



WMSC Commissioner Brief: W-0174 – Improper Worker Protection – near Greenbelt Station – April 3, 2022

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

Safety event summary:

In one of several safety events that demonstrated Metrorail's improper power restoration process, training and supervisory oversight that was putting personnel at risk due to the bypassing of deliberately designed safety redundancies, a Metrorail Power Desk Controller improperly issued a "red tag" and a Traction Power Roadway Worker In Charge (RWIC) improperly accepted that "red tag" at approximately 2:29 a.m. on April 3, 2022 despite the fact that the work crew had not "hot stuck" to confirm that power was correctly de-energized in the work area. The RWIC had not received permission from a Rail Traffic Controller to access the roadway to conduct hot sticking. This permission is required, under Foul Time protection, to ensure the safety of the work crew. Three minutes after the Power Desk Controller informed the Rail Traffic Controller that the red tag had been issued, the Rail Traffic Controller identified that the work crew had not gotten the required permission to enter the roadway.

Due to additional failures of Metrorail's Power Desk safety certification, Power Desk activation, and interdepartmental coordination, specific details of this event were not documented. The phone call between the Power Desk Controller and the RWIC was not recorded. The Power Desk Controller's end of the conversation can be overheard on a recording from an ambient microphone. This recording does not include full required repeat backs, full power tag identifications, or complete use of alphanumeric as required by safety procedures. As the RWIC's communication was not recorded, the specifics of how this red tag was improperly issued are not clear, and what the RWIC told the Power Desk Controller cannot be verified.

The explanation provided in investigative interviews was that the RWIC had, outside of specified procedures, called the Power Desk to state the area where they would be hot sticking. The red tag switching procedure does not include calling the Power Desk prior to hot sticking, and specifies that the chain markers should be relayed after hot sticking to confirm de-energization of the third rail. The Power Desk Controller understood the call to be the step in the procedure where the RWIC was confirming that power was de-energized and was requesting the red tag. There was no available video of this location to determine whether the work crew entered the roadway. Personnel in the work crew stated that they did not enter the roadway.

The improper issuance of a red tag means that safety procedures required to ensure the safety of Metrorail personnel and others were not followed. This means there was improper roadway worker protection. For its internal purposes, Metrorail classified this event following the conclusion of the investigation as noncompliance with SOP 2, which governs the removal and restoration of power. For its internal purposes, Metrorail considers that to be separate from those events that specifically relate to those rules Metrorail officially refers to as Roadway Worker Protection procedures.

The acceptance of the improper red tag is an example of Metrorail's culture of noncompliance with written rules and procedures.

In addition, Metrorail did not remove the Power Desk Controller or RWIC from service for post-event drug and alcohol testing.



Probable Cause:

The probable cause of this event was Metrorail's culture of noncompliance with written rules, procedures and manuals. Contributing to this event were Metrorail's insufficient safety certification, change management, supervisory oversight and interdepartmental coordination processes.

Corrective Actions:

Metrorail conducted a safety standdown for Traction Power Maintenance personnel focused on communication and following procedures.

Metrorail held safety briefings for Power Desk Controllers regarding 100 percent repeat backs of phone communications when issuing red tags.

The WMSC's [May 17, 2022 order](#) regarding Metrorail's improper power restoration that continued to put Metrorail personnel at risk of serious injury or death required Metrorail to develop and implement numerous safety improvements regarding power energization. This includes safety standdowns, installing complete, functioning recording systems for Power Desk communications, providing appropriate staffing and training, and providing a new corrective action plan to ensure that third rail power is not restored prematurely. Initial steps such as limiting the number of work locations until Power Desk personnel are properly trained are in place. Other actions are in progress or planning. During this process, Metrorail has renamed the Power Desk the Power Operations Center and again realigned the management reporting structure.

WMSC staff observations:

The WMSC identified and communicated safety deficiencies related to the Power Desk to Metrorail, including as specified in the [May 17, 2022 order](#). As documented in that order, Metrorail repeatedly bypassed safety redundancies in power restoration procedures that Metrorail had deliberately designed for the safety of its employees, contractors and first responders. These deviations occurred both prior to Metrorail's implementation of a new Power Desk and after Metrorail launched the new desk in March 2022.

As noted in the order, this April 3, 2022 event was also an example of Metrorail's failure to ensure that safety-related recordings were captured as required to provide for continuous safety improvement.

When the WMSC raised this issue, Metrorail IT personnel then did not follow Metrorail's safety and change management procedures to ensure that changes intended to ensure recordings were captured in the future were conducted properly, had the desired effect, and did not introduce additional hazards. This improper change management meant that Metrorail did not ensure that the telephone system and the separate recording system were updated in a coordinated fashion, and it led to the failure to record some calls to and from Power Desk Controllers from at least April 14 through April 26.

In addition to this event, Metrorail restored power under an active work crew on April 26, 2022. Power Desk Controller phone recordings were not present for that event. Power restoration procedures were also not followed on other occasions including May 1, May 6 and May 14, 2022.



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Office: 202-384-1520 • Website: www.wmsc.gov

As a result of the investigations into the April 3 and April 26, 2022 events, Metrorail IT committed on May 3, 2022 to certain improvements for changes connected to Metrorail's audio recording program (NICE):

- All changes will be tested with the same rigor that is applied when a major project change/upgrade is made to the NICE application.
- All Voice and NICE engineers will be crossed trained to ensure a higher level of knowledge on how the systems interface and work together.
- Institute a daily sampling of recordings from both the Power [Desk] group and the ROCC

Despite the numerous safety issues, Metrorail had stated that it had properly completed its safety certification process for the Power Desk and associated training, and that it had completed implementation of a corrective action plan to address these safety issues. As the evidence demonstrated neither of those to be the case, the WMSC's May 17, 2022 order required Metrorail to develop additional elements of a corrective action plan, including restarting and properly conducting its safety certification process.



Washington Metro Area Transit Authority
Department of Safety and Environmental
Management (SAFE)

FINAL REPORT OF INVESTIGATION A&I E22193

Date of Event:	04/03/2022
Type of Event:	Improper Roadway Worker Protection (RWP)
Incident Time:	02:31 hours
Location:	Near Greenbelt Station, Track 1 and 2, Chain Marker (CM) 607+00 and 609+00
Time and How received by SAFE:	02:44 hours via MAC Notification
WMSC Notification Time:	03:40 hours
Responding Safety Officers:	WMATA: No WMSC: No Other: No
Rail Vehicle:	N/A
Injuries:	None
Damage:	None
SMS I/A Incident Number:	20220403#99360

Greenbelt Station – Improper Roadway Worker Protection (RWP)

April 3, 2022

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Abbreviations and Acronyms

ARS	Audio Recording System
CM	Chain Marker
GOTRS	General Orders and Track Rights System
I/A	Incidents/Accidents Module
MAC	Mission Assurance Coordinator
MSRPH	Metrorail Safety Rules and Procedures Handbook
NOAA	National Oceanic and Atmospheric Administration
PDC	Power Desk Controller
ROCC	Rail Operations Control Center
RTC	Radio Traffic Controller
RWIC	Roadway Worker In Charge
RWP	Roadway Worker Protection
SAFE	Department of Safety and Environmental Management
SMS	Safety Measurement System
SRC	Safety Risk Coordinator
TRPM	Traction Power Maintenance
WMATA	Washington Metropolitan Area Transit Authority
WMSC	Washington Metrorail Safety Commission

Executive Summary

On Sunday, April 3, 2022, at approximately 02:29 hours, a Traction Power Maintenance (TRPM) Roadway Worker In Charge (RWIC) contacted the Power Desk Controller (PDC) and advised that they were preparing to Hot Stick in preparation to activate Reg Tag #2022093502-A. The RWIC then provided Chain Markers (CM) that were to be checked. The PDC understood the call to be that the RWIC completed Hot Sticking and was requesting the Red Tag. By ambient microphone playback, the PDC received a landline call from the TRPM RWIC and can be heard repeating CMs 607+00 and 609+00. However, direct audio of the phone call was not available for review. Following a repeat-back of the CMs, the PDC issued the Red Tag to the RWIC and contacted the Rail Operations Control Central (ROCC) Radio Traffic Controller (RTC). The PDC reported that they issued Red Tag #2022093502-A to the TRPM RWIC. Approximately three minutes later, the RTC contacted the PDC to inquire about the Red Tag being issued, as they had not received a request for Foul Time in order to hot stick. The TRPM RWIC was instructed to stand by while ROCC management performed a preliminary investigation to determine if an RWP violation occurred. Following the initial review of audio playback, a violation could not be determined. No personnel were removed from service at the time of the reported incident.

