



**Safety and Operations Committee**

**Board Information Item III-A**

**December 12, 2019**

## **WMATA Corrective Action Plans**

Washington Metropolitan Area Transit Authority

## Board Action/Information Summary

☐ Action ☒ Information

MEAD  
Number:  
202138

Resolution:  
☐ Yes ☒ No

### TITLE:

Status of Safety Corrective Action Plans

### PRESENTATION SUMMARY:

The Department of Safety and Environmental Management (SAFE) will provide an update on the open National Transportation Safety Board (NTSB) and State Safety Oversight (SSO) Corrective Action Plans (CAPs) and associated actionable items.

### PURPOSE:

This update informs the Safety and Operations Committee on the current status of the open NTSB and SSO CAPs. This briefing will publicly communicate the status of the actionable items as Metro continues to close these and all other recommendations as part of improving safety.

### DESCRIPTION:

Developed by WMATA, CAPs describe the actions the Authority will take to minimize, control, correct, or eliminate risks and hazards, as well as specify the schedule for taking the actions. CAPs are developed to address findings, recommendations, or required actions issued from multiple sources including NTSB and the SSO. They are tracked by WMATA's internal Quality Assurance, Internal Compliance and Oversight (QICO) with support from the contractor **Gannet Fleming**. Any WMATA department may be assigned responsibility for CAP completion. CAPs are implemented through WMATA personnel, contractors, and capital investments procured from third-party vendors.

The NTSB and SSO CAPs are managed differently. Upon receipt of an SSO finding or required action, the Authority has 90 days to develop

CAPs, including the hazard ratings for the recommendation and mitigation. These CAPs are submitted to the SSO for review and approval, at which point WMATA begins the implementation process. Currently, all SSO CAPs have been approved for implementation.

The NTSB issues Safety Recommendations, which WMATA is responsible for developing responding CAPs. These CAPs are delivered to the NTSB within 90 days of the issuance of the Safety Recommendations. The NTSB does not formally approve the CAPs, but WMATA seeks concurrence prior to implementation.

### **Key Highlights:**

- Over the last four years, 255 of 320 CAPs have been closed and 22 have been fully implemented and submitted to the NTSB for SSO for review and closure. There remain 43 open CAPs.
- Each CAP may have multiple actionable items, of which there are 1,366. Of that total, 1,129 have been approved and closed, 131 have been submitted for approval and closure, and the remaining 106 have been developed and are in the process of being implemented.

### **Background and History:**

The CAPs can be divided into two groups.

The SSO CAPs are those that were originally assigned as part of the Federal Transit Administration's (FTA) oversight role. Those CAPs have been transferred to Metro's SSO Agency, the Washington Metrorail Safety Commission (WMSC). The WMSC will continue to manage the CAPs. These CAPs are embedded in the FTA's original Safety Directives, of which there have been seven issued:

- 15-1, Safety Management Inspection;
- 16-2, Tri-State Oversight Committee;
- 16-4, Track Integrity Investigation;
- 16-5, Stop Signal Overrun Investigation;
- 16-6, Rail Vehicle Securement Investigation;
- 17-1, Traction Power Electrification Investigation; and
- 18-2, TOC Triennial Safety Findings.

These Directives have resulted in 289 of the 320 CAPs. The NTSB CAPs are those that been assigned primarily in response to the L'Enfant Incident. Of the 31 total NTSB CAPs, three are unrelated to this incident.

Closures by entity are:

- Of the 289 SSO FWSO CAPs, 247 have been closed.
- Of the 31 NTSB CAPs, eight have been closed.

Some CAPs take longer than others to implement due to factors such as significant capital investment, complexity of design, availability of technology, production schedules, and other factors.

The CAP closures have contributed to the progress on improving areas such as preventive and corrective maintenance; policy and procedures, and training and recordkeeping. The status of each CAP is posted online for tracking and review at:

<https://www.wmata.com/initiatives/transparency/Corrective-Action-Plans.cfm>

### **Discussion:**

#### Actionable Items:

Actionable items are identified for each CAP that would need to be completed for the CAP is closed.

Of the current 1,366 Actionable Items:

- 1,129 have been approved and closed;
- 131 have been submitted for approval and closure; and
- The remaining 106 have been developed and are being implemented.

A single action may be equivalent to closing a finding in which WMATA developed an overall CAP. However, the majority of the CAPs have numerous Actionable Items that address a specific finding or recommendation.

To address these Actionable Items, WMATA must implement

them and submit documentation to either the SSO or the NTSB for approval.

