



WMSC Commissioner Brief: W-0131 – Improper Roadway Worker Protection – Fort Totten Station – August 12, 2021

Prepared for Washington Metrorail Safety Commission meeting on December 7, 2021

Safety event summary:

A Student Radio Controller in Metrorail's Rail Operations Control Center granted a Track and Structures inspection crew foul time to traverse a designated "hot spot" between Fort Totten and Takoma stations, then permitted a train to traverse the area where the work crew was under foul time protection. The Advanced Mobile Flagger (AMF) did not hold the train at the station as required when a mobile crew is under foul time protection.

The inspection crew's assignment was to conduct a Red Line track inspection between Silver Spring and Rhode Island Ave. stations on Track 1. At 10:49 a.m., the crew's Roadway Worker In Charge (RWIC) requested foul time to traverse a designated hot spot (an area that requires foul time protection) between chain markers 350+00 and 339+00. At 10:56 a.m., this protection was granted and the AMF at Fort Totten Station stated that they would be holding trains at the platform.

At 11:00 a.m., the RWIC relinquished that foul time, and requested foul time for the next designated hot spot between chain markers 325+00 and 305+00. The Student Radio Controller denied the request until the crew reached the location.

At 11:01 a.m., the RWIC requested foul time again. The Student Radio Controller asked the RWIC to notify ROCC when Train 108 had passed their location. The RWIC notified the ROCC at approximately 11:09 a.m. that the train had passed the crew. Shortly thereafter, the following train, Train 151, arrived at Fort Totten Station.

At 11:10 a.m., the Student Radio Controller granted foul time to the mobile work crew over the radio. The Student Radio Controller quickly attempted to cancel this communication due to Train 151 having already left the platform at Fort Totten Station, but could not due to other transmissions on the radio channel. Less than one minute after granting foul time, the Student Radio Controller instructed the RWIC to standby and stand clear, but the train had already passed the work crew.

The RWIC and inspector had begun walking in the foul time area without first confirming with their AMF as required that the AMF understood foul time protection was in place and that no trains would be allowed to enter the area.

The work crew was then permitted under properly established foul time to complete their walk to Fort Totten Station.

The Student Radio Controller was working with a controller assigned for that week to fill in as an on-the-job training instructor who had not received any training or instruction on that role. Metrorail is required to address this under an open WMSC CAP to address Finding 16 from the 2020 ROCC Audit that required on-the-job training is not carried out in a structured or standardized fashion.

The Student Radio Controller and the On-the-job Training Instructor were removed from service for post-event testing.

According to investigative interviews, the Track and Structures work crew did not conduct a roadway job safety briefing with the two AMFs assigned to the work crew.

**Probable Cause:**

The probable cause of this event was Metrorail's use of an OJTI that Metrorail did not properly train for that role, and the lack of clear visual identification to controllers of the specific location mobile track inspection crews, particularly those protected under foul time. Contributing to this event was the lack of supervisory oversight to ensure that RWP procedures are followed.

Corrective Actions:

Metrorail re-trained the ROCC controllers involved and conducted a ROCC safety standdown focused on foul time procedures and improper roadway worker protection (RWP) events.

ROCC is reviewing the process of documenting and tracking foul time protection. This will include enhancements to the foul time checklist sheet used to document work crews working under foul time protection on the roadway.

In accordance with WMSC CAP W-0064, the ROCC is establishing a process to require on-the-job training instructors attend training before serving as instructors.

Track and Structures conducted a safety stand down emphasizing the importance of proper communications and knowledge of system characteristics.

WMSC staff observations:

The RWIC's RWP certification had expired just before this event. Metrorail had issued extensions as it catches up on training following the COVID-19 public health emergency.

As part of Metrorail's ongoing initial efforts to revise its roadway worker protection program, Metrorail should consider steps for AMFs to hold trains in case of any doubt about the status of foul time requests or the location of personnel on the roadway.

Metrorail could consider an assessment of improved processes and procedures to most effectively use radios, such as a clear process for who speaks when, or adjustments to spread work over broader portions of the day given recent service adjustments.

Staff recommendation: Adopt final report.



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

FINAL REPORT OF INVESTIGATION A&I E21362

Date of Event:	08/12/2021
Type of Event:	Improper Roadway Worker Protection
Incident Time:	11:10 Hours
Location:	Fort Totten Station, Track 1
Time and How received by SAFE:	11:25 Hours; SAFE/IMO
WMSC Notification Time:	12:55 Hours; Email
Responding Safety Officers:	WMATA: None WMSC: None Other: None
Rail Vehicle:	Train ID 151, L7346-7347.7315-7314.7458-7459.7469-7468T
Injuries:	None
Damage:	None
Emergency Responders:	None
SMS I/A Number	20211014#96176

Fort Totten Station – Improper Roadway Worker Protection

August 12, 2021

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Abbreviations and Acronyms

AIMS	Advanced Information Management System
AMF	Advanced Mobile Flagger
ARS	Audio Recording System
CAP	Corrective Action Plan
CCTV	Closed-Circuit Television
COMM	Office Systems Maintenance Communication Section
CM	Chain Maker
CMOR	Office of Chief Mechanical Officer
IIT	Incident Investigation Team
FT	Foul Time
MSRPH	Metrorail Safety Rules and Procedures Handbook
NOAA	National Oceanic and Atmospheric Administration
OJTI	On-the-Job Training Instructor
RTC	Rail Traffic Controller
RTRA	Office of Rail Transportation
RWIC	Roadway Worker in Charge
ROCC	Rail Operations Control Center
SAFE	Department of Safety and Environmental Management
SMS	Safety Measurement System
TRST	Office of Track & Structures
WMATA	Washington Metropolitan Area Transit Authority
WMSC	Washington Metrorail Safety Commission

Executive Summary

On Thursday, August 12, 2021, at approximately 09:59 hours, Office of Track & Structures (TRST) personnel requested permission from the Rail Operations Control Center (ROCC) Rail Traffic Controller (RTC) on Radio Ops 1 to perform a track inspection between Silver Spring and Rhode Island Avenue Stations on track 1 using Advanced Mobile Flagger (AMF) protection. At approximately 11:01 hours, the TRST personnel requested Foul Time (FT) protection to inspect between CM B1 325+00 and 305+00, which is a hot spot (between Takoma Park and Fort Totten Stations) identified in the Track Access Guide. At approximately 11:10 hours, the Radio RTC, who was a Student Controller under the supervision of an On-the-Job Training Instructor (OJTI), granted permission to the TRST personnel to continue their inspection under FT protection. Less than a minute after granting the FT protection, the Student Radio RTC instructed the TRST personnel to stand by and stand clear for train movement. At approximately 11:12 hours, Train ID 151 passed the TRST personnel between Chain Markers (CM) B1 305+00 and 325+00, after departing Fort Totten Station. There were no injuries or damage as a result of this Improper Roadway Worker Protection (RWP) event.

