



Safety and Operations Committee

Board Information Item III-A

Roadway Worker Protection Update

Washington Metropolitan Area Transit Authority

Board Action/Information Summary

☐ Action ☒ Information

MEAD Number:
203403

Resolution:
☐ Yes ☒ No

TITLE:

Roadway Worker Protection Program Progress Report

PRESENTATION SUMMARY:

In response to steady and increasing RWP incident rates, the Department of Safety (SAFE) partnered with the Office of the Chief Operations Officer (COO) this spring to implement a strategy designed to overhaul WMATA's RWP program in alignment with best practices from the railroad industry. This presentation explains the progress made this year and next steps.

PURPOSE:

Provide the Board with an update on overhauling WMATA's RWP program in alignment with railroad industry best practices.

DESCRIPTION:

WSP assists with the revision of the Metro Safety Rules and Procedures Handbook (MSRPH) to include WMATA's RWP program manual.

Key Highlights:

- WMATA experienced a 23% increase in RWP incidents in FY 2022 (47) compared to FY 2021 (36). However, 20% of these incidents were identified proactively as part of increased safety assurance inspections.
- The Rail Safety Standards Committee approved new procedures for requesting and granting RWP protection that are designed to simplify and streamline these procedures in alignment with railroad industry best practices. Initial training on the new procedures is scheduled to be completed by November.
- Next steps include a complete overhaul of the RWP manual and training program along with longer-term efforts to evaluate and acquire novel technologies to further reduce risks to employees and contractors working on the roadway.

Background and History:

The Federal Railroad Administration (FRA) has standardized regulatory requirements that all railroads must follow (both passenger and freight). Specifically, 49 CFR Part 214 Railroad Workplace Safety Programs, Subpart C Roadway Worker Protection. Conversely, the Federal Transportation Administration (FTA) has not regulated RWP. Absent minimum federal standards, each transit agency has developed its own RWP programs, which have typically been an internal effort resulting in substantial variation across the industry. The FTA is re-launching its Transit Advisory Committee for Safety (TRACS) and WMATA's Chief Safety Officer has proposed that RWP should be among the areas that TRACS considers. WMATA has moved forward with overhauling its RWP program, using 49 CFR Part 214, Subpart C and associated railroad industry practices as a guide.

Discussion:

Over the past five years, WMATA has experienced stubbornly consistent RWP incident rates. Additionally, WMATA's RWP practices differ significantly from those used in the railroad industry, despite many similarities in risk and process. Conducting safety stand downs, training, and increased promotion were yielding temporary results. SAFE established the Office of Operating Practices, a function traditionally found in the railroad industry. The Operating Practices Team actively manages WMATA's Safety Rules and Procedures, which includes the RWP program. This team is composed of subject matter experts that SAFE hired from the railroad industry as well as experienced professionals hired from within WMATA.

The Office of Operating Practices compared WMATA's current RWP program with the FRA's regulation and found differences. Collectively, this analysis and incident rates led COO and SAFE leadership to determine that the RWP program should be overhauled. The overhaul is necessary to address the root cause of these incidents and to drive effective corrective and preventive actions that systematically reduce risk consistent with the principles of WMATA's Safety Management System (SMS).

Concurrently, SAFE's Operations Safety Oversight team conducts RWP inspections daily and reports the results as part of the daily operations meeting. Therefore, while WMATA has experienced a 23% increase in RWP incidents year-over-year, 20% of these were proactively detected and corrected because of increased oversight. This effort has kept the focus on RWP compliance while concurrently developing the program improvements.

The effort to overhaul WMATA's RWP program, started with a focus the improving the procedures and forms used to request and receive protection to safely enter the roadway. New Foul Time and Exclusive Track Occupancy procedures were approved by the Rail Safety Standards Committee.

Additionally, the Roadway Job Safety Briefing form was redesigned with an emphasis on requiring the Roadway Worker In Charge to answer thought-provoking questions about the conditions, hazards, and circumstances inherent to the working environment. A new joint occupancy form was created as well. This form ensures that any “piggyback” crews (i.e., workers from other groups that did not ask for access to the roadway but are taking advantage of the protection) are formally accounted for and briefed by the Roadway Worker In Charge. Instructor-led training on the new RWP procedures and forms began in September in alignment with the training being conducted on Silver Line familiarization. This training effort is scheduled to be completed by November with implementation of the new procedures and forms to follow. Additionally, Metro will convene a review of the existing and proposed RWP program enhancements by industry experts.