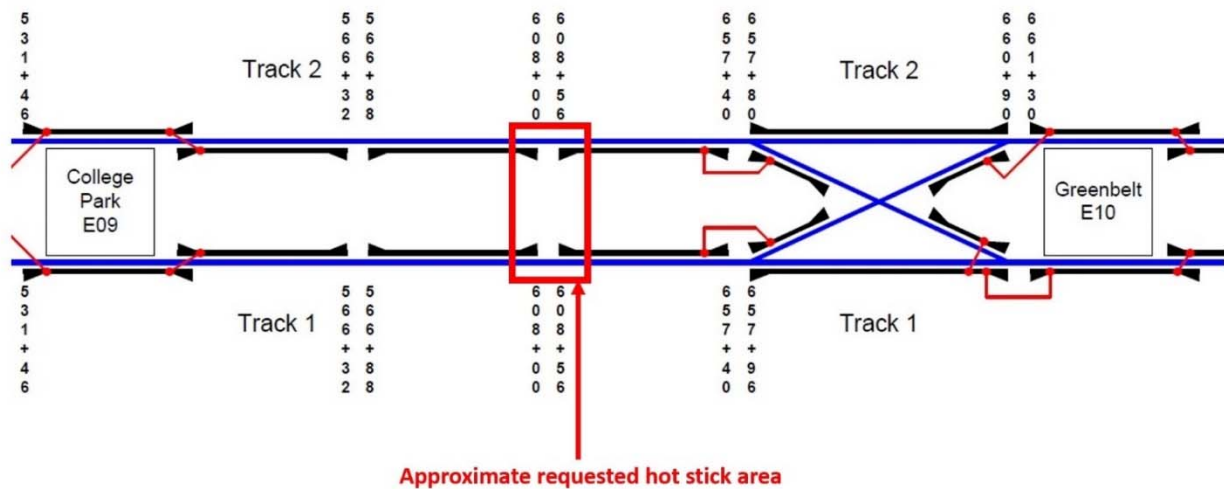
A subsequent review of the event, including interviews with involved personnel, identified that the RWIC and their crew did not enter the roadway without permission. The RWIC's initial call to the PDC resulted in a miscommunication between the RWIC and PDC and issuance of the Red Tag. Because of the recording system failure, the exact cause of the miscommunication could not be determined. However, the RWIC admittedly failed to inform the PDC that they had not performed Hot Stick operations during their initial call when they were issued the tag. Upon receiving the information from the PDC, the RTC correctly identified that SOP 2 procedures were incomplete and stopped the process in order to investigate and remedy the request.

The investigation concluded that an improper roadway worker protection event did not occur. However, a noteworthy action occurred related to SOP 2. The PDC issued a Red Tag to the TRPM Crew Leader before performing hot stick operations to confirm if third rail power was deenergized due to a miscommunication. The probable cause for this occurrence was inadequate communications between the PDC and the TRPM Crew Leader. The TRPM Crew Leader reportedly gave the PDC chain marker locations they intended to check by performing hot stick operations. The PDC understood that the TRPM Crew Leader had conducted hot stick operations and issued the Red Tag in error. Contributing to the incident was the acceptance of the Red Tag by the TRPM Crew Leader despite not performing hot stick operations.

Incident Site

Near Greenbelt Station, Tracks 1 and 2, Chain Markers (CMs) E1-E2 607+00 and E1-E2 609+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.

Investigative Methods

The investigative methodologies included the following:

- Formal Interview – SAFE interviewed two individuals as part of this investigation. Interviews included persons present at, during, and after the incident, those directly involved in the response process. Representatives from the Washington Metrorail Safety Commission (WMSC) were present during the interviews. SAFE interviewed the following individuals:
 - TRPM RWIC
 - Power Desk Controller (PDC)
- Documentation Review – A collection of relevant work history information and process documentation in Metro systems of record. These records include:
 - TRPM RWIC Incident Statement
 - TRPM RWIC 30-day Work History
 - TRPM RWIC Training/Certification Record
 - Roadway Job Safety Briefing Form
 - Metrorail Safety Rules and Procedures Handbook (MSRPH)
 - National Oceanic and Atmospheric Administration (NOAA)
 - General Orders and Track Rights System (GOTRS)
 - GOTRS Switch Order
 - TRPM 1000-05 – TRPM Red Tag Switching Procedures
 - SOP 2 – Third Rail Power Energization and De-energization Procedures

- System Data Recording Review – A collection of information contained in Metro Data Recording Systems. This data includes:
 - ARS (Audio Recording System) playback [Radio and Landline Communications]

Investigation

On Sunday, April 3, 2022, at approximately 02:21 hours, a Traction Power Maintenance (TRPM) Roadway Worker In Charge (RWIC) contacted the Power Desk Controller (PDC) and advised that they were preparing to Hot Stick in preparation to activate Reg Tag #2022093502-A. The RWIC then provided Chain Markers (CM) that were to be checked. A review of SOP 2 procedures does not include a requirement for a RWIC to contact the PDC prior to performing Hot Stick verification that third rail is deenergized. The PDC understood the call to be that the RWIC completed Hot Sticking and was requesting the Red Tag. By ambient microphone playback, the PDC received a landline call from the TRPM RWIC and can be heard repeating CMs 607+00 and 609+00. However, direct audio of the phone call was not available for review. Following a repeat-back of the CMs, the PDC issued the Red Tag to the RWIC and contacted the Rail Operations Control Central (ROCC) Radio Traffic Controller (RTC). The PDC reported that they issued Red Tag #2022093502-A to the TRPM RWIC. Approximately three minutes later, the RTC contacted the PDC to inquire about the Red Tag being issued, as they had not received a request for Foul Time in order to hot stick. The TRPM RWIC was instructed to stand by while ROCC management performed a preliminary investigation to determine if an RWP violation occurred. Following the initial review of audio playback, a violation could not be determined. No personnel were removed from service at the time of the reported incident.

During the investigation, it was discovered that the initial phone call from the RWIC to the PDC was not captured by the ARS. The PDC could be heard speaking with the RWIC and repeating chain markers by the ambient microphone, however the RWIC's side of the conversation could not be verified. This failure was reported to WMATA's Information Technology (IT) department for correction.

Chronological Event Timeline

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

Time	Description
02:21 hours	<u>PDC</u> : Contacted Power Unit 1222 and stated they are ready for hot sticking. The PDC instructed Power Unit 1222 to call them with their chain markers. [Phone]
02:29 hours	<u>PDC</u> : Received a call and repeated CMs 607+00 and 609+00 given by the caller. PDC asked to speak with Power Unit 1337 to confirm the CMs given. [Ambient Microphone]
02:31 hours	<u>PDC</u> : Authorized Red Tag and contacted ROCC and reported they issued Red Tag #2022093502-A to Power Unit 1222. [Phone]
02:34 hours	<u>ROCC Radio RTC</u> : ROCC contacted PDC and ascertained how Power Unit 1222 received a Red Tag without requesting foul time to hot stick. PDC stated Power Unit 1222 gave them CMs and they issued the Red Tag. [Phone]
02:35 hours	<u>ROCC Radio RTC</u> : ROCC received a landline from Power Unit 1222 and asked if they went to the roadway to hot stick. Power Unit 1222 stated they did not hot stick the third rail and needed to make a request for foul time in order to hot stick. ROCC asked if they received a Red Tag, have CMs but did not hot stick. Power Unit 1222 stated they did hot stick but received the Red Tag from the PDC. [Phone]

Time	Description
02:38 hours	ROCC Radio RTC: ROCC contacted PDC and asked which CMs they received from Power Unit 1222. PDC stated they were CMs 607+00 and 609+00. RTC informed the PDC Power Unit 1222 reported he did not hot stick the third rail but were given the Red Tag. The PDC reported they instructed Power Unit 1222 to hot stick and Power Unit 1222 called back were CM locations. [Phone]
02:52 hours	ROCC Radio RTC: RTC contacts Power Unit 1222 and informs them they are on standby as they are investigating whether a RWP safety violation occurred. [Radio]
02:58 hours	ROCC Radio RTC: RTC contacts Power Unit 1222 and informs them they are still on standby. Power Unit 1222 stated they did not go to the roadway to perform hot stick operations. [Radio]
02:59 hours	ROCC Radio RTC: RTC contacts the Operations Manager and informs them Power Unit 1222 reported they did not go to the roadway to hot stick; they gave the PDC the CMs they needed to hot stick and were given the Red Tag. The Operations Manager instructed the RTC to inform Power Unit 1222 to standby and stand clear as the investigation is ongoing. [Phone]

Interview Findings

Based on the investigation launched into the Improper RWP violation near Greenbelt Station, SAFE conducted two formal interviews with the TRPM RWIC and Power Desk Controller via Microsoft Teams, which included a representative from the WMSC. The interviews conducted identified the following key findings associated with this event. Findings detailed below include reported information from interviews and may conflict with other data sources contained in the report:

The TRPM RWIC reported they contacted the PDC to inform them of the locations they intended to hot stick as part of the red tag outage. The TRPM RWIC stated they were given a Red Tag by the PDC, although they did not perform hot stick operations to confirm third rail power de-energization. The RWIC acknowledged that they should not have accepted the Red Tag prior to Hot Sticking and could have corrected the PDC.

