



## W-0345 – Improper Roadway Worker Protection – Deanwood Station – March 21, 2024

### Document Purpose:

*This WMSC written report on WMATA Metrorail's safety event investigations and review of Metrorail's findings in accordance with the WMSC Program Standard, in conjunction with the attached Metrorail investigation reports that have undergone WMSC staff review and, if necessary, feedback and revision, describes the investigation activities, identifies factors causing or contributing to the safety events, and sets forth ongoing, additional, or upcoming corrective actions and further oversight work (such as inspections and audits) as necessary or appropriate. The WMSC's ongoing oversight during the investigative process, including safety event reporting and verification, participation in investigative interviews, data review, consistent communication with the Metrorail investigations team, and feedback on Metrorail's reports leads to further improvements prior to consideration of the reports by WMSC Commissioners for adoption. The WMSC's safety event investigation oversight assures the sufficiency and thoroughness of Metrorail's investigations. The WMSC Commissioners are considering these documents (the WMSC review and Metrorail's investigation reports) as a unified item for adoption at the Washington Metrorail Safety Commission meeting on October 22, 2024.*

*WMSC staff recommend adoption of this investigation.*

### Roadway Worker Protection

The [WMSC's audit of Metrorail's Roadway Worker Protection Programs](#), issued on July 31, 2024, demonstrates that although Metrorail has established policies and procedures, rules, training, and oversight of its RWP program, there are still deficiencies that put the safety of workers at risk. During this audit, WMSC personnel observed unsafe practices contrary to Metrorail policies and procedures at every observation activity conducted. As further explained in Finding 1 of the audit report, Metrorail is not effectively ensuring that its personnel on and around the roadway are consistently following the Roadway Worker Protection rules designed for their safety. This increases the risk that personnel may be injured or killed. Between 2005 and 2010, eight Metrorail employees were struck and killed by rail vehicles. In the years since, there have been several near miss collisions with roadway workers, including a 2016 safety event where Federal Transit Administration (FTA) track inspectors were forced to jump out of the path of a train to avoid being hit. Since then, there have been near misses that include workers narrowly escaping a fatal collision, including events that occurred in 2021, 2022, and 2023.

Metrorail has developed and the WMSC is reviewing proposed corrective action plans created in accordance with the Program Standard to address the 13 findings of the RWP Audit issues in July 2024. These build on immediate mitigations and initial steps to correct outdated materials and communicate the importance of safety rules that Metrorail took based on the WMSC's communication of safety issues as those issues were observed and validated during the audit process.

### Safety event summary:



Miscommunication between an Automatic Train Control (ATC) Roadway Worker In Charge (RWIC) and a Radio Rail Traffic Controller in the Metro Integrated Command and Communications Center (MICC) lead to an improper roadway worker protection event at Deanwood Station. This event demonstrates the necessity for repeating back radio communications to ensure intended messages are conveyed correctly and understood.

An ATC mobile work crew had been conducting shunt verifications on the Orange Line when the crew's Roadway Worker In Charge requested Foul Time protection from the Radio Rail Traffic Controller to continue their work at Deanwood Station. The Radio Rail Traffic Controller instructed the RWIC to make contact with the Advanced Mobile Flagger (AMF) via radio. After the RWIC confirmed the AMF was in position at New Carrollton Station, the Controller granted the crew permission to enter the roadway to continue shunt verification after the next train was properly berthed at Deanwood Station. It was not until the RWIC relinquished Foul Time that the Controller realized the crew had entered the roadway without the proper form of protection, at which time the Controller directed the crew to stand clear of the roadway and notified the MICC Assistant Operations Manager.

A preliminary investigation into the event shortly after it occurred determined the RWIC had requested Foul Time and was granted permission by the Rail Traffic Controller to continue their work. The Controller understood the request to be for AMF protection, not Foul Time, and therefore, failed to put protections in place required under Foul Time to protect the crew, including blue blocks and red signals. This error could have resulted in a collision with a rail vehicle. The Rail Traffic Controller was removed from service for post-event toxicology testing.

During an investigative interview, the Controller reported experiencing radio communications issues with both the clarity of the transmissions and the activity volume. A review of audio data did not confirm the Controller's report.

The causes and contributing factors include:

- Non-compliance with written operational rules and procedures as it relates to repeating back all information
- Miscommunication between the RWIC and the Radio Rail Traffic Controller

As a result of this investigation, the RWIC and Rail Traffic Controller were both reinstructed on RWP procedures and processes, and the Controller received refresher training regarding processing and approving RWP methods



Washington Metropolitan Area Transit Authority  
Department of Safety (SAFE)  
Office of Safety Investigations (OSI)