The next steps will focus on taking advantage of currently available capabilities in the market to provide a complete overhaul of the RWP training program taking into account railroad requirements and best practices. Additionally, SAFE is working with the Rail Safety Standards Committee to develop a program to ensure that areas designated as “Hot Spots” due to particularly hazardous conditions (e.g., limited visibility due to a curve) are systematically reviewed with designations and mitigations refreshed as needs dictate. Establishing timetables comparable to those found in the railroad industry will formalize a shared understanding around the scheduled movement of trains. Additionally, novel technologies that complement and enhance compliance with the RWP program will be actively sought for evaluation and incorporation to drive additional reductions in safety risk.

FUNDING IMPACT:

Development and implementation of RWP is accounted for in the budget. This presentation is a report on the progress being made in accordance with the ASP.	
Project Manager:	Theresa Impastato
Project Department/Office:	Department of Safety (SAFE)

TIMELINE:

Previous Actions	As documented in the ASP.
Anticipated actions after presentation	Implementation of SMS throughout WMATA is planned as a multi-year process. No change to the timeline is proposed. The Operations Department has been prioritized for baseline implementation. Implementation in support offices will follow that of operational departments.

Roadway Worker Protection Improvement Program Progress Report

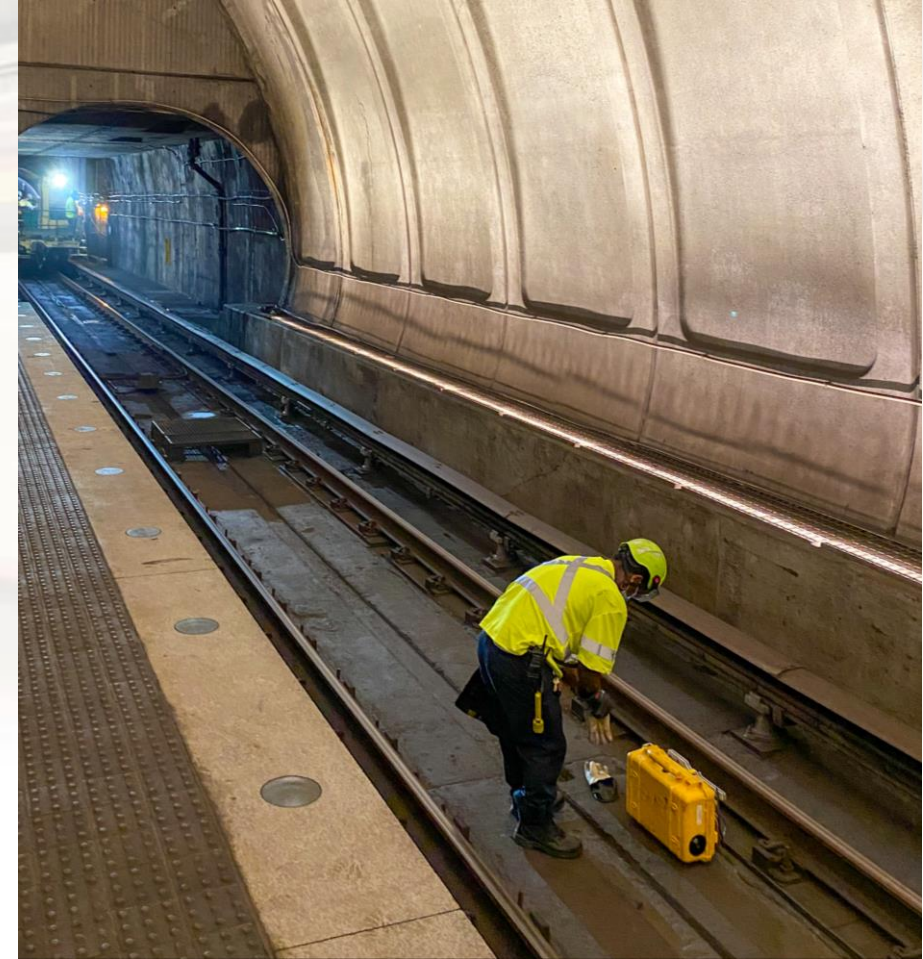
Safety and Operations Committee
November 17, 2022



Background

Roadway Worker Protection (RWP)

