



**Commonwealth of Massachusetts
Department of Public Utilities ("DPU")
Rail Transit Safety Division**

**DPU State Safety Oversight
Annual Report to MBTA Board of Directors
December 18, 2025**



Agenda



DPU Rail Transit Safety Division | December 18, 2025

Federal Requirement for State Safety Oversight ("SSO")

DPU Rail Transit Safety Team

SSO Functions

- Overview
- Reporting Thresholds and Trends in 2025
- On-Scene Responses in 2025
- Field Observations and Activity Trends in 2025
- CAPs and 2025 Monthly Reports
- Safety Certification
- Roadway Worker Protection ("RWP")
- Risk-Based Inspection ("RBI") Program

Initiatives & Activities of Note

- General Directive 24-1: Transit Worker Assaults
- SMART Database and Dashboards
- Grade Crossing Oversight

Roadmap Forward

Discussion / Q&A



DPU Rail Transit Safety is located above the South Station rail terminal in downtown Boston.

Photo credit: MBTA

Federal Requirement for SSO



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Federal law requires a State Safety Oversight Program ("SSOP") and State Safety Oversight Agency ("SSOA") for rail transit systems.

Thirty states – including Massachusetts – have rail transit systems required to have a Federal Transit Administration ("FTA")-certified SSOP.

MBTA subway (Red, Green, Orange, and Blue lines) is the only rail transit system in Massachusetts. DPU's Rail Transit Safety Division is certified as the Massachusetts SSOA.

FTA audited DPU's compliance with the SSOP regulation 49 C.F.R. § 674 and DPU's Program Standard. FTA's Final Audit Report in late 2024 found that **DPU has zero findings of noncompliance**. This is a notable improvement from the previous 2020 Final Audit Report which found sixteen findings of noncompliance.



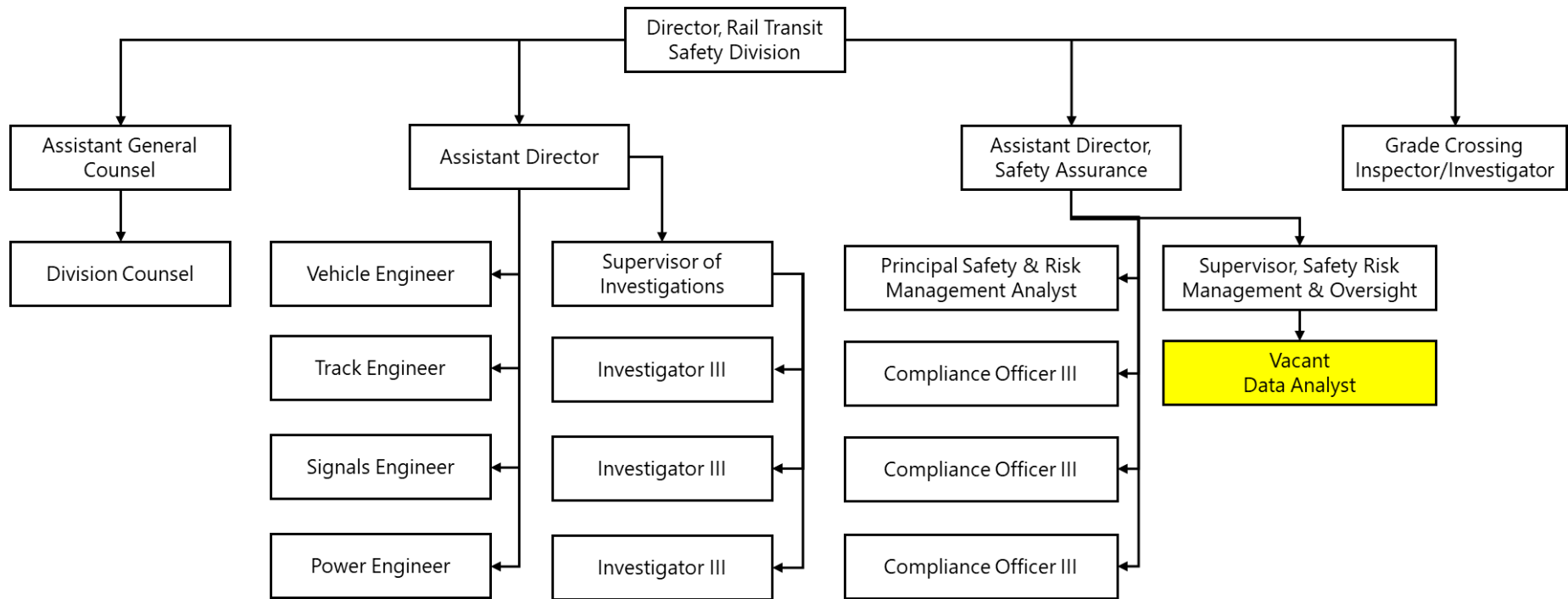
FTA's map of certified SSOPs across the country.

