



WMSC Commissioner Brief: W-0175 – Improper Roadway Worker Protection – near Stadium-Armory Station – April 25, 2022

Prepared for Washington Metrorail Safety Commission meeting on August 9, 2022

Safety event summary:

Metrorail Office of Emergency Preparedness (OEP) and Metro Transit Police Department (MTPD) personnel entered the roadway without permission and without roadway worker protection in place from Stadium-Armory Station while trains were moving through the area.

The group included one Level IV qualified Roadway Worker In Charge (RWIC) from MTPD, one employee from the Metrorail safety department's Office of Emergency Preparedness, and 5 MTPD officers participating in a roadway familiarization training (this is a short walk included in MTPD police in-service training, see WMSC Audit of Emergency Management and Fire and Life Safety Programs issued February 2022 for lack of RWP qualification for MTPD personnel, CAP C-0164 in progress). An Advanced Mobile Flagger (AMF) from the Office of Emergency Preparedness was properly positioned at Potomac Ave. Station to notify train operators of personnel on the roadway ahead and to remind the operators to reduce speed. The AMF provides this information by reading a script to train operators after the RWIC informs the AMF that the work group is entering the roadway.

After the RWIC contacted the AMF to confirm the AMF was in position, the RWIC and MTPD officers entered the roadway despite not getting required permission from the Rail Traffic Controller and the RWIC not informing the AMF to begin warning trains of personnel on the tracks. This put the group at risk of being struck by an oncoming train. The operator of that train was permitted to proceed at normal speed because they had not been informed of personnel in the tunnel, and because the AMF had told them the group had not entered the roadway. The RWIC said in an interview that the work crew heard and felt the train approaching after the group was approximately 200 feet into the tunnel.

The group had entered the roadway after another train departed Stadium-Armory Station, and apparently assumed that meant they were safe to enter the tunnel. The group planned to walk between the two stations on the elevated safety walk.

The Train Operator saw the group in the tunnel and sounded the train's horn. There is no record of immediate radio communication. In an interview, the Train Operator stated they did not contact ROCC over the radio immediately due to other radio traffic on the channel (note: this event could have been reported as an emergency to interrupt that traffic). The crew in the tunnel did not report this event immediately as required. When the Train Operator reached Stadium-Armory Station approximately one minute later, the Train Operator stepped out of the train and walked to the Emergency Trip Station (ETS) call box at the end of the platform. The Train Operator used that phone to report to the Rail Operations Control Center that there were unauthorized personnel on the roadway between Potomac Ave. and Stadium-Armory stations that the operator had come upon as the train came around the corner.

The Rail Traffic Controller then instructed the group to stop their walk as they were not permitted to enter the roadway, and directed them to wait to be picked up by the next train.



The investigation showed that the crew was not using the specified operational radio channel for all communications, and instead used a second set of radio on an MTPD channel for some communications. The work crew also did not use 100 percent repeat backs of radio transmissions.

Probable Cause:

The probable cause of this event was Metrorail's culture of noncompliance with written rules, procedures and manuals, in this case the specific, explicit safety steps and communication required before entering the roadway.

Corrective Actions:

Metrorail is highlighting operational rules with train operators.

The RWIC received additional training on RWP, with a focus on radio communication.

Under CAP C-0164, Metrorail is required to ensure MTPD personnel have proper RWP qualifications as required by Metrorail rules and procedures to ensure the safety of Metrorail riders, employees, contractors and jurisdictional first responders.



Washington Metro Area Transit Authority
Department of Safety – Office of Safety Investigations (OSI)

FINAL REPORT OF INVESTIGATION A&I E22255

Date of Event:	April 25, 2022
Type of Event:	Improper RWP – Entering the Roadway without Permission
Incident Time:	09:48 Hours
Location:	Stadium-Armory Station - Chain Marker D1 197+00
Time and How received by SAFE:	10:00 Hours – SAFE/MAC
WMSC Notification Time:	10:30 Hours
Responding Safety Officers:	WMATA: N/A WMSC: M/A Other: N/A
Rail Vehicle:	L3149/48.3229/28.3274/75T
Injuries:	None
Damage:	None
Emergency Responders:	None
SMS I/A Incident Number:	20220503#10029

Stadium-Armory Station - Improper RWP

April 25, 2022

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Abbreviations and Acronyms

AIMS	Advanced Information Management System
AMF	Advanced Mobile Flagger
ARS	Audio Recording System
CAP	Corrective Action Plan
CCTV	Closed-Circuit Television
CM	Chain Marker
COMR	Office of Radio Communications
MSRPH	Metrorail Safety Rules and Procedures Handbook
MTPD	Metro Transit Police Department
NOAA	National Oceanic and Atmospheric Administration
OM	Operations Manager
OPMS	Operations Management Services
RJSB	Roadway Job Safety Briefing
RWIC	Roadway Worker in Charge
RTC	Rail Traffic Controller
RTRA	Office of Rail Transportation
ROCC	Rail Operations Control Center
SAFE	Department of Safety and Environmental Management
SMS	Safety Measurement System
WMATA	Washington Metropolitan Area Transit Authority
WMSC	Washington Metrorail Safety Commission

Executive Summary

On Monday, April 25, 2022, at approximately 09:52 hours, the Train Operator of Train ID 906 (L3149-3148.3229-3228.3274-3275T) reported observing personnel walking on the roadway between Potomac Avenue Station and Stadium-Armory Station, Track 1 to the Rail Operations Control Center (ROCC) Radio Rail Traffic Controller (RTC). The Train Operator reported seeing and communicating with an Advanced Mobile Flagger (AMF) before departing Potomac Avenue Station, Track 1; however, the AMF advised that no personnel were on the roadway.