The PDC reported they were given CMs by the TRPM RWIC and issued them the Red Tag. The PDC stated the TRPM RWIC said they had performed hot stick operations at the locations provided.

Weather

At the time of the incident, NOAA recorded the temperature at 43° F, overcast, 81% humidity, wind 3 mph, and visibility of 10 miles. Weather was not a likely contributing factor in this incident (Weather source: NOAA – Location: Greenbelt, MD).

Human Factors

Fatigue

TRPM RWIC

Evidence of Fatigue:

The incident data was evaluated for evidence of fatigue that may have been present at the time of the incident. No video of the TRPM RWIC was available to ascertain whether signs of fatigue were present. The TRPM RWIC reported feeling fully alert at the time of the incident and did not report experiencing any symptoms of fatigue in the time leading up to the incident.

Fatigue Risk:

The incident data was evaluated for fatigue risk factors. Risk factors for fatigue were present as the incident occurred at a time of low circadian alertness. The TRPM RWIC reported keeping a regular sleep schedule in the days leading up to the incident. The TRPM RWIC reported working night shift in the days leading up to the incident. The employee was awake for 9.5 hours at the time of the incident. The TRPM RWIC reported a sleep duration of 9 hours in the 24 hours leading up to the incident. The off-duty period preceding the incident was 16 hours, which provided an opportunity for 7-9 hours of sleep. This was a comparable amount to the employee's usual workday sleep duration. The employee reported no issues with sleep.

PDC

Evidence of Fatigue:

The incident data was evaluated for evidence of fatigue that may have been present at the time of the incident. No video of the PDC was available to ascertain whether signs of fatigue were present. The PDC reported feeling fully alert at the time of the incident and did not report experiencing any symptoms of fatigue in the time leading up to the incident.

Fatigue Risk:

The incident data was evaluated for fatigue risk factors. Risk factors for fatigue were present as the incident occurred at a time of low circadian alertness. The PDC reported keeping a regular sleep schedule in the days leading up to the incident. The PDC reported working night shift in the days leading up to the incident. The employee was awake for 6.5 hours at the time of the incident. The PDC reported a sleep duration of 9 hours in the 24 hours leading up to the incident. The off-duty period preceding the incident was 12 hours, which provided an opportunity for 7-9 hours of sleep. This was a comparable amount to the employee's usual workday sleep duration. The employee reported no issues with sleep.

Post-Incident Toxicology Testing

No personnel were removed from service at the time of the incident, as an RWP violation was not identified. Post-incident testing was not performed.

Related Rules and Procedures:

- SOP 2 – Third Rail Power Energization and De-energization Procedures – 6.8.21 – "The PDC shall notify the RWIC of the relevant Red Tag ID numbers for their work area and states that the RWIC is now in possession of the Red Tags. The PDC shall then complete GOTRS CO Step 6: Issue Red Tag."
- TRPM 1000-05 – TRPM Red Tag Switching Procedures – 6.1.1.14 – "Follow established RWP protocol to obtain permission to access the roadway to hot stick confirm the third rail. Contact MOC and relay the chain markers used to confirmed de-energization of the third rail."

Findings

- The initiating action in this event was the TRPM RWIC contacting the PDC and informing them of the CMs they would perform hot stick operations. This action is not a required step within SOP 2 procedure.
- The PDC issued a Red Tag to the TRPM RWIC before hot stick operations were performed to confirm third rail de-energization due to miscommunication during the initial phone call from the RWIC.
- ROCC RTC identified the error in issuing the Red Tag and made appropriate notifications to stop the process and investigate.
- TRPM RWIC did not enter the roadway without permission from ROCC. No Near Miss occurred.
- The direct landline call received by the PDC from the RWIC was not captured by the ARS, however the ambient microphone captured the PDC's receipt of the call.

Probable Cause Statement

The investigation concluded that an improper roadway worker protection event did not occur. However, a noteworthy action occurred related to SOP 2. The PDC issued a Red Tag to the TRPM Crew Leader before performing hot stick operations to confirm if third rail power was deenergized due to a miscommunication. The probable cause for this occurrence was inadequate communications between the PDC and the TRPM Crew Leader. The TRPM Crew Leader reportedly gave the PDC chain marker locations they intended to check by performing hot stick operations. The PDC understood that the TRPM Crew Leader had conducted hot stick operations and issued the Red Tag in error. Contributing to the incident was the acceptance of the Red Tag by the TRPM Crew Leader despite not performing hot stick operations.

SAFE Recommendations

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, and the respective departmental Safety Risk Coordinator (SRC) will manage the mitigation. Refer to the SMS I/A Module for additional information.

Corrective Action Code	Description	Responsible Party	Estimated Completion Date
99360_SAFE CAPS_TRPM _001	(RC-1, CF-1) TRPM management will conduct a safety stand down focusing on effective communications and following regulated procedures throughout the department related to the proper issuance and acceptance of a Red Tag.	TRPM SRC	Completed
99360_SAFE CAPS_TRPM _002	(RC-1, CF-1) TRPM RWIC will conduct refresher RWP training with the emphasis on effective communications and procedures for Red Tag Operations.	TRPM SRC	Completed
99360_SAFE CAPS_TRPM _003	(RC-1, CF-1) TRPM management will ensure pre-shift safety talks are conducted for all PDCs regarding 100% repeat backs when issuing Red Tags.	TRPM SRC	Completed

Appendices

Appendix A – Interview Summaries

The below narratives are summaries of the interviews with SAFE and represent the statements made by the individuals involved. As such, times and details may present a conflict with the data contained in systems of record.

TRPM RWIC

The RWIC is a WMATA employee with eight years of service: eight years as a Mechanic B. The TRPM RWIC's last RWP certification was on August 16, 2021. This employee has no history of sleep issues to report.

During the interview, the TRPM RWIC stated they were in the process of conducting Red Tag procedures and needed to hot stick in order to confirm third rail power was deenergized. The TRPM RWIC reported they contacted the PDC to report the CMs they intended to hot stick. They added the PDC issued them a Red Tag, but they had not hot stuck. The TRPM RWIC reported this was not normal practice and the first time they had been given a Red Tag without performing hot stick operations first. The TRPM RWIC stated when they received the Red Tag, they did not correct the PDC or inform them they had not hot stuck. The TRPM RWIC reported they contacted ROCC to request foul time but was told to standby. The TRPM RWIC stated there were no distractions during this situation and they were fully alert. The TRPM RWIC stated in the future they will ensure the PDC is aware if they had not hot stuck and given Red Tag by mistake to prevent a similar situation from occurring in the future.

Power Desk Controller (PDC)

This employee is a WMATA Employee with eight years and five months of service: seven years as a Bus Operator and 11 months as a PDC. The PDC's last certification was in September of 2021. This employee has no history of sleep issues to report.

During the interview, the PDC stated they were performing normal duties of issuing Red Tags. The PDC reported the TRPM RWIC had contacted via landline to report CMs they hot stuck. The PDC reported they were given CMs 607+00 and 609+00 by the TRPM RWIC. The PDC stated they then asked to speak to the TRPM crew member to confirm the CMs given. The PDC reported the TRPM Crew member confirmed the CMs. The PDC then stated they contacted the ROCC RTC to inform them they issued a Red Tag to Power Unit 1222. The PDC reported they were subsequently contacted by the RTC and asked, "Why did Power Unit 1222 receive a Red Tag without hot sticking." The PDC stated they informed the ROCC RTC they were given CMs by Power Unit 1222 at 607+00 and 609+00. The PDC stated they were not distracted when the Red Tag was issued and was fully alert. The PDC reported there was not anything they could have done to prevent this miscommunication from occurring. The PDC recommended having the PDC phone lines correlate with the respective Ops lines to avoid confusion in the future.