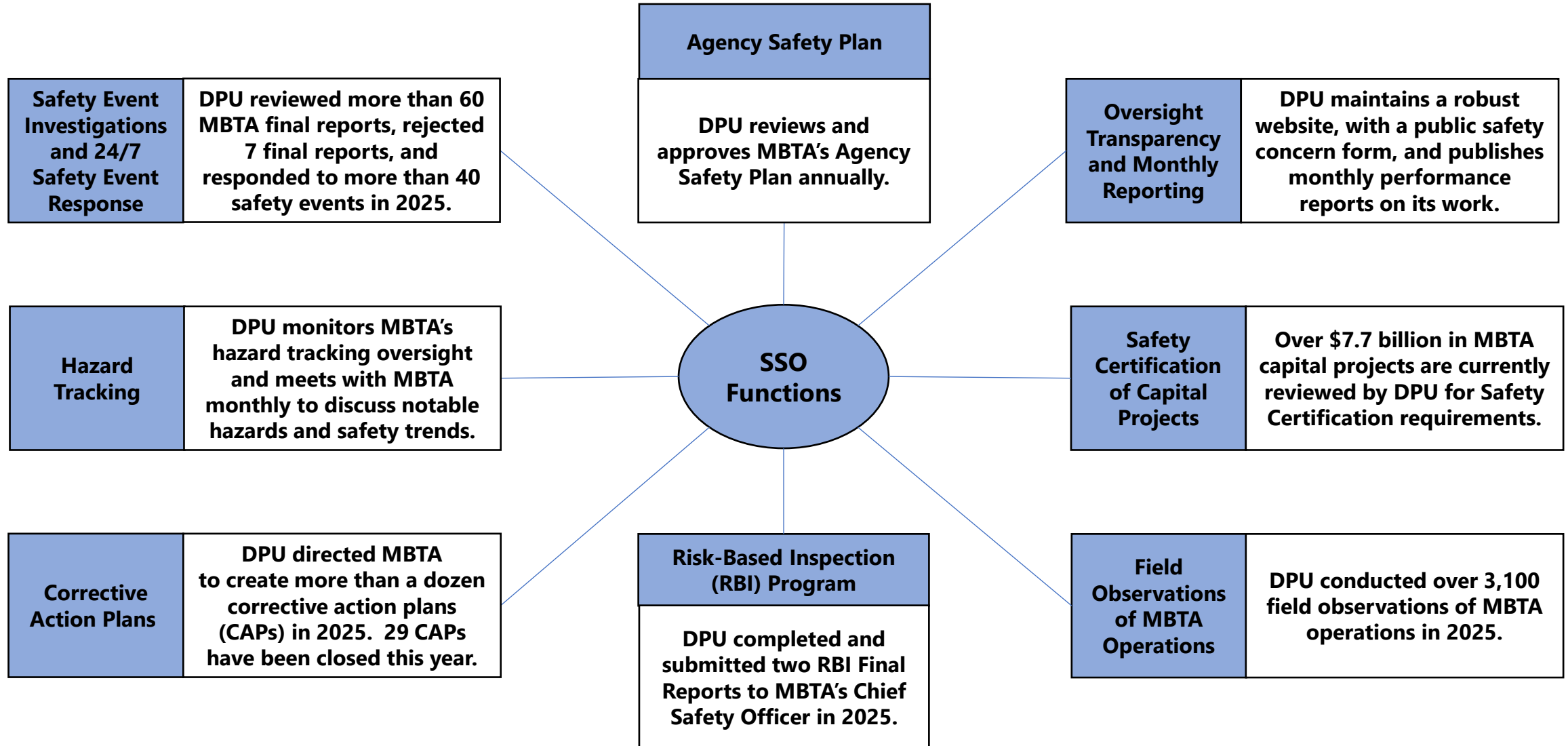
Illustration credit: FTA



In December 2022, DPU created the Rail Transit Safety Division separate from other transportation divisions' responsibilities and hired its first Director. Pursuant to an FTA Special Directive in 2022, the Division doubled in size from 9.5 team members in December 2022, to 19 as of December 2025.

The Division consists of:





Reporting Thresholds

FTA Reportable Threshold* <i>An event that involves any of the following:</i>	State Reportable Threshold
Fatality	Evacuation to the Right-of-Way, not life safety
Two or more injuries	Evacuation of a Station Area, not life safety
Collision: <ul style="list-style-type: none"> Resulting in one or more injuries; Between two rail transit vehicles; or Resulting in disabling damage to a rail transit vehicle 	Split Switch or Significant Switch Damage from a Rail Vehicle
Unintended train movement	Significant OCS/Pantograph Damage event that disrupts service for more 2 hours
Evacuation for life safety reasons	Significant Third Rail Damage event that disrupts service for more than 2 hours
Derailment	Near Miss – such as Flagging, Work Zones, or any Worker on or near the Right-of-Way
	Hard Couple/Tack On
	Train Collision with Motor Vehicle/Work Equipment, Infrastructure, Not FTA Reportable
	Runaway Rail Vehicle, includes Work Equipment, Not FTA Reportable
	Any significant safety event determined between DPU and MBTA as needing investigation. (Example: Safety Rules Violations)

Above are FTA's revised federal reporting thresholds, effective 1/1/25 (49 C.F.R. § 674).

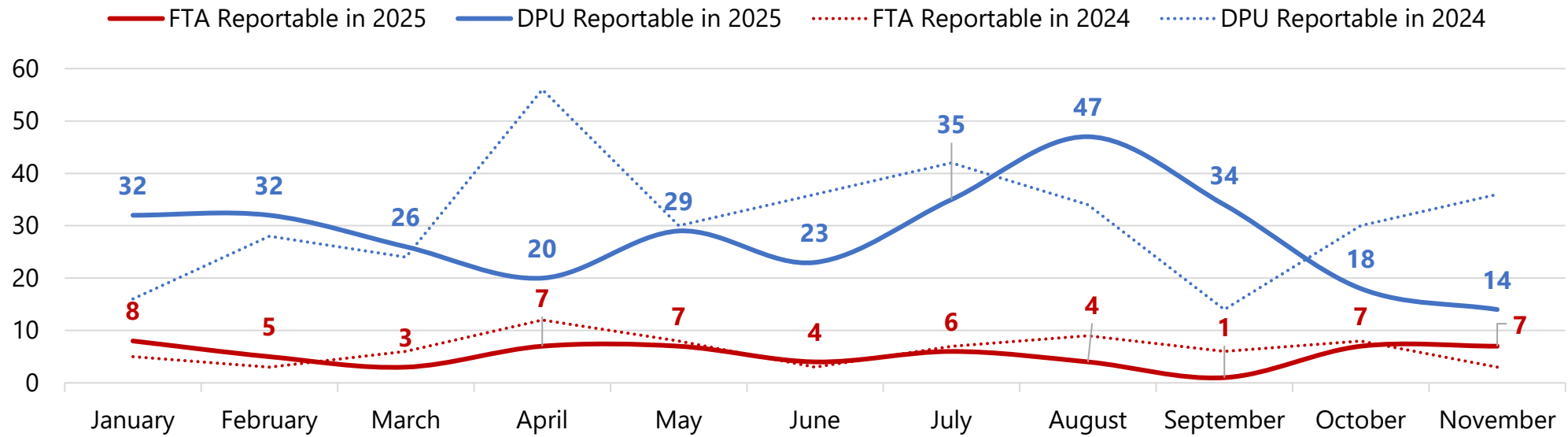
**FTA reportable events also must be reported to DPU.*