The Audio Recording System (ARS) playback revealed that at approximately 09:44 hours, the Roadway Worker In Charge (RWIC) of a Metro Transit Police Department (MTPD) Training Group (5-MTPD Officers, 1-Assistant (RWP Level 4) and 1-AMF) requested permission to perform a Roadway Familiarization Training between Stadium-Armory and Potomac Avenue Stations, Track 1. The RWIC reported that an AMF was in place at the 8-car marker at Potomac Avenue Station, track 1 and an assistant would be walking with the training group. The RWIC requested permission to contact the AMF; RTC #1 granted permission to contact the AMF directly.

At approximately 09:46 hours, the RWIC contacted the AMF at Potomac Avenue Station to verify their position. The AMF acknowledged the RWIC and responded that they were standing by, ready to flag. The RWIC notified RTC #1 that the Roadway Job Safety Briefing (RJSB) was conducted and will notify them when they have reached the platform.

At approximately 09:47 hours, RTC #1 instructed the RWIC to standby while roadway protection was established. The RWIC acknowledged by replying, "Copy." During this transmission, a train is heard departing the station over the radio. RTC #1 made announcements for the train operators to look out for personnel on the roadway between Potomac Avenue and Stadium-Armory Stations, track 1. RTC #1 did not advise the RWIC that their permission was granted or authorize them to access the roadway at that time.

At approximately 09:52 hours, the Train Operator of Train ID 906 contacted ROCC and reported that the MTPD personnel were on the roadway and confirmed with RTC #2 that they did not have permission to begin their walk. At approximately 09:54 hours, RTC #1 requested that the RWIC contact ROCC via landline. RTC #2 notified the RWIC that they did not have permission to enter the roadway. RTC #2 instructed the RWIC and MTPD Training Group to standby for a train pick up. RTC #2 contacted Train ID 605 located at Potomac Avenue, track 1 and instructed them to pick up the MTPD Training Group from Chain Marker (CM) D1 197+00.

At approximately 09:58 hours, the Train Operation of Train ID 605 performed a radio check and confirmed with ROCC that the train was keyed down. RTC #2 instructed the RWIC and MTPD Training Group to key aboard the train. The RWIC confirmed with ROCC that the MTPD training group were safely aboard the train and would contact ROCC when they arrived at Stadium-Armory Station.

MTPD later removed the RWIC from service for post-incident toxicology testing. There were no injuries or damage related to this incident.

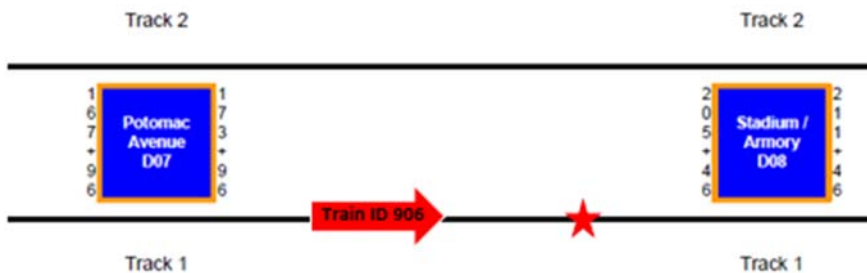
The Office of Radio Communications (COMR) conducted a Comprehensive Radio Operational Check at Stadium-Armory Station, tracks 1 and 2 and concluded all radio checks are loud and clear.

The probable cause of the Improper RWP event was a failure to complete all steps of an established procedure by the RWIC. During their last transmission prior to entering the roadway, background noise of a train departing the station was overheard and may have contributed to the RWIC inferring that permission was granted to enter the roadway. This action was not in accordance with MSRP Section 5 – 5.13.6 (emphasis added to relevant section) Advanced Mobile Flagging – Mobile Work Crew, *the RWIC will contact ROCC and perform a radio check establishing positive communication. After receiving confirmation that the AMF is in position, the RWIC will request permission from ROCC to enter the Roadway. **Once ROCC gives permission, and before the Mobile Work Crew enters the Roadway, the RWIC will notify the AMF to begin AMF operations.***

Incident Site

Stadium-Armory Station, at Chain Marker (CM) D1 197+00

Field Sketch/Schematics



**Locations are approximate. Not to scale*

Purpose and Scope

The purpose of this investigation and candid self-evaluation is to collect and analyze available facts, determine the probable cause(s) of the incident, identify contributing factors, and make recommendations to prevent a recurrence.