Appendix B – Roadway Worker Job Safety Form

Exhibit 2

Permanent Order # T-21-06

WMATA ROADWAY WORKER JOB SAFETY FORM

DATE: 04/03/22 TRACK TIME ON/OFF: 02:19 /

RWIC NAME: CALL #: EMPLOYEE ID #:

RWIC's CELL PHONE #: RADIO OPS CHANNEL: 3

SAFETY RULE OF THE DAY: Wear your PPE before enter Roadway, wear your facemask

WORK ASSIGNMENT: Roadway Track Feeder cable inspection DIRECTION OF TRAFFIC: INBOUND ☐ OUTBOUND ☒

RAIL LINE: A B C D E F G J K L N TRACK #: 1 2 3 WORK LIMITS CM: 566+88 - 657+00

PLACE OF SAFETY: SideWork or Parking lots

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 ☐ RED HOT SPOT HAZARDS ☐ ETS/RADIO OUTAGE ☐

POWER OUTAGE: LOTO: RED TAG: ☒ SUPERVISORY: NO POWER OUTAGE:

RED TAG #: 2022-093-502A RED TAG HOLDER:

WATCHMAN/LOOKOUT ASSIGNED: YES ☐ NO ☒ WATCHMAN/LOOKOUT NAME(s):

WATCHMAN/LOOKOUT EQUIPPED WITH "W" WARNING DIC, AIR HORN AND WHISTLE, ("W" Warning Disc required for fixed Zones): ☐

FOUL TIME CAN BE REQUESTED IN ALL WORK ZONE CONFIGURATIONS

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

Advanced Mobile Flagger ASSIGNED: YES ☐ NO ☒ AMF CALL #:

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

PIGGYBACK CREW LEADER CALL #(s): None PIGGYBACK WORKZONE CM(s):

PIGGY BACK WORK ASSIGNMENT: None

OF CLASS 2 RAIL VEHICLE(s): None CLASS 2 RAIL VEHICLE(s) OPERATING IN THE 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"/>
WORKSITE 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"/>

WSAD CERTIFICATION DUE	WSAD SERIAL #/ASSET ID	WSAD CERTIFICATION DUE	WSAD SERIAL #/ASSET ID
08-18-22	T0002NK1		
04-23-22	T0602J03		

Rev. 4.0 WMATA Roadway Job Safety Briefing Form, Date: March 2021

Permanent Order # T-21-06

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Document #1 - WMATA Roadway Worker Job Safety Form use to conduct safety for Red Tag.

Incident Date: 04/03/2022 Time: 02:31 hours
Final Report Rev. 1 – Improper RWP
E22193

Rev. 1 - Drafted By: SAFE 702 – 07/06/2022
Rev. 1 - Reviewed By: SAFE 71 – 07/21/2022
Rev. 1 - Approved By: SAFE 71 – 07/21/2022

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WMATA ROADWAY WORKER JOB SAFETY FORM

INSPECT PPE: ☒Electrical Safety Gloves Date: 01/06/22 N/A ☐INSPECT RWP STICKER: ☒INSULATED MAT: N/A ☐ BLUE ☐ RED ☐ GREEN ☐ ORANGE ☐ YELLOW ☐ MAT EXP DATE: _____

ROADWAY WORKER ACKNOWLEDGEMENT

I understand and agree with all aspects of the Roadway Job Safety Briefing I just received. I am adequately protected from any train movement or roadway hazards.

I understand I have a responsibility to conduct myself in a safe manner at all times.

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

Roadway Worker Signature	Employee/ Contractor ID#	Crew Leader's Signature/ ID #	Radio Call ID	Radio Certification Date	Serial #/ Asset ID

GOOD FAITH CHALLENGE INFORMATION

EMPLOYEE(s) NAME _____ EMPLOYEE(s) # _____ DATE/TIME _____

RWP ISSUE(s) _____ ISSUED RESOLVED: Yes _____ No _____

RWIC Comments: _____

RWIC SIGNATURE:

DATE/TIME: 04/03/22 - 02:19 AM

RELIEVING RWIC SIGNATURE: _____

DATE/TIME: _____

Document #2 - WMATA Roadway Worker Job Safety Form used to conduct safety for Red Tag.

Incident Date: 04/03/2022 Time: 02:31 hours
Final Report Rev. 1 – Improper RWP
E22193

Rev. 1 - Drafted By: SAFE 702 – 07/06/2022
Rev. 1 - Reviewed By: SAFE 71 – 07/21/2022
Rev. 1 - Approved By: SAFE 71 – 07/21/2022

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Appendix C – Traction Power Maintenance (TRPM) Personnel Incident Statements

M Incident Investigation Form WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

Page 1 of 3

INCIDENT				
Incident # 20220403#99360		Risk Rank		Today's Date 04/06/2022
Incident Date 04/03/2022	Incident Time 02:19	Department Rail	Division TRPM	Work Area E10 TBS
Location where Incident Occurred: E10 TBS				
Is this the final report? Yes If YES, is it within 7 days of the incident?				
If this is the Final Report, but it wasn't completed within 7 days, please explain why it wasn't completed within 7 days:				

DESCRIPTION OF THE INCIDENT.
Briefly describe the incident.
<p>Statement for E10 TBS</p> <p>I'm writing this incident report to explain the miscommunication that happened at around 2:19 am at E10 TB on Sunday morning 04/03/22. I was the RWIC giving my safety briefing at the time MOC called on my personal phone to go hot stick. Upon finishing the briefing I called MOC and told them the Chain-markers that I was going to be hot sticking. At that time MOC gave me the red tag. I was confused at what was going on(receiving red tag before the normal interaction with ROCC). I figured I just had to Call ROCC to get permission and verify the chain-markers. At this point I was at the access gate ready to call ROCC to get permission to go on the roadway to hot stick. That was the moment ROCC put on delay and informed me that I was under investigation. I told my supervisor the situation and he called the desk.</p>

KNOWN FACTS.
List in a logical order the known facts obtained during the investigation process.
<p>Technician reviewed one line drawings to confirm locations and wrote it on paper while waiting for switching to start. Exhibit 1 shows that switching was completed approximately around 2:21 AM, around that same time: Power desk called [REDACTED] on his personal phone to inform him " 1222 Ready for Hot sticking, How do you copy?...Landline me with your chain markers". [REDACTED] was conducting Roadway safety briefings to all parties involved in surveying project. see Exhibit 2</p> <p>Technician received red tag from pwr desk before he was allowed to contact ROCC to hotstick at chain markers E607 and E609.</p> <p>Upon calling ROCC to request permission to Hot stick and expressing that he was in possession of red tad 502A, he was informed that he was under investigation. [REDACTED] at no time did he foul the tracks.</p> <p>Witness statement from Supervisor [REDACTED] Exhibit 3</p> <p>Witness statement from [REDACTED] Exhibit 4</p>

50.690 1/3 02/10 Original: RISK Copy 1: Department Copy 2: SAFE Copy 3: LSC-I&II

Document #3 – TRPM RWIC Statement (Page 1 of 3).