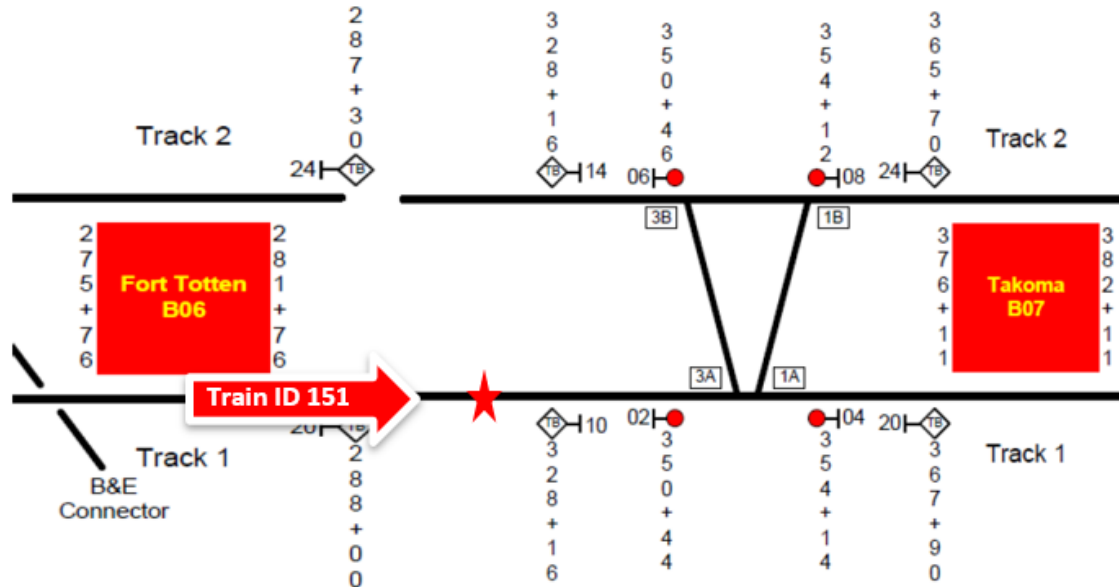
The Audio Recording System (ARS) playback [radio and landline] indicated that the TRST Roadway Worker In Charge (RWIC) contacted ROCC, requested to perform a track inspection between Silver Spring and Rhode Island Avenue Stations, track 1 beginning at approximately 09:59 hours. During the work crew's inspection between Takoma and Fort Totten Stations, the RWIC requested FT between CM B1 350+00 and 339+00, traversed the area and relinquished FT Protection. During the same radio transmission, the RWIC requested to return to FT protection between CM B1 325+00 and 305+00. The RWIC was instructed to stand by and clear of the roadway for train movement and to contact ROCC after one train passed their location. After one train passed, the Radio RTC granted FT between CM B1 325+00 to 305+00, followed by a repeat-back from the RWIC. Less than one minute later, the Radio RTC contacted the RWIC and instructed them to stand by and clear for train movement and to contact the ROCC when the train clears their location. The RWIC advised the Radio RTC that they would contact them via land line. The RWIC reported to the OJTI RTC that a train passed their location while they were under FT protection. The Radio RTC granted FT protection again at approximately 11:17 hours. The TRST crew completed their inspection and cleared the roadway at Fort Totten Station at approximately 11:47 hours.

The immediate probable cause of the Improper RWP event was a failure to adhere to the FT Protection procedures identified in the Metrorail Safety Rules and Procedures Handbook Section 5 – RWP, 5.13.5 Foul Time Protection. A contributing factor to the event was the inadequate oversight by the OJTI RTC of the Student Radio RTC while in performance of their duties. The RWIC's improper radio communications with the RTC contributed to the event by causing distraction. Additionally, the haste on the behalf of the RWIC by relinquishing and requesting multiple foul times in the same transmission without following the FT procedures including failing to notify the AMF of their FT status, and delaying their response to ROCC transmissions was also contributory factors in this event.

Incident Site

Fort Totten Station, Track 1 (Location of Train ID 151 at the time FT was granted).

Field Sketch/Schematics



Purpose and Scope

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

Investigative Process and Methods

Upon receiving the notification of the Improper Roadway Worker Protection event at Fort Totten Station on August 12, 2021, SAFE dispatched a cross-functional team to assess the scene and conduct the subsequent investigation. SAFE team members worked with relevant WMATA subject matter experts to review the incident's facts and data.

The investigative methodologies included the following:

- Site Assessment through Document Review
- Formal Interviews – SAFE interviewed three (3) individuals as part of this investigation, including the
 - Two ROCC Radio RTCs
 - RWIC – TRST
- 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 contained in Metro systems of record. These records include:
 - Employee Training Procedures & Records
 - Metro Safety Rules and Procedures handbook (MSRPH)
 - National Oceanic and Atmospheric Administration (NOAA) data
 - Certifications

- The 30-Day work history
 - Office of Systems Maintenance Communication Section (COMM)
 - Office of Chief Mechanical Officer (CMOR) / Incident Investigation Team (IIT) post-incident analysis data
 - Maximo
- System Data Recording Review – A collection of information contained in Metro Data Recording Systems. This data includes:
 - Audio Recording System (ARS) playback include OPS 1 Radio
 - Closed-Circuit Television (CCTV)

Investigation

On Thursday, August 12, 2021, at approximately 09:59 hours Office of Track & Structures (TRST) personnel requested and received permission from the Rail Operations Control Center (ROCC) Rail Traffic Controller (RTC) on Radio Ops (Ops) 1 to perform a track inspection between Silver Spring and Rhode Island Avenue Stations, track 1.

At approximately 10:49 hours, the Mobile Work Crew arrived at Chain Maker (CM) B1 350+00 (between Takoma Park and Fort Totten Stations), the RWIC contacted ROCC and requested FT protection to inspect between CM B1 350+00 and 339+00, a hot spot area identified in the Track Access Guide. ROCC instructed the Mobile Work Crew to standby and stand clear for train movement. At approximately 10:56 hours, the Radio RTC granted permission to the TRST personnel to continue their inspection under FT protection. The AMF located at Fort Totten Station transmitted that they were holding trains at Fort Totten Station, track 1.



Image 1 – AIMS display after ROCC granted permission for Mobile Work Crew to enter the roadway.

At approximately 11:00 hours, the RWIC contacted ROCC and relinquished FT between CM B1 350+00 and 339+00 and returned to AMF protection. During the same transmission the RWIC requested FT between CM B1 325+00 and 305+00, a hot spot area identified in the Track Access

Guide. The Radio RTC denied the request from the RWIC and instructed the RWIC to utilize AMF protection until they had reached CM B1 325+00.

At approximately 11:01 hours, the RWIC requested FT again between CM B1 325+00 to 305+00. The Radio RTC instructed the Mobile Work Crew to standby and stand clear for train movement. The AMF located at Fort Totten Station acknowledged that the Mobile Work Crew was under AMF protection. The Radio RTC instructed the RWIC to notify ROCC when the train had passed their location. At approximately 11:09 hours, the RWIC notified the Radio RTC that the train had passed their location.

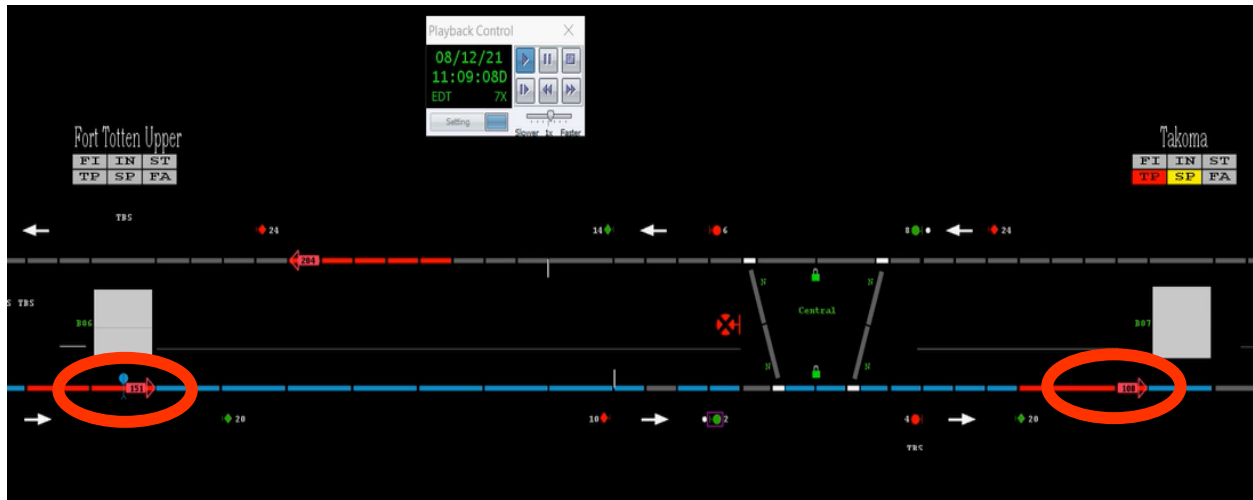


Image 2 – AIMS display depicting Train ID 108 passing the Mobile Work Crew and Train ID 151 on the platform at Fort Totten Station.

At approximately 11:09 hours, Train ID 151 arrived at Fort Totten Station, track 1 where the Train Operator encountered the AMF.