**FINAL REPORT OF INVESTIGATION A&I E24220**

<b>Date of Event:</b>	March 21, 2024
<b>Type of Event:</b>	O-23 Improper Roadway Worker Protection (RWP)
<b>Incident Time:</b>	11:09 hours
<b>Location:</b>	Deanwood Station, Track 2
<b>Time and How received by SAFE:</b>	12:03 hours Mission Assurance Coordinator – (MAC)
<b>WMSC Notification Time:</b>	13:05 hours
<b>Responding Safety Officers:</b>	None
<b>Rail Vehicle:</b>	None
<b>Injuries:</b>	None
<b>Damage:</b>	None
<b>Emergency Responders:</b>	None
<b>SMS I/A Number</b>	20240227#115062MX

## Deanwood Station – Improper RWP

March 21, 2024  
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## **Abbreviations and Acronyms**

<b>AIMS</b>	Advanced Information Management System
<b>AMF</b>	Advanced Mobile Flagger
<b>AOM</b>	Assistant Operations Manager
<b>ARS</b>	Audio Recording System
<b>ATC</b>	Automatic Train Control
<b>CCTV</b>	Closed-Circuit Television
<b>CMOR-IIT</b>	Chief Mechanical Officer – Incident Investigation Team
<b>MICC</b>	Metro Integrated Command and Communications Center
<b>MOR</b>	Metrorail Operating Rulebook
<b>NOAA</b>	National Oceanic and Atmospheric Administration
<b>RTC</b>	Rail Traffic Controller
<b>RWIC</b>	Roadway Worker In-Charge
<b>SAFE</b>	Department of Safety
<b>SMS</b>	Safety Measurement System
<b>WMATA</b>	Washington Metropolitan Area Transit Authority
<b>WMSC</b>	Washington Metrorail Safety Commission

**Washington Metropolitan Area Transit Authority**  
**Department of Safety – Office of Safety Investigations**

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**Executive Summary**

*\*Note that all times listed are approximate and may contain minor variations due to differences between systems of record. \**

On Thursday, March 21, 2024, at 11:09 hours, the Radio Rail Traffic Controller (RTC) from the Metro Integrated Command and Communication Center (MICC) reported an Automatic Train Control (ATC) Roadway Worker in Charge (RWIC) entered the roadway at Deanwood Station Platform, track 2 without establishing proper protection from the Radio RTC.

At 10:21 hour, an Automatic Train Control (ATC) Roadway Worker In Charge (RWIC) contacted the Radio RTC and requested permission to enter the roadway at Deanwood Station for the purpose of shunt verification at D2 Chain Marker (CM) 339+00 to Chain Marker (CM) D2 420+00. The RWIC requested a Train Drop Off at D2 CM 339+00.

The Train Operator on ID 922 requested permission to drop off personnel at D2 CM 339+00 and permission was granted by the Radio RTC at 10:24 hours. The Train Operator of ID 922 advised the Radio RTC the RWIC, and crew exited the train and were standing by in a place of safety at 10:27 hours.

At 10:31 the Radio RTC granted the RWIC and crew permission to continue their shunt verification between D2 CM 339+00 and Deanwood Station platform, track 2 advising the RTC when the crew was safely on the platform at Deanwood Station.

At 11:09 hours, the RWIC notified the Radio RTC the crew was standing by on the platform at Deanwood Station and requested Foul Time to resume their shunt verification. The Radio RTC instructed the RWIC to make contact with the Advanced Mobile Flagger (AMF) via radio. The RWIC contacted the AMF standing by at Cheverly, track 2 to verify they were in position and ready to flag. After the AMF confirmed their location, the Radio RTC granted the RWIC permission to resume their shunt verification after the next train properly berthed on the platform at Deanwood Station. The Radio RTC also informed the ATC RWIC that, roadway procedures were still in effect.

At 11:19 hours, the RWIC relinquished their Foul Time, and requested to continue their work under AMF Protection. The Radio RTC instructed the RWIC via radio to contact them via the landline. The Radio RTC inquired if the RWIC entered the platform area of the roadway. The RWIC advised that they had. The Radio RTC directed the RWIC and crew to stand by and stand clear. At 11:24 hours, the Radio RTC notified Assistant Operations Manager (AOM) by phone of the Improper RWP where the Radio RTC related they had not granted Foul Time protection, only AMF, however the RWIC had requested Foul Time and had begun their work within the platform area.

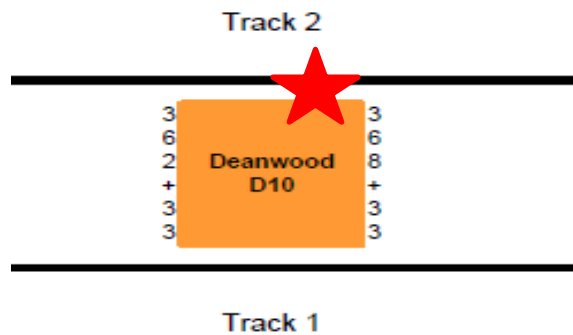
The Operations Manager (Rail 1) notified the Mission Assurance Command (MAC) Desk and the Assistant Director (Metro 1). An initial decision was made to remove the Radio RTC and the ATC RWIC from service. After reviewing the information provided, the ATC Supervisor and Superintendent decided not to remove the ATC RWIC from service. The review and decision indicated the Superintendent determined the RWIC had requested Foul Time and received permission to commence work within the platform limits. No injuries or damages resulted from the event.