Investigative Methods

The investigative methodologies included the following:

- Site Assessment through document review
- Formal Interviews – SAFE interviewed two individuals as part of this investigation:
 - The Train Operator
 - MTPD RWIC

- Informal Interviews – Collected through conversations and written statements with individuals during the investigation to provide background and supporting information. Written statements were reviewed from personnel present during the event.
 - Advanced Mobile Flagger
- Documentation Review – Collection of relevant work history information and process documentation contained in WMATA systems of record. These records include:
 - Metrorail Safety Rules and Procedures Handbook (MSRPH)
 - National Oceanic and Atmospheric Administration (NOAA)
 - Rail Operations Control Center (ROCC) Incident Report
 - Maximo Data
- System Data Recording Review – Collection of information contained in Metro Data Recording Systems. This data includes:
 - ARS (Audio Recording System) playback [Radio and Landline Communications]
 - AIMS (Advanced Information Management System)
 - NICE Client Software
 - Office of Radio Communications (COMR) Radio Communication Operational Check
 - Closed-Circuit Television (CCTV)

Investigation

On Monday, April 25, 2022, the MTPD conducted a Roadway Familiarization Training for new MTPD recruits. The training group included 5-MTPD Officers (including 1-RWP Level 4 RWIC, 1-OEP Assistant (RWP Level 4) and 1-OEP AMF). The MTPD Training Group arrived at Stadium-Armory at approximately 09:30 hours. The Roadway Familiarization Training provides the new MTPD recruits the opportunity to experience walking on the roadway. The AMF arrived at Potomac Avenue Station at 09:39 hours, then proceeded to the 8-car marker at Potomac Avenue Station, track 1.

At approximately 09:44 hours, the RWIC ¹contacted ROCC and requested permission to perform a roadway familiarization training between Stadium-Armory and Potomac Avenue Stations, track 1. The RWIC advised that an AMF was in place at Potomac Avenue Station. RTC #1 instructed the RWIC to make radio contact with the AMF. At approximately 09:46 hours, the RWIC contacted the AMF at Potomac Avenue Station to verify their position. The AMF acknowledged the RWIC and responded that they were standing by, ready to flag. At approximately 09:47 hours, RTC #1 instructed the RWIC to standby while roadway protection was established. During this transmission, Train ID 403 entered, serviced, and departed Stadium-Armory Station, track 2 as the RWIC acknowledged and replied, “Copy,” to end the transmission with ROCC.

¹ *The MTPD RWIC holds a WMATA-issued Roadway Worker Protection – Level 4 qualification and received training with OPMS using the RWP Level 4 Program Standard. The MTPD RWIC has attended yearly refresher and/or requalification at the instruction and materials provided by OPMS.*

At approximately 09:48 hours, the MTPD Training Group is observed entering the roadway to commence the Roadway Familiarization Training.



Image 1 – MTPD Training Group entering the roadway at approximately 09:48 hours.

At approximately 09:48 hours, Train ID 906 entered Potomac Avenue Station, track 1 the Train Operator encountered the AMF located at the 8-car marker. The AMF advised the Train Operator that the MTPD Training Group had not begun their walk towards Potomac Avenue Station. At approximately 09:49 hours, Train ID 906 departed Potomac Avenue Station. While en route to Stadium-Armory Station, the Train Operator of Train ID 906 observed the MTPD Training Group on the roadway. The Train Operator decreased their speed and sounded their horn upon encountering the MTPD Training Group and did not immediately notify ROCC that the MTPD Training Group were on the roadway.

At approximately 09:50 hours, the Radio RTC requested that the Button RTC advise them when the next 900-series train departs Stadium-Armory Station, track 1.

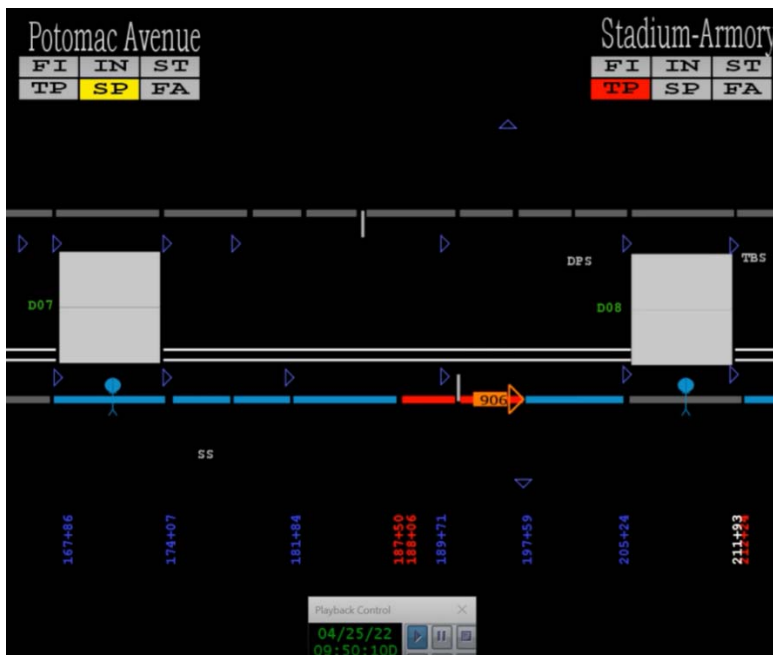


Image 2 - Train ID 906 approaching Stadium-Armory Station, track 1 at 09:50 hours.