Risk Classification

DPU Risk Level	MBTA Incident Type
High	Collisions (All Types)
	Derailment (All Types)
	Near Miss
	Person – Assault on Employee/Transit Worker
	Person – Door
	Person – Pit
	Person – ROW Trespasser
Serious	Runaway Train
	Construction (All Types)
	Fire/Smoke
	Hard Train Coupling
	Infrastructure/Equipment (All Types)
	Person – Alighting
	Person – Boarding
	Person – Employee Injury
	Person – Gap
	Person – Personal Security Event
	Person – Platform
	Security (All Types)
	Split Switch (All Types)
	Violation (All Types)
	Unsafe Condition/Action
Medium	Person – Station (Other)
Low	Person – Elevator
	Person – Escalator
	Person – On Board
	Person – Stairs



2025 MBTA Reportable Safety Events By Month - Top 5 Event Types Per Month (Color Coded by Reportable Entity)



Speed Violation	Speed Violation	Speed Violation	Rules Violation	Speed Violation	Speed Violation	Speed Violation	Speed Violation	Speed Violation	Speed Violation	Signal Violation
Collision - Train on Train	Rules Violation	Rules Violation	Speed Violation	Rules Violation	Signal Violation	Rules Violation	Rules Violation	Rules Violation	Door Violation	Rules Violation
Signal Violation	Wrong Route	Wrong Route	Signal Violation	Wrong Route	Rules Violation	Door Violation	Door Violation	Door Violation	Signal Violation	Speed Violation
Rules Violation	Signal Violation	Signal Violation	Collision with Person	Collision with Object	Wrong Route	Near Miss	Signal Violation	Collision - with Vehicle	Collision with Person	Door Violation
Collision with Person	Inf./Equip. Pantograph	Door Violation	Door Violation	Signal Violation	Derailment – Main Line	Wrong Route	Wrong Route	Derailment - Maint. Vehicle	Collision – Train on Train	Derailment - Maint. Vehicle

*Numbers in graph are for 2025 through December 1st.

Out of a total of **2,025** events, **59** were FTA reportable, **310** were DPU reportable.

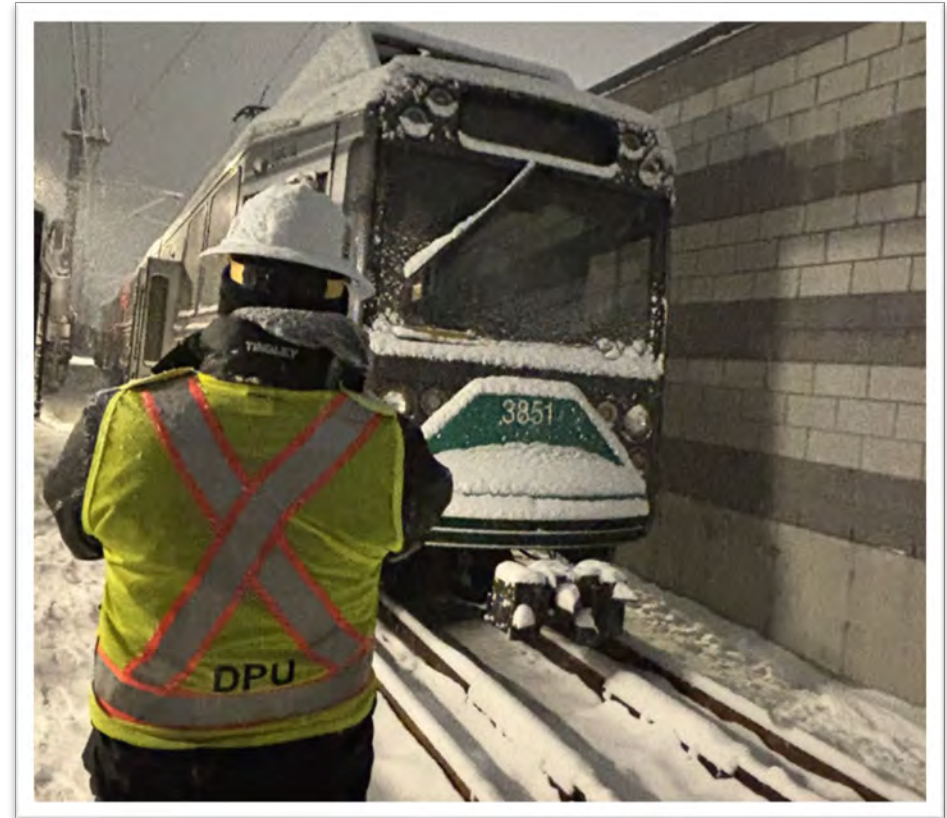
On-Scene Response

DPU maintains an “on call” rotation of staff who respond to calls from MBTA’s Operations Control Center (“OCC”) for certain types of rail safety events.

