



**WMSC Commissioner Brief: W-0100 – Improper Roadway Worker Protection – U Street Station – February 5, 2021**

*Prepared for Washington Metrorail Safety Commission meeting on August 3, 2021*

**Safety event summary:**

After one Metrorail work crew established working limits for a radio project between Columbia Heights and U Street stations, a second work crew entered the working limits without getting required permission and safety information from the Roadway Worker In-Charge (RWIC) and without properly establishing their own piggybacking work zone that is required to provide adequate roadway worker protection (RWP). Such a piggybacking work zone requires its own end work area mats, lights and shunts to provide protection from vehicles being moved into the work area without coordination. The piggyback crew also did not place required Warning Strobe and Alarm Devices (WSADs) to provide a warning in the event of unexpected restoration of third rail power. The piggybacking had been properly scheduled in the General Orders and Track Rights System (GOTRS), which is used to schedule work zones. This second work crew, assigned to clean trash and debris from the roadway at the U Street Station also included at least one member not wearing their hard hat, which is required personal protective equipment (PPE) when on the roadway.

The work crews had not coordinated arrival times or meeting locations in advance, and the RWIC was not aware of all piggybacking work crews, which contributed to the RWIC conducting a job safety briefing without the piggybacking work crew that planned to work at U Street Station.

The RWIC allowed this piggybacking work crew to enter the roadway without a roadway job safety briefing. However, radio recordings and CCTV video demonstrate that the request to access the roadway was made and acknowledged only after members of the piggybacking work crew at U Street Station were already on the roadway.

Radio recordings indicate that the piggybacking crew leader contacted the Rail Operations Control Center (ROCC) for permission to contact the RWIC at 2:00 a.m., moments after the RWIC had completed setup of their working limits. The crew leader then attempted to reach the RWIC three times between 2:01 a.m. and 2:03 a.m. before the RWIC acknowledged a fourth effort at 2:04 a.m. and granted permission to work without requiring the piggybacking crew to report for a job safety briefing. CCTV video suggests that the piggybacking crew entered the roadway around the time they contacted the ROCC immediately after the RWIC had established working limits, rather than entering the roadway to set up their own work zone only after required approval from the RWIC. The crew never set up a work zone. Interviews established that the request to the RWIC occurred only after one of the RWIC's crew members approached the piggybacking crew leader to ask why the piggybacking crew was on the roadway without permission from the RWIC.

At least one member of the work crew also accessed the roadway by jumping down from the platform edge rather than utilizing the stairs at either end of the platform.

Metrorail did not identify this improper roadway worker protection until after personnel had departed for the night.

The RWIC did not identify this improper roadway worker protection at the time of the event. Another member of the RWIC's work crew did not raise this safety issue to the RWIC until after the crew had returned to the office. The work crew member reported the event to their supervisor, but not to the RWIC or ROCC. That supervisor then informed other managers of the safety event.



A Communications Assistant Superintendent eventually reported the event more than eight hours after it occurred.

Metrorail did not then perform testing as required by WMATA's Drug and Alcohol Policy. While that was outside the testing window for alcohol, drug tests would still have been valid.

**Probable Cause:**

The probable cause of this event was Metrorail's lack of safety assurance and supervisory oversight to ensure that safety-critical procedures such as job safety briefing and PPE requirements are followed. Contributing to the practical drift demonstrated by this event was Metrorail's lack of supervisory oversight of piggybacking work crews, and the apparent sense that important safety precautions such as setting up a work zone and getting required approval from the RWIC are merely a formality. Contributing to the failure to identify this event in a timely fashion was Metrorail's inadequate or unutilized reporting processes to ensure safety events or near misses are immediately identified and mitigated.

**Corrective Actions:**

The Communications Section and Track and Structures Department are to conduct site visits and safety observations to identify hazards and mitigations.

The Communications Section and Track and Structures issued lessons learned documents related to track access and piggybacking work crews. The Communications memorandum stated they would no longer allow piggyback work crews during certain radio work.

The RWIC and piggybacking crew leader received refresher training on rules and procedures directly related to this event.

**WMSC staff observations:**

WMATA is in the process of a roadway worker protection rules overhaul, including changes to forms of protection and processes. Extensive training for personnel will be required prior to implementation of this update.

The RWIC reported radio communications issues in the area, but, despite the RWIC being a radio communications technician, Metrorail said a follow up communications test did not identify any issues that required correction.

Some items in the initial Communications Section memorandum were incorrect, including accident reporting requirements and RWIC safety responsibilities.

**Staff recommendation:** Adopt final report.



Washington Metro Area Transit Authority

Department of Safety and Environmental

Management (SAFE)

**FINAL REPORT OF INVESTIGATION A&I E21050**

<b>Date of Event:</b>	2/5/2021
<b>Type of Event:</b>	Improper Roadway Worker Protection
<b>Incident Time:</b>	02:00 hours.
<b>Location:</b>	U Street-Cardozo Station, Track 1, and Track 2
<b>Time and How received by SAFE:</b>	10:22 hours. SAFE On-call Phone
<b>WMSC Notification Time:</b>	12:13 hours.
<b>Rail Vehicle:</b>	None
<b>Injuries:</b>	None
<b>Damage:</b>	None
<b>SMS I/A Incident Number:</b>	20210205#91704

U Street-Cardozo Station  
Improper Roadway Worker Protection  
February 5, 2021

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## **Abbreviations and Acronyms**

<b>AIMS</b>	Advanced Information Management System
<b>ARS</b>	Audio Recording System
<b>CCTV</b>	Closed-Circuit Television
<b>CM</b>	Chain Marker
<b>COMM</b>	Office of Systems Maintenance Communication Section
<b>ETO</b>	Exclusive Track Occupancy
<b>GOTRS</b>	General Orders and Track Rights System
<b>MSRPH</b>	Metrorail Safety Rules and Procedures Handbook
<b>NOAA</b>	National Oceanic and Atmospheric Administration
<b>OPS</b>	Operation Channels
<b>PPE</b>	Personal Protective Equipment
<b>RJSB</b>	Roadway Job Safety Briefing
<b>ROCC</b>	Rail Operations Control Center
<b>RTC</b>	Rail Traffic Controller
<b>RWIC</b>	Roadway Worker in Charge
<b>RWP</b>	Roadway Worker Protection
<b>TRST</b>	Office of Track and Structures
<b>SAFE</b>	Department of Safety and Environmental Management
<b>SMS I/A</b>	Safety Measurement System Incidents/Accidents
<b>WMATA</b>	Washington Metropolitan Area Transit Authority
<b>WMSC</b>	Washington Metrorail Safety Commission

### **Executive Summary**

On Friday, February 5, 2021, at 10:22 hours, the Rail Operation Control Center (ROCC) notified SAFE that an Office of Systems Maintenance Communication Section (COMM) Assistant Superintendent reported an improper roadway worker protection (RWP) event at U Street-Cardozo Station, Track 1 and Track 2 that took place at approximately 02:00 hours. Upon further investigation, the Roadway Worker in Charge (RWIC) had a Supervisory Power Outage scheduled in General Orders and Track Rights System (GOTRS) from U Street-Cardozo Station to Colombia Heights Station, Track 1 and Track 2 under Exclusive Track Occupancy (ETO) RWP. The purpose of the GOTRS request was for the RWIC to provide RWP escort support to Motorola contractors for Bi-Directional Amplifier (BDA) replacement. The RWIC was escorting the contractors at Colombia Heights Station while they had a COMM work crew at U Street-Cardozo Station. Per GOTRS, the RWIC working limits were from Chain Marker (CM) E1-075+00 to E1-135+00 and CM E2-075+00 to E2-135+00. See Appendix C.

Additionally, per GOTRS, the Office of Track and Structures (TRST) had a Supervisory Power Outage scheduled at U Street-Cardozo Station, Track 1, and Track 2 that allowed piggybacking under the authority of the RWIC of the work area. The purpose of the TRST GOTRS rights was to remove excessive trash and debris from the roadway within the platform limits. See Appendix D.

The Audio Recording System (ARS) playback revealed at 01:37 hours, the RWIC contacted the Rail Operation Control Center (ROCC) Radio Rail Traffic Controller (RTC) and reported that they hot stuck and confirmed that third rail power was de-energized. The Radio RTC acknowledged and instructed the RWIC to contact the ROCC when the shunts were installed correctly to verify track occupancy. At 01:59 hours, the RWIC reported to the Radio RTC that shunts were installed on the E Line, Track 1, and Track 2. The Radio RTC verified four good shunts were placed correctly and granted the RWIC permission to install all necessary safety equipment for the work's nature and begin work. At 02:00 hours, the Crew Leader representing TRST contacted the Radio RTC and requested to contact the RWIC. The Radio RTC permitted Crew Leader to go direct with the RWIC.

The Closed-Circuit Television (CCTV) footage revealed, at 02:00 hours, the piggybacking work crew entered the U Street-Cardozo Station roadway to perform cleaning efforts before the Crew Leader requested permission from the RWIC who was at Colombia Heights Station to provide RWP escort support to Motorola contractors to enter their working limits. Additionally, CCTV showed a piggybacking crew member at U Street-Cardozo Station not wearing their hardhat while on the roadway. These actions were not in compliance with the MSRPH Section 5.15 and Personal Protective Equipment (PPE) Standard On-Track Safety. Additionally, during the virtual interview, the Crew Leader said they did not set up a piggyback work zone before engaging in work activities, which is not in compliance with MSRPH Section 5.15.

