750 First St. NE • Ste. 900 • Washington, D.C. 20002

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

WMSC Commissioner Brief: W-0060 – Fire/Smoke at Capitol Heights Station – June 6, 2020

Prepared for Washington Metrorail Safety Commission meeting on January 26, 2021

Safety event summary:

An arcing insulator led to smoke in a station that Metrorail did not respond to in a timely manner. During the emergency response, Metrorail personnel initiated a conflict with firefighters, ROCC personnel including a superintendent did not properly communicate, and Metro Transit Police did not establish unified command with the fire department for an extended period.

The station manager at Capitol Heights Station reported smoke in the station to the Rail Operations Information Center at 6:07 p.m. ROIC directed the Station Manager to investigate further, and the ROIC did not contact first responders or inform other ROCC personnel about the smoke. Train service was allowed to continue.

After several questions to the station manager suggesting the use of the words brake dust instead of smoke, the station manager again reported smoke in the station several times up to 6:16 p.m.

During post event interviews, a ROIC specialist stated that they were taught not to use the word “smoke.”

At 6:11 p.m., the ROCC rail controller attempted to reach Train 434 to ask whether the Train Operator had seen “brake dust”, but the train operator responded that the transmission was distorted.

The Rail Operations Control Center did not contact fire and rescue services until 6:14 p.m., and then only because the Utility Assistant Superintendent overheard the radio conversations regarding smoke or brake dust. Rail controllers were still requesting a supervisor inspect a train for brake dust that was now several stations down the line. At 6:17 p.m., a ROIC Specialist told the station manager that the fire department was on the way.

A separate Train Operator, with an out-of-service train, was sent to conduct a track inspection of the area. That train operator did not follow speed restrictions for track inspections and failed to stop at the proper location at 6:17 p.m., overshooting the area where the arcing insulator was later identified.

The Train Operator reported a fire starting, and then reversed ends of the train to identify the specific location of the smoke. The Train Operator also improperly offered to go to the roadway with a fire extinguisher to put out the fire.

At 6:18 p.m., the station manager reported dark smoke entering the station.

The Prince George’s County Fire Department entered the station at 6:19 p.m., and the station manager only then evacuated customers from the station.

Train service was suspended at approximately 6:20 p.m.

Although the rail controller correctly directed the Train Operator to go back to the inbound end of the train and continue out of danger, the ROCC Fire Liaison – a Metrorail Office of Emergency Management employee filling the position at the time due to staffing changes made during the first several months of the COVID-19 public health emergency – informed Prince George’s County firefighters that the train operator planned to attempt to extinguish the fire.

There were several communications issues between the fire department, Fire Liaison, Utility (fill-in) Assistant Superintendent, ROIC desk and rail controllers. There is also no documented training for utility assistant superintendents beyond their training as controllers. This new Utility Assistant Superintendent had two years of experience as a controller.

Recordings suggest the ROCC Superintendent on duty faced unnecessary duties during this event due to the need to keep certain upper-level management informed in a real-time play-by-play phone call of each individual action being taken during the emergency, which divided the Superintendent's attention. This detracted from the Superintendent's ability to perform their job. The Superintendent also did not convey to anyone else the information provided to them by the fire liaison that the fire department would be entering the roadway once power was down.

There were also several instances that demonstrate Metrorail was not following its Standard Operating Procedure (SOP) 1A, emergency response protocols.

As noted in the WMSC's ROCC Audit, ROCC checklists related to smoke and fire events lack the required urgency to address life safety issues or are outdated and impractical.

In addition, Metrorail's Emergency Response Team (ERT) did not report to incident command, no Metrorail employee was assigned as the on-scene commander for more than an hour, Metro Transit Police did not communicate with or acknowledge the incident commander for an extended period, and ERT got into a dispute with firefighters.

The Transit Police Officer who entered the station following the firefighters' response did not stay with the firefighters in the station as required of Metrorail's forward liaison (was not in same area of the platform during conflict initiated by ERT), and the Transit Police Officer who was positioned outside the station entrance during the response did not secure the station, which allowed ERT to enter the station without approval of the fire department incident commander. MTPD also did not establish a unified command with the fire department's incident commander until an MTPD Sergeant arrived and relieved the first responding officer well after the response was underway.

While power was de-energized, firefighters entered the roadway and placed warning strobe alarm devices (WSADs). These are safety devices that provide an alarm if power is restored unexpectedly. ERT arrived on the platform after bypassing incident command and initiated a conflict with firefighters, telling them to get out of the roadway. The incident commander stated that ERT put the firefighters in a "bad position." ERT moved toward re-energizing power without authorization from the incident commander.

This issue also extended the period of the emergency by at least 20 minutes due to the additional time required to verify that it was safe to restore power in order to allow ERT to identify the location of the likely arcing insulator. The location was eventually identified approximately 1,250 feet from the station.

After the initial arcing insulator was identified and removed, a second arcing insulator was identified nearby approximately 20 minutes after power was restored.

After the second arcing insulator was removed, power was restored, a test train without passengers ran between Addison Road and Capitol Heights Station, and service resumed.

While the ROCC controller(s), Fire Liaison, ROIC specialist(s), Utility Assistant Superintendent and Superintendent involved may have played a role in this event, none were removed from service for post-incident testing as required.