At approximately 09:51 hours, Train ID 906 arrived at Stadium-Armory Station. At approximately 09:52 hours, the Train Operator of Train ID 906 exited the lead car and disembarked the train, leaving the train keyed up, and walked beyond the 8-car marker to the ETS Call Box. The Train Operator contacted ROCC on the ETS phone and reported observing personnel walking on the roadway between Potomac Avenue Station and Stadium-Armory Station, track 1.



Image 3 – Train Operator disembarked the train to contact ROCC via the ETS Box at approximately 09:52 hours.

At approximately 09:54 hours, RTC #1 contacted the RWIC and informed them that they were not given permission to enter the roadway. The MTPD Training Group was advised to standby at CM D1 197+00 for a train pick up. The Train Operator of Train ID 605, located at Potomac Avenue Station, track 1 was instructed to retrieve the MTPD Training Group from the roadway.

At approximately 09:58 hours, the Train Operator of Train ID 605 advised ROCC that the MTPD Training Group was aboard the train. RTC #2 confirmed with the RWIC that all of the MTPD Training Group personnel were clear of the roadway.

At approximately 10:06 hours, the ROCC Operations Manager (OM) notified an MTPD Captain of the Improper RWP violation. At approximately 10:25 hours, the MTPD Captain advised the OM that the RWIC would be removed from service.

On May 24, 2022, an MTPD Administrative Investigation determined that the MTPD RWIC violated the RWP Safety procedures.

Chronological Event Timeline

Time	Description
09:43:17 Hours	OEP Unit 1 contacts OEP [Unit 2] and advised that they were at Potomac Avenue Station, track 1. [MTPD 3X Radio]
09:44:40 Hours	OEP [Unit 2] contacts OEP [Unit 1] and advised that the RWIC was about to contact ROCC. [MTPD 3X Radio]

Time	Description
09:44:48 Hours	<p><u>RWIC</u>: Requesting permission to enter the roadway, utilizing the safety walk only. Track one for Tunnel Familiarization Training with five MTPD Officers we'll be using AMF for protection. [Unit 1] (AMF) is in place at Potomac Avenue eight car marker and [Unit 2] to assist with the walk, a total of seven on the roadway. Permission to go direct to the AMF.</p> <p><u>ROCC RTC #1</u>: You have permission to go direct with your AMF.</p> <p><u>RWIC</u>: AMF at Potomac Avenue are you set up and ready to go?</p> <p><u>AMF</u>: I'm at Potomac Avenue, track one ready to flag.</p> <p><u>RWIC</u>: Acknowledged. Central a safety briefing has been completed with hot spots and hazards identified, I will let you know when I clear the tunnel and reached the platform.</p> <p><u>ROCC RTC #1</u>: I copy your AMF is in place, the safety briefing has been conducted. What is your call number?</p> <p><u>RWIC</u>: [Call #].</p> <p><u>ROCC RTC #1</u>: Standby while we set up your protection.</p> <p><u>RWIC</u>: Copy.</p> <p><u>ROCC RTC #1</u>: Makes announcement to Train Operators of personnel walking on the roadway. [Radio]</p>
09:50:18 Hours	<p><u>ROCC RTC #1</u>: Let me know when that train departs Stadium Armory, track 1 [Ambient]</p>
09:52:10 Hours	<p><u>Train Operator</u>: Did you give permission to the MTPD to start walking?</p> <p><u>ROCC RTC #2</u>: No.</p> <p><u>Train Operator</u>: I came around the corner and they were beyond the end gate. I asked the AMF had they started walking and they said no.</p> <p><u>ROCC RTC#2</u>: We were waiting for the 900 to get to Stadium. Okay, thank you. [Phone]</p>
09:54:02 Hours	<p><u>ROCC RTC #1</u>: MTPD RWIC give ROCC a landline.</p> <p><u>RWIC</u>: Copy, when we get to the Emergency Exit area, I'll give you a call.</p> <p><u>ROCC RTC #2</u>: What's your current location?</p> <p><u>RWIC</u>: CM D1 197+00 on the safety walk.</p> <p><u>ROCC RTC #2</u>: You were not given permission to begin your walk.</p> <p><u>RWIC</u>: I must have incorrectly heard. After he gave the instruction to the Train Operators, I assumed that we were good to go.</p> <p><u>ROCC RTC #2</u>: Negative, you were not given permission. Have your AMF begin flagging duties, they told the Orange Line train that you were not walking.</p> <p><u>RWIC</u>: Copy, I will give you a call in a couple of minutes.</p> <p><u>ROCC RTC #2</u>: You are about to be picked up from the roadway. Train ID 605, Potomac Avenue come in to Central.</p> <p><u>Train ID 605</u>: Go Central.</p> <p><u>ROCC RTC #2</u>: I need you to make a pick-up at D1 197+00, OEP and MTPD personnel at that location.</p> <p><u>Train ID 605</u>: Acknowledged and repeated. Will contact you when I get to that location. [Radio]</p>
09:54:52 Hours	<p>The RTC notifies the Assistant Operations Manager (AOM) of the RWP violation. [Phone]</p>
09:55:59 Hours	<p>The AOM instructs the RTC to have the personnel pick up from the roadway. [Phone]</p>