At 02:04 hours, the Crew Leader contacted the RWIC and asked if they could start work in the work area at U Street-Cardozo Station, Track 1, and Track 2. The RWIC asked if they had a mobile unit. The Crew Leader indicated they did not have any mobile units and that they were currently on the platform and needed to clean the roadway. The RWIC granted permission to go to work and requested that the Crew Leader informed them when the work crew and equipment were clear of the roadway. The Crew Leader acknowledged. The RWIC allowed the piggybacking work crew to enter the roadway within their working limits without having the piggybacking work crew

participate in the Roadway Job Safety Briefing (RJSB). This action was not in compliance with the Metrorail Safety Rules and Procedures Handbook (MSRPH) Section 5.15 - Piggybacking.

The Advanced Information Management System (AIMS) playback showed the Radio RTC implemented, prohibit exits, block calls, cancellation of automatic signals, blue block, and human form status before and during the piggybacking crew activities on the roadway at U Street-Cardozo Station Track 1, and Track 2.

Based on ARS playback, at 02:15 hours, the Crew Leader contacted the RWIC and advised personnel and equipment were clear of the roadway at U Street-Cardozo Station Track 1 and Track 2. The RWIC acknowledged. At 03:38 hours, the RWIC contacted the Radio RTC and reported that they would like to relinquish their GOTRS rights for the Supervisory Power Outage on Track 1 and Track 2, from CM E-070+00 to CM E-140+00. The RWIC additionally stated that all personnel and equipment were clear of the roadway and all work had been completed; you are free to restore third rail power at your discretion. All tracks are revenue-ready. The Radio RTC acknowledged. There were no injuries or damage reported as a result of this incident.

The RWIC did not identify this improper roadway worker protection at the time of the event. Another member of the RWIC's work crew reported the event to their supervisor but not to the RWIC. That supervisor then informed other managers of the safety event.

The probable cause on February 5, 2021, Improper RWP event at U Street-Cardozo Station was human error and lack of procedural adherence from the RWIC and Crew Leader when they failed to follow MSRPH RWP, as detailed in section 5.15, Piggybacking Responsibilities. Additionally, the Crew Leader failed to identify that a piggybacking work crew member was not wearing a hardhat while on WMATA's roadway.

### **Incident Site**

U Street-Cardozo Station, Track 1, and Track 2

### **COMM – GOTRS**

Actual – Chain Marker E1-075+00 to E1-135+00 and E2-075+00 to E2-135+00

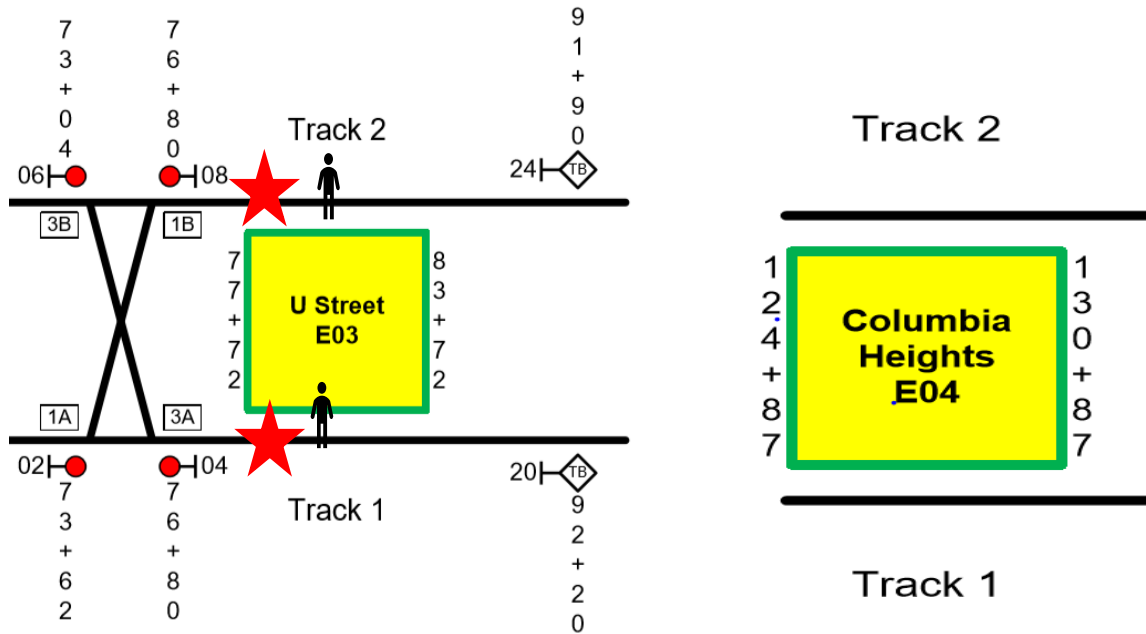
Protected – Chain Marker E1-070+00 to E1-140+00 and E2-070+00 to E2-140+00

### **TRST – GOTRS**

Actual – Chain Marker E1-075+00 to E1-85+00 and E2-075+00 to E2-85+00

Protected – Chain Marker E1-070+00 to E1-90+00 and E2-070+00 to E2-90+00

## Field Sketch/Schematics



## Purpose and Scope

The purpose of this incident 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.

## Investigation Methods

The investigative methodologies included the following:

- Formal Interview – SAFE conducted two interviews as part of this investigation. The interviews included:
  - RWIC
  - Crew Leader
- Informal Interviews – Collected through conversations with individuals during the investigation to provide background and supporting information.
- Documentation Review – A collection of relevant work history information and process documentation in Metro systems of record. These records include:
  - Employee Training Procedures & Records
  - Certification
  - The 30-Day work history review
  - Metrorail Safety Rules and Procedures Handbook (MSRPH)
  - National Oceanic Atmospheric Administration (NOAA)
  - Rail Operations Control Center (ROCC) Procedures Manual Review
  - Office of Systems Maintenance Communication Section (COMM)



- System Data Recording Review – A collection of information contained in Metro Data Recording Systems. This data includes:
  - Audio Recording System (ARS) playback [Radio and Phone Communications]
  - Closed-Circuit Television (CCTV) playback
  - Advanced Information Management System (AIMS)
  - General Orders and Track Rights System (GOTRS)

## Investigation

On Friday, February 5, 2021, at 10:22 hours, the ROCC notified SAFE that a COMM Assistant Superintendent reported an improper RWP event at U Street-Cardozo Station, Track 1, and Track 2 at 02:00 hours.

The ARS playback revealed, at 00:53 hours, the RWIC contacted the Radio RTC and requested to activate their GOTRS rights for a Supervisory Power Outage on Track 1 and Track 2 at Chain Marker 070+00 to Chain Marker 140+00. The Radio RTC acknowledged the request and requested the RWIC to standby.

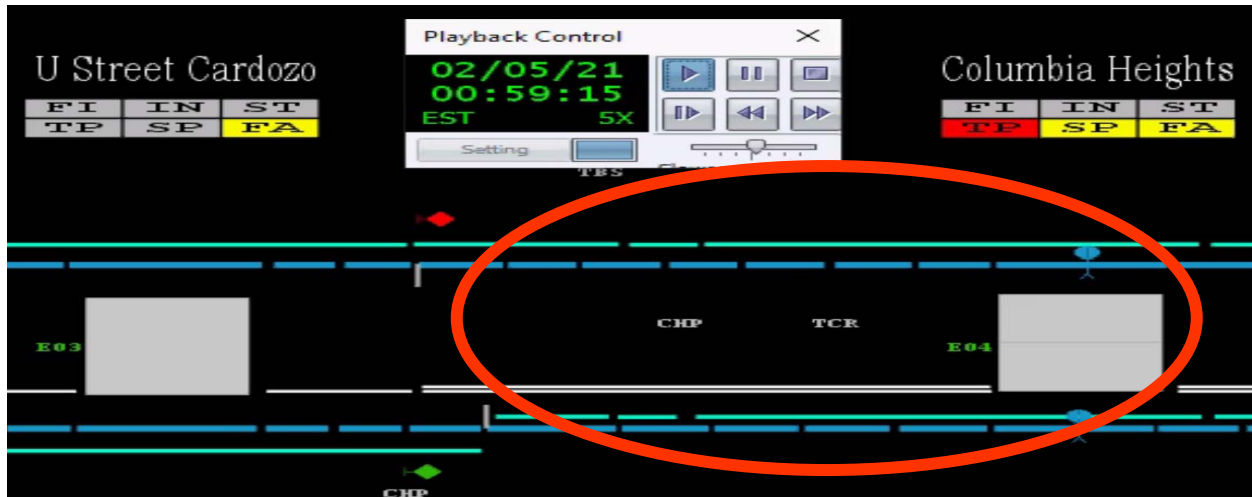


Diagram 1 - Based on the AIMS, at 00:59:15 hours, prohibit exits, block calls, cancellation of automatic signals, blue block, and human form status were in place before the RWIC entered the roadway to hot stick and confirm that third rail power was de-energized between U Street-Cardozo Station and Columbia Heights Station, Track 1 and Track 2.

At 01:07 hours, the Radio RTC contacted the RWIC and stated that the E05-08, E01-36, and E01-44 signals were red and prohibit exits, block calls, cancellation of automatic signals, blue block, and human form status were in place. At this time, breakers were commanded open and the RWIC had permission to enter the roadway to hot stick and confirm that third rail power is de-energized and provide the ROCC with a Chain Marker.

At 01:37 hours, the RWIC contacted the Radio RTC and reported that they hot stuck and confirmed that third rail power was de-energized on Track 1 at Chain Markers 134+30, 133+22, 132+94, 105+12, 78+00, 76+20, and Track 2, Chain Markers 134+30, 133+30, 132+02, 105+08, 73+66 and 76+44. The Radio RTC acknowledged and instructed the RWIC to contact the ROCC when shunts were installed correctly to verify track occupancy.