Image 3 - Train ID 151 arriving at approximately 11:09 hours, on the platform at Fort Totten Station with the AMF in place.

At approximately 11:10 hours, the Radio RTC granted permission to the Mobile Work Crew to continue their inspection under FT protection. The Student Radio RTC should not have granted

FT to the Mobile Work Crew without verifying train movement within their inspection area. The OJTI Radio RTC was negligent in the oversight of the Student Radio RTC when they failed to ensure that the Student Radio RTC followed the procedures to initiate foul time protection. The Student and OJTI Radio RTC actions were not in compliance with MSRP Section 5 RWP, Rule 5.13.5 Foul Time Protection, *Procedures to Initiate Foul Time Protection*.

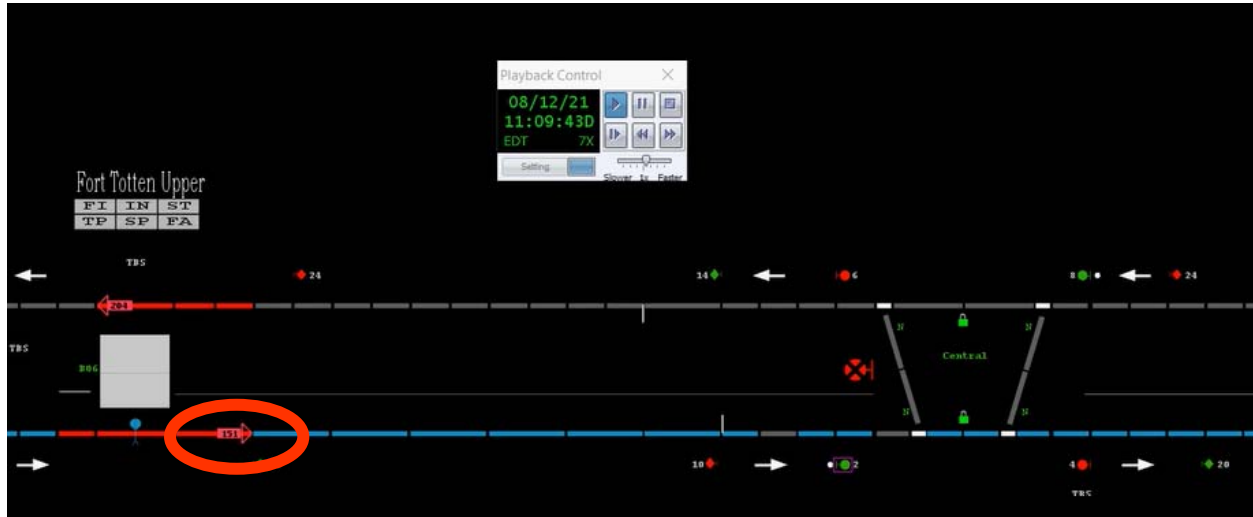


Image 4 – AIMS display depicting Train ID 151 departing Fort Totten Station, track 1.

Seconds after FT was granted, multiple transmissions were made by various department personnel causing the inability of the Student Radio RTC to quickly renege the granted foul time, and to allow the RWIC to notify the AMF located at Fort Totten Station to hold the trains. Once there was a break in transmissions, the Student Radio RTC attempted to contact the RWIC to clear the roadway and the AMF attempted to ascertain the status of the FT of the Mobile Work Crew. The Student Radio RTC informed the RWIC to standby and stand clear for train movement in their area after granting foul time.

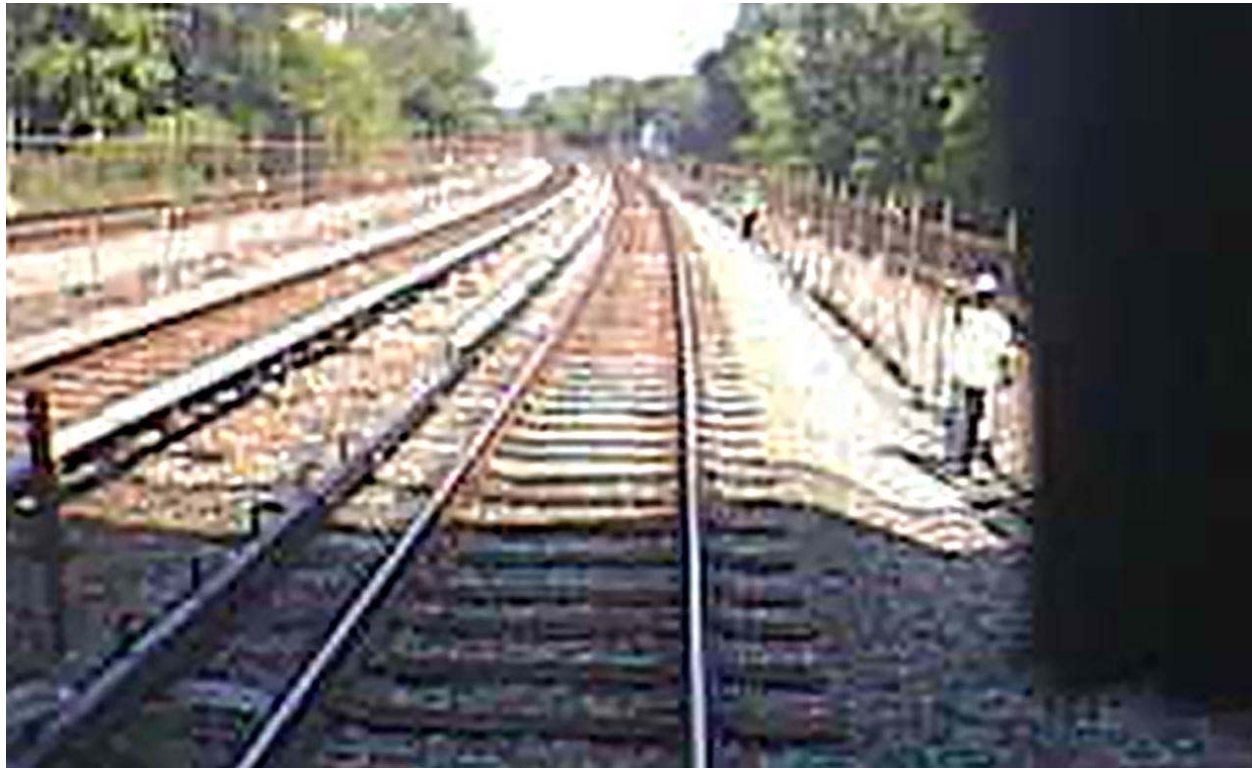


Image 5 – Train ID 151 passing roadway workers who are in a place of safety

At approximately 11:12 hours, the Student Radio RTC instructed the RWIC to notify ROCC when the train had cleared their location. At approximately 11:13 hours, the RWIC reported that the train traversed the area that was protected under foul time. At approximately 11:17 hours, the Radio RTC granted permission again to the Mobile Work Crew to continue their inspection under FT protection between CM B1 325+00 to 305+00, track 1. The AMF located at Fort Totten Station transmitted that they were holding trains at Fort Totten Station, track 1. At approximately 11:24 hours, the RWIC relinquished their FT and the AMF located at Fort Totten Station acknowledged that the Mobile Work Crew was under AMF protection. At approximately 11:47 hours, the Mobile Work Crew notified ROCC that they were clear of the roadway at Fort Totten Station.