The number of Actionable Items will continuously change over time (i.e., when a CAP is closed by the SSO or NTSB, or if new ones are added). For example, a new SSO Safety Directive will generate additional CAPs and Actionable Items. The last Safety Directive was issued in April 2018 as part of the TOC Triennial Safety Findings.

#### **FUNDING IMPACT:**

As an information item, there is no impact on funding	
Project Manager:	Theresa Impastato
Project Department/Office:	Executive Vice President/Chief Safety Officer

#### **TIMELINE:**

<b>Previous Actions</b>	<p>October 2018 – Update on FTA and NTSB actionable items</p> <p>January 2018 – Memo to Board</p> <p>November 2017 – Update on FTA and NTSB actionable items</p> <p>April 2017 – NTSB CAP Review</p>
<b>Anticipated actions after presentation</b>	<ul style="list-style-type: none"> <li>• Continue to fully implement all NTSB and SSO CAPs</li> <li>• Continue to implement programs and activities to strengthen the safety culture</li> </ul>

# Status of Safety Corrective Action Plans

Safety & Operations Committee  
December 12, 2019



# Purpose

- Provide an update on the status of safety corrective action plans

<https://www.wmata.com/initiatives/transparency/Corrective-Action-Plans.cfm>

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY



# CAP Defined

- What is a Corrective Action Plan (CAP)?
  - A plan developed by Metro, in response to a Washington Metrorail Safety Commission (WMSC) /National Transportation Safety Board (NTSB) recommendation or finding, that describes the actions we will take to minimize, control, correct, or eliminate risks and hazards, as well as the schedule for taking those actions
  - CAPs are submitted to the WMSC for review and approval, prior to full implementation
  - Metro routinely meets with the WMSC on CAP progress

<https://www.wmata.com/initiatives/transparency/Corrective-Action-Plans.cfm>

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# CAP Status Defined

<u>Open</u> <i>Implementing</i>	Mitigation strategy developed; in the process of being implemented
<u>Open</u> <i>Submitted for Closure</i>	Fully implemented, supporting documentation submitted to the WMSC/NTSB for review
<u>Closed</u>	Plan implemented, approved, and closed by WMSC/NTSB

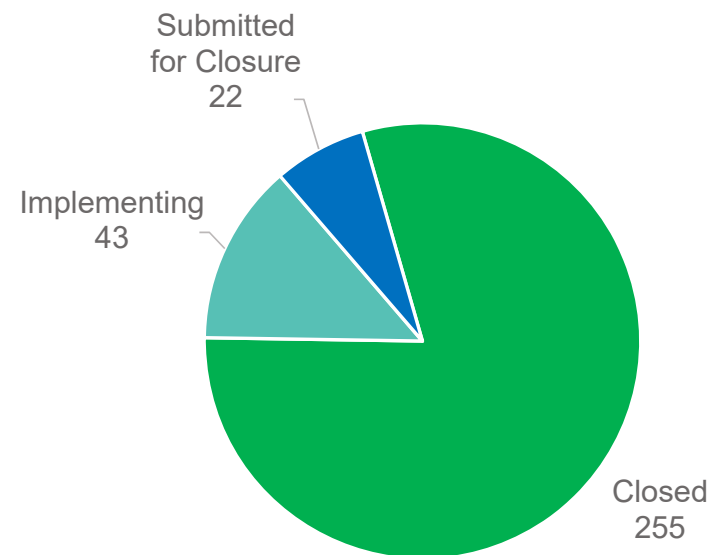
<https://www.wmata.com/initiatives/transparency/Corrective-Action-Plans.cfm>

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# CAPs by Status

- 320 CAPs assigned to Metro
  - All WMSC CAP plans have been approved
  - NTSB does not pre-approve CAP actionable items
- 255 of 320 have been closed in the past four years
  - 97 CAPs closed since last Board report in October 2018
- Of remaining 65 CAPS open:
  - 22 have been completed; submitted for closure
  - 43 are currently being implemented
- WMSC and NTSB corrective action plans are posted online