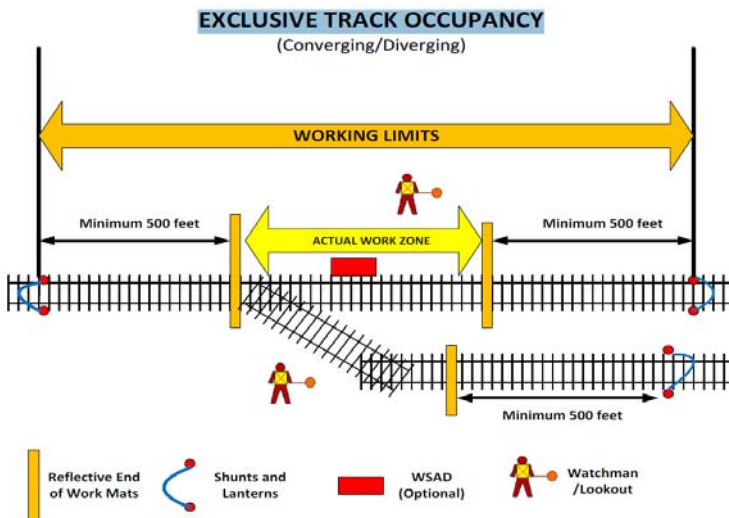


Diagram 2 – ETO protection diagram.

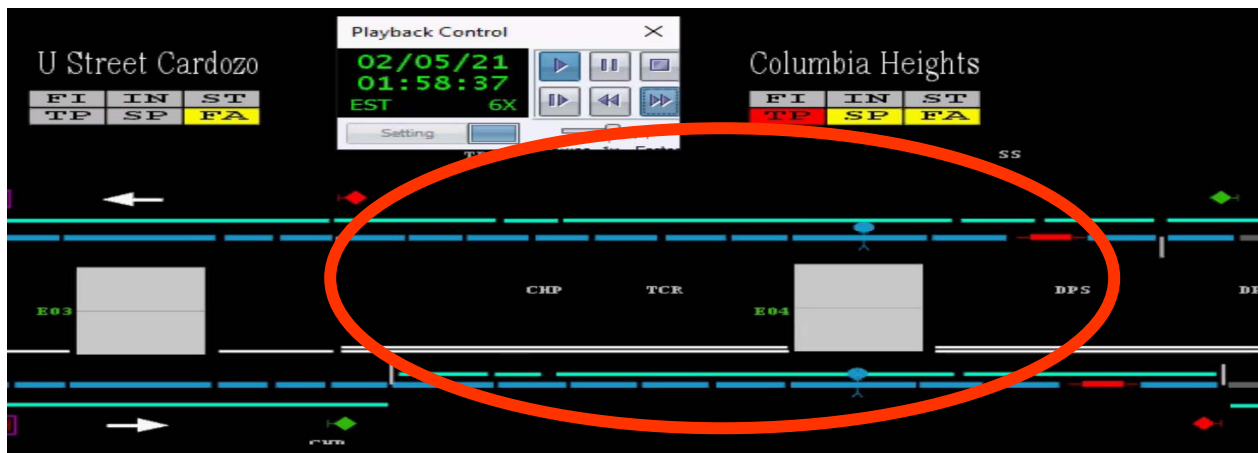
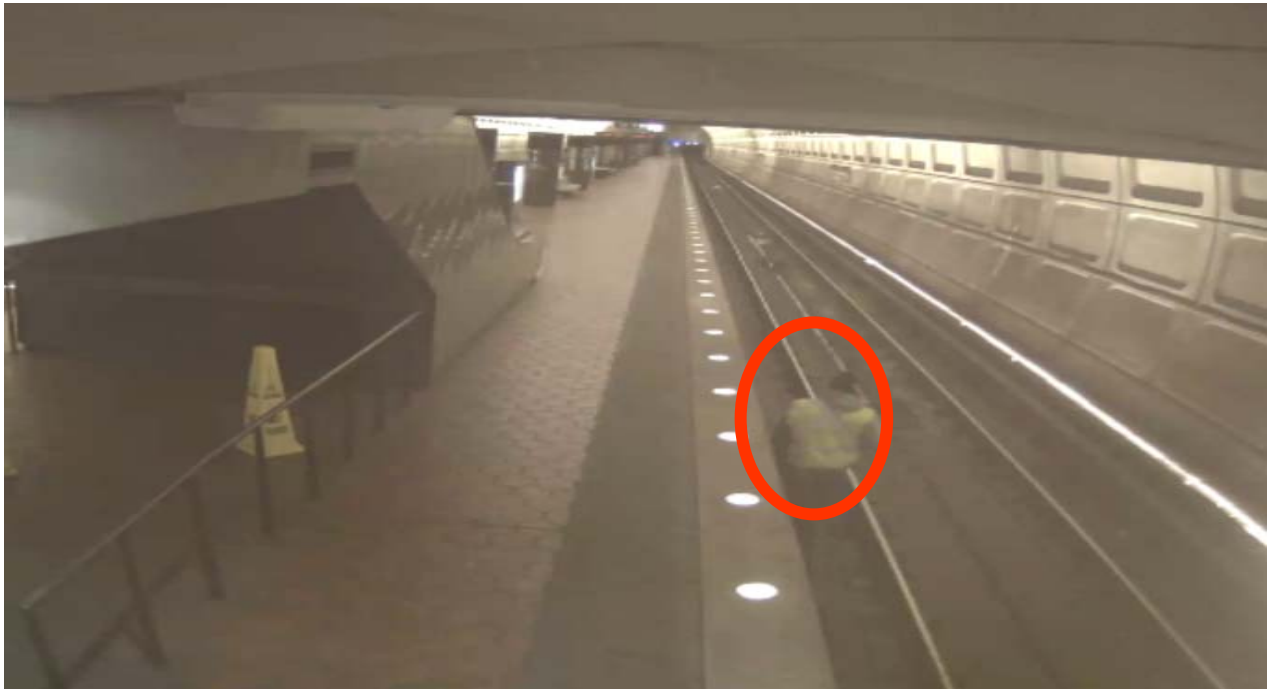
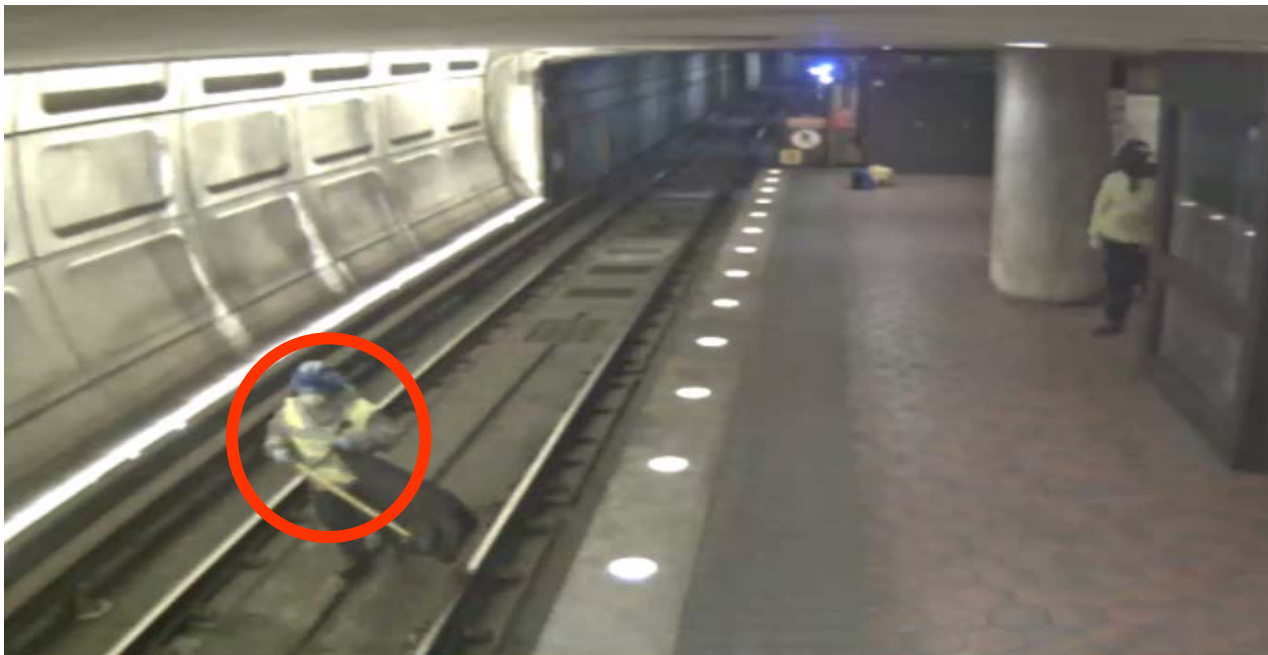


Diagram 3 - Based on the AIMS, at 01:58:37 hours, prohibit exits, block calls, cancellation of automatic signals, blue block, and human form status were in place before the piggyback work crew entered the roadway to perform cleanup efforts.

Based on ARS playback, at 01:59 hours, the RWIC reported to the Radio RTC that they had four good shunts. The Radio RTC acknowledged and granted the RWIC permission to install all necessary safety equipment for the work's nature and begin work.