The probable cause of the Improper Roadway Worker Protection (RWP) event on March 21, 2024, at Deanwood Station, was ineffective communication between the Radio RTC and the ATC RWIC. The original request for Foul Time protection was not granted by the Radio RTC, however permission was granted only under Advance Mobile Flagger (AMF) protection.

### **Incident Site**

Deanwood Station, Track 2 is an above-ground station with center platform and direct fixation tracks.

### **Field Sketch/Schematics**



*The above depiction is not to scale.*

### **Purpose and Scope**

The purpose of this accident 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 documentation review and video.
- Formal Interviews – SAFE interviewed two individual as part of this investigation. The interview included persons present at, during, and after the incident, those directly involved in the response process, and representatives from the Washington Metrorail Safety Commission (WMSC). SAFE interviewed the following individual:
  - The MICC Radio RTC
  - The ATC RWIC
- Informal Interviews – Collected through conversations with individuals during the investigation to provide background and supporting information. Written statements were reviewed from personnel present during the event.
- Documentation Review – A collection of relevant work history information and process documentation contained in Metro systems of record. These records include:

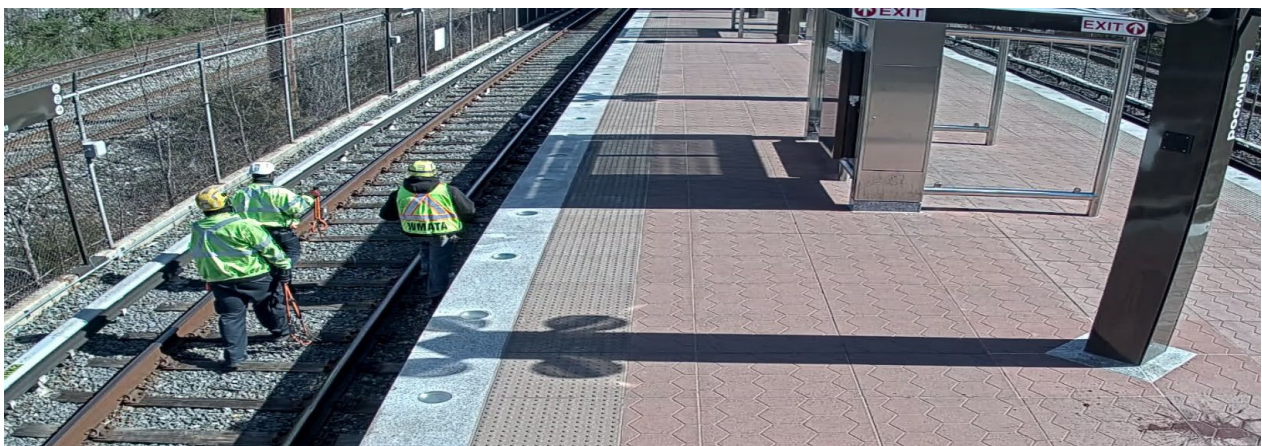
- Metrorail Safety Rules and Procedures Handbook (MSRPH)
  - National Oceanic and Atmospheric Administration (NOAA)
  - ATC RWIC Training Records
  - ATC RWIC Certifications
  - ATC RWIC 30-day Work History
  - ATC RWIC's Written Statement
  - ATC RWIC's Roadway Job Safety Briefing (RJSB) Form
  - MICC Radio RTC 30-day History
  - MICC Written Statement
  - MICC Radio RTC Training Certifications
- System Data Recording Review – A collection of information contained in Metro Data Recording Systems. This data includes:
    - Audio Recording System (ARS) playback
    - Closed-Circuit Television (CCTV)
    - Vehicle Monitoring System (VMS) Data

### **Investigation**

On Thursday, March 21, 2024, at 10:20 hours an ATC RWIC conducted shunt verification inspection from D2 CM 339+00 to D2 CM 420+00. After arriving at Deanwood Station at 11:09 hours, the RWIC contacted the MICC Radio RTC to request Foul Time to continue their shunt verification at Deanwood Station platform, track 2.

The Radio RTC instructed the RWIC to go direct with their AMF at Cheverly platform. The RWIC complied as instructed and confirmed with the AMF at Cheverly Station, they were in place and ready to flag. The Radio RTC asked Train ID 923 if they saw the AMF on Cheverly platform. Train ID 923 acknowledged they did.

The Radio RTC instructed the RWIC to allow one train to properly berth at Deanwood Station and they may continue inspection. Train ID 923 properly berthed at Deanwood Station, platform 2 at 11:11 hours. The RWIC and crew entered the roadway at 11:14 hours at Deanwood Station platform to complete their work and place the shunts.



