Action Plan by the MBTA were identified



Public Transportation Agency Safety Plan - Requirements

FTA Final Rule 49 CFR 673 – Public Transportation Agency Safety Plan (PTASP)

- Supersedes System Safety Program Plan requirements of 49 CFR 659
- Requires restructured safety plan and integration of SMS principles
- Will replace MBTA's currently approved and implemented Safety Transit Plan and 21 element-based safety system
- New plan must be certified by DPU on **July 20, 2020**
- Applies to:
 - Transit Rail
 - Bus
 - Para-transit
- Exempt:
 - Commuter Rail – Overseen by FRA
 - Ferry Service – Overseen by US Coast Guard

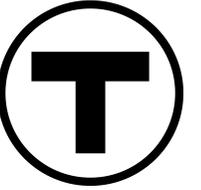
New Requirements:

SMS

- Enhanced Safety Statement issued/signed by SMS Accountable Executive/GM
- SMS Executive responsible for implementation
- Employee Safety Reporting System where employees can report safety conditions to senior management without fear of retaliation/discipline
- Data collection – Safety Performance Targets – at a min.:
 - Fatalities
 - Injuries
 - Safety Events
 - System Reliability

Plan

- Plan must document agency's updated SMS processes
- Signed by the GM, approved by FMCB
- Certified by the DPU
- Annual internal review, update, and certification



Public Transportation Agency Safety Plan - SMS

- Builds on system safety concepts, adding:
 - More management commitment, oversight, and accountability for safety
 - Enhanced safety performance metrics and targets - DATA
 - Strengthened safety culture
- The intent – bring management and labor together to:
 - Collect, share, and analyze safety data more effectively
 - Identify and control risk better
 - Detect and correct safety problems earlier
 - Measure safety performance more precisely



Four Main Components of SMS:

1. Safety Management Policy

- Policy Statement
- Accountabilities and Responsibilities

2. Safety Risk Management

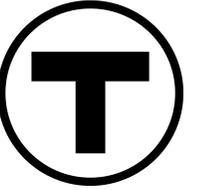
- Hazard Identification and Analysis
- Safety Risk Evaluation and Mitigation

3. Safety Assurance

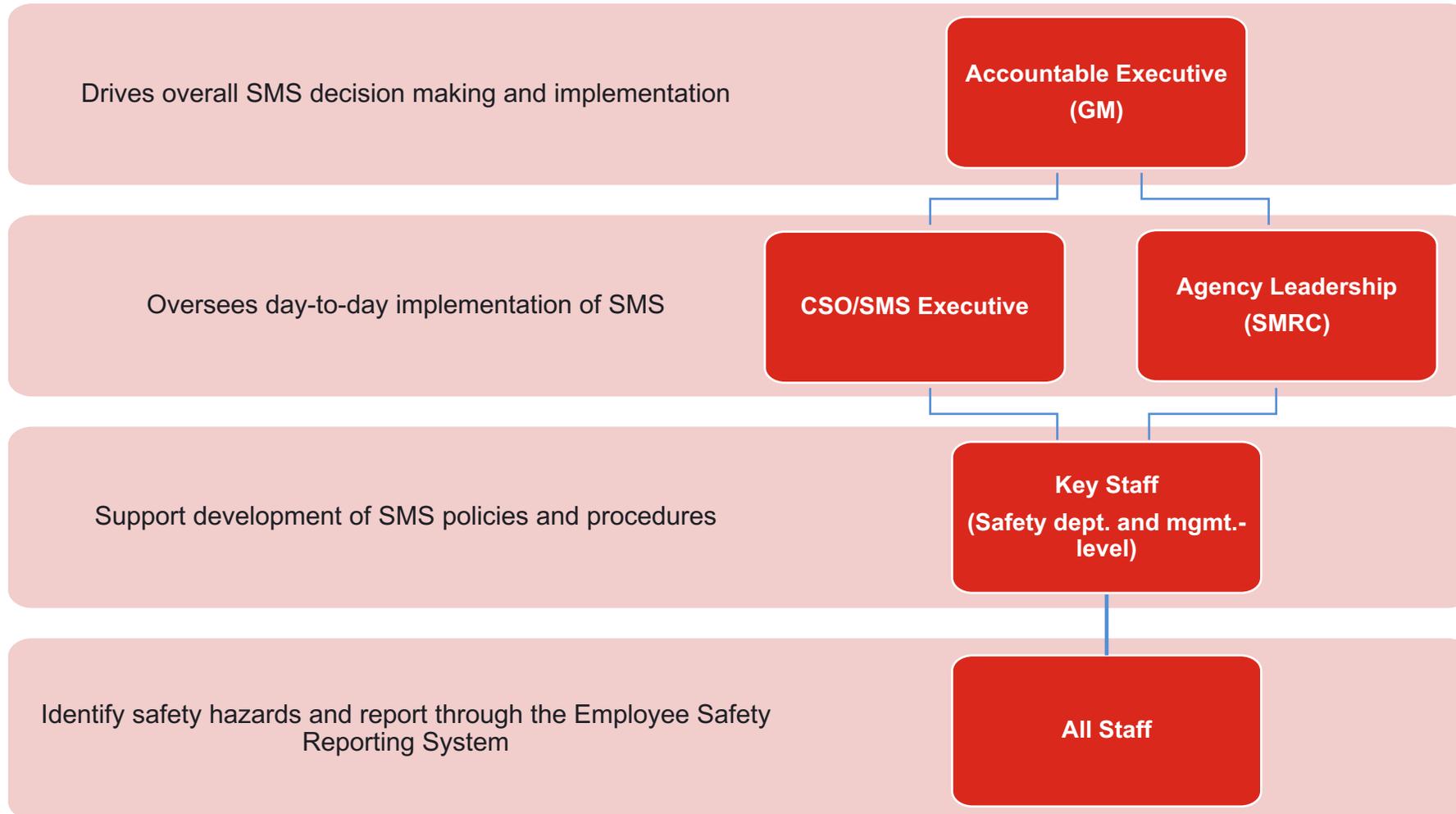
- Safety Performance Monitoring and Measurement
- Management of Change