Chronological ARS Timeline

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

Time	Description
09:59:42 hours	TRST RWIC: Contacted ROCC, requests to perform a track inspection between Silver Spring and Rhode Island Avenue Stations, track 1. [Radio]
10:49:36 hours	TRST RWIC: Contacted ROCC to request FT between CM B1 350+00 to 339+00. Radio RTC: Advises TRST RWIC to stand by and stand clear while FT protection is established. TRST RWIC: Acknowledged and repeated back instruction. [Radio]
10:54:45 hours	TRST RWIC: Reported that a train passed their location [FT was not established at this time]. Radio RTC: Acknowledged TRST RWIC's transmission. [Radio]

Time	Description
10:56:32 hours	<u>Radio RTC</u> : Contacted TRST RWIC, advised of blue block, human form, and signal protection in place [including signal IDs] and granted FT Protection. Instructed the RWIC to advise when he relinquishes the FT <u>TRST RWIC</u> : Acknowledged and repeated back the Radio RTC's transmission. [Radio]
10:57:38 hours	<u>TRST AMF</u> : Contacted TRST RWIC and advised he is holding trains at Fort Totten Platform <u>TRST RWIC</u> : Acknowledged TRST AMF transmission [Radio]
11:00:33 hours	<u>TRST RWIC</u> : Contacted ROCC to relinquish FT between B1 350+00 and 339+00, return to AMF protection and request additional FT from CM B1 325+00 to 305+00. <u>Radio RTC</u> : Acknowledged FT relinquished. Advised TRST RWIC to contact the AMF and return to AMF Protection and request FT again when needed. [Radio]
11:01:25 hours	<u>TRST RWIC</u> : Requested FT between CM B1 325+00 to 305+00. <u>Radio RTC</u> : Responded, how long will FT take? <u>TRST RWIC</u> : Responds, 3 minutes. [Radio]
11:01:56 hours	<u>Radio RTC</u> : Standby and stand clear for train movement. We need to get one train... [crosstalk of AMF] <u>TRST RWIC</u> : Acknowledged and repeated. [Radio]
11:02:07 hours	<u>AMF</u> : Responded, RWIC is under AMF Protection. <u>Radio RTC</u> : Instructed RWIC to advise when one train passes. <u>TRST RWIC</u> : Acknowledged and repeated. [Radio]
11:09:10 to 11:09:46 hours	<u>TRST RWIC</u> : Reported, one train has passed my location. <u>Second RWIC Unit</u> : Attempts to contact their AMF after relinquishing FT. <u>Third RWIC Unit</u> : Requests to enter the roadway at Brookland Station. <u>Radio RTC</u> : Acknowledges Third RWIC Unit and instructs them to stand by and stand clear. [Radio]
11:09:47 hours	<u>Radio RTC</u> : Contacts TRST RWIC. <u>TRST RWIC</u> : Acknowledged. [Radio]
11:10:06 hours	<u>Radio RTC</u> : Contacted TRST RWIC, advised of blue block, human form, and signal protection in place [including signal IDs] and granted FT Protection. Instructed the RWIC to advise when he relinquishes the FT. <u>TRST RWIC</u> : Acknowledged and repeated. [Radio]
11:10:40 hours	<u>Radio RTC</u> : Requested RWIC to contact ROCC. <u>AMF</u> : Inquired what on the status of the FT. [Radio]
11:10:50 hours	<u>TRST RWIC</u> : Acknowledged, ROCC. <u>Radio RTC</u> : Instructed RWIC to standby and stand clear. <u>TRST RWIC</u> : Acknowledged and repeated standby and stand clear. [Radio]
11:12:19 hours	<u>Radio RTC</u> : Responds, inform ROCC when the next train clears your location. [Radio]
11:12:40 hours	<u>Radio RTC</u> : Attempted to contact RWIC. [Radio]
11:12:48 hours	<u>TRST RWIC</u> : Acknowledged ROCC. <u>Radio RTC</u> : Responded, has the train cleared your location? <u>TRST RWIC</u> : Responded, I'll give you a landline. [Radio]
11:13:16 hours	<u>TRST RWIC</u> : Reported a train traveling through the area that was protected under FT. [Phone]
11:17:14 hours	<u>Radio RTC</u> : Attempted to contact RWIC. [Radio]

Time	Description
11:17:50 hours	<p>TRST RWIC: Acknowledged ROCC.</p> <p>Radio RTC: Granted FT between CM B1 325+00 to 305+00.</p> <p>TRST RWIC: Acknowledged and repeated.</p> <p>AMF: Responded, RWIC under FT hold all trains.</p> <p>TRST RWIC: Acknowledged AMF. [Radio]</p>
11:24:15 hours	<p>Radio RTC: Attempted to contact RWIC.</p> <p>TRST RWIC: Responded, relinquished FT.</p> <p>Radio RTC: Acknowledged.</p> <p>AMF: Responded, RWIC back under AMF protection. [Radio]</p>
11:47:06 hours	<p>TRST RWIC: Contacted ROCC.</p> <p>Radio RTC: Acknowledged RWIC.</p> <p>TRST RWIC: Responded, all personnel are clear at Fort Totten Station.</p> <p>Radio RTC: Acknowledged. [Radio]</p>

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

Office of System Maintenance Communication Section (COMM)

After reviewing the Audio Recording System (ARS) playback, there did not appear to be any communication deficiencies over the radio.

Interview Findings

The Student RTC stated that their typical day is 05:00 hours to 13:00 hours and that they meet with the OJTI for the day when they arrive, then get a turnover report from the previous shift and complete paperwork to begin the shift. The Student RTC stated they had been in training for approximately six months. For the week leading up to the incident date, the Student RTC was assigned to a new OJTI as their regular OJTI was scheduled off. The Student RTC stated that the role of the OJTI is to be stationed next to them and oversee what is being done. If there is an issue, the OJTI would stop you and take corrective action. The Student RTC stated that the OJTI does not have a separate console. The Student RTC stated that when the track walkers enter the roadway, it becomes the busiest part of the day; "There's a lot coming at you at once." The Student RTC stated that as a new controller they felt like they were being rushed by the roadway personnel, making comments like 'it's hot out here', and 'I've been waiting for a while.' The Student RTC stated that the track walkers usually call to inspect between 8:00 and 08:30 hours. The Student RTC stated that when the track walkers call in, they document the call number and note what the work is including their location and if the roadway job safety briefing is conducted. The [Button Controller] sets up the protection for the request. The Student RTC stated that as the radio controller, they make the announcement to the train operators of personnel on the roadway, then grant access to the roadway and advise the RWIC to contact the AMFs. There is a documented personnel sheet and foul time sheet managed by the RTC. The [Button Controller] monitors the radio and makes adjustments. The Student RTC stated that they are trained to work on both sides of the console and sometimes you can verbally talk to the buttons controller, but the radio controller can see what's happening on the screen and use that to verify correct protection is established. The Student RTC stated that they spoke with several other units and train operators before the event and then came back to the track unit and prematurely gave them foul time before the second train cleared their location. There were two trains that needed to pass the track units. The Student RTC stated that they told the units to stand by for two trains to pass and was informed of the event by the OJTI and they should not have given foul time just yet. The Student RTC stated that they tried to break into the communications to inform the track unit to stand by, but the train had already left the platform at Fort Totten. The Student RTC stated that

when they were finally able to contact the track unit, they were informed that the train was already passing by. The Student RTC stated that the OJTI was located beside them and everything just happened fast, the radio traffic was occupied. The Student RTC stated that after the event they reached out the track walkers and asked them to stand by and give a landline. The OJTI went to the Asst. Superintendent desk. The Student RTC stated that the environment in ROCC was busy and they felt rushed by the track walkers.

The OJTI RTC stated that they rotate between the ops and is not a OJTI typically. Their normal schedule is 05:30 to 13:30 hours. The OJTI RTC stated that they certified as a RTC in February 2021 and has no OJTI training but was asked if they felt comfortable being an OJTI and they agreed to train for one week. The OJTI RTC stated that there was no training or instructions for being on OJTI. The OJTI RTC stated that during the week they introduced themselves to the student and went over some SOPs and provided some other information to help the student. The OJTI RTC stated that they usually review information in their typical workday. The OJTI RTC stated that they advised the student to be organized, to take their time and not move too fast. Overall, they need to be in control of the railroad. The OJTI RTC stated that the day was busy, and more personnel were on the roadway than usual and it gets busy at approximately 09:00 hours. The OJTI RTC stated that they use a tracking form and foul time sheet to keep organized of the personnel on the roadway. The OJTI RTC described the roles of the buttons controller and radio controller when personnel are entering the roadway and foul time procedures. The OJTI RTC stated that in their observation, the student was keeping a good pace with what was being requested by personnel. The OJTI was monitoring the student's instructions to ensure that steps were not missed. The OJTI RTC stated that they would verbally instruct the student if something was incorrect. The OJTI RTC stated that the student was moving as they should and was doing a fine job prior to the event. The OJTI RTC stated that the event began when the track unit requested foul time, relinquished, and requested foul time right after and told the student RTC that it would take 3 minutes. They were told to stand by and clear, two trains needed the clear the location. One train passed and they were waiting for another, foul time protection was in place and the student initiated the foul time and the OJTI noticed the train was entering the foul time area they instructed the student to stop the foul time and tell the track unit to stand by and clear. There was another train asking for a block at the same time and we had to wait for the transmission to stop before letting the track unit know to stand by and clear. The OJTI RTC stated that the track unit called, and they apologized and asked if they were ok. The track units were upset, and the OJTI reported the event to the Supervisor.