Incident Date: 04/03/2022 Time: 02:31 hours
Final Report Rev. 1 – Improper RWP
E22193

Rev. 1 - Drafted By: SAFE 702 – 07/06/2022
Rev. 1 - Reviewed By: SAFE 71 – 07/21/2022
Rev. 1 - Approved By: SAFE 71 – 07/21/2022

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Incident Investigation Form

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

Page 2 of 3

INJURY CAUSING AGENT (MARK ONLY ONE)

- | | | | |
|---|--|---|--|
| <input type="checkbox"/> Absorbed Hazardous Substance | <input type="checkbox"/> Contacted Electric Current | <input type="checkbox"/> Lifting | <input type="checkbox"/> Struck by |
| <input type="checkbox"/> Asphyxiation | <input type="checkbox"/> Contacted Extreme Temperature | <input type="checkbox"/> Over Exertion | <input type="checkbox"/> Swallow Hazardous Substance |
| <input type="checkbox"/> Assault | <input type="checkbox"/> Exposure | <input type="checkbox"/> Physical Altercation | <input type="checkbox"/> Other |
| <input type="checkbox"/> Awkward Positions/Static Posture | <input type="checkbox"/> Foreign Object in Eye | <input type="checkbox"/> Repetitive Motions/Cumulative Trauma | <input type="checkbox"/> Witnessed Event |
| <input type="checkbox"/> Bite | <input type="checkbox"/> Harassment | <input type="checkbox"/> Slip, Trip or Fall | |
| <input type="checkbox"/> Biological Substance | <input type="checkbox"/> Illness | <input type="checkbox"/> Strike against | |
| <input type="checkbox"/> Caught In/On/Between Object | <input type="checkbox"/> Inhaling Hazardous Substance | | |

EQUIPMENT (MARK ALL WMATA EQUIPMENT DIRECTLY INVOLVED IN INCIDENT)

- | | | | | |
|---|---|---|--|---|
| <input type="checkbox"/> Access Platforms | <input type="checkbox"/> DC Systems | <input type="checkbox"/> Hand Rails | <input type="checkbox"/> Radios | <input type="checkbox"/> Transformers |
| <input type="checkbox"/> Automobile | <input type="checkbox"/> Detection Systems (i.e. Fire, Gas) | <input type="checkbox"/> Hand Tools | <input type="checkbox"/> Rigging | <input type="checkbox"/> Truck |
| <input type="checkbox"/> Ballast Car | <input type="checkbox"/> Diesel | <input type="checkbox"/> Heaters | <input type="checkbox"/> Riser Guard | <input type="checkbox"/> Utility Air |
| <input type="checkbox"/> Ballast Regulator | <input type="checkbox"/> Drain Machine | <input type="checkbox"/> High Pressure Washdown | <input type="checkbox"/> Scaffolds | <input type="checkbox"/> Walls or Fences |
| <input type="checkbox"/> Bath or Toilet Facilities | <input type="checkbox"/> Elevator | <input type="checkbox"/> HVAC | <input type="checkbox"/> Separators | <input type="checkbox"/> Winch, Hoist, Chain Fall |
| <input type="checkbox"/> Blowdowns | <input type="checkbox"/> Escalator | <input type="checkbox"/> Ladders | <input type="checkbox"/> Speed Swing | <input type="checkbox"/> Other |
| <input type="checkbox"/> Blowers or Fans | <input type="checkbox"/> Exchangers | <input type="checkbox"/> Lighting | <input type="checkbox"/> Stairs or Ladders | |
| <input type="checkbox"/> Boom Truck | <input type="checkbox"/> Filtration | <input type="checkbox"/> Microwaves | <input type="checkbox"/> Surface Grinder | |
| <input type="checkbox"/> Buildings | <input type="checkbox"/> Flat Car | <input type="checkbox"/> Motor Controllers | <input type="checkbox"/> Switch Gear | |
| <input type="checkbox"/> Bus | <input type="checkbox"/> Forklift | <input type="checkbox"/> Motors | <input type="checkbox"/> Tamper | |
| <input type="checkbox"/> Compressors | <input type="checkbox"/> Generator | <input type="checkbox"/> PA System | <input type="checkbox"/> Tanks | |
| <input type="checkbox"/> Control Hardware or Software | <input type="checkbox"/> Geismer | <input type="checkbox"/> Power Tools | <input type="checkbox"/> Telephones | |
| <input type="checkbox"/> Crane | <input type="checkbox"/> Guards Or Barriers | <input type="checkbox"/> Prime Mover | <input type="checkbox"/> Tie Inserter | |
| | | <input type="checkbox"/> Pumps | <input type="checkbox"/> Towers | |

EMPLOYEE INJURY (MARK ONLY ONE)

- | | | | | | |
|-------------------------------------|--------------------------------------|-----------------------------------|--|---------------------------------|---|
| <input type="checkbox"/> Amputation | <input type="checkbox"/> Cut | <input type="checkbox"/> Fracture | <input type="checkbox"/> Loss of Sense | <input type="checkbox"/> Strain | <input type="checkbox"/> Multiple Injuries |
| <input type="checkbox"/> Bruise | <input type="checkbox"/> Concussion | <input type="checkbox"/> Illness | <input type="checkbox"/> Poisoning | <input type="checkbox"/> Shock | <input type="checkbox"/> No Physical Injury |
| <input type="checkbox"/> Burn | <input type="checkbox"/> Dislocation | <input type="checkbox"/> Internal | <input type="checkbox"/> Sprain | <input type="checkbox"/> Other | |

BODY PART (MARK PRIMARY BODY PART)

- | | | | | | |
|-------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|-------------------------------------|--------------------------------|
| <input type="checkbox"/> Abdomen | <input type="checkbox"/> Back/Lower | <input type="checkbox"/> Feet/Left | <input type="checkbox"/> Head | <input type="checkbox"/> Legs/Left | <input type="checkbox"/> Other |
| <input type="checkbox"/> Arms/Left | <input type="checkbox"/> Eyes/Left | <input type="checkbox"/> Feet/Right | <input type="checkbox"/> Internal | <input type="checkbox"/> Legs/Right | |
| <input type="checkbox"/> Arms/Right | <input type="checkbox"/> Eyes/Right | <input type="checkbox"/> Hands/Left | <input type="checkbox"/> Knees/Left | <input type="checkbox"/> Neck | |
| <input type="checkbox"/> Back/Upper | <input type="checkbox"/> Chest | <input type="checkbox"/> Hands/Right | <input type="checkbox"/> Knees/Right | <input type="checkbox"/> Multiple | |

BASIC CAUSES SPECIFY ALL THE UNDERLYING CAUSES CONTRIBUTING TO THE INCIDENT

- | | | |
|---|--|---|
| Design Failures <ul style="list-style-type: none"><input type="checkbox"/> Design Management of Change Inadequate<input type="checkbox"/> Ergonomic Design Inadequate<input type="checkbox"/> Guards/Barriers or Safety Devices Inadequate<input type="checkbox"/> Technical Design Inadequate | Maintenance Inadequate <ul style="list-style-type: none"><input type="checkbox"/> Adjustment, Assembly or Installation Inadequate<input type="checkbox"/> Housekeeping Inadequate<input type="checkbox"/> Preventive Maintenance Inadequate<input type="checkbox"/> Replacement Parts Used Were Inappropriate<input type="checkbox"/> Safety Devices Defective<input type="checkbox"/> Servicing Schedule Not Followed<input type="checkbox"/> Wear and Tear Excessive | Tools & Equipment <ul style="list-style-type: none"><input type="checkbox"/> Personal Protective Equipment Defective<input type="checkbox"/> Personal Protective Equipment Not Available<input type="checkbox"/> Personal Protective Equipment Not Used or Used Improperly<input type="checkbox"/> Tools and Equipment Defective<input type="checkbox"/> Tools and Equipment Not Available<input type="checkbox"/> Tools and Equipment Used Improperly<input type="checkbox"/> Tools and Equipment Wrong for the Job |
| Human Factors <ul style="list-style-type: none"><input type="checkbox"/> Diminished Capacity Due to Medication<input type="checkbox"/> Fatigue<input type="checkbox"/> Hearing Deficiency<input type="checkbox"/> Impaired Due to Drugs or Alcohol<input type="checkbox"/> Improper Position<input type="checkbox"/> Operating at Improper Speed<input type="checkbox"/> Restricted Range of Motion<input type="checkbox"/> Vision Deficiency | Procedures Failure <ul style="list-style-type: none"><input type="checkbox"/> Failure to Warn<input type="checkbox"/> Operating Without Authority<input type="checkbox"/> Prestartup Safety Review Inadequate<input type="checkbox"/> Procedure Inadequate<input type="checkbox"/> Procedure Not Followed<input type="checkbox"/> Procedure Not In Place<input type="checkbox"/> Procedure Not Known or Understood<input type="checkbox"/> Procedure, Instructions or Signage Not Followed<input type="checkbox"/> Procedures Not Updated<input type="checkbox"/> Taking Short Cut | Training <ul style="list-style-type: none"><input type="checkbox"/> Assessment of Required Skills Inadequate<input type="checkbox"/> Skills Development Inadequate<input type="checkbox"/> Training Inadequate<input type="checkbox"/> Training Not Provided<input type="checkbox"/> Training Updates Inadequate |
| Planning Failure <ul style="list-style-type: none"><input type="checkbox"/> Appropriate Human Resources Not Available<input type="checkbox"/> Assessment of Hazards & Safe Guards Inadequate<input type="checkbox"/> Documentation Inadequate<input type="checkbox"/> Isolation of Energy Source (LOTO) Inadequate<input type="checkbox"/> Materials Inadequate<input type="checkbox"/> Roles and Responsibilities Not Understood<input type="checkbox"/> Safe Guards Not In Place (i.e. barricades, signs)<input type="checkbox"/> Scheduling Inadequate<input type="checkbox"/> Supervision Inadequate | Communication <ul style="list-style-type: none"><input type="checkbox"/> Communication Method Not Available or Inadequate<input type="checkbox"/> Communication Between Shifts Inadequate<input type="checkbox"/> Communication Between Work Groups Inadequate<input type="checkbox"/> Horizontal Communication Inadequate<input type="checkbox"/> Instructions Incorrect<input type="checkbox"/> Vertical Communication Inadequate | Leadership <ul style="list-style-type: none"><input type="checkbox"/> Correction of Worksite or Job Hazards Inadequate<input type="checkbox"/> Enforcement of Procedures Inadequate<input type="checkbox"/> Incident Investigation Inadequate<input type="checkbox"/> Management of Change System Inadequate |