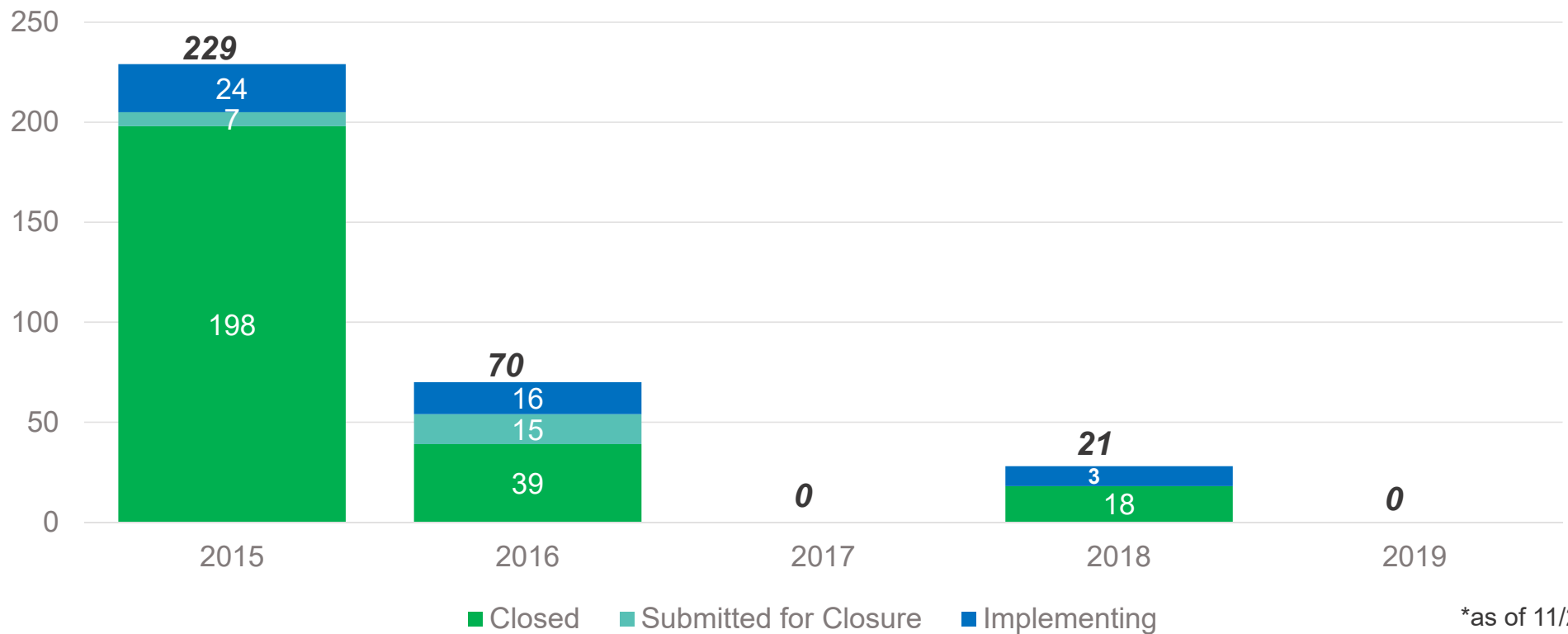


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## Regulatory CAP Progress\*



\*as of 11/29/19

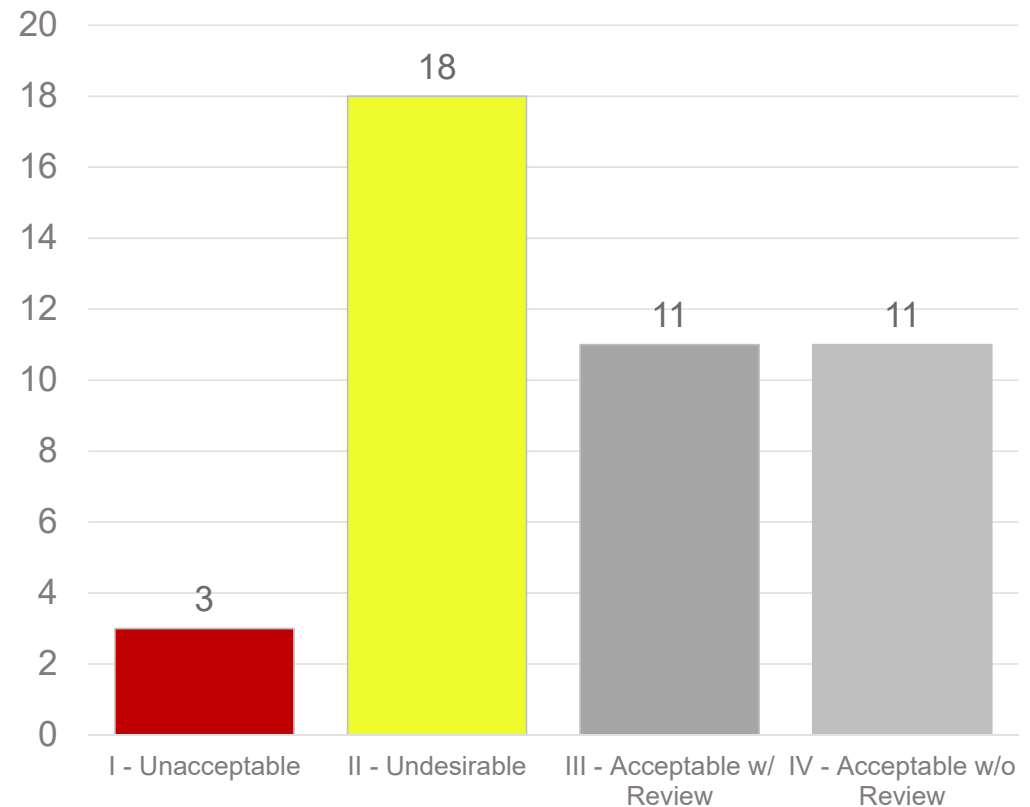
## Status of Safety Corrective Action Plans