The TRST RWIC stated that they clocked in on duty and performed a Roadway Job Safety Briefing before departing Shady Grove Rail Yard. They drove with the Inspector to Silver Spring Station and performed another Roadway Job Safety Briefing. The RWIC stated that they contacted ROCC for permission to walk. There were two AMFs and one inspector in the work crew. The RWIC stated that they called on with ROCC at Takoma Park Station, and verified the AMF was located at Fort Totten track 1 in place for the walk from Takoma Park Station. The RWIC stated that they requested foul time between CM A1 350+00 to 339+00 and ROCC granted permission, next at CM A1 325+00 to 305+00 the RWIC stated that they requested foul time and was denied. They were instructed to wait for one train to pass their location. The RWIC stated that the train passed by and ROCC contacted them to confirm if the train had passed by their location. The RWIC stated that they did not immediately respond to ROCC and stated that they did contact ROCC and reported that the train passed their location. The RWIC stated that ROCC granted foul time and they repeated with 100% repeat back, then started walking again. The RWIC stated that they looked up and the train was there, ROCC was calling at the same time to clear the roadway. The RWIC stated that they contacted the AMF before beginning the walk and there were no radio communication issues. The RWIC reported that they were located at CM A1 327+00 when they noticed the train and instructed the inspector to clear the roadway. The

RWIC stated that the work crew stepped off the roadway and waited for ROCC to give foul time again. The RWIC stated that they heard when ROCC instructed the train to hold two minutes at No-Ma Station. The RWIC stated that it was likely that the AMF didn't have a chance to say anything over the radio because AMF and Train Operators were all talking at the same time. The RWIC stated that the Train Operator did not blow the horn and the train was moving slowly. The RWIC stated that the AMF was aware that they were under the second foul time and may have been confused.

The AMF stated that they usually arrive early at approximately 06:30am. The AMF stated that it was their first time working at Shady Grove Rail Yard and the first time working on the Red Line. The AMF stated that they attended a Safety Briefing and received an assignment. The AMF stated that they asked the RWIC to sign the RJSB before departing the rail yard and was informed that they would sign the form at the location. They were scheduled to inspect between Rhode Island Avenue Station, track 1. The AMF stated that the work crew would be inspecting between Rhode Island Avenue Station and Silver Spring Station, track 1. The AMF stated that they reviewed how many foul times would be in their flagging area. The AMF stated that they followed the other AMF to Brookland Station to park. The RWIC went to the starting point and no RJSB was conducted before flagging. The AMF stated that they rode the train to Fort Totten Station and arrived at approximately 10:12am. The AMF stated that they listened to the radio for the RWIC to begin flagging. The AMF stated that at approximately 10:40 am, the RWIC contacted them to ensure they were in place at Fort Totten. The AMF stated that the first foul time started at 10:56 am, and at 11:00 am the RWIC contacted ROCC and relinquished their foul time then requested for another foul time. The AMF stated that ROCC told the RWIC no and go direct to the AMF and re-request the foul time. The AMF stated that the RWIC sounded angry when responding to ROCC and told ROCC to give them a land line. The AMF stated that they immediately transmitted the RWIC relinquished the foul time. The AMF stated that some time passed, then ROCC told the RWIC to give a land line. The AMF stated that they stood by waiting for further communication. The AMF stated that after a while, they transmitted to ROCC requesting the status of the RWIC foul time. The AMF stated that the RWIC contacted ROCC and requested foul time. The AMF stated that at 11:18 am, the second foul time was established until 11:24 am, when the foul time was relinquished. The AMF stated that the work crew was on the platform at 11:34am.

Weather

On August 12, 2021, at the time of the incident, NOAA recorded the temperature as 93°F, with passing clouds. SAFE has concluded that weather was not a contributing factor in this incident (Weather source: NOAA) – Location: Washington, DC)

Human Factors

Fatigue

Evidence of Fatigue

Student Rail Traffic Controller (RTC)

Conditions at the time of the incident were evaluated to distinguish whether evidence of fatigue was present. No evidence of fatigue was indicated by the available data. Video of the involved person was not available to ascertain whether evidence of fatigue was present. The RTC reported

feeling Fully Alert at the time of the incident. The Employee reported experiencing no symptoms of fatigue in the time leading up to the incident.

OJTI Rail Traffic Controller (RTC)

Conditions at the time of the incident were evaluated to distinguish whether evidence of fatigue was present. No evidence of fatigue was indicated by the available data. Video of the involved person was not available to ascertain whether evidence of fatigue was present. The RTC reported feeling Fully Alert at the time of the incident. The Employee reported experiencing no symptoms of fatigue in the time leading up to the incident.

Roadway Worker in Charge (RWIC)

Conditions at the time of the incident were evaluated to distinguish whether evidence of fatigue was present. No evidence of fatigue was indicated by the available data. Video of the incident was reviewed for behaviors suggesting fatigue. No evidence of fatigue was evident from the video. The RWIC's alertness in the period leading up to the incident is unknown. The Employee reported experiencing no symptoms of fatigue in the time leading up to the incident.

Advanced Mobile Flagger (AMF)

Conditions at the time of the incident were evaluated to distinguish whether evidence of fatigue was present. No evidence of fatigue was indicated by the available data. Video of the incident was reviewed for behaviors suggesting fatigue. No evidence of fatigue was evident from the video. The AMF reported feeling Fully Alert at the time of the incident. The contractor reported experiencing no symptoms of fatigue in the time leading up to the incident.

Fatigue Risk

Student Rail Traffic Controller (RTC)

Incident data was evaluated for fatigue risk factors. No significant risk factors for fatigue were identified. The incident time of day (11:12 hours) did not suggest an increased risk of fatigue-related impairment. The employee worked day shifts in the days leading up to the incident.

From reported bed and wake times, the employee slept a total of 7.5 hours in the sleep period leading up to the incident. The employee was awake for 7.2 hours at the time of the incident. The off-duty period immediately preceding the incident was 17.8 hours long, which provided the opportunity for 7-9 hours of sleep. The employee reported typical workday sleep durations of 8 hours and no issues with sleep.

OJTI Rail Traffic Controller (RTC)

Incident data was evaluated for fatigue risk factors. No significant risk factors for fatigue were identified. The incident time of day (11:12 hours) did not suggest an increased risk of fatigue-related impairment. The employee worked day shifts in the days leading up to the incident. Based on the employee's reported bed and wake times the day before the incident, the employee slept a total of 7 hours in the sleep period preceding the incident and was awake for 7.2 hours at the time of the incident. The off-duty period preceding the incident was 14.75 hours long, which provided opportunity for 7-9 hours of sleep. The employee reported usual workday sleep durations of 7 hours and no issues with sleep.

Roadway Worker in Charge (RWIC)

Incident data was evaluated for fatigue risk factors. No significant risk factors for fatigue were identified. The incident time of day (11:12 hours) did not suggest an increased risk of fatigue-related impairment. The employee worked day shifts in the days leading up to the incident. Based on the employee's reported bed and wake times the day before the incident, the employee slept a total of 7 hours in the sleep period preceding the incident and was awake for 7.2 hours at the time of the incident. The off-duty period preceding the incident was 12.9 hours long, which

provided opportunity for 7-9 hours of sleep. The employee reported usual workday sleep durations of 7.5 hours and no issues with sleep.