These event types include, but are not limited to:

- Derailments and split switches;
- Life safety evacuations of railcars and stations;
- Damage to third rail or overhead power;
- Fire/smoke events;
- Rail transit vehicle collisions;
- Serious injuries; and
- Fatalities.

While on scene, DPU oversees the thoroughness and sufficiency of MBTA's initial investigation. DPU also collects its own evidence and documents its observations to support DPU's later review of MBTA's Investigation Report. DPU conducted 41 on-scene responses this year as of December 1, 2025, as detailed on next slide.



A DPU on call investigator documents the scene following a train-on-train collision in East Somerville in 2025.

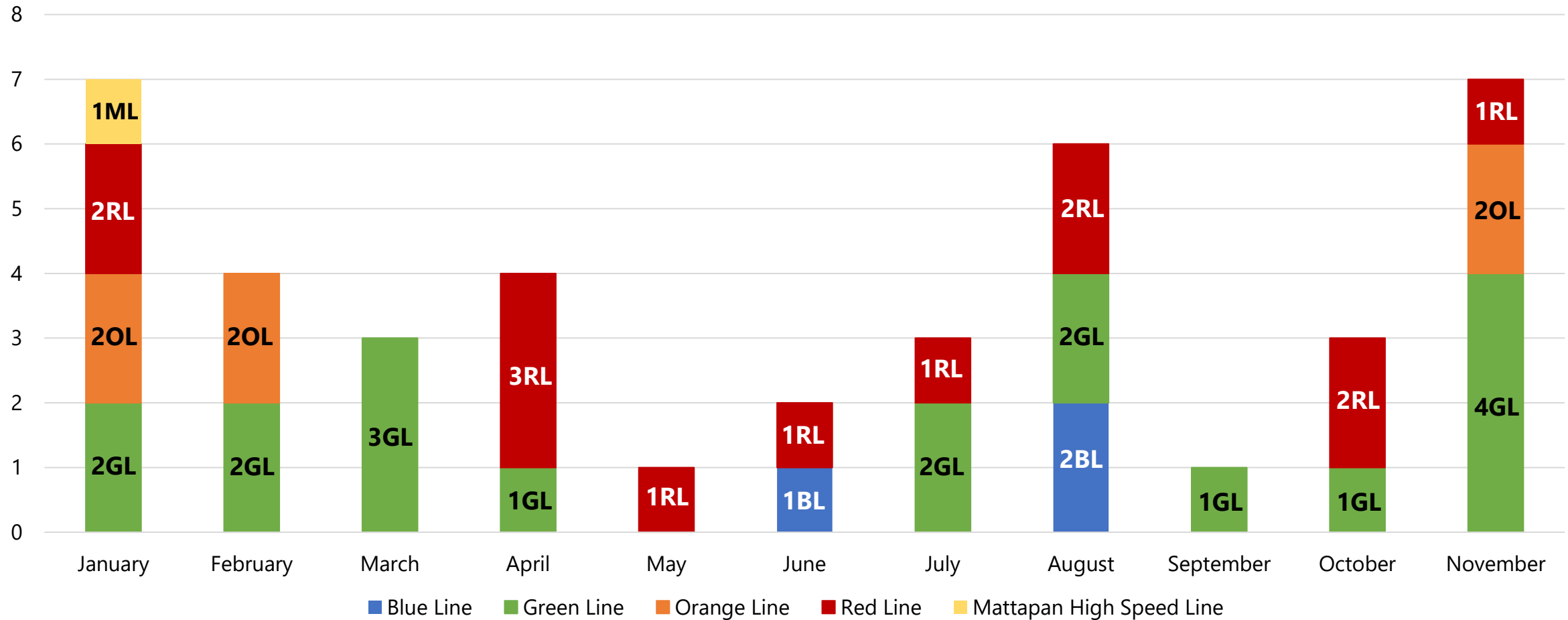
DPU File Photo

SSO Functions



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DPU On-Scene Incident Response, Month-Over-Month by Line in 2025*



*Numbers current as of December 1, 2025.
Incident Response is a small subset of all DPU field work.

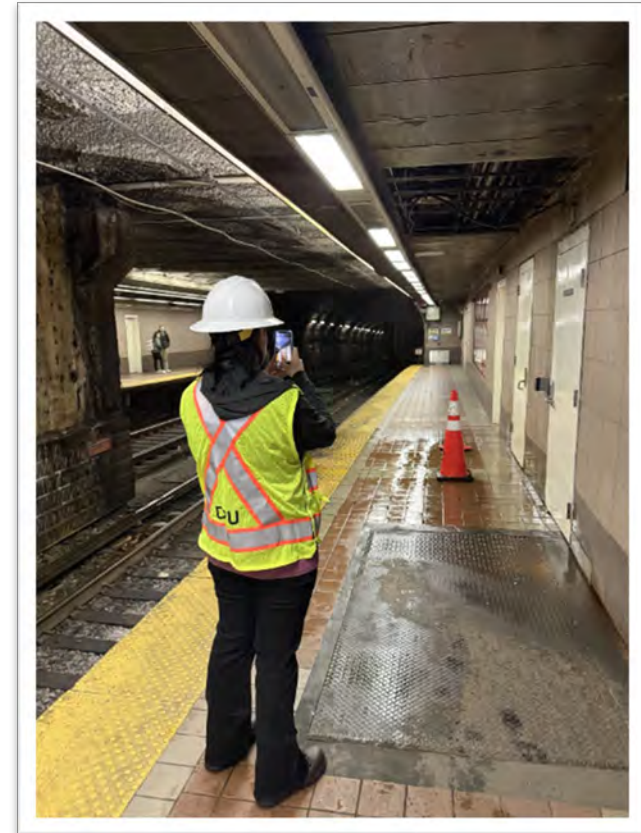
Field Observations (separate from Safety Event response)

DPU is unique among SSOAs nationally due to the significant amount of its “boots on the ground” field observation work.