# Hazard Ranking\*

*Open CAPs currently being implemented*

### Unacceptable Hazards

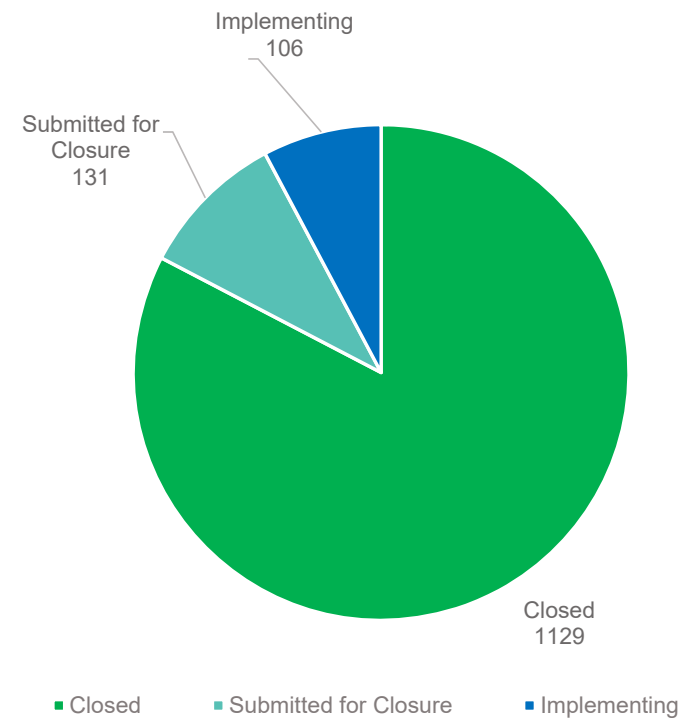
- **FTA TSR-18-001**
  - Ensuring employees are sent for post-accident drug/alcohol testing
- **NTSB-R-08-004 (2x, adopted by TOC)**
  - Bi-directional technology for roadway worker protection



\*as of 11/29/19

# Actionable Items Progress\*

- Under 320 CAPs, there are 1366 actionable items
- 1129 of 1366 have been closed in the past four years
- Actionable Item Status
  - Open – (17%)
    - Implementing (8%)
    - Completed / under review for closure (9%)
  - Closed – (83%)



\*as of 11/29/19

# Recent WMSC Findings Requiring CAPs

Description	Date of Issue
Improve safety-related data acquisition and analysis via telemetry sources	11/6/2019
Review ROCC staffing	11/6/2019
Implement an Hours of Service (HOS) Policy	11/6/2019
Eliminate inward facing camera obstruction	11/6/2019
Reduce station overrun incidents	11/25/2019
Enact controls to prevent unauthorized movement after losing speed commands	11/25/2019
Review electronic device policy to enact controls to prevent unauthorized use of personal devices	11/25/2019

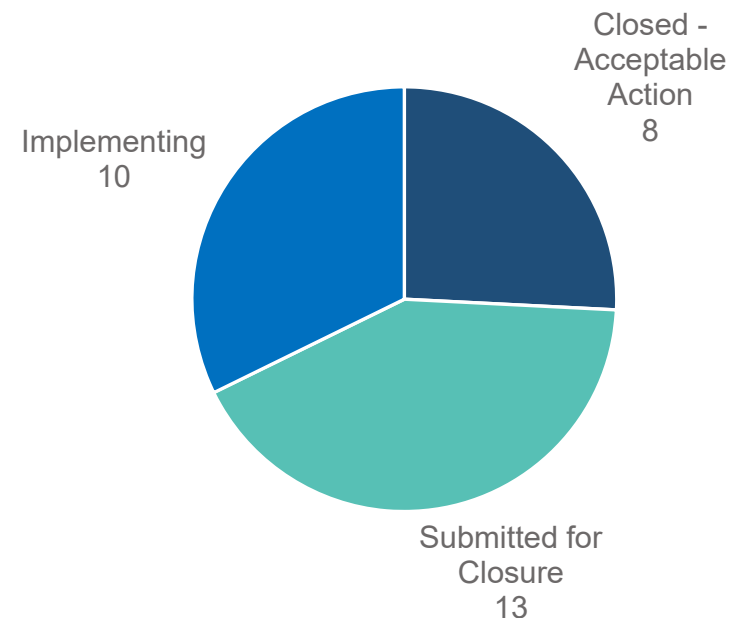
## Status of Safety Corrective Action Plans