Advanced Mobile Flagger (AMF)

Incident data was evaluated for fatigue risk factors. No significant risk factors for fatigue were identified. The incident time of day (11:12 hours) did not suggest an increased risk of fatigue-related impairment. The contractor worked day shifts in the days leading up to the incident. Based on the contractor's reported bed and wake times the day before the incident, the contractor slept a total of 8 hours in the sleep period preceding the incident and was awake for 7.7 hours at the time of the incident. The off-duty period preceding the incident was 16 hours long, which provided opportunity for 7-9 hours of sleep. The contractor reported usual workday sleep durations of 8 hours and no issues with sleep.

Post-Incident Toxicology Testing

WMATA's Drug and Alcohol Program determined that the Student RTC and OJTI Radio RTC were not in violation of the Drug and Alcohol Policy and Testing Program 7.7.3/6.

Findings

- The RWIC did not provide RJSB's as locations changed from the Division to the roadway. This action was not in compliance with the Metrorail Safety Rules and Procedures Handbook (MSRPH) Section 5 – RWP, 5.5; A new RJSB shall be conducted: When there is a change in the safety environment, Significant change to the work or work environment.
- The Radio RTC initially rejected the RWIC's request for FT protection and advised them to stand by. The Radio RTC then instructs the RWIC to advise when one train passes their location.
- The Radio RTC granted FT to the TRST work crew, which was acknowledged and repeated by the RWIC.
- The Train Operator of ID 151 made contact with the AMF at Fort Totten before departing the station.
- After ID 151 departs Fort Totten Station, there are simultaneous transmissions between the Student Radio RTC and the AMF attempting to contact the TRST work crew.
- Train ID 151 traveled through the area protected under FT while the crew was in a place of safety.
- The Radio RTC was not in compliance with the Metrorail Safety Rules and Procedures Handbook (MSRPH) Section 5 – RWP, 5.13.5 Foul Time Protection; ROCC confirms over the radio to the Requestor that FT has been relinquished at their stated location and advises the Requestor to be on the lookout for rail vehicle movement.
- The OJTI RTC responsible for oversight of the Student Radio RTC was filling in for the regular OJTI and had a tenure of approximately six months.

Immediate Mitigation to Prevent Recurrence

- ROCC removed the Student RTC and OJTI Radio RTC from service for post-incident toxicology testing.

Probable Cause Statement

The immediate probable cause of the Improper RWP event was a failure to adhere to the FT Protection procedures identified in the Metrorail Safety Rules and Procedures Handbook Section

5 – RWP, 5.13.5 Foul Time Protection. A contributing factor to the event was the inadequate oversight by the OJTI RTC of the Student Radio RTC while in performance of their duties. Additionally, the haste on the behalf of the RWIC by relinquishing and requesting multiple foul times in the same transmission without following the FT procedures including failing to notify the AMF of their FT status, and delaying their response to ROCC transmissions was also contributory factors in this event.

SAFE 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.

Corrective Action Code	Description	Responsible Party	Due Date
96176_SAFECAPS_ROCC_001	Involved personnel shall undergo re-training with an emphasis on Radio Communication. Training should reinforce required procedures regarding MSRPH Section 5 – RWP, 5.13.5 Foul Time Protection.	ROCC	Completed
96176_SAFECAPS_ROCC_002	ROCC shall review the process of documenting and tracking foul time protection. Develop enhancements to the Foul Time Checklist Sheet used to document work crews working under foul time protection on the roadway.	ROCC	02/06/2022
96176_SAFECAPS_ROCC_003	Conduct a Stand-down with all RWP-qualified personnel that emphasizes the importance of proper communications, knowledge of system characteristics.	ROCC	Completed
96176_SAFECAPS_ROCC_004	Establish a process that requires On the Job Training Instructors to attend training before performing instructor duties. (Reference CAP# WMSC-20-C0064)	ROCC	Estimated 10/31/2021
96176_SAFECAPS_TRST_001	Involved personnel shall undergo re-training with an emphasis on conducting Roadway Job Safety Briefings. Training should reinforce required procedures regarding MSRPH Section 5 – RWP, 5.5 RJSB.	TRST	Completed
96176_SAFECAPS_TRST_002	RWP-qualified personnel to complete RWP Safety Stand-down CBT that emphasizes the importance of proper communications and knowledge of system characteristics.	TRST	Completed

Office of Track & Structures (TRST)

The Office of Track & Structures (TRST) reviewed this event and has provided the following:

TRST encouraged open dialogue in regarding this Improper RWP event at the daily Safety Briefing. A review was conducted on the Cardinal Rules and RWP procedures, reminding the employees to be vigilant of their own safety and surroundings. There were no remedial actions taken.

TRST personnel watched the RWP Safety Stand-down together, in a group setting. Once the video was completed, all personnel signed a signature sheet.

Rail Operation Control Center (ROCC)

The Rail Operations Control Center (ROCC) reviewed this event and has provided the following:

An All-Hands Safety Standdown was conducted and included several Lessons Learned including this event.

Appendix A – Interview Summaries

ROCC

Student RTC

The Student Rail Traffic Controller (RTC) is a WMATA employee with 6 years of service and 2 weeks of on-the-job training, following 6 months of classroom training as an RTC. The Student RTC's Roadway Worker Protection Level 4 certification expires February 2022.

The Student RTC stated that their typical day is 05:00 hours to 13:00 hours and that they meet with the OJTI for the day when they arrive, then get a turnover report from the previous shift and complete paperwork to begin the shift. The Student RTC stated they had been in training for approximately 6 months. For the week leading up to the incident date, the Student RTC was assigned to a new OJTI as their regular OJTI was scheduled off. The Student RTC stated that the role of the OJTI is to be stationed next to them and oversee what is being done. If there is an issue, the OJTI would stop you and take corrective action. The Student RTC stated that the OJTI does not have a separate console. The Student RTC stated that when the track walkers enter the roadway, it becomes the busiest part of the day; "There's a lot coming at you at once." The Student RTC stated that as a new controller they felt like they were being rushed by the roadway personnel, making comments like 'it's hot out here', and 'I've been waiting for a while.' The Student RTC stated that the track walkers usually call to inspect between 8:00 and 08:30 hours. The Student RTC stated that when the track walkers call in, they document the call number and note what the work is include their location and if the roadway job safety briefing is conducted. The [Button Controller] sets up the protection for the request. The Student RTC stated that as the radio controller, they make the announcement to the train operators of personnel on the roadway, then grant access to the roadway and advise the RWIC to contact the AMFs. There is a documented personnel sheet and foul time sheet managed by the RTC. The [Button Controller] monitors the radio and makes adjustments. The Student RTC stated that they are trained to work on both sides of the console and sometimes you can verbally talk to the buttons controller, but the radio controller can see what's happening on the screen and use that to verify correct protection is established. The Student RTC stated that they spoke with several other units and train operators before the event and then came back to the track unit and prematurely given them foul time before the second train cleared their location. There were two trains that needed to pass the track units. The Student RTC stated that they told the units to stand by for two trains to pass and was informed of the event by the OJTI and they should not have given foul time just yet. The Student RTC stated that they tried to break into the communications to inform the track unit to stand by, but the train had already left the platform at Fort Totten. The Student RTC stated that they when they were finally able to contact the track unit, they were informed that the train was already passing by. The Student RTC stated that the OJTI was located beside them and everything just happened fast, the radio traffic was occupied. The Student RTC stated that after the event they reached out the track walkers and asked them to stand by and give a landline. The OJTI went to the Asst. Superintendent desk. The Student RTC stated that the environment in ROCC was busy and they felt rushed by the track walkers.

OJTI RTC

The On the Job Training Instructor (OJTI) Rail Traffic Controller (RTC) is a WMATA employee with 8 months of service and experience as an RTC. The OJTI RTC's Roadway Worker Protection Level 4 certification expires May 2022.