*Image 1: ATC RWIC and crew in Deanwood Station track 2 roadway at 11:15:51 hours*



During the formal interview of the Radio RTC they stated they had observed the shunts on the display and called the RWIC on the radio to landline them. The Auto Recording System (ARS) records did indicate the ATC RWIC called the MICC Radio RTC on the radio at 11:19 hours and relinquished Foul Time. At 11:20 hours, the MICC Radio RTC asked the ATC RWIC to give a landline.

During the formal interview, the MICC Radio RTC stated, they observed the shunts on the display and called the ATC RWIC on the radio.

At 11:20 hours, the Radio RTC asked the RWIC if they had entered the platform area of the roadway. The ATC RWIC replied that they had. The Radio RTC directed the ATC RWIC and mobile crew to stand by and stand clear. At 11:24 hours, the Radio RTC notified AOM of the event by phone.

At 11:26 hours, the AOM called the MICC Radio RTC and inquired how the event was discovered. The MICC Radio RTC stated, by verifying the placement of the shunts via the AIMS display.

Notification was made to Rail 1, the MAC Desk and Metro 1 by the AOM. At 12:29 hours, the MAC Desk contacted the Safety Director on Call (SDOC). An initial decision was made to remove both the MICC Radio RTC and the RWIC from service. However, after reviewing the information provided to the ATC Supervisor and Superintendent, it was decided not to remove the RWIC from service.

### Chronological Event Timeline

A review of ARS playback, i.e., phone and radio communications, revealed the following timeline:

Time	Description
10:21:02 hours	<u>ATC RWIC</u> : Contacted the Radio RTC and requested permission to conduct a track shunt verification at D2 CM 339+00 to CM D2 420+00, Hot Spot identified, with assistance of Train Drop Off at D2 CM 339+00. <u>Radio RTC</u> : Provided 100% repeat back and instructed to make contact with the next train at Deanwood Station to make drop off. [Radio, Ops. 2]
10:24:45 hours	<u>Train ID 922</u> : Requested permission for Train Drop Off at D2 CM 339+00. <u>Radio RTC</u> : Permission granted. Advised to key down for drop off and advise when in position. <u>Train ID 922</u> : Acknowledged. [Radio, Ops. 2]
10:27:13 hours	<u>Radio RTC</u> : Requested Train ID 922 advise when ATC personnel are clear. <u>Train ID 922</u> : Acknowledged. RWIC and crew exited the train stood in a place of safety. [Radio, Ops. 2]
10:28:32 hours	<u>ATC RWIC</u> : Asked permission to begin walk. <u>Radio RTC</u> : Advised to go to direct with AMF at Deanwood Station. <u>ATC RWIC</u> : Contacted the Radio RTC and requested permission to enter the roadway after Train Drop Off for shunt verification, and they were using AMF protection in CM D2 339+00 to D2 420+00. <u>AMF</u> : Advised, in place ready to flag. <u>Radio RTC</u> : Provided 100% repeat back and permission to begin inspection. [Radio, Ops. 2]

Time	Description
11:09:12 hours	<p><u>ATC RWIC</u>: Requested Foul Time from D10 platform to resume inspection.</p> <p><u>Radio RTC</u>: Advised to go direct with AMF at Cheverly platform.</p> <p><u>AMF</u>: Advised, in position at Cheverly ready to flag, track 2.</p> <p><u>ATC RWIC</u>: Asked RTC how they copy AMF?</p> <p><u>Radio RTC</u>: Asked Train ID 932 if they see AMF at Cheverly platform, track 2?</p> <p><u>Train ID 923</u>: Responded, yes.</p> <p><u>Radio RTC</u>: Advised ATC RWIC to allow one train to properly berth at Deanwood and then may continue inspection.</p> <p><u>ATC AMF</u>: Confirmed with 100% repeat back.</p> <p><u>Radio RTC</u>: Acknowledged. [Radio, Ops. 2]</p>
11:14:00 hours	<p>Work Crew entered the roadway at Deanwood Station, track 2 to place their shunts. [CCTV]</p>
11:19:17 hours	<p><u>ATC RWIC</u>: Contacted the Radio RTC and relinquished Foul Time and to request AMF protection to resume shunt verification.</p> <p><u>Radio RTC</u>: Advised ATC RWIC to give a landline.</p> <p><u>ATC RWIC</u>: Acknowledged. [Radio, Ops. 2]</p>
11:20:49 hours	<p><u>Radio RTC</u>: Answered ATC RWIC landline and asked if RWIC was in roadway within platform limits Deanwood Station.</p> <p><u>ATC RWIC</u>: Responded, yes.</p> <p><u>Radio RTC</u>: Advised, "I did not grant Foul Time, stand by stand clear." [Phone, Ops. 2]</p>
11:24:30 hours	<p><u>Radio RTC</u>: Advised Rail 1 of event and asked for guidance.</p> <p><u>Rail 1</u>: Provided an incident time for the RWP violation. [Phone Ops. 2]</p>

Note: Times above may vary from other systems' timelines based on clock settings.