*Figure 1 - Based on the CCTV, at 02:00:21 hours, a piggybacking work crew member representing TRST entered the U Street-Cardozo Station roadway to perform cleaning efforts and was not wearing a hardhat while on WMATA's roadway.*



*Figure 2 - Based on the CCTV, at 02:00:40 hours, a piggybacking work crew entered the roadway without participating in the RSJB before requesting permission from the RWIC to enter their working limits.*

Based on ARS playback, at 02:04 hours, the Crew Leader contacted the RWIC and asked if they could start work in the work area. The RWIC asked if they had a mobile unit. The Crew Leader indicated that they did not have any mobile units and were currently on the platform and needed to clean the roadway. The RWIC granted permission to go to work and requested that the Crew Leader **inform** them when the work crew and equipment were clear of the roadway. The Crew Leader acknowledged.



Figure 3 - Based on the CCTV, at 02:05:29 hours, a member from the piggybacking work crew jumped from the station platforms without using an appropriate means of descent.

The Crew Leader did not set up a piggyback work zone before engaging in work activities, which is not in compliance with MSRPB Section 5.15 - Piggybacking, which states the following:

- Establish a work zone within the RWIC working limits and shall conform to the following:
  - Install a shunt and two red lanterns or e-flares at each end of their work zone within the RWIC's working limits.
  - Place "END WORK AREA" reflective mats at the shunt (omitting the five hundred (500) foot safety buffer zone).
  - Notify the RWIC that the Piggyback work zone is set up correctly for inspection

Note: In ETO RWP the piggyback crew was working in close proximity to the third rail under a supervisory outage without a WSAD.

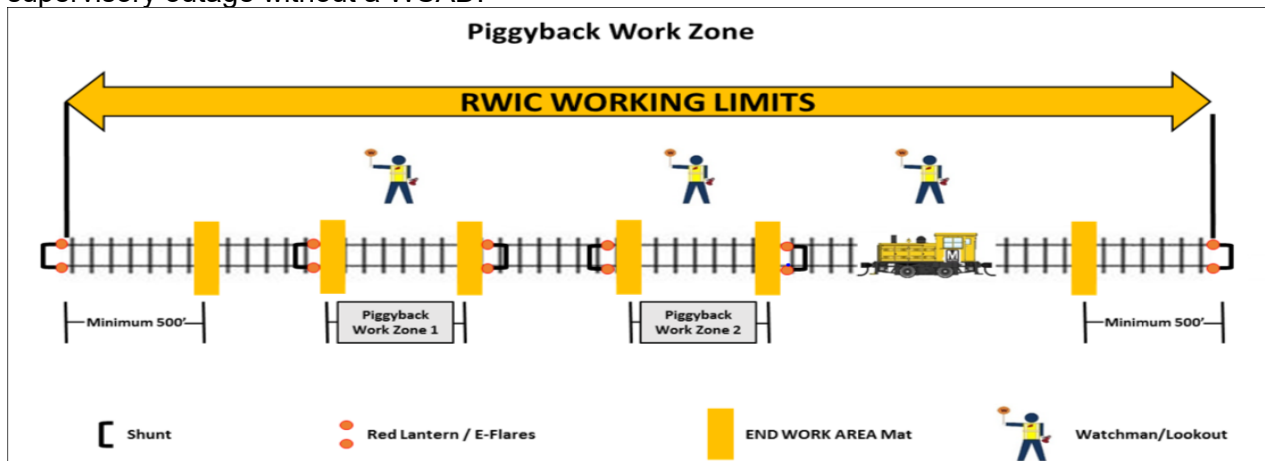


Diagram 4 – Piggyback work zone.

Based on ARS playback, at 02:15 hours, the Crew Leader contacted the RWIC and advised personnel and equipment were clear of the roadway at U Street-Cardozo Station Track 1 and Track 2. The RWIC acknowledged.



Figure 4 - Based on the CCTV, at 02:41:23 hours, the piggybacking work crew cleared the roadway and departed U Street-Cardozo Station.

Based on ARS playback, at 03:38 hours, the RWIC contacted the Radio RTC and reported at this time, they would like to relinquish their GOTRS rights for a supervisory power outage on Track 1 and Track 2, at Chain Marker 070+00 to Chain Marker 140+00. All personnel and equipment are clear of the roadway. All work has been completed; you are free to restore third rail power at your discretion. All tracks are revenue-ready. Radio RTC acknowledged.

### **Audio Recording System (ARS) Chronological Event Timeline**

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

Time	Description
00:53:18 hrs.	<p><u>RWIC</u>: Notified the ROCC Radio RTC and requested to activate their GOTRS rights for a Supervisory Power Outage on Track 1 and Track 2, at Chain Marker 070+00 to Chain Marker 140+00.</p> <p><u>ROCC Radio RTC</u>: Acknowledged and instructed the RWIC to standby and stand clear. [Radio]</p>
01:02:14 hrs.	<p><u>ROCC Radio RTC</u>: Notified the RWIC and reported the E05-08 signal was red, E01-36, and E01-44 signal was red, prohibit exits, block calls, cancellation of automatic signals, blue block, and human form status were in place. The Radio RTC stated, at this time, breakers have been commanded open. You have permission to enter the roadway to hot stick and confirm that third rail power is de-energized. Please provide the ROCC with a Chain Marker.</p> <p><u>RWIC</u>: Acknowledged. [Radio]</p>



01:37:25 hrs.	<p><u>RWIC</u>: Notified the ROCC Radio RTC that third rail power was confirmed to be de-energized on the E Line, Track 1 at Chain Marker 134+30, 133+22, 132+94, 105+12, 78+00, 76+20, and Track 2, Chain Marker 134+30, 133+30, 132+02, 105+08, 73+66 and 76+44.</p> <p><u>ROCC Radio RTC</u>: Acknowledged and instructed the RWIC to verify proper placement of shunts with the ROCC.</p> <p><u>RWIC</u>: Acknowledged. [Radio]</p>
01:59:30 hrs.	<p><u>RWIC</u>: Notified the ROCC Radio RTC and reported shunts were installed on the E Line, Track 1, and Track 2.</p> <p><u>ROCC Radio RTC</u>: They verified four good shunts were placed correctly and indicated the RWIC had permission to place equipment in the work area and gave permission to start work.</p> <p><u>RWIC</u>: Acknowledged. [Radio]</p>
02:00:05 hrs.	<p><u>Crew Leader</u>: Notified the ROCC Radio RTC and requested to contact the RWIC.</p> <p><u>ROCC Radio RTC</u>: Acknowledged and granted the Crew Leader permission to go direct with the RWIC. [Radio]</p>
02:01:11 hrs.	<u>Crew Leader</u> : Notified the RWIC but did not get a response back. [Radio]
02:03:10 hrs.	<u>Crew Leader</u> : Notified the RWIC but did not get a response back. [Radio]
02:03:27 hrs.	<u>Crew Leader</u> : Notified the RWIC but did not get a response back. [Radio]
02:04:33 hrs.	<p><u>Crew Leader</u>: Notified the RWIC and asked if they could start work in the work area.</p> <p><u>RWIC</u>: Do you have a mobile unit over?</p> <p><u>Crew Leader</u>: Responded, we don't have any mobile units; we are currently on the platform and need to clean the roadway.</p> <p><u>RWIC</u>: Responded, you have permission to go to work, make sure you advise when your work crew and equipment are clear of the roadway.</p> <p><u>Crew Leader</u>: Acknowledged. [Radio]</p>
02:15:17 hrs.	<p><u>Crew Leader</u>: Notified the RWIC and advised personnel and equipment were clear of the roadway at U Street-Cardozo Station Track 1 and Track 2.</p> <p><u>RWIC</u>: Acknowledged. [Radio]</p>
03:38:35 hrs.	<p><u>RWIC</u>: Notified the ROCC Radio RTC and reported that they would like to relinquish their GOTRS rights for the Supervisory Power Outage on Track 1 and Track 2, at Chain Marker 070+00 to Chain Marker 140+00. All personnel and equipment are clear of the roadway. All work has been completed; you are free to restore third rail power at your discretion. All tracks are revenue-ready.</p> <p><u>ROCC Radio RTC</u>: Acknowledged. [Radio]</p>

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

**\*\*Note:** After reviewing the ARS playback, there did not appear to be any communication deficiencies over the radio.

## **Office of Systems Maintenance Communication Section (COMM)**

COMM performed a comprehensive radio operational test from U Street-Cardozo Station to Columbia Heights Station to Tracks 1 and 2. The test was successful, and the signal was at an optimal level.

### **Interview Findings**

Based on the investigation launched into the U Street-Cardozo Station improper RWP event, SAFE conducted two virtual interviews via Microsoft Teams, which included the investigation team, relevant Metro management, and the Washington Metrorail Safety Commission (WMSC). These interviews were conducted over a one-week span after the event and identified the following key findings associated with this event, as follows:

During the virtual interview, the RWIC stated that their work scope was to provide RWP support, conduct BDA replacement, and escort the Motorola contractors. The RWIC had a Supervisory Power Outage scheduled in GOTRS with the protected area at Chain Marker E1-070+00 to E1-140+00 and E2-070+00 to E2-240+00 under ETO RWP. The RWIC indicated they performed an RJSB at their primary work location at the Columbia Heights Station platform before work commenced on February 5, 2021. Once personnel and equipment were clear of the roadway, the RWIC went back to the office. A crew member of the RWIC indicated to the RWIC that the piggyback crew at U Street-Cardozo Station entered the roadway before obtaining permission from the RWIC. The crew member explained that the piggybacking crew advised they received permission from the RWIC to enter the roadway and start work, but that was not true.