Probable Cause:

Metrorail's lack of effective long-term planning and maintenance to address ongoing water infiltration issues contributed to the increased likelihood of an arcing insulator at this location, particularly in the days following significant rainfall.

Inadequate training on and implementation of Metrorail's Standard Operating Procedure 1A for departments including Rail Transportation and Metro Transit Police, and Metrorail's checklists that lack the required urgency to address life safety or that do not help improve safety contributed to an inadequate Metrorail emergency response.

Corrective Actions:

Aspects of this event and areas identified by the WMSC were factored into the ROCC Audit report with 21 findings issued in September 2020.

That report required improved training, additional emergency exercise experience, improved fire and smoke procedures, revision of checklists, improved documented communication between the fire liaison and controllers, proper staffing of the fire liaison position, and the proper removal from service of ROCC personnel for post-event testing if they may have contributed to an event. Metrorail has developed acceptable corrective action plans (CAPs) for most of those findings, and has begun implementation of those acceptable CAPs.

The ROCC Audit also identified continuing staffing and workload concerns in the ROCC. One step Metrorail is proposing to address this is to establish an emergency management team to handle emergency events.

Metrorail is revising SOP 1A and associated checklists as required, and will incorporate this into rail controller training.

Metrorail also reinstructed the ERT Supervisor, the ROCC conducted follow up discussions and trainings.

Although not directly contributing to this event, Metrorail also distributed a reminder memo to Rail Transportation employees about the rule requiring the use of "emergency, emergency, emergency!" to precede any radio communication of an event that can cause harm, damage or a service disruption.

WMSC staff observations:

The WMSC identified aspects of this event that were not captured in Metrorail's initial investigation. These items are now captured in this final report.

The Superintendent initially submitted incomplete audio recordings from this event to WMATA's Safety Department (SAFE) and to the WMSC. The WMSC identified the incorrect recordings and gaps in recordings and obtained complete information. The ROCC Audit findings require SAFE to directly access recordings rather than allowing those who may have been involved in an event or who oversee those involved in an event to pull the recordings. As required by the WMSC Compact, the WMSC has direct access to these recording systems.

Metrorail did not interview one of the two rail controllers on duty during this event (buttons controller) for this investigation.

The Metro Transit Police Department plays an important role in emergency response and WMATA must scrutinize MTPD's role in these events for areas to improve safety as closely any other department. In addition to not following emergency response procedures during this event, interviews also suggested that at least some MTPD personnel may

not be provided with adequate understanding of the location and function of emergency response features such as exhaust fans.

This event further demonstrates that Metrorail must put safety first, including by responding to smoke events as safety events rather than encouraging employees to downplay them by using terms such as “brake dust.”

RTRA supervisors’ response was also slowed in this event. Metrorail should consider ensuring that supervisors and those in the ROCC that dispatch them are familiar with bus routes parallel to rail lines or other available options as additional transportation alternatives if a vehicle is not available. For example, Route 96 connects Stadium-Armory Station, where one supervisor was located, to Capitol Heights Station.

WMATA acknowledges with this report that it must make more progress on efforts to keep water out of tunnels and to keep tunnels clean, and must explore opportunities to significantly speed up this work in order to reduce the risk of smoke, fire and infrastructure deterioration. Like many areas of the system, this tunnel is approximately 40 years old. Metrorail should prioritize state of good repair efforts to reduce the risk of arcing insulators and system damage.

Staff recommendation: Adopt final report.

Washington Metro Area Transit Authority

Department of Safety and Environmental Management (SAFE)

FINAL REPORT OF INVESTIGATION A&I E20214

Date of Event:	6/6/2020
Type of Event:	Fire/Smoke
Incident Time:	18:07 hrs.
Location:	Capitol Heights Station, Track 2
Time and How received by SAFE:	18:26 hrs. - Phone Call
WMSC Notification Time:	19:31 hrs.
Rail Vehicle:	N/A
Injuries:	No
Damage:	Damaged Insulators

Table of Contents

Abbreviations and Acronyms

AIMS	Advanced Information Management System
ARS	Audio Recording Service
CCTV	Closed Circuit Television
CM	Chain Marker
ERT	Emergency Response Team
IC	Incident Commander
ICP	Incident Command Post
MSRPH	Metro Safety Rules and Procedures Handbook
MTPD	Metro Transit Police Department
OJT	On-The-Job Training
OSC	On-Scene Commander
OEM	Office of Emergency Management
PGFD	Prince George's Fire Department
ROCC	Rail Operations Control Center
ROIC	Rail Operations Information Center
RTC	Rail Traffic Controller
RTRA	Office of Rail Transportation
SAFE	Department of Safety and Environmental Management
SOP	Standard Operating Procedure

Executive Summary

On Saturday, June 6, 2020, at approximately 18:07 hrs., a Capitol Heights Station Manager reported smoke within the station after a revenue train serviced the platform. ROCC instructed a non-revenue train [no passengers] to perform a track inspection on Track 2 in the direction of Capitol Heights Station. After inspection, the Train Operator reported smoke emitting from Track 2 in the proximity of Chain Marker (CM) G2-438+00 outside Capitol Heights Station. At approximately 18:20 hrs., ROCC suspended Train service between Stadium-Armory and Capitol Heights Stations in conjunction with the station's fan activation. Third rail power was subsequently de-energized on Track 1 and 2 due to the Train Operator's reported findings. PGFD and ERT responded to Capitol Heights Station. At approximately 19:14 hrs., third rail power was re-energized to identify the affected component. ERT verified the smoke condition source as an arcing insulator at the location mentioned earlier, and third-rail power was de-energized [again] on both tracks for repair efforts. At 19:55 hrs. ERT completed repairs, and ROCC restored service at 20:10 hrs., preceded by a good track test.