### Office of Systems Maintenance, Office of Radio Communications (COMR)

On May 13, 2024, COMR performed radio checks at Deanwood Station platform on tracks 1 and 2. All radio checks performed were loud and clear.

### Interview Findings

As part of the investigation launched into the event, SAFE interviewed two people. The interview identified the following key findings associated with this event. Findings detailed below include reported information from involved personnel and may conflict with other data sources contained in the report.

### ATC RWIC

- The ATC RWIC advised they had conducted a Rail Job Safety Briefing (RJSB) with the crew before they started their work. The ATC RWIC requested a train drop off at D2 CM 339+00 for shunt verification between D2 CM 339+ D2 CM 420+00. The MICC Radio RTC approved request and advised RWIC coordinate with next train.
- The ATC RWIC requested Foul Time to enter the platform area of track 2 at Deanwood Station to perform a track circuit inspection.
- The ATC RWIC stated that they received permission from the MICC to enter the roadway at Deanwood Station, track 2, once the next train berthed at Deanwood Station.
- The ATC RWIC and crew entered the roadway after the train berthed, placed their shunts and completed the inspection. The ATC RWIC contacted the MICC Radio RTC via radio and relinquished Foul Time the ATC RWIC was asked by the MICC Radio RTC to give them a landline. The MICC Radio RTC asked on the landline if the ATC RWIC had entered the

roadway at the platform? The ATC RWIC stated that, “they had”. The MICC Radio RTC advised them they had not been granted Foul Time and to stand by and stand clear. The ATC RWIC and crew were already on the platform at Deanwood Station.

- The ATC RWIC was instructed to contact the ATC Supervisor. The ATC RWIC contacted the ATC Supervisor and received permission to continue working under AMF protection to Cheverly Station, where the work was completed for the day and secured.

#### MICC Radio RTC

- The MICC Radio RTC stated, that they did not grant Foul Time.
- The MICC Radio RTC reported the radio was having issues with both clarity and activity volume. They also advised they had some challenges completely understanding the ATC RWIC. (Review of ARS did not confirm issue on the recorded excerpts copy.)
- The MICC Radio RTC stated, if they were to granted Foul Time, they would have used blue blocks and red signals to ensure protection.
- The MICC Radio RTC state if MOR 17 had been followed reference repeating back all information, they believe the event would not have occurred.

#### **Weather**

On March 21, 2024, at the time of the incident, NOAA recorded the temperature as 46°F, with partly cloudy skies, winds 12 mph, and 46% humidity. Weather was not a contributing factor in this incident. (Weather source: NOAA) – Location: Washington, DC.

#### **Related Rules and Procedures**

##### 17.8.2.3 Roadway Worker In Charge Responsibilities:

- a. Rules compliance, oversight, and safety within the working limits, at all times, as per the Metrorail Operating Rulebook, employing sound and safe judgement , including escorting contractors and visitors.
- b. Sole responsibility for overseeing set up of all on-track safety protection: ETO, Inaccessible Track Occupancy, Foul Time, Advanced Mobile Flagging.

##### 17.8.2.4 RWIC Duties and Oversight of the Working Limits:

- e. Request Foul Time when there is a need to provide greater protection where a single Advanced Mobile Flagger and/or Watchman/Lookout cannot provide Ample Time/Warning of the approach of a rail vehicle.

##### 17.8.6 Rail Operations Control Center

- a. Authorizes access to the Roadway.

17.8.2 Working limits may be established on controlled track using Foul Time procedures for the purposes of completing work that will not disturb the track or third rail structure in a manner that would prevent movements at normal operating speeds. This includes, but is not limited to: Inspection, minor repairs, maintenance, and testing.

##### 17.8.2.4 RWIC Duties and Oversight of the Working Limits:

8 Incident Date: 03/21/2024 Time: 11:09 hours  
Final Report – Improper RWP Rev. 1  
E24220

Drafted By: SAFE 709 – 08/18/2024
Reviewed By: SAFE 707 – 09/03/2024
Approved By: SAFE 707 – 09/07/2024

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- h. Must receive permission from the RTC before entering the roadway and will not enter the roadway until permission is granted by the RTC.

#### 17.17 Foul Time

17.17.3 Foul Time may only be issued by the Rail Traffic Controller (RTC) or Interlocking Operator.

#### 17.17.6 Action Required to Request Foul Time

The personnel requesting to foul the track shall contact the Rail Traffic Controller or Interlocking Operator and provide the following information:

- a. Department, when applicable, and radio call number of employees requesting Foul Time,
- b. Track designations (Line and track no.)
- c. Track limits (chain marker(s))
- d. Reason for Foul Time (nature of work to be performed), and
- e. Time limits (requested duration).

#### 17.8.6 Rail Operations Control Center

- a. Authorizes access to the Roadway.
- b. Verify protections, safety equipment and devices are in place in accordance with the Metrorail Operating Rulebook.
- c. Confirms Third Rail power outages from the RWIC.
- d. Requests authorization from the RWIC to move any rail vehicles through the working limits.
- e. If radio communications are disrupted in any way with the RWIC, notify rail vehicle operators the location of work crew(s) and hold rail vehicles(s) at preceding stations.
- f. Confirms all personnel, safety devices and equipment have been removed prior to commencing restoration of revenue service.