The RWIC did know a cleaning crew was at U Street-Cardozo Station. The RWIC did not stop work because they found out about the improper RWP after leaving the work area. The RWIC's crew member reported the improper RWP to their Supervisor, and the COMM Supervisor then escalated the situation up the chain of command. This incident was not immediately reported to the ROCC when it transpired. The Crew Leader representing TRST had a Supervisory Power Outage scheduled in GOTRS at U Street-Cardozo Station, Track 1, and Track 2 that allowed piggybacking.

The purpose of the piggyback GOTRS rights was to remove excessive trash and debris from the roadway within the platform limits. While the piggybacking crew was standing by at U Street-Cardozo Station, they listened to the radio and heard the ROCC tell RWIC that they can go to work; they then received permission from the RWIC to go to work. The Crew Leader conducted an RJSB with their piggybacking crew but did not participate in the RWIC's RSJB before entering the roadway. The Crew Leader indicated the work area was already set up, and they did not install any additional safety equipment on the roadway. The Crew Leader revealed that one of the crew members from COMM working under the RWIC didn't hear the radio transmission between the RWIC and the Crew Leader and approached the Crew Leader and asked why the personnel were on the roadway? The Crew Leader advised they were the piggybacking crew and received permission from RWIC to go to work. The COMM crew member responded to the Crew Leader, stating that they did not hear any radio transmission for them to go to work. The Crew Leader told their piggybacking crew to exit the roadway, went directly with the RWIC again in front of the COMM crew member, and received permission to work. The Crew Leader indicated that the

COMM crew member assumed that they did not get permission earlier from RWIC, but they did. The Crew Leader instructed their crew to enter the roadway again to finish their assigned cleaning efforts. Once the piggybacking crew completed work, the Crew Leader contacted RWIC via radio and advised personnel and equipment were clear of the roadway at U Street-Cardozo Station Track 1 and Track 2.

## **Findings**

- Based on CCTV footage, a piggyback work crew member was identified on CCTV not wearing a hardhat while on WMATA's roadway. This action was not in compliance with MSRPH 5.11, "Personal Protective Equipment Standard for On-Track Safety."
- Based on CCTV footage, a piggyback work crew member was identified on CCTV jumping from the station platforms without using an appropriate means of descent. This action was not in compliance with MSRPH, 4.186. Employees shall not jump from vehicles, station platforms, or elevated structures, but shall use an appropriate means of descent.
- The RWIC allowed the piggyback work crew to enter the roadway within the working limits of the RWIC without having the piggyback work crew participate in their RJSB. This action was not in compliance with MSRPH, 5.15, Piggybacking Responsibilities.
- Based on CCTV footage, the piggyback work crew entered the U Street-Cardozo Station roadway to perform cleaning efforts before the Crew Leader requested permission from the RWIC to enter the working limits. This action was not in compliance with MSRPH Section 5.15 - Piggybacking.
- During the virtual interview, the Crew Leader admitted not setting up a piggyback work zone before engaging in work activities. This action was not in compliance with MSRPH, 5.15, Piggybacking Responsibilities.
- The AIMS playback showed prohibit exits, block calls, cancellation of automatic signals, blue block, and human form status were in place while the work crew was on the roadway at U Street-Cardozo Station, Track 1, and Track 2.
- At the time of this incident, the improper RWP event was reported the next day. As a result, the Crew Leader and the RWIC were not removed from service for post-incident testing.
- COMM management developed a memorandum to serve as a post-incident correction action and lessons learned to prevent a similar incident from reoccurring in the future. The directive was reviewed and signed by all affected employees. See Appendix E.
- The RWIC noted that they were told by one of their crew members that a crew was piggybacking at U Street-Cardozo Station. The RWIC indicated they went to U Street-Cardozo Station and did not see a crew there, so they just completed the RJSB with their personnel.
- During the virtual interview, the RWIC indicated that they used radio test 1 and phone to confirm the roadway was set up correctly. This action was not in compliance with MSRPH, 5.10.2. Monitors correct radio operation channels (OPS) while on the Roadway at all times. Will use a cell phone in emergency situations if needed.
- TRST piggybacking work crew RSJB form was not adequately filled out before entering the Roadway.



## **Weather**

At the time of the incident, National Oceanic and Atmospheric Administration (NOAA) recorded the temperature as 37°F, mostly cloudy and 61% humidity. (Weather source: NOAA – Location: Washington, DC.

## **Human Factors**

### **Fatigue**

The RWIC and Crew Leader 30-day work schedule leading up to the incident was compliant with WMATA's Policy/Instruction 10.6/1 Hours of Service Limitations for Prevention of Fatigue. It did not present a significant risk of impairment due to fatigue. Based on both the RWIC and Crew Leader interviews, no personal factors would have increased the likelihood of fatigue-related impairment. The RWIC and Crew Leader had no history of sleep issues to report.

## **Probable Cause Statement**

The probable cause on February 5, 2021, Improper RWP event at U Street-Cardozo Station was human error and lack of procedural adherence from the RWIC and Crew Leader when they failed to follow MSRPH RWP, as detailed in section 5.15, Piggybacking Responsibilities. Additionally, the Crew Leader failed to identify that a piggybacking work crew member was not wearing a hardhat while on WMATA's roadway.

## **Recommendations/Corrective Actions**

The following are the recommendations and corrective actions identified as a result of this investigation. These recommendations and corrective actions are tracked using WMATA's Safety Measurement System Incidents/Accidents (SMS I/A) Module and are verified by SAFE upon completion. The responsible department is identified in the corrective action code. Refer to the SMS I/A module for additional information.

<b>Corrective Action Code</b>	<b>Description</b>
91704_SAFECAPS_COMM_001	Shall conduct site visits and perform safety observations to identify any safety hazards of employees not safely completing the job's requirements and developing strategies to reduce their risk.
91704_SAFECAPS_COMM_002	Shall require the RWIC to undergo refresher training on specific MSRPH rules and procedures violated in this incident to prevent a similar incident from reoccurring in the future.
91704_SAFECAPS_TRST_003	Shall develop and distribute lessons learned based on the incident facts, emphasizing the importance of piggybacking responsibilities and Personal Protective Equipment Standard for On-Track Safety.
91704_SAFECAPS_TRST_004	Shall conduct site visits and perform safety observations to identify any safety hazards of employees not safely completing the job's requirements and developing strategies to reduce their risk.
91704_SAFECAPS_TRST_005	Shall require the Crew Leader to undergo refresher training on specific MSRPH rules and procedures violated in this incident to prevent a similar incident from reoccurring in the future.

## Appendices

### Appendix A – COMM - Roadway Job Safety Briefing (RJSB)

**WMATA ROADWAY JOB SAFETY BRIEFING FORM**

DATE: 02-05-2021 TRACK TIME ON/OFF: 020553 / 03138

RWIC NAME: [REDACTED] CALL#: [REDACTED] EMPLOYEE #: [REDACTED]

RWIC's CELL PHONE NUMBER: [REDACTED] RADIO OPS CHANNEL: 3

SAFETY RULE OF THE DAY: All Personnel MUST be RWP Trained before entering the Authority's Roadway.

WORK ASSIGNMENT: PSRS AMP Replacement + Motorola DIRECTION OF TRAFFIC: INBOUND ☒ OUTBOUND ☒

RAIL LINE: A B C D E F G J K L N TRACK 1 ☒ 2 ☒ 3 ☐ WORK LIMITS CHAIN MARKER(S): 070+00 - 140+00 (E1+E2)

PLACE OF SAFETY: CATWALK + PLATFORM

TYPE OF PROTECTION(S): IT ☐ ETO AUTHORITY ☒ ETO LOCAL SIGNAL ☐ AMF ☐ FT ☐

REQUEST FROM ROCC: BLOCK CALLS ☐ CANCEL AUTOMATIC SIGNALS ☐ PROHIBIT EXITS ☐

RED HOT SPOT(S) TYPE/LOCATION(S): ☐ RED HOT SPOT HAZARDS ☐ ETS/RADIO OUTAGE ☐

**FOUL TIME PROTECTION CAN BE REQUESTED IN ALL WORK ZONE CONFIGURATIONS**

POWER OUTAGE: LOCK OUT TAG OUT ☐ RED TAG ☐ SUPERVISORY ☒ NO POWER OUTAGE ☐

RED TAG NUMBER:                      RED TAG HOLDER:                     

WATCHMAN/LOOKOUT ASSIGNED: Yes ☐ No ☒ WATCHMAN/LOOKOUT NAME(S):                     

WATCHMAN/LOOKOUT EQUIPPED WITH AIR HORN AND WHISTLE ("W" Warning Disc required for fixed work zones): ☐

**WATCHMAN/LOOKOUT MUST BE PROPERLY SPACED AND HAVE SUFFICIENT SIGHTING DISTANCE TO PROVIDE AMPLE WARNING**

ADVANCE MOBILE FLAGGER ASSIGNED: Yes ☐ No ☒ ADVANCE MOBILE FLAGGER CALL # (s):                     

ADVANCE MOBILE FLAGGER EQUIPPED WITH AMBER LANTERNS/E-FLARES, ORANGE FLAG, AIR HORN, WHISTLE AND RADIO: ☐

PIGGY BACK CREW LEADER CALL # (s):                      PIGGY BACK WORKZONE CM (s):                     

PIGGY BACK WORK ASSIGNMENT:                     

NUMBER OF RMM (s):                      RMM OPERATIONS IN WORK ZONE:                     

ALL ROADWAY WORKERS MUST EXERCISE GOOD JUDGEMENT AND CONSIDER THE FOLLOWING POTENTIAL HAZARDS AND PROCEDURES BEFORE ENTERING THE ROADWAY:

WEATHER CONDITIONS	<input checked="" type="checkbox"/>	TRIPPING HAZARDS / UNEVEN WALKING SURFACES	<input checked="" type="checkbox"/>
TRACK GRADE AND VISIBILITY	<input checked="" type="checkbox"/>	POOR LIGHTING / TUNNEL AND VENT SHAFT(S)	<input checked="" type="checkbox"/>
HAZARDS ASSOCIATED WITH RAIL VEHICLE MOVEMENT	<input checked="" type="checkbox"/>	TRAIN / CURVE SPEED(S)	<input checked="" type="checkbox"/>
WORK SITE CONDITIONS AND ACTIVITIES	<input checked="" type="checkbox"/>	ETS BOX(S) LOCATIONS	<input checked="" type="checkbox"/>
EMERGENCY PROCEDURES	<input type="checkbox"/>	EQUIPMENT AND TOOL SAFETY	<input checked="" type="checkbox"/>
ADJACENT TRACK PROTECTION	<input type="checkbox"/>	ROTATION AND RELIEF PROCEDURES	<input type="checkbox"/>

Appendix A – Page 1 of 2.