Time	Description
09:57:04 Hours	The RTC notifies the Rail Operations Information Center (ROIC) of the RWP violation. [Phone]
09:58:16 Hours	<p>Train ID 605: Radio Check.</p> <p>ROCC RTC #2: Are you keyed down?</p> <p>Train ID 605: Train is keyed down for personnel to key themselves aboard.</p> <p>ROCC RTC #2: MTPD RWIC let me know when you key aboard, and all personnel are clear of the roadway.</p> <p>Train ID 605: All personnel aboard.</p> <p>ROCC RTC #2: MTPD RWIC are all personnel safely aboard the train?</p> <p>RWIC: That's affirmative. The personnel at Potomac Avenue has permission to pull the light as AMF.</p> <p>ROCC RTC #2: Train ID 605 you can key up and continue.</p> <p>Train ID 605: Acknowledged and repeated. [Radio]</p>
09:58:28 Hours	OEP [Unit 1] contacts OEP [Unit 2] and inquired if the train had picked up the personnel. OEP 12 confirmed all personnel were aboard the train. OEP [Unit 1] requests permission to pick up the amber light. [MTPD 3X Radio]
09:59:47 Hours	OEP [Unit 1] contacts OEP [Unit 2] and advised that they would standby at Potomac Avenue. [MTPD 3X Radio]
10:02:20 Hours	The RWIC contacts ROCC after arrival at Stadium-Armory Station. [Phone]
10:04:25 Hours	The RWIC is transferred to the AOM and reports that they thought they had permission to enter the roadway. The AOM advised the RWIC that they had an RWP violation and to standby on the platform while their Supervisor was contacted. [Phone]
10:06:41 Hours	The Operations Manager (OM) contacts an MTPD Captain and reported the RWP violation. [Phone]
10:25:59 Hours	The MTPD Captain advised the OM that the RWIC would be taken out of service for post-incident testing. [Phone]

The Office of Radio Communications (COMR)

The Office of Radio Communications (COMR) conducted a comprehensive radio operational check at Stadium-Armory Station, tracks 1 and 2 and concluded all radio checks are loud and clear.

Rail Operations Control Center (ROCC) SPOTS Event Log

Based on ROCC SPOTS event log data download, SAFE determined the following rail consists traveled between Potomac Avenue Station and Stadium-Armory Station, track 1 passing the MTPD Training Group:

ROCS SPOTS REPORT

based on up-to-the-second operational performance data from the Rail Operations Control System

Current date/time: Tue May 3 10:47:17 2022

Select Platform: and/or Select ID: Leave blank to remove criteria
 and/or Select 4-digit car number: Leave blank to remove criteria
 Select Date: Select Times (0-24HRS): From To

Generate Report

ID	Platform	length	dcode	Right door open	Right door close	dwel	Left door open	Left door close	dwel	Head Arrived	Tail cleared	cars	Headway door open to door open
602	D08-1	6	51				09:01:06	09:01:33	27	09:00:35	09:02:02	3129-3128 3061-3060 2068-2069	-
403	D08-1	6	72				09:05:23	09:05:45	22	09:04:46	09:06:15	3071-3070 2074-2075 3034-3035	4:17
903	D08-1	6	20				09:12:35	09:12:54	19	09:12:01	09:13:24	3167-3166 2072-2073 3287-3286	7:12
603	D08-1	6	51				09:19:54	09:20:24	30	09:19:22	09:20:51	3103-3102 2054-2055 2026-2027	7:19
404	D08-1	6	72				09:26:13	09:26:44	31	09:25:38	09:27:49	3088-3089 3065-3064 3079-3078	6:19
905	D08-1	6	20				09:32:26	09:32:42	16	09:31:48	09:33:12	2038-2039 3028-3029 3083-3082	6:13
604	D08-1	6	51				09:37:17	09:37:42	25	09:36:45	09:38:05	6048-6049 6092-6093 6060-6061	4:51
405	D08-1	6	72				09:44:27	09:44:51	24	09:43:55	09:45:22	2030-2031 3077-3076 3147-3146	7:10
906	D08-1	6	20				09:51:54	09:54:32	158	09:51:14	09:55:31	3149-3148 3229-3228 3274-3275	7:27
605	D08-1	6	51				10:00:35	10:00:53	18	10:00:03	10:01:18	3162-3163 3080-3081 2023-2022	8:41

Interview Findings

As part of the investigation launched into the Stadium-Armory Station Improper RWP event, SAFE conducted two interviews via Microsoft Teams, including the Investigations Team and the WMSC. The interview identified the following key findings associated with this event. Findings detailed below include reported information from interviews and may conflict with other data sources contained in the report.