50.690 2/3 02/10 Original: RISK

Copy 1: Department

Copy 2: SAFE

Copy 3: LSC-I&I

Document #4 – TRPM RWIC Incident Statement (Page 2 of 3).

Incident Date: 04/03/2022 Time: 02:31 hours
Final Report Rev. 1 – Improper RWP
E22193

Rev. 1 - Drafted By: SAFE 702 – 07/06/2022
Rev. 1 - Reviewed By: SAFE 71 – 07/21/2022
Rev. 1 - Approved By: SAFE 71 – 07/21/2022

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Incident Investigation Form

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

Page 3 of 3

EXPLANATION FOR CONCLUSIONS

Provide an explanation and basis for the conclusions reached.

After interviewing employee and his supervisor, it's clear that no RWP violation occur. We do see a need for better communication between the parties and making sure that all steps are followed by dispatcher and field personnel.

RECOMMENDATIONS TO PREVENT RECURRENCE	MS (SEE BELOW)	RESPONSIBLE PERSON	TARGET COMPLETION DATE	DATE ACTION WAS COMPLETED
1. Reinstruction RWP level 4		Training Group/ Rol	04/19/2022	
2. Safety stand down			04/12/2022	
3. Counsel about good communication			04/08/2022	

MANAGEMENT SYSTEMS

1. Asset & Operating Integrity	6. Emergency Preparedness	10. Metrics	14. Risk Analysis
2. Audit	7. Incident Management	11. Management Review	15. Rules and Procedures
3. Communication	8. Leadership	12. Objectives and Targets	16. Roles & Responsibilities
4. Contractors	9. Management of Change	13. Occupational Health	17. Training
5. Documents			

Investigated by (Signature)	Date
	04/08/2022
Print name	Phone Number
Reviewed by Manager (Signature)	Date
	4/08/2022
Print name	Phone Number

50.690 3/3 02/10 Original: RISK Copy 1: Department Copy 2: SAFE Copy 3: LSC-I&II

Document #5 – TRPM RWIC Incident Statement (Page 3 of 3).

Incident Date: 04/03/2022 Time: 02:31 hours
Final Report Rev. 1 – Improper RWP
E22193

Rev. 1 - Drafted By: SAFE 702 – 07/06/2022
Rev. 1 - Reviewed By: SAFE 71 – 07/21/2022
Rev. 1 - Approved By: SAFE 71 – 07/21/2022

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**Witness or Employee Statement Form**

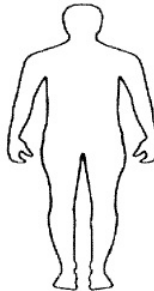
TO BE COMPLETED AND

Washington Metropolitan Area Transit Authority

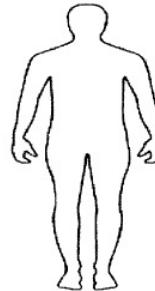
DISTRIBUTED WITHIN 24 HOURS

Involved Person or Witness (Use this Block for Non-WMATA Involved Person or Witness)			
Name		Phone Number	E-Mail
Address			
Incident Information			
Date	Incident Time	Date/Time Reported	Location
04/03/2022	2:19 am	4/3/2022 2:30 am	E10 TB
Incident ID# (from OCC) – Completed by Supervisor		SMS Incidents/Accidents Report# Completed by Supervisor 20220403#99360	
What happened prior to the incident/accident? We racked out breakers at E10TB.			
Describe the incident/accident 1222 was the Rwic ,he did the safety briefing, check out the wsad and power desk calling for hotstick .later on he went to the tie breaker room and calling MOC and then called me and said "this is the chainmarker we have to go hotstick ".when I finished talking with MOC , 1222 was on the radio with Rocc to request permission to go hotstick and then Rocc talking him to standby.			
What happened after the incident/accident? Rocc had us standby.			

Please indicate the area of the injury by placing an X on the corresponding body parts below. To specify which side of the body is involved, please use "L" for left and "R" for right.



FRONT



BACK

Turn Over to Complete Employee and Injury Information

Document #6 – TRPM personnel Incident Statement.

Incident Date: 04/03/2022 Time: 02:31 hours
Final Report Rev. 1 – Improper RWP
E22193

Rev. 1 - Drafted By: SAFE 702 – 07/06/2022
Rev. 1 - Reviewed By: SAFE 71 – 07/21/2022
Rev. 1 - Approved By: SAFE 71 – 07/21/2022

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**Witness or Employee Statement Form**

TO BE COMPLETED AND

Washington Metropolitan Area Transit Authority DISTRIBUTED WITHIN 24 HOURS

Involved Person or Witness (Use this Block for Non-WMATA Involved Person or Witness)			
Name		Phone Number	E-Mail
Address			
Incident Information			
Date	Incident Time	Date/Time Reported	Location
04/03/2022	2:00 am	4/3/2022 2:34 am	E10 TB
Incident ID# (from OCC) – Completed by Supervisor		SMS Incidents/Accidents Report#	
20220403#99360		Completed by Supervisor 20220403#99360	
What happened prior to the incident/accident?			
Prior to the incident my crew was switching at E10 TB and [REDACTED] was giving his safety job briefing			
Describe the incident/accident			
I was helping [REDACTED] give his safety briefing at E10 TB. After his briefing [REDACTED] was talking to the power desk on the phone. [REDACTED] told the power desk that he was hot sticking his chain markers. at this time the desk gave [REDACTED] his red tag. at this time [REDACTED] was going to ask ROCC for foul time to hot stick. they denied him that because he received his red tag without hotsticking. even though he was in the process of hotsticking.			
What happened after the incident/accident?			
We waited while the investigation took place. At 5:00 am I, [REDACTED] took the tag so we can get some work done.			

Please indicate the area of the injury by placing an X on the corresponding body parts below. To specify which side of the body is involved, please use "L" for left and "R" for right.



FRONT



BACK

Turn Over to Complete Employee and Injury Information

Document #7 – TRPM personnel Incident Statement.

Incident Date: 04/03/2022 Time: 02:31 hours
Final Report Rev. 1 – Improper RWP
E22193

Rev. 1 - Drafted By: SAFE 702 – 07/06/2022
Rev. 1 - Reviewed By: SAFE 71 – 07/21/2022
Rev. 1 - Approved By: SAFE 71 – 07/21/2022

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Appendix D – General Orders and Track Rights System (GOTRS)

GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM

Track Rights Request

Request Summary

Request Number:	202208402501	Track Access:	True
Dates Requested:	04/03/2022 01:00 to: 04/03/2022 06:00	Clear In Ten:	False
Request Status:	Closed	Equipment on Track:	0
Requestor:	[REDACTED]	Allow Piggybacks:	True
Requestor Organization:	TRPM	In Piggyback:	No
Switch Order:	Closed (2022093502)	Power Outage:	Red Tag
Lock Out / Tag Out:	No	Additional AC:	
Request Title:	E10 TBS Roadway Track Inspection {TRPM}		

Location, Work Type and Description

Location:	Mainline
Non-Wayside Location Type:	
Request Type:	Expedited
Charge Job Number:	Upon Request
Contract Number:	Upon Request
Maximo Work Order:	
Request Group:	No
Location Description:	Roadway Inspection
Request Description:	Roadway Track Inspection.
Work Type:	Inspection
Meeting Location:	E10 TBS
PB Meeting Location:	
Tools and Equipment:	Hand Tools; PPE
Equipment on Track:	

	Track 1			Track 2	
Actual Work Area:	E571+88	E652+40	Actual Work Area:	E571+88	E652+40
Protected Work Area:	E566+88	E657+40	Protected Work Area:	E566+88	E657+40

Hot Stick Info. Third Rail Gaps:

From	To	Track ID
E566+88	E608+00	1
E608+56	E657+40	1
E566+88	E608+00	2
E608+56	E657+40	2

Date & Time

Start:	04/03/2022 01:00	End:	04/03/2022 06:00
--------	------------------	------	------------------

As of 04/05/2022 10:06
1 of 7

Document #8 – GOTRS Tracks Rights Request page 1 of 7.