ROADWAY WORKERS HAVE THE RIGHT AND RESPONSIBILITY TO INITIATE A GOOD FAITH CHALLENGE WHEN NECESSARY

### ROADWAY WORKER ACKNOWLEDGEMENT

[illegible]

RWICCOMMENTS: Restmetal view 89tuo-103tuo FIN 125tuo-131tuo VE 9 -> 114tuo-122t  
131tuo-105tuo RESTRICTED VIEW INTC -> 132tuo-140tuo VE 9 -> 114tuo-122t  
 [Redacted] reported a crew at E03. How entered the road way before being  
 blocked and before they were  
 according  
 permission

RELIEVING RWIC: \_\_\_\_\_ DATE/TIME: \_\_\_\_\_

EMPLOYEE(S) NAME: \_\_\_\_\_ EMPLOYEE(S) # \_\_\_\_\_ DATE/TIME \_\_\_\_\_  
RWP ISSUE(S) \_\_\_\_\_ ISSUED RESOLVED: Yes No



## Appendix B – TRST - Roadway Job Safety Briefing (RJSB)

**WMATA ROADWAY JOB SAFETY BRIEFING FORM**

DATE: 2-4-2021

RWIC NAME: [REDACTED] CALL#: [REDACTED] TRACK TIME ON/OFF:        /       

RWIC's CELL PHONE NUMBER: [REDACTED] EMPLOYEE #: [REDACTED]

RADIO OPS CHANNEL: 3

**SAFETY RULE OF THE DAY:**       

WORK ASSIGNMENT: Station Cleaning DIRECTION OF TRAFFIC: INBOUND ☒ OUTBOUND ☒

RAIL LINE: A B C D    F G J K L N TRACK 1 2 3 WORK LIMITS CHAIN MARKER(s): E02 1+2

PLACE OF SAFETY: Platform catwalk

TYPE OF PROTECTION(s): IT        ETO AUTHORITY X ETO LOCAL SIGNAL        AMF        FT       

REQUEST FROM ROCC: BLOCK CALLS ☒ CANCEL AUTOMATIC SIGNALS ☒ PROHIBIT EXITS ☒

RED HOT SPOT(s) TYPE/LOCATION(s): ☐ RED HOT SPOT HAZARDS ☐ ETS/RADIO OUTAGE ☐

**FOUL TIME PROTECTION CAN BE REQUESTED IN ALL WORK ZONE CONFIGURATIONS**

POWER OUTAGE: LOCK OUT TAG OUT        RED TAG        SUPERVISORY X NO POWER OUTAGE       

RED TAG NUMBER:        RED TAG HOLDER:       

WATCHMAN/LOOKOUT ASSIGNED: Yes        No X WATCHMAN/LOOKOUT NAMES(s):       

WATCHMAN/LOOKOUT EQUIPPED WITH AIR HORN AND WHISTLE ("W" Warning Disc required for fixed work zones): ☐

**WATCHMAN/LOOKOUT MUST BE PROPERLY SPACED AND HAVE SUFFICIENT SIGHTING DISTANCE TO PROVIDE AMPLE WARNING**

ADVANCE MOBILE FLAGGER ASSIGNED: Yes        No X ADVANCE MOBILE FLAGGER CALL #(s):       

ADVANCE MOBILE FLAGGER EQUIPPED WITH AMBER LANTERNS/E-FLARES, ORANGE FLAG, AIR HORN, WHISTLE AND RADIO: ☐

PIGGY BACK CREW LEADER CALL #(s): [REDACTED] PIGGY BACK WORKZONE CM(s):       

PIGGY BACK WORK ASSIGNMENT:       

NUMBER OF RMM(s):        RMM OPERATIONS IN WORK ZONE:       

**ALL ROADWAY WORKERS MUST EXERCISE GOOD JUDGEMENT AND CONSIDER THE FOLLOWING POTENTIAL HAZARDS AND PROCEDURES BEFORE ENTERING THE ROADWAY:**

WEATHER CONDITIONS	<input checked="" type="checkbox"/>	TRIPPING HAZARDS / UNEVEN WALKING SURFACES	<input checked="" type="checkbox"/>
TRACK GRADE AND VISIBILITY	<input checked="" type="checkbox"/>	POOR LIGHTING / TUNNEL AND VENT SHAFT(S)	<input checked="" type="checkbox"/>
HAZARDS ASSOCIATED WITH RAIL VEHICLE MOVEMENT	<input checked="" type="checkbox"/>	TRAIN / CURVE SPEED(S)	<input checked="" type="checkbox"/>
WORK SITE CONDITIONS AND ACTIVITIES	<input checked="" type="checkbox"/>	ETS BOX(S) LOCATIONS	<input checked="" type="checkbox"/>
EMERGENCY PROCEDURES	<input checked="" type="checkbox"/>	EQUIPMENT AND TOOL SAFETY	<input checked="" type="checkbox"/>
ADJACENT TRACK PROTECTION	<input checked="" type="checkbox"/>	ROTATION AND RELIEF PROCEDURES	<input checked="" type="checkbox"/>

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## Appendix C – IRPG - General Orders and Track Rights System (GOTRS)

### GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM Track Rights Request

#### Request Summary

Request Number:	202103502200	Track Access:	True
Dates Requested:	02/05/2021 00:00 to: 02/05/2021 04:30	Clear In Ten:	False
Request Status:	Closed	Equipment on Track:	0
Requestor:	[REDACTED]	Allow Piggybacks:	True
Requestor Organization:	DECO/IRPG	In Piggyback:	Yes, Senior
Switch Order:		Power Outage:	Supervisory Supervisory
Lock Out / Tag Out:		Additional AC:	
Request Title:	Radio - Emergency PSRS Motorola BDA install		

#### Location, Work Type and Description

Location:	Mainline
Non-Wayside Location Type:	
Request Type:	Emergency
Charge Job Number:	
Contract Number:	
Maximo Work Order:	
Request Group:	No
Location Description:	E03-E04
Request Description:	PSRS Repair and BDA install
Work Type:	Radio
Meeting Location:	E04 Kiosk
PB Meeting Location:	
Tools and Equipment:	Hand tools + PPE
Equipment on Track:	

	Track 1			Track 2	
Actual Work Area:	E075+00	E135+00	Actual Work Area:	E075+00	E135+00
Protected Work Area:	E070+00	E140+00	Protected Work Area:	E070+00	E140+00

#### Date & Time

Start:	02/05/2021 00:00	End:	02/05/2021 04:30
--------	------------------	------	------------------

#### Contacts

Entered by

[REDACTED]  
[REDACTED]

Requestor

[REDACTED]  
[REDACTED]

As of 02/08/2021 17:45  
1 of 4

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## GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM

### Track Rights Request

#### Request Summary

<b>Request Number:</b>	202103502200	<b>Track Access:</b>	True
<b>Dates Requested:</b>	02/05/2021 00:00 to: 02/05/2021 04:30	<b>Clear In Ten:</b>	False
<b>Request Status:</b>	Closed	<b>Equipment on Track:</b>	0
<b>Requestor:</b>	[REDACTED]	<b>Allow Piggybacks:</b>	True
<b>Requestor Organization:</b>	DECO/IRPG	<b>In Piggyback:</b>	Yes, Senior
<b>Switch Order:</b>		<b>Power Outage:</b>	Supervisory Supervisory
<b>Lock Out / Tag Out:</b>		<b>Additional AC:</b>	
<b>Request Title:</b>	Radio - Emergency PSRS Motorola BDA install		

<b>WMATA Manager</b>	<b>Emergency Contact</b>
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

#### Support

<b>SUPPORT GROUP</b>	<b>Crew Size</b>
----------------------	------------------

SMNT/COMM	5
-----------	---

<b>ESCORT GROUP</b>	<b>Crew Size</b>
---------------------	------------------

SMNT/COMM	5
-----------	---

#### Request Change History

Date	Event
02/04/2021 17:43	Request was created.
02/04/2021 19:32	Request was edited. Field(s) changed: Location. Location: Track 1 Actual: E078+00 E135+00 Protected: E073+00 E140+00, Track 2 Actual: E078+00 E135+00 Protected: E073+00 E140+00 to Track 1 Actual: E075+00 E135+00 Protected: E070+00 E140+00, Track 2 Actual: E075+00 E135+00 Protected: E070+00 E140+00.
02/04/2021 19:33	Request status was changed to Approved
02/05/2021 04:00	Work Prep was completed.
02/05/2021 05:54	Request status was changed to Opened
02/05/2021 09:42	Request status was changed to Closed

#### Request Group

As of 02/08/2021 17:45  
2 of 4

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## GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM