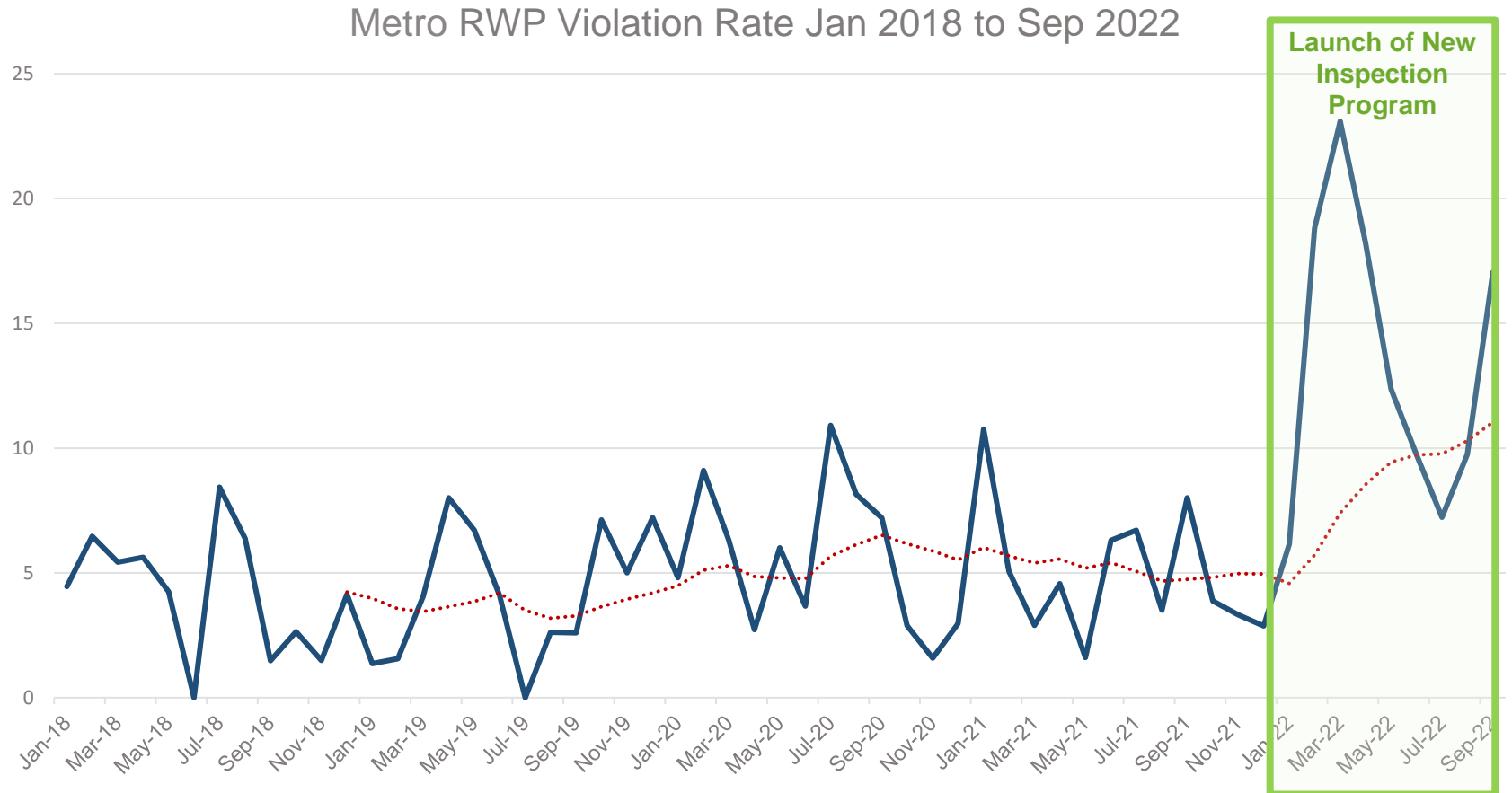
- Protects employees working on the tracks from being struck by trains or roadway maintenance machines
- Railroad industry has regulatory requirements
 - 49 CFR Part 214 Railroad Workplace Safety
 - Subpart C Roadway Worker Protection
- Transit industry does not currently have regulatory requirements pertaining to RWP



Performance Trends: In 2022, 20% of RWP incidents were discovered through increased safety compliance inspection