Train Operator

- The Train Operator stated that as they departed Eastern Market Station, they heard the MTPD RWIC request access to the roadway.
- The Train Operator stated that when they arrived at Potomac Avenue Station, they observed an AMF at the eight-car marker, they serviced the station and asked the AMF whether the MTPD Training Group began their walk and was informed that the MTPD Training Group had not begun their walk.
- The Train Operator stated they proceeded with caution, as they turned the corner, they observed a flashing light on the tunnel wall, then they observed several personnel against the wall of the tunnel.
- The Train Operator stated they were unable to contact ROCC and report the personnel on the track immediately, due to the radio traffic.

- The Train Operator stated they proceeded at 15 MPH using AMF procedures to Stadium Armory Station.
- The Train Operator stated that they utilized the ETS box to contact ROCC and report the incident.

MTPD RWIC

- The RWIC stated that on the day of the event they scheduled a team of MTPD Officers and OEP representatives to conduct, Roadway Familiarization Training.
- The RWIC stated that at Stadium Armory Station, they conducted the Roadway Job Safety Briefing prior to entering the roadway and instructed and briefed the AMF to go to the eight-car marker at Potomac Avenue Station, track 1.
- The RWIC stated that they contacted ROCC on Ops 2 to request permission to enter the roadway and that they would use the safety walk between Stadium-Armory Station and Potomac Avenue Station.
- The RWIC stated that they believed that they heard the RTC give permission to enter the roadway after the announcement to the Train Operators.
- The RWIC stated that they were approximately 150-200 feet into the tunnel, when they could hear and feel the approach of the train.
- The RWIC stated that ROCC requested that they standby at their current location for retrieval by the next train.

Weather

On April 25, 2022, at the time of the incident, NOAA recorded the temperature as 57° F, Overcast. Stadium-Armory Station is located within the tunnel portion of the rail system. Weather was not a contributing factor in this incident (Weather source: NOAA – Location: Washington, DC)

Human Factors

Fatigue

Signs and Symptoms of Fatigue

MTPD RWIC

We evaluated conditions at the time of the incident to distinguish whether evidence of fatigue was present. Video of the incident was reviewed for behaviors suggesting fatigue. No indications of fatigue were evident from the video. The MTPD RWIC reported feeling fully alert at the time of the incident. The MTPD RWIC reported experiencing no symptoms of fatigue in the time leading up to the incident.

Fatigue Risk

MTPD RWIC

The incident data was evaluated for fatigue risk factors. Risk factors for fatigue were not present. Since fatigue evidence and risk factors were not present, the biomathematical fatigue modeling application (SAFTE-FAST Web SFC) was not applied.

Post-Incident Toxicology Testing

WMATA's Drug and Alcohol Program determined that the MTPD RWIC was not in violation of the Drug and Alcohol Policy and Testing Program 7.7.3/6.

Related Rules and Procedures

- MSRPH Section 1 – 1.79 *Personnel shall not take any action until they are positive that all radio transmissions or receptions are heard, fully understood, and acknowledged. Individual radio transmissions shall, at all times, be repeated by the receiver so the transmitter can confirm the message was received completely and by the intended receiver. Whenever the transmitter has completed their transmission and is turning the airtime over to the receiving party for acknowledgment or reply, they are to end their communication with the word “over.” Speed restrictions must always be acknowledged by each Rail Vehicle Operator, even when a blanket message is sent out from Central Control, through 100 percent word for word repeat back from the Rail Vehicle Operators to Central Control or the Tower.*
- MSRPH Section 1 – 1.32 *Employees involved in, witnessing, or informed of an accident or incident, to include near misses, on the Metrorail system shall inform their supervisor, Transit Police, ROCC and/or other appropriate authority as soon as possible, and shall file a written report.*
- MSRPH Section 3 – 3.124 *While on the mainline, Train Operators shall not leave an operating console of a Class I vehicle unattended without notifying ROCC.*
- MSRPH Section 5 – 5.13.6 *Advanced Mobile Flagging – Mobile Work Crew, the RWIC will contact ROCC and perform a radio check establishing positive communication. After receiving confirmation that the AMF is in position, the RWIC will request permission from ROCC to enter the Roadway. Once ROCC gives permission, and before the Mobile Work Crew enters the Roadway, the RWIC will notify the AMF to begin AMF operations.*

Findings

- RWIC and OEP personnel used a second radio on Ops MTPD 3X to perform communications.
- During their request to enter the roadway, 100% repeat-backs and use of “over” were not used consistently.
- RWIC did not receive permission to enter the roadway from ROCC.
- Train Operator did not immediately notify ROCC after observing personnel on the roadway; however, they reported the event on arrival at the next station.
- Train Operator disembarked the train at Stadium-Armory Station leaving the train keyed up and contacted ROCC via the ETS Call Box.
- MTPD's internal Administrative Investigation determined that the MTPD RWIC violated the RWP Safety procedures in this event.