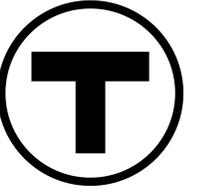
4. Safety Promotion

- Safety Communication
- Competencies and Training

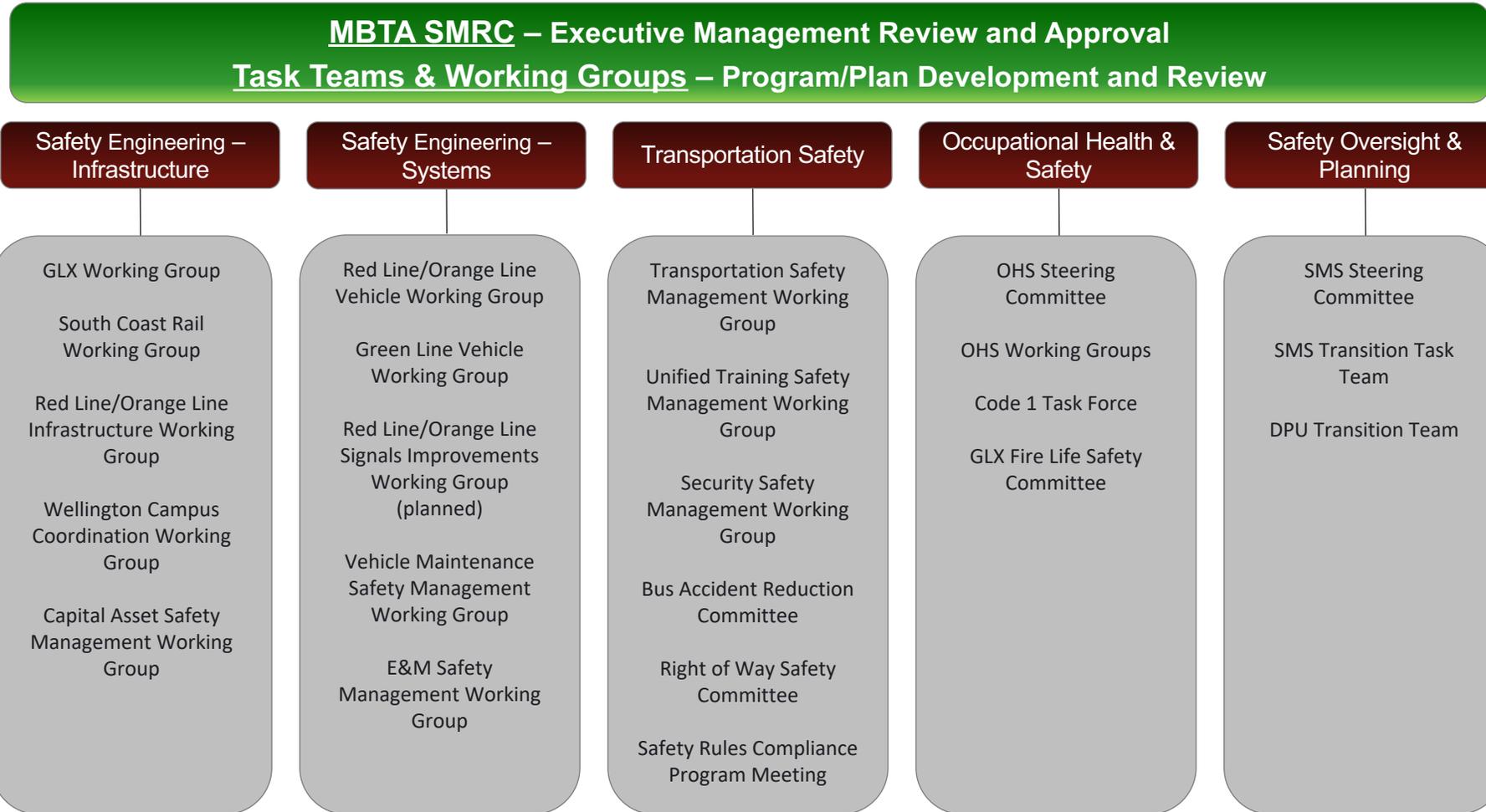


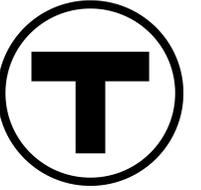
SMS – Key Roles and Responsibilities





Safety Department Collaboration – SMRC, Task Teams, Working Groups

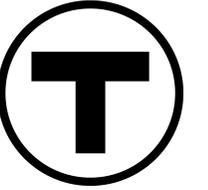




Public Transportation Agency Safety Plan – Plan Development

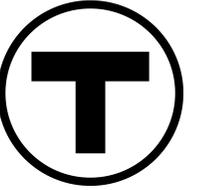


- PTASP and SMS Development
 - SMS Steering Committee and Task Team – created to oversee safety plan and SMS development and implementation
 - Safety Plan Schedule:
 - Steering Committee and SMRC review/approval – **September 2019**
 - GM/SMS Accountable Executive review – **December 2019**
 - DPU review – **January 2020**
 - Back to SMRC for final approval, if required – **February/March 2020**
 - GM and FMCB final review and approval – **April/May 2020**
 - DPU approval and certification – Regulatory Deadline **July 20, 2020**
 - SMS Development and Implementation – multi-year phased process
 - Phased approach – manageable series of steps, allocation of resources, milestones
 - Schedule and milestones



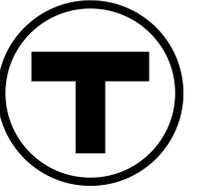
Workplace Safety Improvement Initiative – OSHA Program Requirement

- 3/9/18 - Governor Baker signed a bill amending MGL c 149 Sec 6 ½ to clarify employee safety requirements in public sector workplaces.
 - Law requires all public sector employers to implement methods of reducing work-related injury and illness that meet the minimum requirements provided under the federal Occupational Safety and Health Act of 1970.
 - Law enforced at state level by Department of Labor Standards (DLS)
- 2/1/19:
 - DLS OHS oversight became effective
 - DLS may conduct onsite inspections at MBTA facilities
- DLS standard 454 CMR 25 directly extends OSHA regulations to executive branch state agencies.