The OJTI RTC stated that they rotate between the ops and is not a OJTI typically. Their normal schedule is 05:30 to 13:30 hours. The OJTI RTC stated that they certified as a RTC in February 2021 and has no OJTI training but was asked if they felt comfortable being an OJTI and they agreed to train for one week. The OJTI RTC stated that there was no training or instructions for being on OJTI. The OJTI RTC stated that during the week they introduced themselves to the student and went over some SOPs and provided some other information to help the student. The OJTI RTC stated that they usually review information in their typical workday. The OJTI RTC stated that they advised the student to be organized, to take their time and not move too fast. Overall, they need to be in control of the railroad. The OJTI RTC stated that the day was busy, and more personnel were on the roadway than usual and it gets busy at approximately 09:00 hours. The OJTI RTC stated that they use a tracking form and foul time sheet to keep organized of the personnel on the roadway. The OJTI RTC described the roles of the buttons controller and radio controller when personnel are entering the roadway and foul time procedures. The OJTI RTC stated that in their observation, the student was keeping a good pace with what was being requested by personnel. The OJTI was monitoring the student's instructions to ensure that steps were not missed. The OJTI RTC stated that they would verbally instruct the student if something was incorrect. The OJTI RTC stated that the student was moving as they should and was doing a fine job prior to the event. The OJTI RTC stated that the event began when the track unit requested foul time, relinquished, and requested foul time right after and told the student RTC that it would take 3 minutes. They were told to stand by and clear, two trains needed the clear the location. One train passed and they were waiting for another, foul time protection was in place and the student initiated the foul time and the OJTI noticed the train was entering the foul time area they instructed the student to stop the foul time and tell the track unit to stand by and clear. There was another train asking for a block at the same time and we had to wait for the transmission to stop before letting the track unit know to stand by and clear. The OJTI RTC stated that the track unit called, and they apologized and asked if they were ok. The track units were upset, and the OJTI reported the event to the Supervisor.

TRST

RWIC

The Roadway Worker in Charge (RWIC) is a WMATA employee with 4.5 years of service and experience as an RWIC. The RWIC's Roadway Worker Protection Level 4 certification expired July 2021¹.

The RWIC stated that they clocked in on duty and performed a Roadway Job Safety Briefing before departing Shady Grove Rail Yard. They drove with the Inspector to Silver Spring Station and performed another Roadway Job Safety Briefing. The RWIC stated that they contacted ROCC for permission to walk. There were 2 AMFs, 1 inspector in the work crew. The RWIC stated that they called on with ROCC at Takoma Park Station, and verified the AMF was located at Fort Totten track 1 in place for the walk from Takoma Park Station. The RWIC stated that they requested foul time between CM A1 350+00 to 339+00 and ROCC granted permission, next at CM A1 325+00 to 305+00 the RWIC stated that they requested foul time and was denied. They were instructed to wait for one train to pass their location. The RWIC stated that the train passed by and ROCC contacted them to confirm if the train had passed by their location. The RWIC stated that the they did not immediately respond to ROCC and stated that they did contact ROCC and reported that the train passed their location. The RWIC stated that ROCC granted foul time and they repeated with 100% repeat back, then started walking again. The RWIC stated that they looked up and the train was there, ROCC was calling at the same time to clear the roadway. The

¹ See Appendix D, Temporary Order T-21-11 – Final Extension of RWP Qualification

RWIC stated that they contacted the AMF before beginning the walk and there were no radio communication issues. The RWIC reported that they were located at CM A1 327+00 when they noticed the train and instructed the inspector to clear the roadway. The RWIC stated that the work crew stepped off the roadway and waited for ROCC to give foul time again. The RWIC stated that they heard when ROCC instructed the train to hold 2 minutes at No-Ma Station. The RWIC stated that it was likely that the AMF didn't have a chance to say anything over the radio because ATC and Train Operators were all talking at the same time. The RWIC stated that the Train Operator did not blow the horn and the train was moving slowly. The RWIC stated that the AMF was aware that they were under the second foul time and may have been confused.

AMF

The Advanced Mobile Flagger (AMF) is a Contractor with three months of experience as an AMF. The AMF's Roadway Worker Protection Level 2 certification expires June 2022.

The AMF stated that they usually arrive early at approximately 630am. The AMF stated that it was their first time working at Shady Grove Rail Yard and the first time working on the red line. The AMF stated that they attended a Safety Briefing and received an assignment. The AMF stated that they asked the RWIC to sign the RJSB before departing the rail yard and was informed that they would sign the form at the location. The AMF was assigned with another AMF, RWIC and Track Inspector. They were scheduled to inspect between Rhode Island Avenue Station, track 1. The AMF stated that the work crew would be inspecting between Rhode Island Avenue Station and Silver Spring Station, track 1. The AMF stated that they reviewed how many foul times would be in their flagging area. The AMF stated that they followed the other AMF to Brookland Station to park. The RWIC went to the starting point and no RJSB was conducted before flagging. The AMF stated that they rode the train to Fort Totten Station and arrived at approximately 10:12am. The AMF stated that they listened to the radio for the RWIC to begin flagging. The AMF stated that at approximately 10:40 am, the RWIC contacted them to ensure they were in place at Fort Totten. The AMF stated that the first foul time started at 10:56 am, and at 11:00 am the RWIC contacted ROCC and relinquished their foul time then requested for another foul time. The AMF stated that ROCC told the RWIC no and go direct to the AMF and re-request the foul time. The AMF stated that the RWIC sounded angry when responding to ROCC and told ROCC to give them a land line. The AMF stated that they immediately transmitted the RWIC relinquished the foul time. The AMF stated that some time passed, then ROCC told the RWIC to give a land line. The AMF stated that they stood by waiting for further communication. The AMF stated that after a while, they transmitted to ROCC requesting the status of the RWIC foul time. The AMF stated that the RWIC contacted ROCC and requested foul time. The AMF stated that at 11:18 am, the second foul time was established until 11:24 am, when the foul time was relinquished. The AMF stated that the work crew was on the platform at 11:34am.

Appendix B – Metrorail Safety Rules and Procedures Handbook (MSRPH), Section 5 RWP

5.13.5 Foul Time Protection



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY METRORAIL SAFETY RULES AND PROCEDURES HANDBOOK

2. The RWIC shall always use FT or greater protection when traversing or working in the Hot Spot areas noted in the Track Access Guide.
3. RWICs shall review the Track Access Guide to determine all Hot Spots contained within their working limits and call out all **RED HOT SPOTS** during the RJSB.
4. When there are **RED HOT SPOTS**, FT protection from ROCC must be obtained prior to moving through the area.

5.13.4 Individual Train Detection (ITD)

A protective measure in which an individual detects approaching rail vehicles and moves to a place of safety before it arrives. All Roadway Workers must use ITD in conjunction with all other forms of RWP. On the Roadway, ITD is not acceptable for personnel as a sole form of RWP.

5.13.5 Foul Time Protection (FT)

A method of RWP in which a qualified Level 2 or Level 4 Roadway Worker requests that ROCC Stop all rail vehicle movement in a specific area for a limited amount of time. FT is used to safely clear a **RED HOT SPOT** area or when additional RWP is required. FT can only be requested by a qualified Level 2 or Level 4 Roadway Worker.



Important: When there are **RED HOT SPOTS**, FT protection from ROCC must be obtained prior to moving through the area.

Mobile Work Crews must use an AMF in conjunction with FT.

FT may be granted to individuals who are RWP level 2 or RWP Level 4 qualified that are accessing rooms along the Roadway, to include vent shafts, who are not engaged in work activities.

Procedures to initiate FT Protection:

1. From a place of safety, the requestor contacts ROCC and requests permission to initiate FT.
 - a. Provide ROCC the track number and location (chain markers or station) for the area requested.
 - b. Provide ROCC the reason for the FT Protection
2. Using the FT checklist, the ROCC controller will:
 - a. Repeat back, word for word, the FT request and advise the requestor and crew to standby and stand clear.
 - b. Cancel all approaching signals to ensure FT area is protected by **RED SIGNALS** (remove automatic signaling, if applicable).
 - c. Establish "Prohibit Exits" in FT area.
 - d. Inform Rail Vehicle Operators approaching the FT area that there is a **RED SIGNAL**. Confirm and acknowledge Train ID, if applicable.
 - e. Establish "Blue Block Traffic" in FT area.
 - f. Establish "Human Form" in FT area.
 - g. Confirm over the radio to the requestor that all protections have been established and which signals have been canceled.
 - h. Requestor must repeat back confirmation that they are aware of chain marker(s), track number, canceled signal(s), and Train ID contacted, if applicable.
 - i. Grant FT to Requestor.