Immediate Mitigation to Prevent Recurrence

- MTPD Training Group was instructed to stop their walk and to standby in a place of safety.
- Train ID 605 was instructed to retrieve personnel from the roadway at CM D1 197+00.
- MTPD removed the RWIC from service for post-incident toxicology testing.

Probable Cause Statement

The probable cause of the Improper RWP event was a failure to complete all steps of an established procedure by the RWIC. During their last transmission prior to entering the roadway, background noise of a train departing the station was overheard and may have contributed to the RWIC inferring that permission was granted to enter the roadway. This action was not in accordance with MSRPH Section 5 – 5.13.6 (emphasis added to relevant section) Advanced Mobile Flagging – Mobile Work Crew, *the RWIC will contact ROCC and perform a radio check establishing positive communication. After receiving confirmation that the AMF is in position, the RWIC will request permission from ROCC to enter the Roadway. **Once ROCC gives permission, and before the Mobile Work Crew enters the Roadway, the RWIC will notify the AMF to begin AMF operations.***

SAFE Recommendations/Corrective Actions

Corrective Action Code	Description	Responsible Party	Estimated Completion Date
100029_SAFECAPS_MTPD_001	RWIC to complete requalification training for the RWIC on MSRPH Section 5 – Roadway Worker Protection with an emphasis on Radio Communication	MTPD	Completed
100029_SAFECAPS_RTRA_001	RTRA to provide documented discussions with Train Operators regarding MSRPH Sec. 1 – GR 1.32.	RTRA SRC	08/01/2022
100029_SAFECAPS_RTRA_002	RTRA to provide documented discussions with Train Operators regarding MSRPH Sec. 3 – OR 3.124.	RTRA SRC	08/01/2022

Appendices

Appendix A – Interview Summary

RTRA - Train Operator

The Train Operator is a WMATA employee with 17 years of service and 16 years of experience as a Train Operator. The Train Operator holds a Roadway Worker Protection (RWP) Level 2 certification that expires in June 2022.

The below narrative summarizes the interview with SAFE and represents the statements made by the involved individual. As such, times and details may present a conflict with the data contained in systems of record.

During the virtual interview, the Train Operator stated that they arrived for work at approximately 04:16 hours. The Train Operator stated they came across the personnel during their second trip towards New Carrollton Station. The Train Operator stated that they as they departed Eastern Market Station, they heard the MTPD RWIC request access to the roadway.

The Train Operator stated when they arrived at Potomac Avenue Station, they observed an AMF at the eight-car marker. The Train Operator stated they serviced the station and asked with the AMF whether the MTPD group began their walk. The Train Operator stated that the AMF advised that the MTPD Group were not walking the track yet.

The Train Operator stated they departed from Potomac Avenue Station towards Stadium Armory Station. The Train Operator stated they proceeded with caution even though they were advised that the group was not on the roadway yet. As they turned a corner, they observed a flashing light on the tunnel wall. The Train Operator stated that they observed several personnel against the wall of the tunnel. The Train Operator stated that they stopped the train, then proceeded with caution. The Train Operator stated that the personnel were approximately 20 feet from the end gate at Stadium Armory Station.

The Train Operator stated they were unable to contact ROCC and report the personnel on the track immediately, due to other radio traffic. The Train Operator stated that they advised the RWIC that ROCC had not yet given the them permission to enter the roadway. The Train Operator stated they proceeded at 15 MPH to Stadium Armory Station.

The Train Operator stated that they utilized the ETS box in order to contact the ROCC and report the incident.

MTPD – RWIC

The RWIC has been with MTPD for approximately 25 years, serving as a Police Officer holding ranks PO1, PO2 and PO3. The RWIC stated that they had been conducting regular in-service training for MTPD Officers for approximately 10 years. The RWIC has a Level 4 RWP, issued by OPMS, that expires in May 2023.

The RWIC stated, on the day of the event, they had scheduled a team of MTPD Officers and OEP representatives to conduct Roadway Familiarization Training.

The RWIC stated that they initially conducted a Roadway PowerPoint Presentation, then followed up with a practical skill portion conducted on a mock third-rail power length of track that was not energized. The RWIC stated the training gave officers an opportunity to refresh skills affiliated with various pieces of equipment including the WSAD and proper hot-sticking procedures. Instruction also included reciting the Roadway Cardinal Rules.

The RWIC stated they then took their team, via shuttle bus, to New Carrollton Station where they caught the train from New Carrollton Station to Stadium Armory Station. The RWIC stated that the walk required MTPD Roadway Familiarization Training, from Stadium Armory Station to Potomac Avenue Station.