## Human Factors

### Evidence of Fatigue

#### ATC RWIC

We evaluated conditions at the time of the incident to distinguish whether evidence of fatigue was present. No video of the involved person was reviewed to ascertain whether evidence of fatigue was present. The ATC RWIC reported feeling fully alert at the time of the incident. The ATC RWIC reported experiencing no symptoms of fatigue in the time leading up to the incident.

### Fatigue Risk

We evaluated incident data for fatigue risk factors. No risk factors for fatigue were present. The incident time of day did not suggest an increased risk of fatigue-related impairment. The ATC RWIC reported no variation in the sleep schedule in the days leading up to the incident. The ATC RWIC maintained a day shift schedule in the days leading up to the incident. The ATC RWIC was awake for six hours at the time of the incident. The ATC RWIC reported seven and a half hours of sleep in the 24 hours preceding the incident. The off-duty period was 15.91 hours which provides an opportunity for 7-9 hours of sleep. This was a comparable amount of sleep as the ATC RWIC's usual workday sleep durations. The employee reported no issues with sleep.

### Evidence of Fatigue

#### MICC Radio RTC

We evaluated conditions at the time of the incident to distinguish whether evidence of fatigue was present. No video of the involved person was observed that ascertained evidence of fatigue. The MICC Radio RTC reported feeling fully alert at the time of the incident. The MICC Radio RTC reported experiencing no symptoms of fatigue in the time leading up to the incident.

### Fatigue Risk

We evaluated incident data for fatigue risk factors. No risk factors for fatigue were present. The incident time of day did not suggest an increased risk of fatigue-related impairment. The MICC Radio RTC reported no variation in the sleep schedule in the days leading up to the incident. The MICC Radio RTC maintained their schedule working the day shift in the days leading up to the incident. The MICC Radio RTC was awake for six and a half hours at the time of the incident. The MICC Radio RTC reported seven and a half hours of sleep in the 24 hours preceding the incident. The off-duty period was 63.88 hours which provides an opportunity for 7-9 hours of sleep. This was a comparable amount of sleep as the employee's usual workday sleep durations. The employee reported no issues with sleep.

### Post-Incident Toxicology Testing

WMATA's Drug and Alcohol Program determined that the MICC Radio RTC involved complied with the Drug and Alcohol Policy and Testing Program 7.7.3/6.

## **Findings**

- The ATC RWIC entered the roadway without establishing proper protection.
- The ATC RWIC's failure to clarify and understand the requested protection.
- Poor communication resulted in the Radio RTC failing to acknowledge the RWIC's Foul Time request.
- The Radio RTC stated in formal interview they verified the RWIC, and crew had entered the roadway within platform limits and observed the shunts via the AIMS System.
- No action was taken against RWIC, their supervisor contacted Assistant Superintendent they reviewed the recording of the dialogue between RWIC and RTC, they determined that RWIC had correctly requested foul time.

## **Immediate Mitigation to Prevent Recurrence**

- The RWIC was instructed to clear the roadway.
- The Radio RTC was removed from service.
- All parties involved were re-instructed on RWP Procedures and processes.

## **Probable Cause Statement**

The probable cause of the Improper Roadway Worker Protection (RWP) event on March 21, 2024, at Deanwood Station, was ineffective communication between the Radio RTC and the ATC RWIC. The original request for Foul Time protection was not granted by the Radio RTC, however permission was granted only under Advance Mobile Flagger (AMF) protection.

## **Recommended Corrective Actions**

<b>Corrective Action Code</b>	<b>Description</b>	<b>Responsible Party</b>	<b>Estimated Completion Date</b>
115062MX_SAF ECAPS_MICC_0 01	Refresher training of the Radio RTC reference processing and approval of RWP methods.	MICC SRC	Completed

## Appendices

### **Appendix A – Interview Summary**

*The below narratives summarize the incident and represent the statements made by the involved individual. As such, times and details may present a conflict with the data contained in systems of record.*

#### ATC RWIC

The ATC RWIC is a WMATA employee with twelve (12) years of experience and six months of experience as a Mechanic B. The ATC RWIC holds an RWP Level 4, which expires in August 2024.

During the formal interview, the ATC RWIC stated that they previously worked as a Mechanic C and D.

The ATC RWIC stated that they were feeling fully rested. The ATC RWIC stated a non-work-related circumstance affected their opportunity to get good sleep.

The ATC RWIC stated they and a crew of four WMATA employees began the day with a Train Drop Off completing track circuit inspections from mid-way between Minnesota Avenue Station and Deanwood Station. On arrival at Deanwood Station the ATC RWIC requested Foul Time to continue their inspection at the Deanwood platform area.