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY METRORAIL SAFETY RULES AND PROCEDURES HANDBOOK

For personnel being dropped off or picked up on the Roadway, only the following FT checklist items shall be required:

1. Repeat the FT request and advise the Requestor and crew to standby and stand clear.
2. Grant FT to the Requestor.



Important: The Rail Vehicle will be held until the personnel are in a place of safety and FT is relinquished.

When the Requestor has determined that FT is no longer necessary, they shall relinquish it through the following process:

1. From a place of safety, the requestor contacts ROCC and states the following:
 - Radio ID
 - They are relinquishing FT at the granted FT location
 - Their current chain marker, station, and/or physical location
2. ROCC confirms over the radio to the Requestor that FT has been relinquished at their stated location and advises the Requestor to be on the lookout for rail vehicle movement.
3. ROCC must document the time that FT was relinquished.



Important: Although WMATA personnel may request FT any time they feel it is warranted to ensure their safety, FT is required for all **RED HOT SPOTS**.

5.13.6 Advanced Mobile Flagging (AMF) – Mobile Work Crew

AMF protection is the use of Watchman/Lookouts assigned to a Mobile Work Crew in conjunction with an additional flagger positioned at the station in advance of the Mobile Work Crews. A Watchman/Lookout must be a minimum of 50 feet in advance of the Mobile Work Crew. The Advance Mobile Flagger (AMF) is an assigned Roadway Worker positioned at the end of a platform (8 car marker or end gate) in the direction of normal travel for Class 1 or 2 Rail Vehicle. RWICs are to use the Need vs. Speed Chart to determine sight distance vs Rail Vehicle speeds to provide Ample Time/Warning. If proper sighting distance cannot be achieved for the work crew to reach a place of safety in Ample Time/Warning, then a higher form of protection (e.g. FT, ETO, or IT) must be used.

Advanced Mobile Flagging Procedures:

1. The RWIC will conduct a RJSB prior to entering the Roadway and assign the AMF(s) and Watchman/Lookout(s).
2. The RWIC will contact ROCC and perform a radio check establishing positive communication.
3. The AMF is required to follow PPE guidelines per the Minimum PPE Standard for On-Track Safety in the MSRP Section 5 - RWP.
4. In addition to the PPE required, the following equipment is also required when performing the duties of an AMF (reference 5.12.2 of the MSRP for designated safety equipment and devices for AMF):
 - WMATA Approved Flashing Amber Lantern/E-Flare and Orange Flag
 - WMATA Approved and Certified Working Radio
 - WMATA Approved Air Horn and Whistle
5. Under the direction of the RWIC, the AMF will position themselves at the next station ahead (in the direction the Mobile Crew will be walking). The AMF will take their position at the end of the platform (8 car marker or end gate) in the direction the train is traveling, and on the track the Mobile Work Crew is inspecting.

Section 5 – RWP Rules Ver.1.3

5-37

Approved 12/09/2020

Attachment 1 – Page 2 of 2

Appendix C – Roadway Job Safety Briefing

Permanent Order # T-21-06

WMATA ROADWAY WORKER JOB SAFETY FORM

DATE: 8-12-21 TRACK TIME ON/OFF: 9:30 / 12:30

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

RWIC's CELL PHONE #: 2028932805 RADIO OPS CHANNEL: 1

SAFETY RULE OF THE DAY: S.2.1 Cardinal Rule

WORK ASSIGNMENT: TRK 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: 308 304

PLACE OF SAFETY: Field side

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 #: _____ 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 #: [REDACTED]

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

PIGGYBACK CREW LEADER CALL #(s): _____ PIGGYBACK WORKZONE CM(s): _____

PIGGY BACK WORK ASSIGNMENT: _____

OF CLASS 2 RAIL VEHICLE(s): _____ 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

Rev. 4.0 WMATA Roadway Job Safety Briefing Form, Date: March 2021
Permanent Order # T-21-06

Page 2 of 4

Attachment 2 – Page 1 of 2

Permanent Order # T-21-06

WMATA ROADWAY WORKER JOB SAFETY FORM

INSPECT PPE: ☐ Electrical Safety Gloves Date: _____ 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: 8-12-21 / 12:30

RELIEVING RWIC SIGNATURE: _____ DATE/TIME: _____

Rev. 4.0 WMATA Roadway Job Safety Briefing Form, Date: March 2021
Permanent Order # T-21-06

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**Washington Metropolitan Area Transit
Authority**

Roadway Worker Protection Standard Operating Procedures

TEMPORARY ORDER

NO. T-21-11 Rev 3.0	Approved Date: Tuesday, July 13, 2021
Affected Rule/SOP: RWP	Effective Date: Tuesday, July 13, 2021
Subject: Final Extension of RWP Qualification period due to COVID- 19 Virus	Rescinded Date: Friday, December 31, 2021

TO: All RWP Certified Staff

Scope:

Temporary Order T-21-11 Rev 3.0 modifies RWP SOP, section 8, para. 8.1 through 8.4, and section 10 para. 10.1 Through 10.7.

General changes to RWP Training / Certification **through** December 31, 2021 in response to COVID19.

Purpose:

Temporary Order T-21-11 Rev 3.0 modifies RWP SOP – RWP qualified personnel due for **Refresher** or **Requalification** training.

This Temporary order will extend by 90 days, 3 months, the RWP Certifications of persons expiring in **July, August or September of 2021**.

This is the FINAL 90 Day Extension originally offered to assist WMATA personnel in response to the COVID-19 virus.

Temporary Order Details:

In response to CDC guidelines, state and local mandates, and continued safety of Roadway Workers at WMATA, the following changes will remain through December 31, 2021.

- Those requiring a RWP Level 2 Requalification class will take a RWP Level 2 Refresher CBT.

TEMPORARY ORDER

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Temporary Order # T-21-11 Rev 3.0

- Those requiring a RWP Level 4 Requalification class will take an updated one-day RWP Level 4 Requalification class.
- Those requiring a RWP Refresher course (CBT Level 1,2 or 4) will take their respective RWP Refresher course (no change in format or delivery).

Deadline for July – September RWP recertification / RWP Requalification or Refresher course only:

- Individuals due for RWP recertification in **July** must certify by **October 31** to remain in compliance.
- Individuals due for RWP recertification in **August** must certify by **November 30** to remain in compliance.
- Individuals due for RWP recertification in **September** must certify by **December 31** to remain in compliance.

Individuals who miss the above deadlines to recertify will **fall out of compliance with their RWP certification.**

TEMPORARY ORDER

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Attachment 3 – Page 2 of 3

Temporary Order # T-21-11 Rev 3.0

Approval of Temporary Order T-21-11 Rev 3.0

Joseph Robinson
E023015 WMATA

Digitally signed by Joseph Robinson E023015 WMATA
DN: c=US, o=Washington Metropolitan Area Transit Authority,
ou=People, cn=Michael Ealing E014709 WMATA
Date: 2021.07.06 16:31:48 -04'00'

Recommended:
Joseph Robinson
Director, Technical Skill and
Maintenance Training (TSMT)

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Concur:
Michael Ealing
Chair of the Rail Safety Standards
Committee

Ronald Lewis Jr
E002217 WMATA

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Concur:
Shanita Wilkinson
Vice President,
Department of Rail

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Approve:
Edward Donaldson
Director ROCC

Michael Hass
E014818 WMATA

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Approve:
Michael Hass
Senior Vice President RAIL Services

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Date: 2021.07.12 15:16:15 -04'00'

Approve:
Lisa Woodruff
Senior Vice President Process
Development

Theresa Impastato
E043693 WMATA

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Approve:
Theresa Impastato
Executive Vice President & Chief Safety Officer
Department of Safety & Environmental Management

TEMPORARY ORDER

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Attachment 3 – Page 3 of 3

Appendix E – Root Cause Analysis