Incident Date: 04/03/2022 Time: 02:31 hours
Final Report Rev. 1 – Improper RWP
E22193

Rev. 1 - Drafted By: SAFE 702 – 07/06/2022
Rev. 1 - Reviewed By: SAFE 71 – 07/21/2022
Rev. 1 - Approved By: SAFE 71 – 07/21/2022

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GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM

Track Rights Request

Request Summary

Request Number:	202208402501	Track Access:	True
Dates Requested:	04/03/2022 01:00 to: 04/03/2022 06:00	Clear In Ten:	False
Request Status:	Closed	Equipment on Track:	0
Requestor:	[REDACTED]	Allow Piggybacks:	True
Requestor Organization:	TRPM	In Piggyback:	No
Switch Order:	Closed (2022093502)	Power Outage:	Red Tag
Lock Out / Tag Out:	No	Additional AC:	
Request Title:	E10 TBS Roadway Track Inspection {TRPM}		

Contacts

Entered by

[REDACTED]

Work:

Cell:

[REDACTED]

Home:

Requestor

[REDACTED]

Work:

Cell:

[REDACTED]

Home:

WMATA Manager

[REDACTED]

Work:

Cell:

[REDACTED]

Home:

Emergency Contact

[REDACTED]

Work:

Cell:

[REDACTED]

Home:

[REDACTED]

Support

SUPPORT GROUP Crew Size

TRPM 1

ESCORT GROUP Crew Size

SMNT/PWR 7

Request Change History

Date	Event
03/25/2022 19:41	Request was replicated from Request 202208402500.
03/25/2022 20:17	Request status was changed to Approved
04/03/2022 03:47	Work Prep was completed.
04/03/2022 04:52	Request status was changed to Opened
04/03/2022 08:56	Close-Out step was reversed from "De-energization completed/RWIC notified" to "Authorize Switch Order Execution".
04/03/2022 08:59	Work Prep was edited. Field(s) changed: Unit #. Unit #: 1222 to 130.
04/03/2022 09:08	Rail Traffic Controller Comment was updated.

As of 04/05/2022 10:06
2 of 7

Document #9 – GOTRS Tracks Rights Request page 2 of 7.

Incident Date: 04/03/2022 Time: 02:31 hours
Final Report Rev. 1 – Improper RWP
E22193

Rev. 1 - Drafted By: SAFE 702 – 07/06/2022
Rev. 1 - Reviewed By: SAFE 71 – 07/21/2022
Rev. 1 - Approved By: SAFE 71 – 07/21/2022

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GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM

Track Rights Request

Request Summary

Request Number:	202208402501	Track Access:	True
Dates Requested:	04/03/2022 01:00 to: 04/03/2022 06:00	Clear In Ten:	False
Request Status:	Closed	Equipment on Track:	0
Requestor:	[REDACTED]	Allow Piggybacks:	True
Requestor Organization:	TRPM	In Piggyback:	No
Switch Order:	Closed (2022093502)	Power Outage:	Red Tag
Lock Out / Tag Out:	No	Additional AC:	
Request Title:	E10 TBS Roadway Track Inspection {TRPM}		

Request Change History

Date	Event
04/03/2022 10:14	Request status was changed to Closed

Request Group

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

Piggyback

No active piggybacks found

Switch Order

SO #:	2022093502
SO Status:	Closed
Lock Out/ Tag Out:	No

Location & Equipment Requested

E09TP2 (E571+88) E10TP (E652+40) TRK 1
E09TP2 (E571+88) E10TP (E652+40) TRK 2

Remarks:

Red Tag information

Tag #:	Red Tag
--------	---------

De-Energization

Equipment Location	Equipment
E09TP2	53
E09TP2	54
E10TB	43
E10TB	44
E10TB	41
E10TB	42
E10TP	31

As of 04/05/2022 10:06
3 of 7

Document #10 – GOTRS Tracks Rights Request page 3 of 7.

Incident Date: 04/03/2022 Time: 02:31 hours
Final Report Rev. 1 – Improper RWP
E22193

Rev. 1 - Drafted By: SAFE 702 – 07/06/2022
Rev. 1 - Reviewed By: SAFE 71 – 07/21/2022
Rev. 1 - Approved By: SAFE 71 – 07/21/2022

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GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM

Track Rights Request

Request Summary

Request Number:	202208402501	Track Access:	True
Dates Requested:	04/03/2022 01:00 to: 04/03/2022 06:00	Clear In Ten:	False
Request Status:	Closed	Equipment on Track:	0
Requestor:		Allow Piggybacks:	True
Requestor Organization:	TRPM	In Piggyback:	No
Switch Order:	Closed (2022093502)	Power Outage:	Red Tag
Lock Out / Tag Out:	No	Additional AC:	
Request Title:	E10 TBS Roadway Track Inspection {TRPM}		

De-Energization

Equipment Location	Equipment
E10TP	32

Energization

Equipment Location	Equipment
E09TP2	53
E09TP2	54
E10TB	43
E10TB	44
E10TB	41
E10TB	42
E10TP	31
E10TP	32

Close-Out Summary

Final Status:				Closed
RWIC has contacted RTC to establish working limits:				04/03/2022 00:52
Authorize Switch Order Execution:				04/03/2022 02:02
De-Energization Completed/RWIC notified:				04/03/2022 05:03
Hot Sticking:				04/03/2022 05:09
From	To	Track ID	Waive(?)	Unit #
E566+88	E608+00	1		130
E608+56	E657+40	2		130
E608+56	E657+40	1		130
E566+88	E608+00	2		130
Permission is given to setup worksite:				04/03/2022 05:09

As of 04/05/2022 10:06
4 of 7

Document #11 – GOTRS Tracks Rights Request page 4 of 7.

Incident Date: 04/03/2022 Time: 02:31 hours
Final Report Rev. 1 – Improper RWP
E22193

Rev. 1 - Drafted By: SAFE 702 – 07/06/2022
Rev. 1 - Reviewed By: SAFE 71 – 07/21/2022
Rev. 1 - Approved By: SAFE 71 – 07/21/2022

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GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM

Track Rights Request

Request Summary

Request Number:	202208402501	Track Access:	True
Dates Requested:	04/03/2022 01:00 to: 04/03/2022 06:00	Clear In Ten:	False
Request Status:	Closed	Equipment on Track:	0
Requestor:	[REDACTED]	Allow Piggybacks:	True
Requestor Organization:	TRPM	In Piggyback:	No
Switch Order:	Closed (2022093502)	Power Outage:	Red Tag
Lock Out / Tag Out:	No	Additional AC:	
Request Title:	E10 TBS Roadway Track Inspection {TRPM}		

As of 04/05/2022 10:06
5 of 7

Document #12 – GOTRS Tracks Rights Request page 5 of 7.

Incident Date: 04/03/2022 Time: 02:31 hours
Final Report Rev. 1 – Improper RWP
E22193

Rev. 1 - Drafted By: SAFE 702 – 07/06/2022
Rev. 1 - Reviewed By: SAFE 71 – 07/21/2022
Rev. 1 - Approved By: SAFE 71 – 07/21/2022

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GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM

Track Rights Request

Request Summary

Request Number:	202208402501	Track Access:	True
Dates Requested:	04/03/2022 01:00 to: 04/03/2022 06:00	Clear In Ten:	False
Request Status:	Closed	Equipment on Track:	0
Requestor:	[REDACTED]	Allow Piggybacks:	True
Requestor Organization:	TRPM	In Piggyback:	No
Switch Order:	Closed (2022093502)	Power Outage:	Red Tag
Lock Out / Tag Out:	No	Additional AC:	
Request Title:	E10 TBS Roadway Track Inspection {TRPM}		

RTC authorization to start work is given to RWIC: 04/03/2022 05:13

PDC confirmed working limits are clear: 04/03/2022 06:02

RTC confirmed working limits are clear: 04/03/2022 06:14

Energization by PDC completed: 04/03/2022 06:44

Rail Traffic Controller Comment: 0238 PWR 1222 was told to call for his red tag.
0244 PWR 1222 contacted us and said he was in possession of his red tag and with a good working hot stick power was de-energized. ROCC did not give foul time to PWR 1222 to hot stick and confirm power was de-energized.
0245 PWR 1222 is on delay pending an investigation for an RWP violation.
0458 PWR 130 now has control of red tag 2022093502-A

Assistant Operations Manager Comment:

Requestor Comment:

Delays

Delay #	From	To	Reason	Re-Hot Stick Done
1	04/03/2022 02:45	04/03/2022 05:08	RWP violation under investigation	04/03/2022 05:08

As of 04/05/2022 10:06
6 of 7

Document #13 – GOTRS Tracks Rights Request page 6 of 7.