SAFE determined the probable cause of the incident was as an arcing insulator in the vicinity of Capitol Heights Station [approximately 1260 feet from platform limits], CM G2-438+80 and G2-438+70 [approximately 10 feet from each other], which created a smoke condition on the roadway in the tunnel, which subsequently reached the station limits. It is most probable; the insulator was oxidized from environmental tunnel deposits and moisture/water intrusion from a previous rainstorm, which resulted in an arcing event igniting the insulator as the train traversed the area.

Upon completing an analysis of data collected from systems of record and the results of interviews with staff, multiple human factors failures occurred in response to this incident. Upon report of a smoke event, ROIC Specialist 1 did not communicate the initial call to emergency responders, which subsequently extended response time for emergency personnel. The Superintendent did not communicate to the RTC's that PGFD personnel were entering the roadway after power was confirmed de-energized. The Radio Rail Traffic Controller (RTC) did not follow SOP 1A, did not establish OSC present at the location [Station Manager], and did not implement a speed restriction for the inspection train per procedures. Multiple parties responding to the scene did not comply with SOP 1A and standard incident command protocols, which presented unnecessary confusion and challenges to communications.

As contributing factors in this event, SAFE identified several communication breakdowns, including a lack of management oversight, inconsistent adherence to written procedures and processes within the MSRPH, and outdated emergency checklists.

As a result of its investigation, SAFE makes the following safety recommendations:

To ROCC, establish an emergency management team for events, which will directly affect RTC's ability to oversee normal operations on the roadway, i.e., directing traffic around the incident, troubleshooting efforts for mechanical breakdowns.

For WMATA to review and revise SOP 1A and associated checklists. After the review and revisions are completed, conduct annual recertification training of all ROCC employees on revisions to SOP1A to include using accurate terminology when describing a potential incident and incorporate an after-action review 'Hot Wash" process.

For ROCC to include removal from service processes for Rail Traffic Controllers, that mirrors the matrix for Train Operators.

That continued progress on infrastructure mitigation projects takes place to explore opportunities for expediting conditional repair programs.

For ROCC to conduct training exercises with ROCC staff to simulate emergency scenarios and provide critical feedback to employees on their actions and performance during these exercises.

For ROCC to undertake a review of emergency SOP checklists to identify opportunities to improve the checklists' utility for employees.

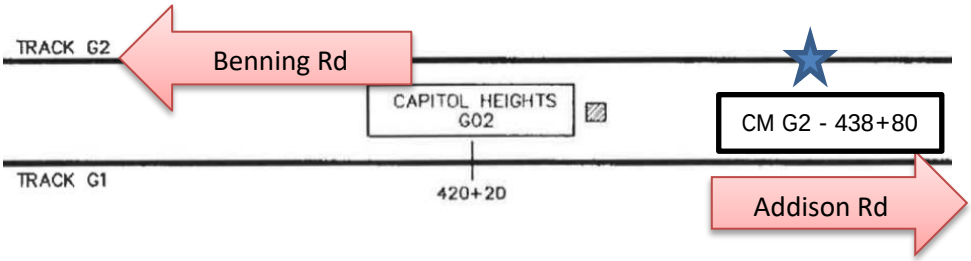
For ROCC to develop training documentation and record-keeping for Utility Assistant Superintendents.

Incident Site

Capitol Heights Station, Track 2 CM G2 - 438+80

The underground station was opened 39-years ago on November 22, 1980, and provides service for blue and silver line trains. A construction project history review indicates no construction in the area around the event's time above the station or the tunnel area.

Field Sketch/Schematics



Purpose and Scope

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

Investigation Process and Methods

Upon receiving notification of the incident Fire and Smoke incident at Capitol Heights Station on June 6, 2020, 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.

Investigative Methods

The investigative methodologies included the following:

- Physical Site Assessment
- Formal Interviews – SAFE interviewed Ten (10) individuals as part of this investigation. Interviews included persons present at, during, and after the incident, those directly involved in the response process, Managers responsible for the process, and law enforcement personnel. SAFE interviewed the following individuals:
    - Radio Rail Traffic Controller (RTC)
    - Two, Rail Operation Information Center (ROIC) Specialist

- Rail Operations Control Center (ROCC) Utility Assistant Superintendent
- ROCC Superintendent
- ROCC Fire Liaison
- Three MTPD Officers
- ERT Supervisor

- Informal Interviews – Collected through conversations with individuals during the course of 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
  - Certifications
  - The 30-Day work history review
  - MSRPH
  - Track and Structure maintenance records review
  - NOAA data
  - ROCC Procedures Manual Review