### Track Rights Request

#### Request Summary

<b>Request Number:</b>	202103502200	<b>Track Access:</b>	True
<b>Dates Requested:</b>	02/05/2021 00:00 to: 02/05/2021 04:30	<b>Clear In Ten:</b>	False
<b>Request Status:</b>	Closed	<b>Equipment on Track:</b>	0
<b>Requestor:</b>	[REDACTED]	<b>Allow Piggybacks:</b>	True
<b>Requestor Organization:</b>	DECO/IRPG	<b>In Piggyback:</b>	Yes, Senior
<b>Switch Order:</b>		<b>Power Outage:</b>	Supervisory Supervisory
<b>Lock Out / Tag Out:</b>		<b>Additional AC:</b>	
<b>Request Title:</b>	Radio - Emergency PSRS Motorola BDA install		

#### Request Number Description

#### Piggyback

Request Number	Order	Inherits Rights	Request Status	Piggyback Status	Track	Protected Area Start	Protected Area End
202103200600 TKMSE Station Cleaning E03 Track 1 & 2	JR-0	Yes	Closed	Forced	1	E070+00	E090+00
202103200600 TKMSE Station Cleaning E03 Track 1 & 2	JR-0	Yes	Closed	Forced	2	E070+00	E090+00
202103200700 TKMSE Station Cleaning E04 Track 1 & 2	JR-1	Yes	Closed	Forced	1	E119+00	E135+00
202103200700 TKMSE Station Cleaning E04 Track 1 & 2	JR-1	Yes	Closed	Forced	2	E119+00	E139+47
202103502200 Radio - Emergency PSRS Motorola BDA install	SR	N/A	Closed	Forced	1	E070+00	E140+00
202103502200 Radio - Emergency PSRS Motorola BDA install	SR	N/A	Closed	Forced	2	E070+00	E140+00

#### Piggyback History

Date	User	Event
02/04/2021 19:32	Avery C Shannon	Piggyback with Junior Requests 202103200600, 202103200700 was formed. Cause: Piggyback was forced.

#### Red Tag information

**Red Tag #:** Request is not Red Tag.

#### Close-Out Summary

**Final Status:** Closed

**Request To Begin Work:** 02/05/2021 00:54

As of 02/08/2021 17:45  
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## GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM

### Track Rights Request

#### Request Summary

<b>Request Number:</b>	202103502200	<b>Track Access:</b>	True
<b>Dates Requested:</b>	02/05/2021 00:00 to: 02/05/2021 04:30	<b>Clear In Ten:</b>	False
<b>Request Status:</b>	Closed	<b>Equipment on Track:</b>	0
<b>Requestor:</b>	[REDACTED]	<b>Allow Piggybacks:</b>	True
<b>Requestor Organization:</b>	DECO/IRPG	<b>In Piggyback:</b>	Yes, Senior
<b>Switch Order:</b>		<b>Power Outage:</b>	Supervisory Supervisory
<b>Lock Out / Tag Out:</b>		<b>Additional AC:</b>	
<b>Request Title:</b>	Radio - Emergency PSRS Motorola BDA install		

#### Close-Out Summary

**Request to De-Energize:** 02/05/2021 00:54  
**De-Energization Completed;  
 RWIC notified:** 02/05/2021 01:03  
**Hot Stick:** 02/05/2021 02:07

Unit #	Chain Marker	Gap From	Gap To	Gap Track ID	Entered By	Date
337	E076+20	E051+91	E076+20	1	Rasselas Jackson	05/07/2021 02:02

**Permission Given To Setup Work Site:** 02/05/2021 02:07  
**Start Work:** 02/05/2021 02:14  
**Work Site Cleared by Requestor:** 02/05/2021 03:38

#### OCC Comments:

OCC Assistant Superintendent  
 Comments:

#### Requestor Comments:

#### OCC Delays

As of 02/08/2021 17:45  
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## Appendix D – TRST - General Orders and Track Rights System

### GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM

#### Track Rights Request

##### Request Summary

<b>Request Number:</b>	202103200600	<b>Track Access:</b>	True
<b>Dates Requested:</b>	02/05/2021 00:30 to: 02/05/2021 04:00	<b>Clear In Ten:</b>	False
<b>Request Status:</b>	Closed	<b>Equipment on Track:</b>	1
<b>Requestor:</b>	[REDACTED]	<b>Allow Piggybacks:</b>	True
<b>Requestor Organization:</b>	TRST/TRACK/MAINTS	<b>In Piggyback:</b>	Yes, Junior
<b>Switch Order:</b>		<b>Power Outage:</b>	Supervisory
<b>Lock Out / Tag Out:</b>		<b>Additional AC:</b>	
<b>Request Title:</b>	TKMSE Station Cleaning E03 Track 1 & 2		

##### Location, Work Type and Description

<b>Location:</b>	Mainline
<b>Non-Wayside Location Type:</b>	
<b>Request Type:</b>	Expedited
<b>Charge Job Number:</b>	
<b>Contract Number:</b>	
<b>Maximo Work Order:</b>	
<b>Request Group:</b>	No
<b>Location Description:</b>	
<b>Request Description:</b>	Remove trash & debri
<b>Work Type:</b>	Other
<b>Meeting Location:</b>	
<b>PB Meeting Location:</b>	
<b>Tools and Equipment:</b>	Hand Pickers, Trash Bags, Safety Equipment
<b>Equipment on Track:</b>	Prime Mover & Flat

	Track 1			Track 2	
<b>Actual Work Area:</b>	E075+00	E085+00	<b>Actual Work Area:</b>	E075+00	E085+00
<b>Protected Work Area:</b>	E070+00	E090+00	<b>Protected Work Area:</b>	E070+00	E090+00

##### Date & Time

<b>Start:</b>	02/05/2021 00:30	<b>End:</b>	02/05/2021 04:00
---------------	------------------	-------------	------------------

##### Contacts

###### Entered by

[REDACTED]  
[REDACTED]

###### Requestor

[REDACTED]  
[REDACTED]

As of 02/08/2021 17:57  
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## GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM

### Track Rights Request

#### Request Summary

<b>Request Number:</b>	202103200600	<b>Track Access:</b>	True
<b>Dates Requested:</b>	02/05/2021 00:30 to: 02/05/2021 04:00	<b>Clear In Ten:</b>	False
<b>Request Status:</b>	Closed	<b>Equipment on Track:</b>	1
<b>Requestor:</b>	[REDACTED]	<b>Allow Piggybacks:</b>	True
<b>Requestor Organization:</b>	TRST/TRACK/MAINTS	<b>In Piggyback:</b>	Yes, Junior
<b>Switch Order:</b>		<b>Power Outage:</b>	Supervisory
<b>Lock Out / Tag Out:</b>		<b>Additional AC:</b>	
<b>Request Title:</b>	TKMSE Station Cleaning E03 Track 1 & 2		

<b>Cell:</b>	[REDACTED]	<b>Home:</b>		<b>Cell:</b>	[REDACTED]	<b>Home:</b>	
--------------	------------	--------------	--	--------------	------------	--------------	--

#### WMATA Manager

[REDACTED]

**Work:** [REDACTED]

**Cell:** [REDACTED] **Home:**

#### Emergency Contact

[REDACTED]

**Work:** [REDACTED]

**Cell:** [REDACTED] **Home:** [REDACTED]

#### Support

SUPPORT GROUP	Crew Size
TRST/TRACK	4

#### Request Change History

Date	Event
02/01/2021 12:58	Request was created.
02/02/2021 16:18	Request status was changed to Approved
02/04/2021 11:23	Request was edited. Field(s) changed: Emergency Contact.
02/04/2021 19:32	Request status was changed to Pending Justification: Adjust to pending for junior status
02/04/2021 19:33	Request status was changed to Approved
02/05/2021 03:11	Work Prep was completed.
02/05/2021 05:54	Request status was changed to Opened
02/05/2021 09:42	Request status was changed to Closed

#### Request Group

Request Number	Description
----------------	-------------

As of 02/08/2021 17:57  
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Incident Date: 2/5/2021 Time: 02:00 hours.  
Final Report – Improper RWP Rev. 1  
E21050

Rev. 1 Drafted By: SAFE 705 – 03/19/2021  
Rev. 1 Reviewed By: SAFE 701 – 04/06/2021  
Rev. 1 Approved By: SAFE 70 – 07/22/2021

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## GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM

### Track Rights Request

#### Request Summary

<b>Request Number:</b>	202103200600	<b>Track Access:</b>	True
<b>Dates Requested:</b>	02/05/2021 00:30 to: 02/05/2021 04:00	<b>Clear In Ten:</b>	False
<b>Request Status:</b>	Closed	<b>Equipment on Track:</b>	1
<b>Requestor:</b>	[REDACTED]	<b>Allow Piggybacks:</b>	True
<b>Requestor Organization:</b>	TRST/TRACK/MAINTS	<b>In Piggyback:</b>	Yes, Junior
<b>Switch Order:</b>		<b>Power Outage:</b>	Supervisory
<b>Lock Out / Tag Out:</b>		<b>Additional AC:</b>	
<b>Request Title:</b>	TKMSE Station Cleaning E03 Track 1 & 2		

#### Piggyback

Request Number	Order	Inherits Rights	Request Status	Piggyback Status	Track	Protected Area Start	Protected Area End
202103200600 TKMSE Station Cleaning E03 Track 1 & 2	JR-0	Yes	Closed	Forced	1	E070+00	E090+00
202103200600 TKMSE Station Cleaning E03 Track 1 & 2	JR-0	Yes	Closed	Forced	2	E070+00	E090+00
202103200700 TKMSE Station Cleaning E04 Track 1 & 2	JR-1	Yes	Closed	Forced	1	E119+00	E135+00
202103200700 TKMSE Station Cleaning E04 Track 1 & 2	JR-1	Yes	Closed	Forced	2	E119+00	E139+47
202103502200 Radio - Emergency PSRS Motorola BDA install	SR	N/A	Closed	Forced	1	E070+00	E140+00
202103502200 Radio - Emergency PSRS Motorola BDA install	SR	N/A	Closed	Forced	2	E070+00	E140+00

#### Piggyback History

Date	User	Event
02/04/2021 19:32	[REDACTED]	Piggyback with Senior Request 202103502200 was formed. Cause: Piggyback was forced.