Incident Date: 04/03/2022 Time: 02:31 hours
Final Report Rev. 1 – Improper RWP
E22193

Rev. 1 - Drafted By: SAFE 702 – 07/06/2022
Rev. 1 - Reviewed By: SAFE 71 – 07/21/2022
Rev. 1 - Approved By: SAFE 71 – 07/21/2022

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GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM

Track Rights Request

Request Summary

Request Number:	202208402501	Track Access:	True
Dates Requested:	04/03/2022 01:00 to: 04/03/2022 06:00	Clear In Ten:	False
Request Status:	Closed	Equipment on Track:	0
Requestor:	[REDACTED]	Allow Piggybacks:	True
Requestor Organization:	TRPM	In Piggyback:	No
Switch Order:	Closed (2022093502)	Power Outage:	Red Tag
Lock Out / Tag Out:	No	Additional AC:	
Request Title:	E10 TBS Roadway Track Inspection {TRPM}		

As of 04/05/2022 10:06
7 of 7

Document #14 – GOTRS Tracks Rights Request page 7 of 7.

Incident Date: 04/03/2022 Time: 02:31 hours
Final Report Rev. 1 – Improper RWP
E22193

Rev. 1 - Drafted By: SAFE 702 – 07/06/2022
Rev. 1 - Reviewed By: SAFE 71 – 07/21/2022
Rev. 1 - Approved By: SAFE 71 – 07/21/2022

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Appendix E – GOTRS Switch Order

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY GENERAL ORDERS AND TRACK RIGHTS SYSTEM SWITCH ORDER

SWITCHING ORDER: 2022093502 STATUS: Closed
LOCATION & EQUIPMENT REQUESTED: E09TP2 (E571+88) E10TP (E652+40) TRK 1
E09TP2 (E571+88) E10TP (E652+40) TRK 2
DATES NEEDED: 04/03/2022 THRU 04/03/2022 TIME FROM: 01:00 TO: 06:00
DATE APPROVED: 03/25/2022 TIME APPROVED: 16:17

LOCK OUT / TAG OUT: No

EQUIPMENT CONFIRMED DE-ENERGIZED BY UNIT:

OUTAGE REQUESTED BY: [REDACTED] OF: TRPM PHONE: [REDACTED]
EMERGENCY CONTACT: [REDACTED] EMERGENCY CONTACT PHONE: [REDACTED]
TAG #: 2022093502-A RAIL SUPPORT REQUEST: 202208402501
GIVEN TO: 130 OF: TRPM ON: 04/03/2022 AT: 05:03
CLEARED BY: 130 OF: TRPM ON: 04/03/2022 AT: 06:02

REMARKS:

CANCELLATION DATE: TIME: REASON:

DE-ENERGIZED							ENERGIZED						
DESK OPR	Unit #	DATE	TIME	LOCATION	EQUIPMENT	TAG PLACED	DESK OPR	Unit #	DATE	TIME	LOCATION	EQUIPMENT	TAG REMOVED
[REDACTED]	1283	4/3/2022	02:20	E09TP2	53	2573	[REDACTED]	1283	04/03/2022	06:44	E09TP2	53	2573
	1283	4/3/2022	02:20	E09TP2	54	2574		1283	04/03/2022	06:44	E09TP2	54	2574
	1283	4/3/2022	02:21	E10TB	43	1646		1293	04/03/2022	06:44	E10TB	43	1646
	1283	4/3/2022	02:21	E10TB	44	1647		1293	04/03/2022	06:44	E10TB	44	1647
	1283	4/3/2022	02:21	E10TB	41	1649		1293	04/03/2022	06:44	E10TB	41	1649
	1283	4/3/2022	02:21	E10TB	42	1650		1293	04/03/2022	06:44	E10TB	42	1650
	1253	4/3/2022	02:17	E10TP	31	2721		1253	04/03/2022	06:44	E10TP	31	2721

As of 04/05/2022 10:01
1 of 2

Document #15 – GOTRS Switch Order page 1 of 2.

**WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
GENERAL ORDERS AND TRACK RIGHTS SYSTEM
SWITCH ORDER**

	1253	4/3/2022	02:17	E10TP	32	2722		1253	04/03/2022	06:44	E10TP	32	2722
--	------	----------	-------	-------	----	------	--	------	------------	-------	-------	----	------

Switch Order 2022093502 Execution Steps

Step 1 Start Switch Order Execution - Completed

Recorded by [REDACTED] at 04/03/2022 02:04

Step 2 Verified crew is on location with Switch Order and PPE - Completed

Recorded by [REDACTED] at 04/03/2022 02:14

Step 3 De-Energization - Completed

Recorded by [REDACTED] at 04/03/2022 02:21

Step 4 Hot Sticking - Completed

Recorded by [REDACTED] at 04/03/2022 02:31

Step 5 Verification - Completed

Recorded by [REDACTED] at 04/03/2022 02:31

Comments:

Step 6 Issue Red Tag - Completed

Recorded by [REDACTED] at 04/03/2022 05:03

Step 7 Clear Red Tag - Completed

Recorded by [REDACTED] at 04/03/2022 06:02

Step 8 Permission received from Power Desk Assistant Superintendent to energize - Completed

Recorded by [REDACTED] at 04/03/2022 06:26

Comments:

Step 9 Energization - Completed

Recorded by [REDACTED] at 04/03/2022 06:44

Switch Order 2022093502 De-Energize Circuit Testing

Track 1 E607+00 tested by 1222 and 1337

Recorded by [REDACTED] at 04/03/2022 02:30

Track 2 E607+00 tested by 1222 and 1337

Recorded by [REDACTED] at 04/03/2022 02:30

Track 1 E609+00 tested by 1222 and 1337

Recorded by [REDACTED] at 04/03/2022 02:30

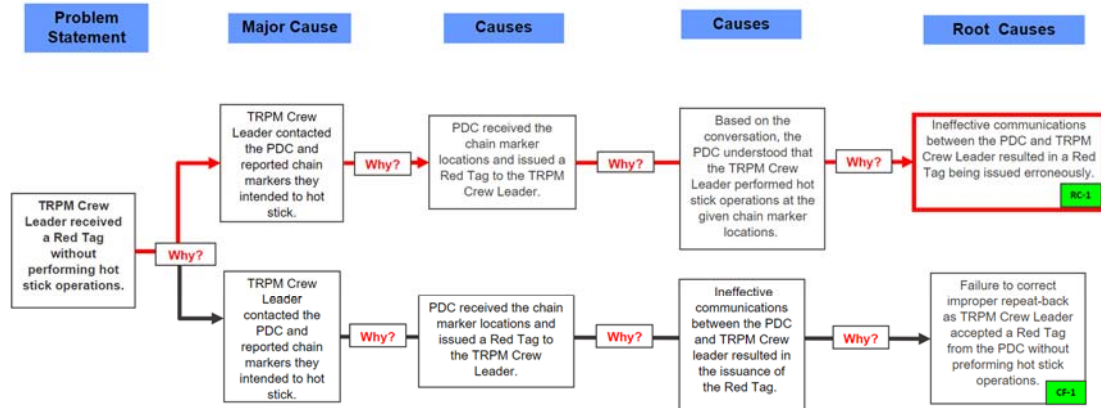
Track 2 E609+00 tested by 1222 and 1337

Recorded by [REDACTED] at 04/03/2022 02:31

As of 04/05/2022 10:01
2 of 2

Document #16 – GOTRS Switch Order page 2 of 2.

Appendix F – Root Cause Analysis



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Root Cause Analysis

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