- System Data Recording Review – A collection of information contained in Metro Data Recording Systems. This data includes:
  - ARS playback (Radio, Ambient, and Phone Communications)
  - CCTV playback
  - AIMS playback

Investigation

Chronological Timeline of Events

Based on a review of Closed-Circuit Television, Audio Recording Services (ARS) playback, Advanced Information Management System (AIMS), an event log data, SAFE determined the following sequence of events:

Time	Description
18:07 hrs.	The Capitol Heights Station Manager notified ROIC via telephone of the smoke condition within the station. The ROIC Specialist stated, “Give me a radio check and a visual.”
18:07 hrs. to 18:10 hrs.	During this time, there were no other conversations regarding the smoke condition. Note: ROIC Specialist 1 did not take any action upon notification of the condition to notify emergency responders [Ambient].
18:10 hrs.	The Capitol Heights Station Manager contacted OPS 5 via radio. The Station Manager stated, “I need a radio check: I am checking for smoke in the station, Tracks 1 and 2”. ROIC Specialist 2 stated, “Station Manager at Capitol Heights Station, “you said you’re checking for smoke on Track 1 and 2.” Station Manager stated, “That is a good copy, I am checking for smoke in the station”.

	ROIC Specialist 2 contacted the Station Manager and said, “Did you call initially and let us know you may have a report of smoke in your station.”
18:11 hrs.	Station Manager: No response was given; ROIC Specialist 2: “Station Manager Capitol Heights Station do you have fire and smoke on Track 1 and 2,” Station Manager: “checking as we speak” ROIC Specialist 2, “do you see or smell smoke” Station Manager: “when the train came into the station, it was really smoky, I do not see any, but it smells like smoke” [Radio OPS 5].
18:11 hrs.	Radio RTC personnel attempted twice to contact Train ID 434 at Capitol Heights Station to instruct the train to perform an inspection for “brake dust.” The Radio RTC stated, “you’re coming through distorted” [Radio Ops 2].
18:12 hrs.	ROCC stated, “Train ID 800 on approach Morgan Boulevard perform a track inspection from Addison Road Station to Capitol Heights Station track inspection” [Radio OPS 2].
18:12 hrs.	ROIC Specialist 2: “Are you reporting brake dust or smoke” Station Manager: I use to be a Train Operator; I know the difference between smoke and brake dust. ROIC Specialist: “is it coming from the train that just left your station” [Radio OPS 5].
18:13 hrs.	ROIC Specialist 2: “is there still signs of smoke in the station” Station Manager reported the smoke was dissipating in the station and may have been the train but stated adamantly reported, “it was smoke” [Radio POS 5].
18:13 hrs.	Radio RTC: “Train ID 434 out of Addison road come into central over” Train ID 434:” repeat” Radio RTC: “how do you copy central” Train ID 434: “I copy you now” Radio RTC: I was trying to get in contact with you at Capitol Heights Station, did you hear my transmission” Train ID 434 “Negative” Radio RTC: “when you departed out of Capitol Heights Station did you happen to see any smoke” No response given [Radio Ops 2].
18:14 hrs.	ROIC Specialist 2 instructed the Capitol Heights Station Manager to perform an inspection on Track 2 at the end of the tunnel and give them a visual [Radio OPS 5].
18:14 hrs.	ROCC Utility Assistant Superintendent notified emergency responders of a possible smoke event at Capitol Heights Station and or Brake Dust condition [Radio OPS 5].
18:16 hrs.	ROIC Specialist 2 requested an update on visual from the Station Manager; the Station Manager responded, stating, track 2 is still smoking coming from Addison Rd direction” [Radio OPS 5].
18:16 hrs.	The Radio RTC instructed a Rail Transportation (RTRA) Supervisor to inspect the train for brake odor upon arrival to Eastern Market track 2 [Radio OPS 2].
18:17 hrs.	ROIC Specialist 2 notified the Station Manager Fire Department personnel were en route [Radio OPS 5].
18:17 hrs.	The Radio RTC requested an update on findings from Train ID 800, and the Train Operator reported they were unable to stop in time at G2 438+20 and passed the affected area. The Train Operator reported a fire starting, and the Train Operator offered to go back through the area with the train and attempt to extinguish the fire with an onboard extinguisher. The Train Operator of Train ID 800 reported they were currently stopped at 431+00. ROCC instructed the train operator to key down, disable EV, and reverse ends [Radio OPS 2].
18:18 hrs.	The Station Manager notified ROIC Specialist 2 that dark smoke was entering the station from Track 2, there is something burning” [Radio OPS 5].
18:19 hrs.	RTRA Supervisor reported Eastern Market Blue Line Track 2 had no signs of brake odor or smoke [Radio OPS 2].
18:19 hrs.	ROIC Specialist 2 instructed the Station Manager to evacuate customers from the station and to remain top side [Radio OPS 5].