Field observation types include, but are not limited to:

- Track walks
- Power system checks
- Station and carhouse/yard safety audits
- Personal Protective Equipment (“PPE”) and Right-Of-Way access card checks
- Construction safety briefing shadowing
- Green Line speed audits using LiDAR guns
- Headlight and door procedure checks
- Operation Control Center (“OCC”) visits

A breakdown of DPU field observations by month and MBTA line is on the next slide.



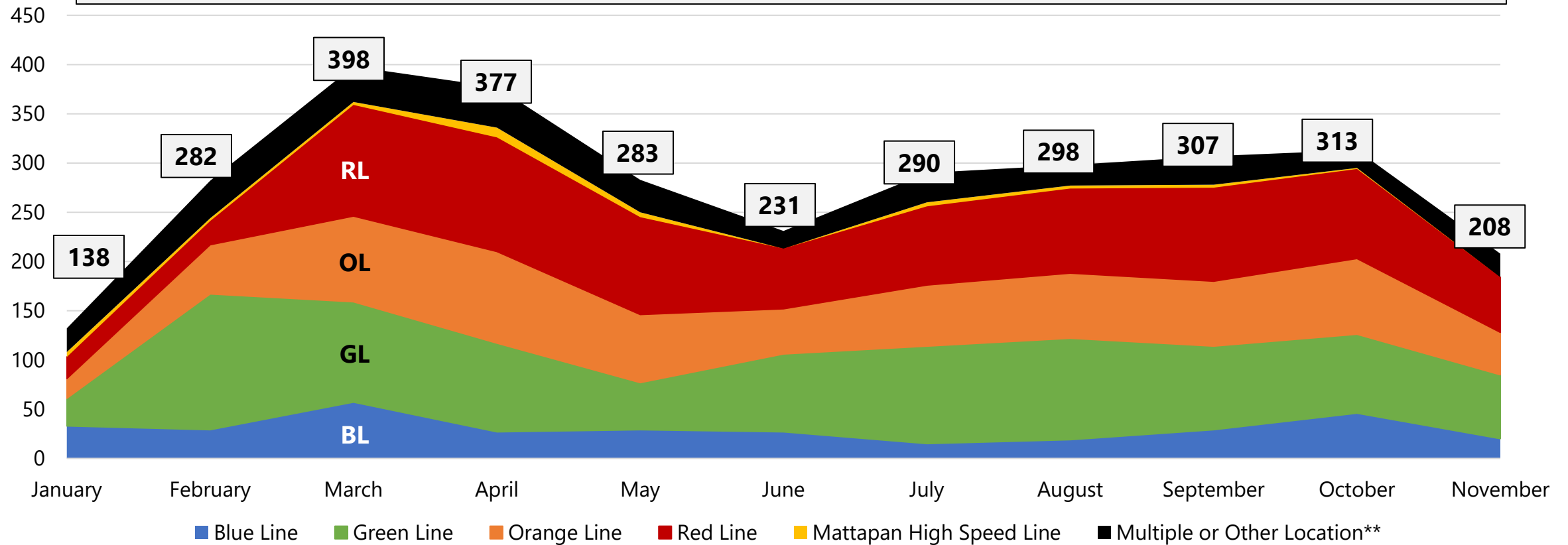
A DPU team member documents platform conditions at South Station in 2025.

DPU File Photo



DPU Field Activity in 2025, By Month of Activity and Location Line, if Applicable*

As of December 1, 2025, DPU conducted **3,126 field activities** in 2025. This is **nearly double** the 1,619 field activities that DPU conducted in 2024, and **more than five times** the 608 activities DPU conducted in 2023.



*Numbers current as of December 1, 2025.

**Multiple or other locations cover inspections at the OCC, carhouses, yards, truck pad facilities, and activities involving multiple lines or locations.

Examples of DPU Field Activity Observations



*Vegetation obstructing signal visibility
between Revere Beach and Beachmont.*

DPU File Photo



*Broken rail insulator south of JFK/UMass
observed in early December 2025.*

DPU File Photo



*Tripping hazard (missing and loose bricks)
at Roxbury Crossing.*

DPU File Photo

Corrective Action Plans ("CAPs")

In response to safety events, hazards, inspections or other activities, MBTA may voluntarily develop CAPs. DPU may also require MBTA to develop CAPs.

Each CAP consists of one or more Corrective Actions to mitigate the hazard or safety issue with deadlines for completion. DPU monitors MBTA's CAP compliance and addresses noncompliance.

To close a CAP or a Corrective Action, MBTA submits a closure request with evidence of compliance for DPU review and approval. DPU may reject a closure request if MBTA does not demonstrate compliance.

After a CAP is closed, DPU continues to monitor the underlying activity and may reopen a closed CAP if MBTA's actions prove insufficient to address the hazard.

8.0 TOWING A RAIL CAR:

A foreman should be present when attaching the towbar to a rail car.