The ATC RWIC stated the MICC Radio RTC granted permission after they allowed a train to berth at Deanwood Station, track 2 and communicated with their AMF at Cheverly to confirm they were in place and ready to flag.

The ATC RWIC stated that they completed their work within the platform limits and from the Deanwood Station platform called the MICC Radio RTC on the radio to relinquish Foul Time. The MICC Radio RTC responded with a request for the ATC RWIC to call landline.

The MICC Radio RTC asked in the landline call if the RWIC had been in the roadway in the platform limits. The ATC RWIC replied yes. The MICC Radio RTC told the ATC RWIC they had not granted Foul Time. The ATC RWIC was told to stand by and stand clear and wait for further instruction.

The ATC RWIC stated they were told to contact their ATC Supervisor. The ATC RWIC did and was given permission to continue and complete their inspection to Cheverly Station. The ATC RWIC stated they secured from Cheverly at approximately 13:20 hours.

#### MICC Radio RTC

The MICC Radio RTC is a WMATA employee with nine (9) years of experience and two and a half years of experience as a Rail Traffic Controller. The MICC Radio RTC holds an RWP Level 4, which expires in January 2025.

During the formal interview, the MICC Radio RTC stated that they previously worked as both a Bus and Train Operator. The MICC Radio RTC stated that they were feeling fully alert while they performed RTC duties.

The MICC Radio RTC stated they had been in communication with the ATC RWIC earlier in the shift when the ATC RWIC was working between Minnesota Avenue Station and Deanwood Station conducting track circuit inspections.

The MICC Radio RTC stated that the radio conversations with trains, RWICs and other field personnel can be challenging, sometimes we miss information because of signals, multiple units and other issues when they were asked if they had recalled the ATC RWIC's request for Foul Time. The MICC Radio RTC stated they had heard the ARS recording of the transmission and from what they recalled it seemed the ATC RWIC was asking to continue track inspections to Cheverly Station.

The MICC Radio RTC stated they did not hear the ATC RWIC inquire did you copy my request for Foul Time. I was able to have him go direct with his AMF. When asked if the MICC Radio RTC's directing the ATC RWIC to the AMF would have been done normally under Foul Time requests the MICC Radio RTC respond, no generally we would use blue blocks and red signals to protect the Foul Time area.

The MICC Radio RTC stated they recalled advising the ATC RWIC to wait until the train was properly berthed at Deanwood Station before entering the roadway. The MICC Radio RTC stated they knew that they had never used the words Foul Time is granted.

The MICC Radio RTC stated they believed, along with the Button RTC, they had observed the shunts in the in place in their display. (The ARS recordings indicate the ATC RWIC had radioed in relinquishing Foul Time and the MICC Radio RTC paused while responding and requested a landline from the ATC RWIC.)

The MICC Radio RTC radioed the ATC RWIC and requested a landline call. When the ATC RWIC called the MICC Radio RTC asked if the ATC RWIC had been in the roadway of the platform limits. The MICC Radio RTC advised the ATC RWIC replied yes.

The MICC Radio RTC stated they advised the ATC RWIC to stand by and stand clear. The MICC Radio RTC notified AOM and Rail 1 of the event. The MICC Radio RTC was removed from service at that point, completed a written statement and taken for a PIME.