18:20 hrs.	The Station Manager notified ROIC Fire Department personnel were on location [Radio OPS 2].
18:22 hrs.	The Train Operator notified ROCC smoke was approximately two (2) CM'S away and requested to go wayside to extinguish the fire; ROCC replied negative [Radio OPS 2].
18:22 hrs.	ROCC requested verification that the Train Operator was keyed up on Largo Town Center end and was observing smoke. The Train Operator confirmed, and ROCC instructed the Train Operator to key down and reverse ends on the downtown end in the direction of the D&G [Radio OPS 2].
18:23 hrs.	ROCC Fire Liaison communicated with Incident Command (IC) [PGFD Battalion Chief] via PGFD radio confirming fire event location and CM G2 438+00 in conjunction with Train Operator findings. Additionally, the ROCC Fire Liaison informed IC the Train Operator would attempt to extinguish the fire [PGFD Radio].
18:26 hrs.	ROCC Fire Liaison notified IC [PGFD Battalion Chief] Third rail power was still energized, and a train was positioned in the tunnel reversing ends in the direction of Addison Road Station [PGFD Radio].
18:27 hrs.	IC [PGFD Battalion Chief] requested an update on the Train Operator's previous report attempting to extinguish the fire [PGFD Radio].
18:29 hrs.	ROCC Fire Liaison notified IC [PGFD Battalion Chief] the Train Operator was moving away from the danger area and will transition towards Capitol Heights Station and should be on the platform shortly [PGFD Radio].
18:30 hrs.	The Train Operator reported fire personnel on the Capitol Heights Station platform and requested if ROCC wanted the Train Operator to key down and reverse ends; ROCC stated: "continue towards the D&G." [Radio OPS 2].
18:31 hrs.	IC [PGFD Battalion Chief] contacted ROCC Fire Liaison to ascertain if ERT maintenance personnel were en route to their location. ROCC Fire Liaison verifies ERT was en route and approximately 10 minutes out [PGFD Radio].
18:32 hrs.	ROCC Fire Liaison notified IC [PGFD Battalion Chief] Third rail power de-energization process underway between Capitol Heights Station and Addison Rd Station on Track 1 and 2 until that time stay clear [PGFD Radio].
18:34 hrs.	ROCC Fire Liaison notified IC [PGFD Battalion Chief] incident train was offloaded at Benning Road Station, power was de-energized, and ROCC activated fans at Capitol Heights and adjoining Stations. [PGFD Radio] Note: The Fire Liaison relayed incorrect information regarding offload.
18:35 hrs.	ROCC Fire Liaison requested IC [PGFD Battalion Chief] to advise if personnel smelled or observed smoke and power was in the process of de-energizing [PGFD Radio].
18:43 hrs.	Upon arrival at Capitol Heights Station, ERT requested permission to enter the roadway Track 2. ROCC granted permission with prohibits exits and foul time protection for inspection Note: There is no evidence ERT responded to IC [PGFD Battalion Chief] on arrival. [Radio OPS 2].
18:44 hrs.	ERT contacted ROCC via radio and requested if they were aware of Fire Department personnel were on the roadway. ROCC stated negative notifies ERT power was de-energized in the affected area, and instructed ERT to Hot stick and confirm. Closed-Circuit television confirmed PGFD in the roadway at the time, as mentioned earlier [Radio OPS 2].
18:46 hrs.	ROCC Fire Liaison contacted IC [PGFD Battalion Chief] and requested investigation group Radio Call numbers heading on the roadway and to contact ROCC Fire Liaison upon their arrival to enter the roadway together [PGFD Radio].

18:47 hrs.	IC [PGFD Battalion Chief] requested ROCC Fire Liaison have ERT report to IC as a result of putting their staff in a “bad position” and will have a conference regarding the incident [PGFD Radio].
18:47 hrs.	ERT requested power be re-energized to verify the affected component location and stated only personnel on the roadway would be ERT personnel party of three. [Radio OPS 2].
18:48 hrs.	IC [PGFD Battalion Chief] notified the ROCC Fire Liaison ERT group on the scene and requested if additional resources such as supervisor were en route; ROCC Fire Liaison stated, “they would check with rail and advise” [PGFD Radio].
18:49 hrs.	ROCC Fire Liaison notified ICP that ERT on site is only personnel en route and an RTRA supervisor [PGFD Radio].
18:51 hrs.	ROCC instructed ERT to standby and clear until additional personnel reach their location [Radio OPS 2].
18:53 hrs.	IC [PGFD Battalion Chief] contacted PGFD Investigation Team for an update; PGFD Investigation Team stated ERT is checking out the event, we do not need to be down there; we are clear of the roadway [PGFD Radio].
18:55 hrs.	ROCC Fire Liaison to IC rail is requesting contact via a landline.
19:03 hrs.	PGFD investigation team reported that ERT is requesting power to be re-energized to identify the problem on the roadway; all personnel is accounted for and clear of the roadway [PGFD Radio].
19:04 hrs.	IC [PGFD Battalion Chief] Contacted ROCC Fire Liaison and reported PGFD Investigation Team was clear of the roadway and authorized ROCC to re-energize third rail power Track 1 and Track 2 [PGFD Radio].
19:07 hrs.	ROCC restored Third rail power for inspection, and ROCC Fire Liaison relayed information to IC [PGFD Battalion Chief] [PGFD Radio].
19:09 hrs.	The PGFD Investigation Team located on the platform subsequently notified the IC [PGFD Battalion Chief] located topside at the ICP [bus bay area] that the third-rail was hot sticked and confirmed energized by ERT, and no personnel was on the roadway. [PGFD Radio].
19:15 hrs.	ERT confirmed the arcing insulator's location at G2 438+80 and authorized third rail power de-energize [Radio OPS 2].
19:16 hrs.	ROCC Fire Liaison notified IC [PGFD Battalion Chief] that ERT was removing the insulator; ERT is in constant communication with ROCC and requested single tracking around the incident area [PGFD Radio].
19:16 hrs.	Third rail power was de-energized, and ROCC requested ERT verify power was de-energized via hot stick and provide chain markers [Radio OPS 2].
19:17 hrs.	IC [PGFD Battalion Chief] contacted the Investigation team to determine if PGFD is still required. PGFD Investigation team reported, “ERT identified insulator once knocked out; the incident will be under control” [PGFD Radio].
19:17 hrs.	PGFD turned the incident scene over to WMATA and stated, “Our personnel would be backing out of the location. ERT has control of the event” [PGFD Radio].
19:19 hrs.	ERT verified Third rail power was de-energized and provided corresponding CM’s [Radio OPS 2].
19:19 hrs.	PGFD confirmed the incident as a maintenance issue, and personnel was leaving the location and any further questions concerning train movement to MTPD on location [PGFD Radio].
19:19 hrs.	PGFD confirmed the incident as a maintenance issue, and personnel was leaving the location and any further questions concerning train movement to MTPD on location [PGFD Radio].
19:22 hrs.	ERT notified ROCC PGFD could be released [Radio OPS 2].