The RWIC stated that once at Stadium Armory Station, they conducted the Roadway Job Safety Briefing prior to entering the roadway, instructed and briefed the AMF to go to the eight-car marker at Potomac Avenue Station, track 1.

The RWIC stated that at approximately 09:40 hours, they contacted ROCC on Ops 2 to request permission to enter the roadway. The RWIC stated they had provided information to ROCC, including the number of personnel on the roadway, the type of protection and that they would use the safety walk only, from Stadium Armory Station to Potomac Avenue Station.

The RWIC stated that they believed that they heard the ROCC Controller state over the radio that there would be several personnel on track 1 between Stadium Armory and Potomac Avenue and for all other personnel operating in the area and to be cognizant of that. The RWIC stated that at this point, they assumed that they were clear to begin the track walk.

The RWIC stated that they got approximately 150-200 feet into the tunnel, when they could hear and feel the approach of train. The RWIC stated that a member of their team made contact with the Train Operator, approximately 50 feet ahead of the RWIC. The RWIC stated they did not hear the conversation between the Train Operator and the member of the team.

The RWIC stated that the ROCC requested a landline and they responded that they would do so once they arrived at the emergency egress at a vent-shaft in order to orient the team, outside of the tunnel, as a teaching point.

The RWIC stated the ROCC then requested that they standby at their current mile marker and await retrieval by another train. The RWIC stated once the train had transported them to the platform at Stadium Armory Station, they called the ROCC via landline.

Appendix B – Written Statements

MIR RWP Violation

April 25, 2022

Time: 1430 hours.

Radio Channels: Ops 2 and MTPD 3X

██████████ Response & Recovery Specialist.

On today's MTPD MIR, myself and ██████████ met MTPD officer ██████████, MTPD 350, at Stadium-Armory for the morning MIR Tunnel Familiarization at approximately 0915 hours. Officer ██████████ was to perform all Roadway Worker In Charge (RWIC). Mr. ██████████ was going to be the Watchman/Lookout for this walk, and I was the Advanced Mobile Flagger (AMF). After receiving the Roadway Job Safety Briefing (RJSB) with the group and signing it, I boarded the next train towards Potomac Avenue with my equipment to set up as the AMF. Upon arrival at Potomac, I proceeded to the 8-car marker at Track 1 and retrieved all my AMF equipment from our AMF bag. I then contacted Mr. ██████████ on MTPD 3X and advised him that I was ready.

RWIC Officer ██████████ contacted the Rail Traffic Controller (RTC) of the Silver/Orange/Blue line on Ops 2 and asked for permission to enter the roadway and to go "direct" with myself, the AMF. Officer ██████████ did so on Ops 2. I responded, but the transmission was blocked. I moved about a foot forward and repeated that I was located at Potomac Ave. Station, track 1, 8-car marker and ready to flag. I heard Officer ██████████ state that we were ready and the Ops 2 RTC did a repeat back and told Officer ██████████ to stand-by while protections were set.

At approximately 0950 hours, a train pulled up to the platform. The train operator asked if my crew was on the roadway and I informed him that they were not. I had not heard them receive permission to enter the roadway. The train pulled off and I radioed Mr. ██████████ on MTPD 3x and asked about whether they were ready for me to drop my light (referring to if Officer ██████████ had heard back from the RTC on Ops 2 OK'ing permission to enter the roadway). Mr. ██████████ informed me that they had already entered the roadway and for me to go ahead and drop the amber light and start flagging and that a train was headed their way at full speed. I informed him that I had not read the directions to the operator, because I was not aware that they had entered the roadway.

I heard the RTC on Ops 2 asking for Officer ██████████ to call them via the landline. Officer ██████████ informed them that he would when he reached a place safe for him to call. The RTC then asked for his location, in which Officer ██████████ informed them that he had started his walk. At this time, I set my light and began AMF duties. After a couple of minutes, Train 605, pulled into Potomac on Track 1. The RTC contacted the train operator and advised him to make a pickup of Officer ██████████ crew on the roadway. I then advised the operator of the crew on the roadway and then read the AMF statement. The operator pulled the train away from the station and I heard verification on Ops 2 that Officer ██████████ crew had been picked up from the roadway. I then contacted Mr. ██████████ on MTPD 3X and advised him that I was still at Potomac awaiting orders from Officer ██████████, the RWIC, to release me. Officer ██████████ then made the announcement on Ops 2 that his crew was

off the roadway and I picked up my amber light and stopped AMF duties. After that, I waited for the next train and returned to Stadium Armory Station.

Document 1 - Written statement of the Advanced Mobile Flagger.

Incident Date: 04/25/2022 Time: 09:48 hours
Final Report – Improper RWP
E22255

Drafted By: SAFE 707 – 06/23/2022
Reviewed By: SAFE 71 – 06/24/2022
Approved By: SAFE 71 – 07/21/2022

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Appendix C - Root Cause Analysis