# Appendix B – ATC RWIC Written Statement – Redacted

Initial Incident Form		TO BE COMPLETED AND		Page 1 of	
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY		DISTRIBUTED WITHIN 24 HOURS			
<b>INCIDENT</b>					
Date	Incident Time	Date/Time Reported	<input type="checkbox"/> AM <input type="checkbox"/> PM	Worksafe Incident ID#	
03/21/24	11:49	03/21/24			
Location			Incident ID# (From ROCC, BOCC, etc.)		
D10 - (Dearwood Station)					
Type of Incident:					
<input type="checkbox"/> Altercation	<input type="checkbox"/> External Complaint	<input type="checkbox"/> Gas Detection Alarm	<input type="checkbox"/> Medical Treatment	<input type="checkbox"/> Vandalism	
<input type="checkbox"/> Assault	<input type="checkbox"/> Fatality	<input type="checkbox"/> Hazardous Material	<input type="checkbox"/> Near Miss	<input checked="" type="checkbox"/> Other: _____	
<input type="checkbox"/> Derailment	<input type="checkbox"/> Fire	<input type="checkbox"/> Handling	<input type="checkbox"/> No Treatment		
<input type="checkbox"/> Elevator Entrapment	<input type="checkbox"/> First Aid Case	<input type="checkbox"/> Internal Complaint	<input type="checkbox"/> Rupture or Spill		
<input type="checkbox"/> Escalator	<input type="checkbox"/> Flood	<input type="checkbox"/> Leak	<input type="checkbox"/> Trespassing		
<b>WMATA PERSONNEL INVOLVED</b>					
Name		Age	Employee # or MTPD Badge #		
[Redacted]		[Redacted]	[Redacted]		
Phone Number	Job Title	Department	Division/Section		
[Redacted]	Mechanic	ATCM (6051)	3		
Last Day Worked (prior to)	Hours Worked (within last 24 hrs)		Overtime? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
03/20/24	8 hrs				
<b>COMPLETE FOR INCIDENTS WITHIN THE RAIL SYSTEM:</b>					
Train/Vehicle ID	Direction	Track #	Car/Vehicle Numbers	Trouble Code	Resp Code
Mezzanine #	AFC Equipment #	Escalator/Elevator #	Entrance	Platform	Track
<b>COMPLETE FOR INCIDENTS WITHIN THE BUS SYSTEM</b>					
Bus or Tag Number	Vehicle or Tag Number	Block Number	Run Number		
<b>DESCRIBE THE INCIDENT AND PROPERTY/EQUIPMENT DAMAGE</b>					
Provide factual information about the task, actions before and after the incident, the injury causing agent and any damage caused to property or equipment. Provide a diagram(s) and/or photos as attachments. If necessary, provide diagram in this space or on a separate page.					
I requested for faulting to OCC to continue shunt verification on D10 platform. and then OCC gave me permission after the train berthed to continue shunt verification. We continued and after we done verification, when I relinquished my faulting OCC told me that Landline.					
<b>EXTERNAL AGENCIES INVOLVED</b>					
<input type="checkbox"/> Fire Dept. – Arrival Time: _____		<input type="checkbox"/> EMS. – Arrival Time: _____		<input type="checkbox"/> Other – Arrival Time: _____	
<input type="checkbox"/> Police – Arrival Time: _____		<input type="checkbox"/> Other – Arrival Time: _____		<input type="checkbox"/> Other – Arrival Time: _____	
Name	Badge Number	Complaint Number	Jurisdiction		
Engine Number	Ambulance Number	Hospital			
<b>ACTIONS TAKEN BY SUPERVISOR.</b>					
Describe immediate changes made to address the incident.					
Form completed by (Signature)				Date	
[Redacted]				03/21/24	
Print name				Employee Number	
[Redacted]				[Redacted]	
Supervisor (Signature)				Date	
[Redacted]				03/21/24	
Print name				Employee Number	
[Redacted]				[Redacted]	
				Phone Number	
				[Redacted]	

50.688 04/09 Original: RISK Copy 1: Kiosk Copy 2: Department Photocopy to SAFE, Employee and other per Department requirements

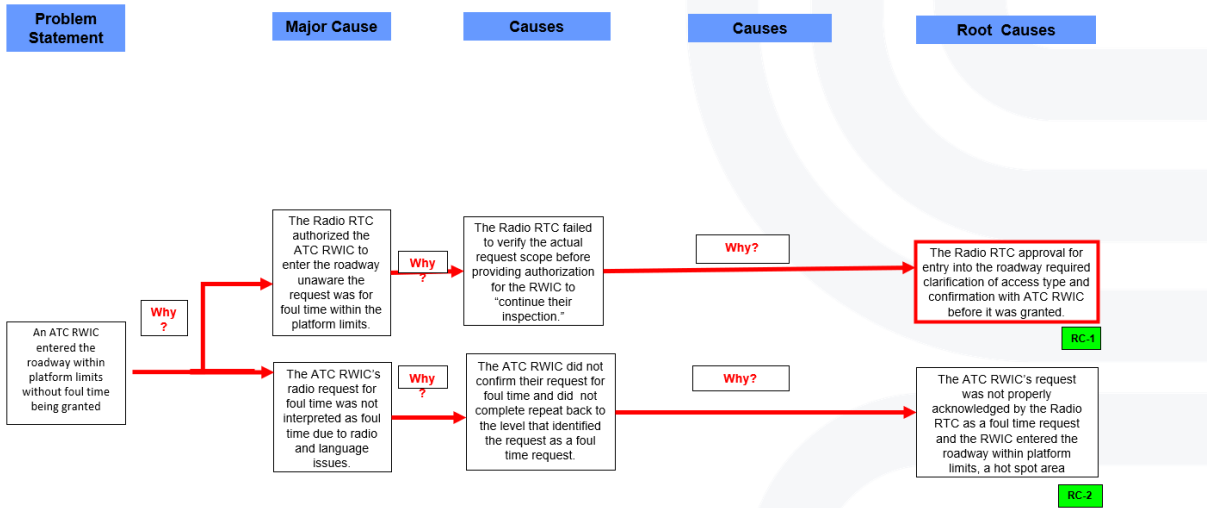
Document 1: ATC RWIC Written Statement - redacted Page 1 of 1.

8 Incident Date: 03/21/2024 Time: 11:09 hours  
Final Report – Improper RWP Rev. 1  
E24220

Drafted By: SAFE 709 – 08/18/2024  
Reviewed By: SAFE 707 – 09/03/2024  
Approved By: SAFE 707 – 09/07/2024

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# Appendix C – Why-Tree Analysis



## Root Cause Analysis

E24220-Improper RWP- Deanwood Station