ATTACHING THE TOWBAR TO A RAIL CAR

1. Before attaching the towbar, ensure that the rail car will not move by chocking the wheels or testing the brakes.
2. Drive slowly to the draw hook of the rail car.
3. Ensure that the towbar maintains a level height and is slotted between the rungs of the ante climber. Ensure that the appropriate draw bar pin is used

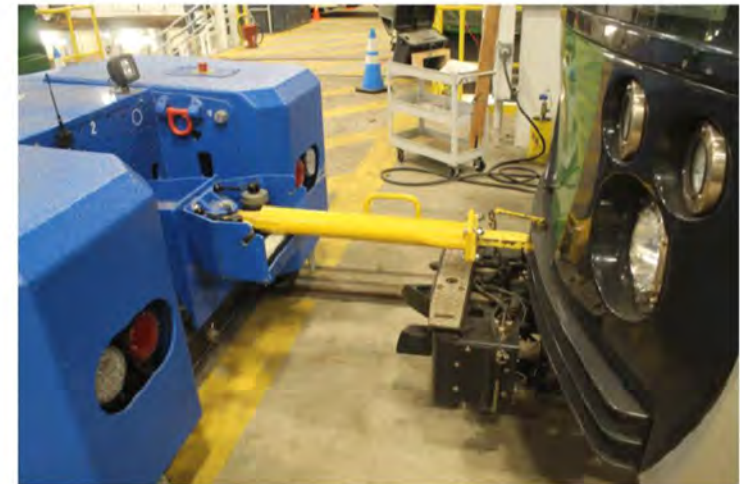


Figure 2: Properly set towbar

4. Check that the towbar is properly set before releasing the brakes/removing chock blocks on the rail car.
5. Check the brakes of the rail car mover before beginning shunting work.

Excerpt from a Rail Mover training curriculum, developed by MBTA as part of a CAP following a safety event involving a rail mover ("tug").

DPU Screenshot

Examples of Corrective Action Plans 2025 - 2026

Fatigue Management:

- *Hazard:* fatigue and hours-of-service ("HOS") in safety sensitive MBTA departments.
- *Required Actions (examples):* Develop HOS parameters and a Fatigue Management Policy; develop a roadmap to implement the new Policy including tracking and enforcement.

Employee Assaults:

- *Hazard:* MBTA is trending higher than its performance targets related to assaults on employees.
- *Required Actions (Not all):* MBTA is implementing mitigations to address this hazard; the CAP adds a focus on hazards related to new fare enforcement, collaboration with Transit Police, and enhancing accuracy in reporting.

Green Line Type 7 Crashworthiness:

- *Hazard:* Type 7 vehicle crashworthiness.
- *Required Actions:* Crashworthiness assessment of the Type 7 vehicle, including impacts on customers and motorpersons; develop and implement a hazard mitigation plan based on the crashworthiness assessment.

OCC/Power Issues:

- *Hazard:* multiple near misses of employee electrocution injury while accessing the right-of-way ("ROW") and requesting power. Highlighted the need for improved OCC communication and power request procedures to mitigate unsafe power conditions for employees entering the ROW.
- *Required Actions:* Specific communication protocol for OCC dispatchers when personnel call onto the ROW; a Power Request Chain of Review document for supervisory and dispatcher quality checks; removal, insulation, and tagging of feeder taps prior to work in certain locations.

Mass.gov Rail Transit Safety Monthly Reports

DPU Rail Monthly Report for January 2025

Beginning in 2025, each month the DPU Rail Transit Safety Division publishes a report highlighting our oversight work of the Massachusetts Bay Transportation Authority (MBTA) rail transit (subway) system. This report includes information about DPU oversight work conducted during the month of January 2025.

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- Fast Facts
- Inspections Update
- Questions or Comments?

Fast Facts

Below are some "fast facts" about the DPU Rail Transit Safety Division's oversight work of the MBTA during the month of January 2025. Numbers are current as of the last day of the reporting month and may be adjusted if data is updated post-submittal.

New Investigations	Investigations Closed	Investigation Final Reports Received
12	11	10

RELATED

- DPU Risk-Based Inspections
- DPU Oversight of the MBTA

Diversion Oversight

DPU Rail Transit Safety Division team members participate in oversight activities during diversion work across the MBTA system. From April 1st to April 5th a diversion, including track and station renewal work, occurred on the Ashmont Branch of the Red Line and the Mattapan High Speed Line. Below is a table summarizing DPU's oversight activities during this diversion:

Activity Type	Activity Count
On-Call Duty Resources	2
Field Observations (Work Zone and Safety Briefings) Completed	9
Coordination Meetings Attended	3
Requests for Information Responses Reviewed	1

MBTA work crews performing track renewal work during the April 2025 diversion, photographed by DPU.

Inspections Update

The DPU Rail Transit Safety Division is a national leader in inspections. Inspections include our field activities, the "boots on the ground" oversight of the MBTA's operations. These field activities include, but are not limited to:

- Track walks
- Power system checks
- Personal Protective Equipment ("PPE") and Right-Of-Way access card checks
- Construction safety briefing reviews
- Green Line speed audits using LIDAR
- Headlight and door procedure checks
- Station and carhouse/yard safety audits
- Operation Control Center ("OCC") review

A DPU engineer observes a Red Line train during a track walk in May 2025.

Below are numbers highlighting our inspection work in May 2025 per line. Note that some inspections don't occur at a specific station or line location. Numbers are current as of the last day of the month and may be adjusted if data is updated post-submittal:

Total Inspections	Blue Line Inspections	Green Line Inspections
282	29	48



<https://www.mass.gov/archive/dpu-rail-monthly-reports>

Safety Certification

DPU is required (per 49 C.F.R. § 674) to verify compliance with safety standards for capital projects.

DPU's Active Role in current \$7.7 Billion Program:

For MBTA capital projects that cost above a certain threshold, DPU is required to provide safety oversight during engineering and construction to certify that MBTA's procedures comply with MBTA's System Safety Certification Manual.