#### Red Tag information

**Red Tag #:** Request is not Red Tag.

#### Close-Out Summary

As of 02/08/2021 17:57  
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## Appendix E – COMM – Memorandum



### MEMORANDUM

Date: 2/17/21

TO: SMNT COMR STAFF

FROM: [REDACTED]

SUBJECT: Work Place incident/Accident Reporting and Procedures

C/C: [REDACTED]: Superintendent, Radio Communications

[REDACTED], General Superintendent, SMNT

This memo serves as a Post incident Corrective Action and Lessons Learned intended to help mitigate future re-occurrence of recent unreported incident on the Roadway. All COMR personnel are required to acknowledge their understanding and receipt of a copy of **WMATA Safety Policy Instructions 10.4/1** which governs incident and accident reporting and procedures.

Near Miss can be interpreted as an unplanned event that did not result in injury or damage but had the potential to do so. Failing to report this unsafe incident or event is a violation of the **MSRPH Rule 1.32** which states as below:

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 Rule 4.1** also states as below:

Employees shall immediately report hazardous and/or unsafe conditions to their supervisor, including all near misses

Near Miss reporting is vital to preventing future fatal or catastrophic incidents and helps WMATA to identify and correct weaknesses in the system that led to the near miss. A comprehensive investigative outcome provides an opportunity to improve Safety Systems, Training, Communication and other hazard controls.

Near Miss or Close call calls on incidents, even though that did not result in any injuries makes the work environment safer and healthier for everybody. WMATA can identify and correct

*Appendix E – Page 1 of 3.*

factors that contribute to accidents and or injuries. Calls should be reported immediately to the following:

- Notifying the RWIC *or*
- Notifying the ROCC *or*
- Informing your supervisor *or*
- Calling the Safety Hotline *or*
- Contacting Metro Transit Police Department (MTPD)

#### **LESSONS LEARNED:**

Based on information gathered including statements and conversations with parties involved, below are lessons learned:

- There will be no Piggy Back crew allowed in COMR work areas when CRCS System is being worked on
- RWIC shall dedicate a representative at an offsite location to oversee Safety
- There shall be no fouling of track unless the following are in place
  1. Foul Time is in effect
  2. Safety Briefing has been completed and acknowledged by all
  3. Work zone is setup and ROCC authorized by ROCC
  3. All incidents/accidents both minor or major shall be reported immediately by following the guidelines of WMATA **Safety Policy Instruction: PI 10.4/1** (Please see copies attached)
  4. When there is an incident/accident, Supervisors shall take involved personals out of service and send them for testing (**10/75**)
  5. Comprehensive report of incident/accident shall be done by involved parties.

#### **CORRECTIVE ACTION:**

The following corrective action will be implemented to ensure crew competency and thorough understanding of the MSRP and associated Policy Instructions on Accident and Incident Reporting.

- Retraining of personal involved (RWP Full Level 4)
- Continuous Tool Box conversation pertaining accident /incident reporting and procedures
- Shadowing of such personals by supervisor while appointed as RWIC
- ALL incident/accident shall be promptly reported verbally and in writing and not latter than close of business (COB).

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## Receipt and Acknowledgement of Policy 10.4/1 for work place incident and Injury reporting

In effect: (05/29/18) until further notice

I have read and understood the content, requirements, and expectations of the WMATA safety policy instructions. I have also received a copy of this policy and agree to abide by the policy guidelines.

I understand that if I have questions, at any time, regarding this policy, I will consult with my immediate supervisor or the Department of Safety and Environmental Health,

Please read the policy carefully to ensure that you understand the policy before signing this document.

Employee Signature: \_\_\_\_\_

Employee Printed Name: \_\_\_\_\_

EMP ID: \_\_\_\_\_

Date: 2/18/2021

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## **Appendix F – Interview Summary**

### **COMM**

#### **Radio Communication Technician – RWIC**

The Radio Communication Technician is a WMATA employee with one year and seven months of service. The Radio Communication Technician started as a helper.

During the virtual interview, the Radio Communication Technician stated they were assigned as the RWIC when the improper roadway worker protection event happened on February 5, 2021, at approximately 02:04 hours. The scope of work was to provide RWP support, conduct BDA replacement and escort the Motorola contractors. The RWIC had a Supervisory Power Outage scheduled in GOTRS with the protected area at Chain Marker E1-070+00 to E1-140+00 and E2-070+00 to E2-140+00 under ETO, RWP. The RWIC indicated they performed an RJSB at their primary work location and Columbia Heights Station platform before work commenced on February 5, 2021. The RWIC noted that they were told by one of their crew members that a crew was piggybacking at U Street-Cardozo Station. The RWIC indicated they went to U Street-Cardozo Station and did not see a crew there, so they just completed the RJSB with their personnel.

At 00:53 hours, the RWIC contacted the ROCC and requested to activate their GOTRS rights for a Supervisory Power Outage on Track 1 and Track 2, at Chain Marker 070+00 to Chain Marker 140+00. While the RWIC was waiting to confirm Chain Markers for their hot sticking, a TRST cleaning crew showed up at Columbia Heights Stations. The RWIC advised them to standby until the equipment was correctly set up from U Street-Cardozo Station to Columbia Heights Station. The RWIC then contacted the Radio RTC and reported shunts were installed on the E Line, Track 1, and Track 2. During that time, one of the RWIC's crew members at U Street-Cardozo Station was setting up safety equipment, contacted the RWIC via phone, and reported a cleaning crew at U Street-Cardozo Station. The RWIC advised they did not know about a cleaning crew at U Street-Cardozo Station and only knew about the Columbia Heights Station's cleaning crew.

The Radio RTC then verified four good shunts were placed correctly and indicated the RWIC had permission to put the rest of their equipment in the work area and start work. Once personnel and equipment were clear of the roadway, the RWIC went back to the office. A crew member of the RWIC indicated that the cleaning crew at U Street-Cardozo Station entered the roadway before the RWIC granted them permission. The crew member explained that the piggybacking crew advised they received permission from the RWIC to enter the roadway and start work, but that was not true. The RWIC did not know a cleaning crew was at U Street-Cardozo Station. The RWIC indicated that they used radio test 1 and phone to confirm the roadway was set up correctly. The RWIC advised they were using the phone due to communication issues in the area. The RWIC did not stop work because they found out about the improper RWP after leaving the work area. The RWIC's crew member reported the improper RWP to their Supervisor. The COMM Supervisor then escalated the situation up the chain of command. The RWIC advised they did not go to U Street-Cardozo Station because they were responsible for escorting the Columbia Heights Station contractors. This incident was not reported to the ROCC when the improper RWP transpired.



## TRST

### Equipment Operator AA – Crew Leader

The TRST Equipment Operator AA is a WMATA employee with seven years of service. The Equipment Operator AA has been an Equipment Operator AA for two months. The Equipment Operator AA held various positions such as Equipment Operator A, Equipment Operator B, Equipment Operator C, and Equipment Operator D.

During the virtual interview, the Crew Leader representing TRST stated they had a Supervisory Power Outage scheduled in GOTRS at U Street-Cardozo Station, Track 1 and Track 2, that allowed piggybacking. The purpose of the GOTRS rights was to remove excessive trash and debris from the roadway within the platform limits. While the piggybacking crew was standing by at U Street-Cardozo Station, they listened to the radio and heard the ROCC tell the RWIC that they can go to work. The Crew Leader contacted the RWIC and asked if they have permission to work in their work area at U Street-Cardozo Station, Tracks 1 and 2. The RWIC stated, copy, you have permission to go to work, make sure you advise when your work crew and equipment are clear of the roadway.

The Crew Leader conducted an RJSB with their piggybacking crew but did not participate in the RJSB with the RWIC of the work area before entering the roadway. The RWIC controlled the work area from U Street-Cardozo Station to Columbia Heights Station Tracks 1 and 2 and was at Columbia Heights Station when the Crew Leader received permission to start work. The Crew Leader indicated the work area was already set up, and they did not install any additional safety equipment on the roadway. The Crew Leader stated that one of the crew members from COMM working under the RWIC didn't hear the radio transmission between the RWIC and the Crew Leader and approached the Crew Leader to ask why they had personnel on the roadway. The Crew Leader advised they were the piggybacking crew and received permission from the RWIC in charge of the area to go to work. The COMM crew member reported not hearing any radio transmission for the piggybacking crew to go to work. The Crew Leader told their piggybacking crew to exit the roadway and went directly with the RWIC again in front of the COMM crew member and received permission to go to work. The Crew Leader indicated that the COMM crew member assumed they did not get permission from the RWIC, but they were wrong. The Crew Leader instructed their crew to enter the roadway again to finish their assigned cleaning efforts. Once the piggybacking crew completed work, the Crew Leader contacted the RWIC via radio and advised personnel and equipment were clear of the roadway at U Street-Cardozo Station Track 1 and Track 2. The RWIC acknowledged.