# WMSC CAP Status

CAP Source	Description	Issue Date	Closed	Submitted	Implementing	Total
Safety Directive 15-1	Safety Management Inspection	June 2015	82	2	7	91
Safety Directive 16-2	Tri-State Oversight Committee	December 2015	111	4	16	131
Safety Directive 16-4	Track Integrity Investigation	August 2016	10	1	1	12
Safety Directive 16-5	Stop Signal Overrun Investigation	August 2016	9	0	2	11
Safety Directive 16-6	Rail Vehicle Securement Investigation	August 2016	6	0	0	6
Special Directive 17-1	Traction Power Electrification Investigation	December 2016	11	2	4	17
Special Directive 18-2	TOC Triennial Safety Findings	April 2018	18	0	3	21
<b>TOTAL</b>			<b>247</b>	<b>9</b>	<b>33</b>	<b>289</b>

# NTSB CAP Status

- CAPs result from variety of incidents
- Oldest CAP is R-08-004
  - Bi-directional technology for roadway worker protection
- Many CAPs require long lead times
  - Significant capital investment
  - Complexity of design
  - Availability of technology
  - Production scheduling





## Next Steps

- Awaiting response from WMSC and NTSB on submitted action items
- Continue working with WMSC to close out CAPs
- Continue working to close actionable items by scheduled dates

National Transportation Safety Board (NTSB)  
Recommendations Progress Tracker  
As of April 01, 2015

NTSB #	NTSB Required Action(s)	WMATA Hazard Risk Category	Date Closed	Action Status	WMATA Comments
NTSB R-07-001	Group all existing and future train equipment with full back-up capability.	II	May 2013	Completed	
NTSB R-07-004	Implement QA Procedures for future accidents when using.	II	May 2013	Completed	
NTSB R-07-005	Ensure appropriate coordination between all departments responsible for maintenance and design for future issues before new equipment is purchased.	II	June 2013	Completed	
NTSB R-07-006	Establish a single point of responsibility within WMATA for safety issues and incorporate actions identified through accident investigations or related research.	II	October 2013	Completed	
NTSB R-07-007	Establish written procedure regarding rail lubrication for single track operations over switch, turnouts, lubrication of switch face - LSPC.	II	October 2013	Completed	
NTSB R-07-008	Expedite and coordinate by 2008 the replacement of all No. 8 turnouts to guard rail tracks.	II	October 2013	Completed	
NTSB R-08-001	Review and update WMATA's policies for hours of operation for Redline Worker - adding requirements for Redline, Scope & Duties, and management from train - etc. (S) (S).	II	June 2013	Completed	
NTSB R-08-002	Establish a systematic approach to request unannounced checks of employee compliance with Manual operating and safety rules and procedures.	II	October 2012	Completed	
NTSB R-08-003	Perform periodic internal reviews on the deficiencies identified through the Compliance and Operating Rule check and data base.	II	November 2012	Completed	
NTSB R-08-004	Promptly implement appropriate technology that will automatically alert signal workers of approaching trains and will automatically warn train operators when approaching areas with workers on or near the track.	II	November 2013	Completed	
NTSB R-09-004	Safety redundancy of the rail control system, establish track occupancy data on a real time basis to detect loss of short and automatically generating.	II	July 2012	Completed	WMATA is addressing NTSB's comments received on March 15, 2014.

<https://www.wmata.com/initiatives/transparency/Corrective-Action-Plans.cfm>

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY





# Authority & Independence

- Enabling Legislation
- Commissioners
- Organizational Structure
- Oversight of WMATA



# Core Functions

- Investigations
- Inspections
- Audits
- Safety Certification
- Emergency Management
- Corrective Action Plans (CAPs)



# Corrective Action Plans

- Require, review, approve, oversee and enforce Corrective Action Plans (CAPs) developed by WMATA
- Sources of CAPs
- Current open CAPs
- Recent WMSC findings requiring WMATA to develop CAPs



# DISCUSSION

# Questions