DPU provides independent safety certification and verification for MBTA's ongoing \$7.7 billion capital and safety improvement portfolio, including track, signal, vehicle, and infrastructure projects.

DPU confirms that all safety mitigations, test results, and corrective actions are completed and documented prior to certification.

Projects are grouped into Category 1 and Category 2 projects based on scope and cost: (per MBTA Safety Certification Manual)

Category 1 Projects:

Full oversight with required DPU concurrence prior to system or infrastructure entering service.

Active Number

9

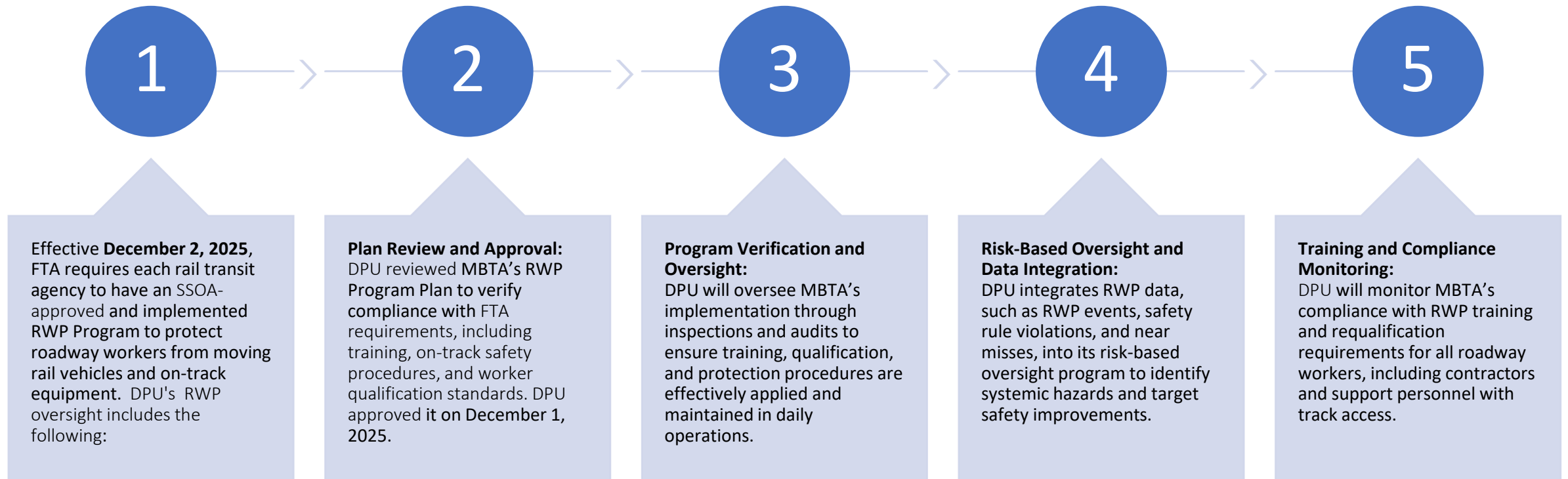
Category 2 Projects:

Periodic oversight, including document review, site inspections, and final certification closeout.

Active Number

43

Roadway Worker Protection (“RWP”)



RWP establishes minimum standards to ensure the safe operation of public transportation systems and prevent injuries and fatalities for transit workers. Rail transit agencies nationwide are required to create programs and processes that focus on safety for workers who work on or near the rails in an area known as the track roadway.

Risk-Based Inspection (“RBI”) Program

In October 2022, FTA issued special directives to all SSOAs to develop and implement RBI programs as required by the Bipartisan Infrastructure Law. FTA approved DPU’s RBI program on October 23, 2024.

In 2025, DPU issued 2 RBI Reports to MBTA. The first focused on fire and smoke events in the ROW. The second focused on pedestrian safety at the Green Line’s Park Street eastbound platform.

In total, DPU issued 4 RBI Reports (2 before FTA approval of DPU's program, and 2 after in 2025).

Additional RBI work is ongoing and DPU expects to issue its next RBI Report in early 2026.



DPU's most recent RBI Report addressed pedestrian safety at the Green Line's Park Street eastbound platform.

DPU File Photo

RBI Program Status: 4 Reports to Date

Pit incursions at Andrew Station

- *Findings:* The elevated number of pit incursions is likely due to the large number of non-passengers at the platform.
- *Recommendations:* Increase station official and Transit Ambassador presence; consider fare gate modifications to reduce fare evasion and unauthorized access; add a temporary barrier separating the north and south platforms when the station is closed.
- Significant reduction in pit incursions at Andrew with just three person-in-the-pit events since the RBI report was issued compared to ten in 2023 alone.

Pedestrian crossings on the Green Line

- *Findings:* Safety measures need improvement, including speed and gong compliance by motorpersons.
- *CAP:* training to address non-compliance with speed and gong operating rules; ongoing rules compliance audit for pedestrian crossings; assess Green Line pedestrian crossings that lack mechanical controls and recommend rules revisions and safety enhancements.
- DPU monitors/inspects MBTA's progress on the corrective actions.

Fire and smoke events on the ROW

- *Findings:* MBTA's diversion management plans and third-rail infrastructure improvements reduced the likelihood of fire and smoke events; MBTA's limited geolocation information for safety events, including smoke and fire events, is inadequate for effective safety risk management.
- *CAP:* geolocate hazard and safety events when a location can be determined; incorporate geolocation into MBTA's safety risk management process.

Pedestrian platform safety at Park Street Eastbound

- *Findings:* Single Person Train Operations ("SPTO") systems and berthing mirrors were ineffective or inoperative; platform fails to channel pedestrians to safely cross the platform.
- *CAP:* assess operator blind spots and determine mitigations; identify procedures to safely channel passengers across platforms.