19:23 hrs.	Radio RTC assigned RTRA Supervisor On-Scene Commander [Radio OPS 2].
19:28 hrs.	ERT removed the affected component and requested the third-rail power be re-energized [Radio OPS 2].
19:28 hrs.	Radio RTC personnel made power re-energizing notifications accordingly [Radio OPS 2].
19:47 hrs.	ERT notified ROCC Third rail power needs to be de-energized as a result of another arcing insulator G2 438+70 [Radio OPS 2].
19:49 hrs.	Third rail power was de-energized for repair efforts, and ERT was instructed to Hot Stick and confirmed [Radio OPS 2].
19:50 hrs.	Third rail power confirmed de-energized [Radio OPS 2].
19:55 hrs.	ERT removed the additional defective arcing insulator, ROCC made appropriate notifications of power restoration [Radio OPS 2].
19:58 hrs.	ERT requested a test train through the affected area [Radio OPS 2].
20:02 hrs.	Test Train 702 left Largo Town Center with no passengers aboard to inspect from Addison road to Capitol Heights Stations [Radio OPS 2].
20:03 hrs.	ERT gave ROCC authorization to re-energize third rail power, ROCC notifies ERT third power is hot and energized [Radio OPS 2].
20:10 hrs.	ERT notified good track test, and tracks are revenue ready for normal service [Radio OPS 2].

ARS Playback

Based on ARS audio review, Train ID 434 had unintelligible communication issues during the event. Therefore, COMM performed a functional test at the Capitol Heights Station, Track 1, and platform limits. COMM did not note any discrepancies as a result of these inspections.

ROCC Ambient

Based on ambient audio, the ROCC Superintendent did the following:

The Superintendent instructed the Utility Assistant Superintendent to move the train away from the affected area. The Superintendent updated the staff that the Fire Department was en route. The Utility Assistant Superintendent notified the Superintendent Train Operator of Train ID 800 went over the arcing insulator. The Superintendent posed a question to the Utility Assistant Superintendent and said, "Why didn't they stop?"

The Superintendent was then on the phone relaying information during the event stating the Fire Department was on the scene and power was down on both tracks. The Superintendent continued their update via phone and said, the Train Operator said, "Central, it looks like possible smoke, they instructed the Train Operator to reverse ends; once CM was given, they told him to change ends."

While still on the phone, the Superintendent asked the Utility Assistant Superintendent if they told them to shut off their EV? The Utility Assistant Superintendent stated yes, and the Superintendent relayed the information to their management via phone.

The Superintendent instructed the Utility Assistant Superintendent to remove the train consist from service for traversing over the fire. The Superintendent then updated management personnel on the phone that the Fire Department was on location.

The Superintendent discussed with the Utility Assistant Superintendent where to place RTRA Supervisors to turn trains and ensure SOP 1A was in effect.

The Fire Liaison and Superintendent discussed chain markers where third rail power was de-energized.

The Fire Liaison informed the Superintendent that the Fire Department would be entering the roadway and relayed the chain markers to the Incident Commander.

Note: There is no audio evidence revealing the Superintendent informed the Utility Assistant Superintendent or controllers of the Fire Departments' actions [entering the roadway]. The Utility Assistant Superintendent was on the phone discussing RTRA Supervisor placement during the Fire Liaison's notification to the Superintendent.

The Superintendent asked the Utility Assistant Superintendent the location of the RTRA Supervisor's. was going to transport them. The Utility Assistant Superintendent stated one at Stadium-Armory, and the other one was mobile.

The Superintendent voiced their frustrations with the Utility Assistant Superintendent about the constant phone calls and instructed them to stay nearby. The Superintendent notified the Utility Assistant Superintendent ERT was on the scene.