Year	Count	Vehicle Revenue Miles	Rate
2018	35	83,250,372	4.20
2019	39	91,153,648	4.28
2020	36	66,707,378	5.40
2021	36	73,067,998	4.93
2022	47	34,686,959	13.55

■ Actual Rate per 10 million vehicle revenue miles (VRM)
■ Trend



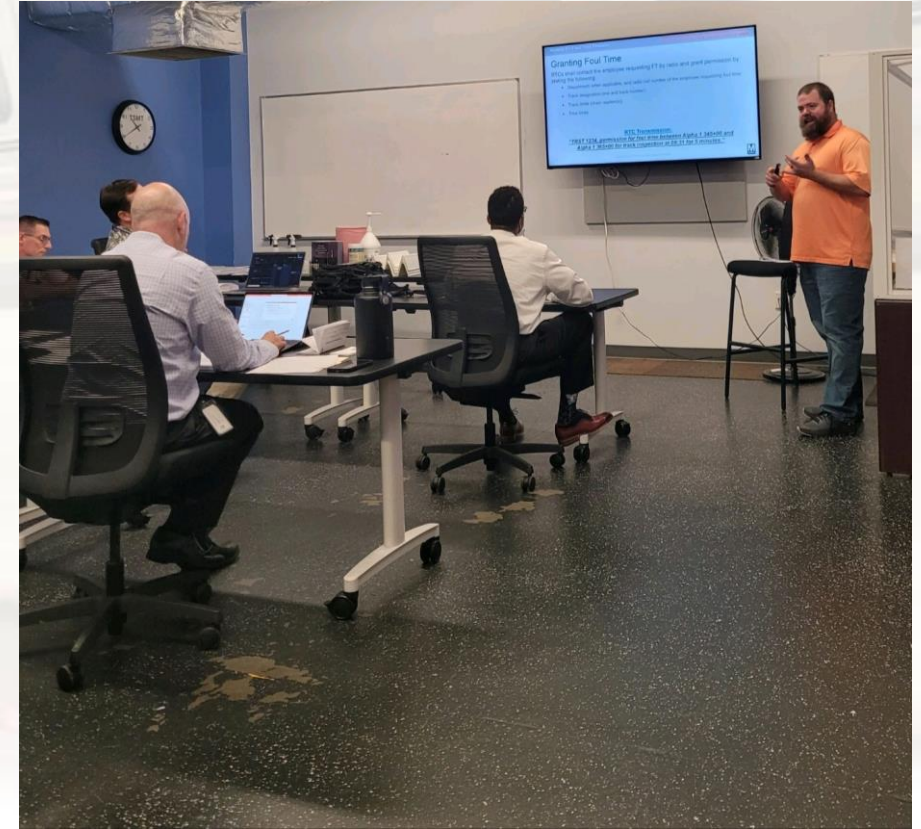
Reportable Incidents by Type

- All incident types remained steady or increased, except for work zone set ups
- Advanced Mobile Flagger (AMF) noncompliance led incident types
- “Other” category contains violations such as improper hand signals or horn operation

Type	2018	2019	2020	2021	2022	Trend
10 MPH	18	0	0	0	0	↓
15 MPH	2	11	3	0	6	→
AMF	4	9	5	5	12	↑
Foul Time	0	0	0	3	3	↑
Fouling Track	0	0	0	1	1	→
Work Zone Comms	0	0	0	1	3	↑
Work Zone Setup	11	19	28	25	8	↓
Other RWP Event					14	N/A

Accomplishments

- ✓ Assessed RWP current state vs. Railroad industry best practices
- ✓ Developed new RWP safety standard
- ✓ Redesigned Track Access Guide
- ✓ Established new Exclusive Track Occupancy and Foul Time standard operating procedures
- ✓ Redesigned Roadway job safety briefing form
- ✓ Established Joint Occupancy form
- ✓ Conducted training September to November



Train-the-Trainer session on new RWP procedures at Carmen Turner Facility in August 2022

Next Steps – Short Term

- Perform review by industry experts of RWP enhancements and path forward
- Release Request for Proposal to overhaul RWP Training Program
- Develop Hot Spot reassessment criteria and schedule
- Develop Metrorail timetable
- Release Request for Proposal for RWP technologies



Next Steps – Long Term

- Implement enhanced RWP Training Program
- Implement new Metrorail Safety Standards Manual
- Incorporate novel technologies to further mitigate RWP risks