General Directive 24-1: Transit Worker Assaults

In September 2024, FTA issued **General Directive 24-1: Required Actions Regarding Assaults on Transit Workers**. It required transit agencies – such as MBTA – to conduct a safety risk assessment, identify safety risk mitigations or strategies, and provide information to FTA on how they are assessing, mitigating, and monitoring the safety risk of assaults on transit workers.

Although General Directive 24-1 does not require new SSOA oversight, DPU took an active role by joining the Employee Assault Task Force, observing MBTA de-escalation training, and tracking data related to assaults on transit workers. DPU also issued a CAP directive in September 2025 to MBTA regarding assaults on transit workers, including a focus on risks related to fare enforcement.



Screenshot from MBTA's Employee Assistance Program materials, as reviewed by DPU.

MBTA Presentation Materials

SMART Database in 2025

In September 2024, DPU launched an innovative database application to help manage the Massachusetts SSOP – called "SMART" – Safety Management Application for Rail Transit.

SMART grew considerably in 2025 and now includes new modules to oversee STAR – Safety Tasks, Assignments, and Responses – along with technical enhancements so our team can spend more time in the field.

SMART and DPU's library of business intelligence and spatial tools allow for rich data analysis, data-driven decision-making, and a robust ability to measure and forecast risk so we can focus our oversight on the areas with the greatest potential impact to public safety.



MBTA Blue Line trackway mile markers visualized on a spatial map, useful for tracking where safety events occur on the right-of-way and identifying trends.

DPU Rendering



Oversight of Railroad Grade Crossings

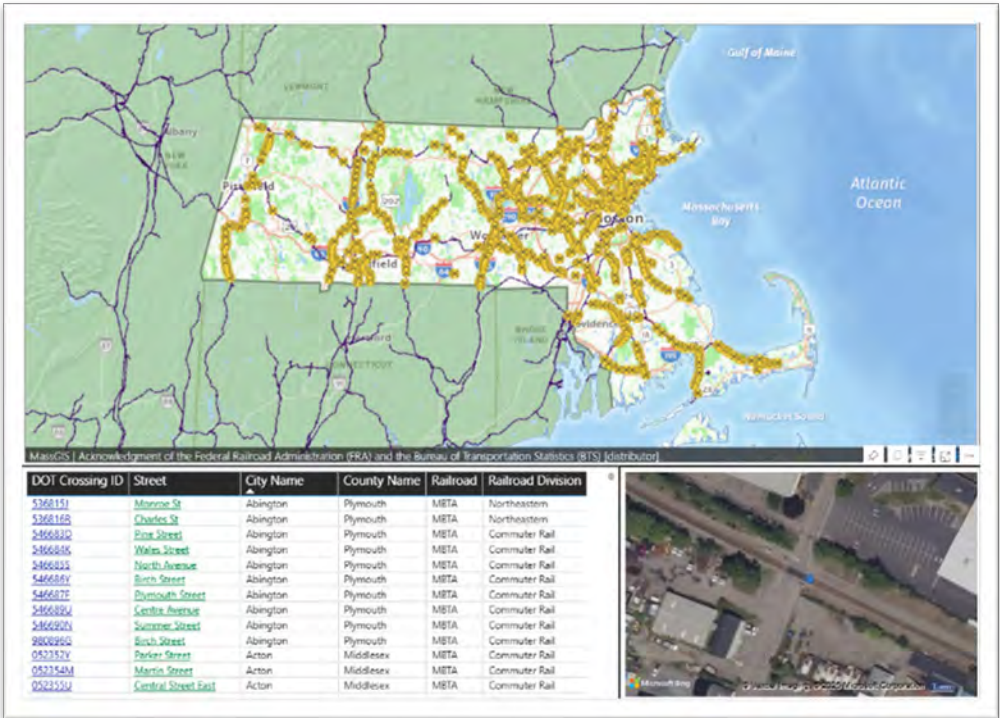
Along with its SSO duties, DPU’s Rail Transit Safety Division also has state regulatory authority over 1,304 public highway-railroad grade crossings (freight and passenger railroad) in Massachusetts. This authority includes approval of new crossings, alterations to crossings, and removal of crossings.

DPU also evaluates rail crossing configurations after train-related incidents occur at rail crossings and reviews complaints regarding rail crossing safety.

Concerned individuals (anonymously, if desired) can report safety or condition-related concerns regarding grade crossings via the DPU website:



<https://www.mass.gov/forms/file-a-dpu-rail-safety-concern>



DPU's Grade Crossing Inventory dashboard.

DPU Screenshot

Roadmap Forward



DPU Rail Transit Safety Division | December 18, 2025

Our top priority is the safe operation of the MBTA's rail transit system and the safety of its riders and employees.

DPU continues to assess and maintain a staffing level with the training and experience appropriate to oversee a system of the age, size, and complexity of the MBTA.

DPU continues to increase our use of data to make decisions, with the goal of detecting and addressing safety risks proactively.

DPU continues to develop a transparent SSOA program that provides the public and other key stakeholders an understanding of how the program operates.

Overall, DPU remains committed to being the SSOA that the Commonwealth deserves, a leader in the transit industry for safety oversight.



*(from L to R) Principal Safety & Risk Management Analyst Mike Pineau, Supervisor of Safety Risk Management & Oversight Paul Marcucilli, DPU Commissioner Staci Rubin, and Power Engineer Timothy Rooney. Pineau, Marcucilli, and Rooney are **2025 Commonwealth Certificate of Achievement** Recipients.*

DPU File Photo



Thank you!

DPU Rail Transit Safety Division can be found online at
<https://www.mass.gov/orgs/rail-transit-safety-division>