Note: Ambient audio was unintelligible at times due to background noise.

The Superintendent instructed the Utility Assistant Superintendent not to bring up third rail power until unintelligible. The Superintendent discussed RTRA Supervisors' arrival once again, and the Utility Assistant Superintendent stated they are both waiting for MTPD transport.

The Superintendent stated, "you said that one was en route," and the Utility Assistant Superintendent responded; the RTRA Supervisor stated they were supposed to be driving but did not have a car. The AD operator took the car from Largo Town Center.

Then, the Superintendent appears to communicate ERT's reason for requesting power restoration; to identify the source to the I/C via phone. The Superintendent further stated that we are unable to bring up power until you give authorization.

The Superintendent notified the Utility Assistant Superintendent the I/C gave them permission to restore power on track 1 and 2; contact ERT and confirm they are clear.

The Superintendent instructed the Utility Assistant Superintendent to ask ERT to let you know when it is safe unintelligible. The Superintendent provided an update to management personnel; "ERT is on the scene; power is restored, spoke with the Fire department." The Superintendent notified the Utility Assistant Superintendent that ERT identified the source.

The Superintendent notified SAFE that the source of the fire was an arcing insulator.

CCTV

Based on CCTV review, PGFD arrived on location at 18:17 hrs. and entered the station for mitigation efforts at 18:19 hrs. At approximately 18:22 hrs., MTPD and additional support arrives on location and establishes the OSC post near the escalators.
Refer to Photos 1-5.

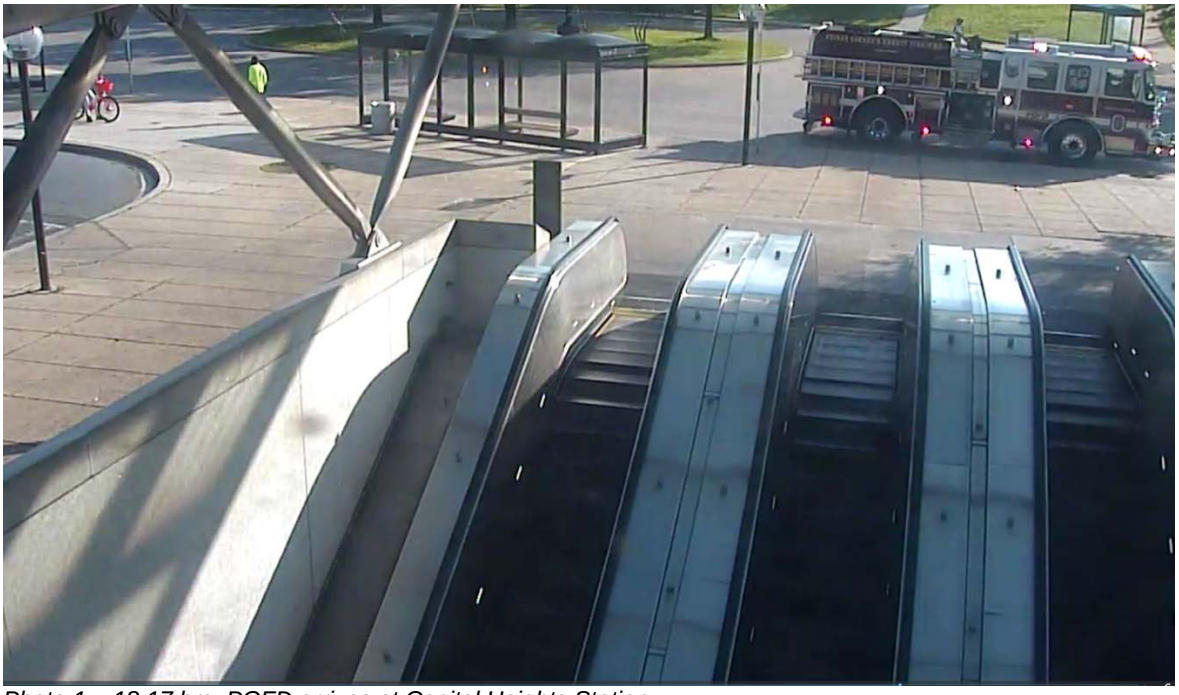


Photo 1 – 18:17 hrs. PGFD arrives at Capitol Heights Station.