Workplace Safety Improvement Initiative – MBTA OHS Program

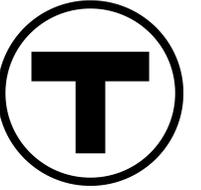
- Occupational Health & Safety (OHS) Program Status:
 - **OHS Safety Bulletins:** Nov 2018 - MBTA Safety published 26 bulletins which serve as guidance documents throughout the development/implementation process of the OSHA-compliant OHS program.
 - **Job Hazard Analyses (JHAs):** MBTA Safety is collaborating with various departments to complete JHAs throughout the workplace. JHAs:
 - Help identify job-related hazards
 - Assist in developing mitigations, controls, proper resource allocation
 - Form the basis for many OSHA-related programs
 - **OSHA-compliant written safety programs:** MBTA Safety has drafted 5 safety programs to be reviewed by OHS steering committee with a schedule for completion of remaining programs.
- MBTA Safety is incorporating best practices into the existing OHS Plan with the intent to make the revised plan available by summer 2019.



Workplace Safety Improvement Initiative – OHS Program Progress

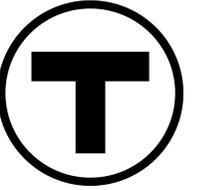
- **Personal Protective Equipment (PPE) Program:** written program approved by SMRC in May 2019; moving to full program development/implementation.
- **Electrical Safety and Lock-Out/Tag-Out (LO/TO) Program:** to be reviewed by the OHS Steering Committee at the next committee meeting.

OHS Program	Estimated Program Publication Date
Personal Protective Equipment (PPE)	Quarter 2 – 2019
Electrical Safety	Quarter 3/4 – 2019
Lockout/Tagout	
Confined Space	
Hot Work	
Respiratory Protection	Quarter 1 – 2020
Fire/Life Safety and Emergency Egress	
Hearing Conservation	
Bloodborne Pathogens	Quarter 2 – 2020
Fall Protection	
Chemical Hazardous Communication	



Workplace Safety Improvement Initiative – Capital Improvement Inspections

- MBTA Safety works with the OHS Steering Committee to initiate and implement OHS Capital Improvement Projects
- Safety, management, and labor have been conducting comprehensive facility inspections to determine high-priority safety-related Capital Improvement projects
- MBTA Safety Capital Improvement Grant funds used to date:
 - ✚ Fall Protection
 - ✚ Outdoor Lighting
 - ✚ Hose Reel Upgrades
 - ✚ Steam Washer Cabinets
 - ✚ Garage Exhaust/Tail Pipe Hoses
 - ✚ Steel Grate Replacement
 - ✚ Steel Plate Elimination
 - ✚ Vehicle Maintenance Facility Asphalt
 - ✚ Bus Garage Structural Assessments
 - ✚ Quincy Bus Garage Structural Repair
 - ✚ Bus Maintenance Facility Bird Netting
 - ✚ Motor Up-Enders
 - ✚ Grab Iron Bars
 - ✚ Torrent Parts Cleaners
 - ✚ Vertical Panel Saw
 - ✚ Shop Floor Smoothing



Safety Certification

- Safety Certification Program authored by MBTA Safety
 - Approved by SMRC and MBTA Depts.
 - Adopted by DPU
- Audited twice since 2015 with **no findings**
- Includes Infrastructure, Vehicles, & Systems
- Includes all projects, not just FTA mandated
- MBTA Safety Certification Program recognized by APTA as an **Industry Best Practice**
- Safety Certification – Systems, Infrastructure, and Vehicles
 - Ensures safety concerns and hazards are adequately addressed prior to revenue service
 - Process begins during the design/planning phase
 - A working group comprised of the MBTA Project Team (PM, RE), Design Consultant, Contractor, and Safety Department rep oversee the accomplishment of the safety objectives for each project development phase
 - Safety critical items (certifiable items list or CIL) are identified through Preliminary Hazard Analyses (PHA) and Threat and Vulnerability Assessments (TVA)
 - Process continues throughout the construction/procurement/integration phases and is completed prior to operational use
 - MBTA Safety participates in all phases of the Certification process
 - CSO certifies
- Example Projects: PTC; GLX; New Green, Red and Orange Line Vehicles; Test Tracks; South Coast Rail

MBTA Safety Certification Program

Document Control Number: SAFE1.09.00

Prepared by:

Document Control:

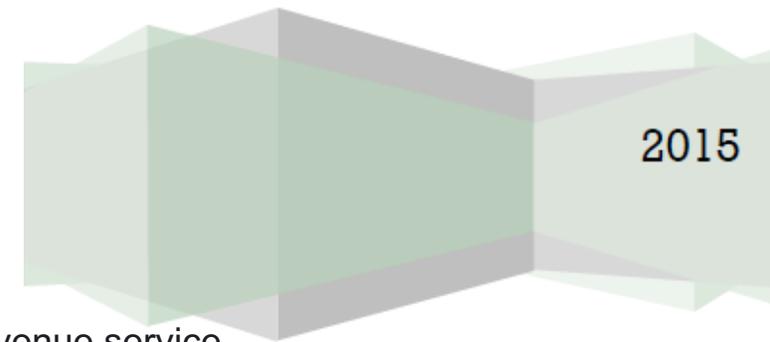
Directed and Approved by:

MBTA Safety

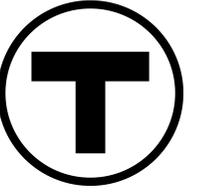
Steven V. Culp

Ronald W. Nickle

Chief Safety Officer



2015

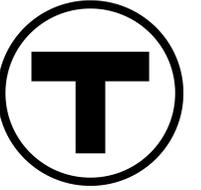


Commuter Rail Safety

As safety oversight for the commuter rail, MBTA Safety:

- Monitors Keolis' compliance with federal regulations, the Commuter Rail Operating Agreement, MBTA safety program requirements, and industry best practices
- Collaborates with MBTA Railroad Operations and Keolis to identify, resolve, and track safety issues
- Responds to and investigates emergency events and hazardous conditions
- Works closely with representatives from the Federal Railroad Administration (FRA), Keolis, and various MBTA departments to ensure the resolution of identified safety issues





Safety Promotion

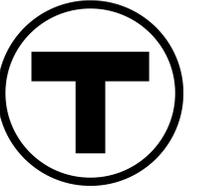
Safety Hotline

- Employees can report safety conditions and/or hazards directly to the MBTA Safety department
- Reports can be made anonymous/confidential
- Safety Department tracks safety concerns and monitors any corrective actions

General Manager Safety Excellence Awards

- First Annual Award ceremony held on January 22, 2019 to recognize employees that demonstrated safety excellence or provided safety input to effect a positive change in 2018
- Managers across the MBTA submitted nominees
- From the nominations, 34 employees were selected for commendation with an additional 21 honorable mentions
- Planning for the 2019 ceremony is currently underway

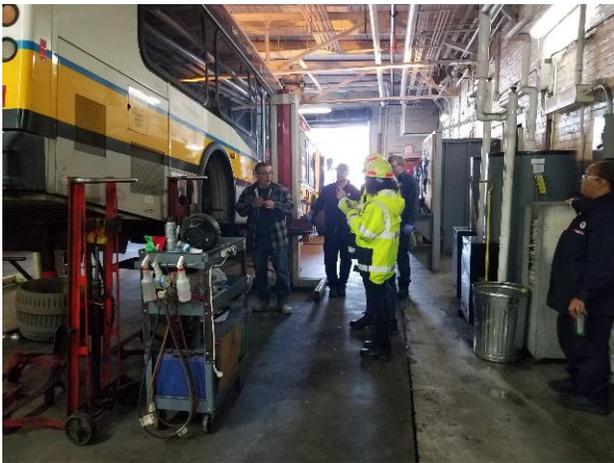


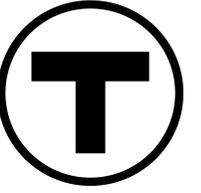


Safety Department Training – Classroom and Hands-On

MBTA Safety collaborates to conduct safety training, including:

- Federally approved safety courses with Transportation Safety Institute (TSI)
- Right of Way (ROW) Training at Cabot with Subway Ops Training
- New Hire Training with Human Resources
- Bus Operator Safety Training with Bus Ops Training
- In-field training for Operations, E&M, and Construction Contractors
- Safety Flashes





Safety Department Outreach

Community Outreach

- MBTA Safety collaborates with Keolis, Transit Police, MassDOT, Mass Department of Health, FRA, Samaritans Inc., and Operation Lifesaver to conduct **public outreach and raise safety awareness**
- In an effort to **reduce trespasser strikes**, MBTA created a Rail Collision Reduction Committee, with stakeholders and subject matter experts on the national, state, and local level working collaboratively to study the issue