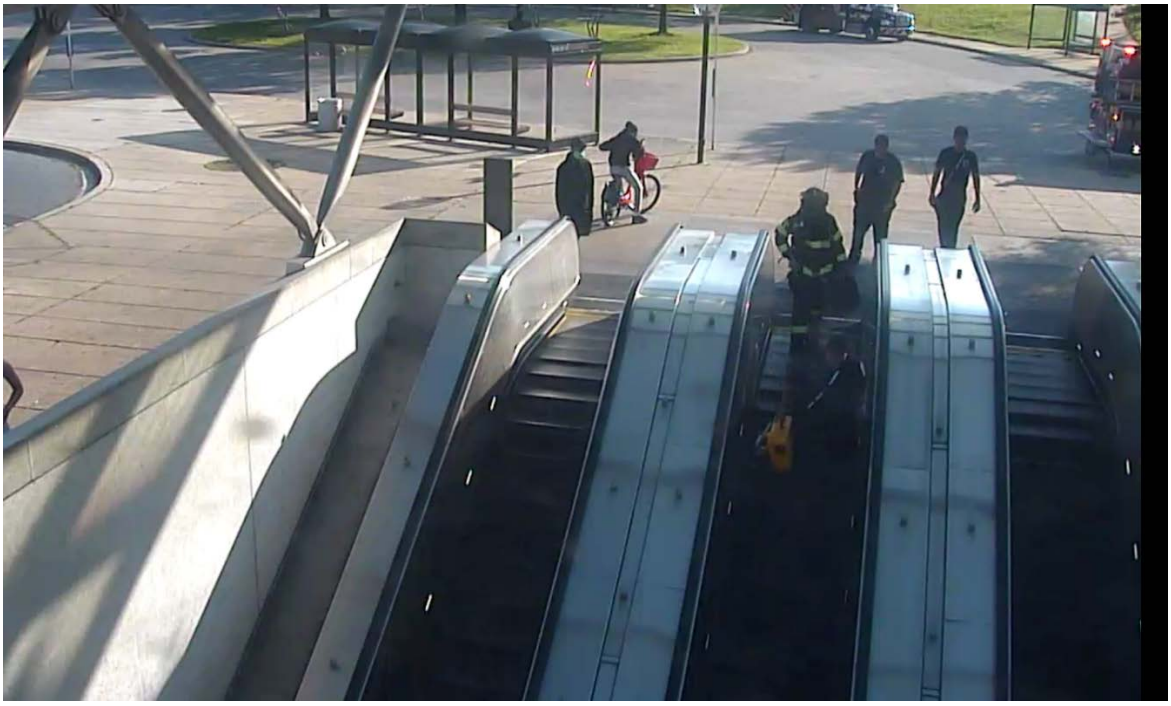


Photo 2 – 18:19 hrs. PGFD Enters Capitol Heights Station.

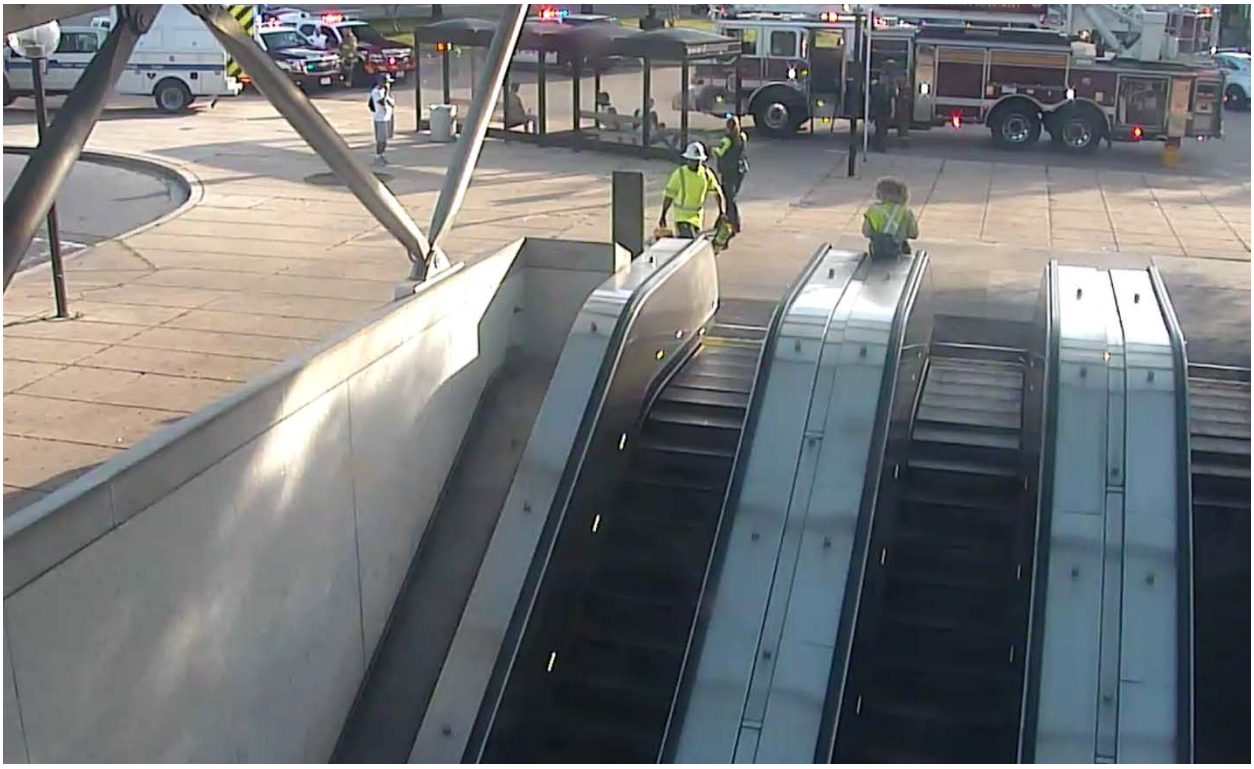


Photo 3 – 18:42 hrs. ERT enters Capitol Heights Station and bypasses MTPD.

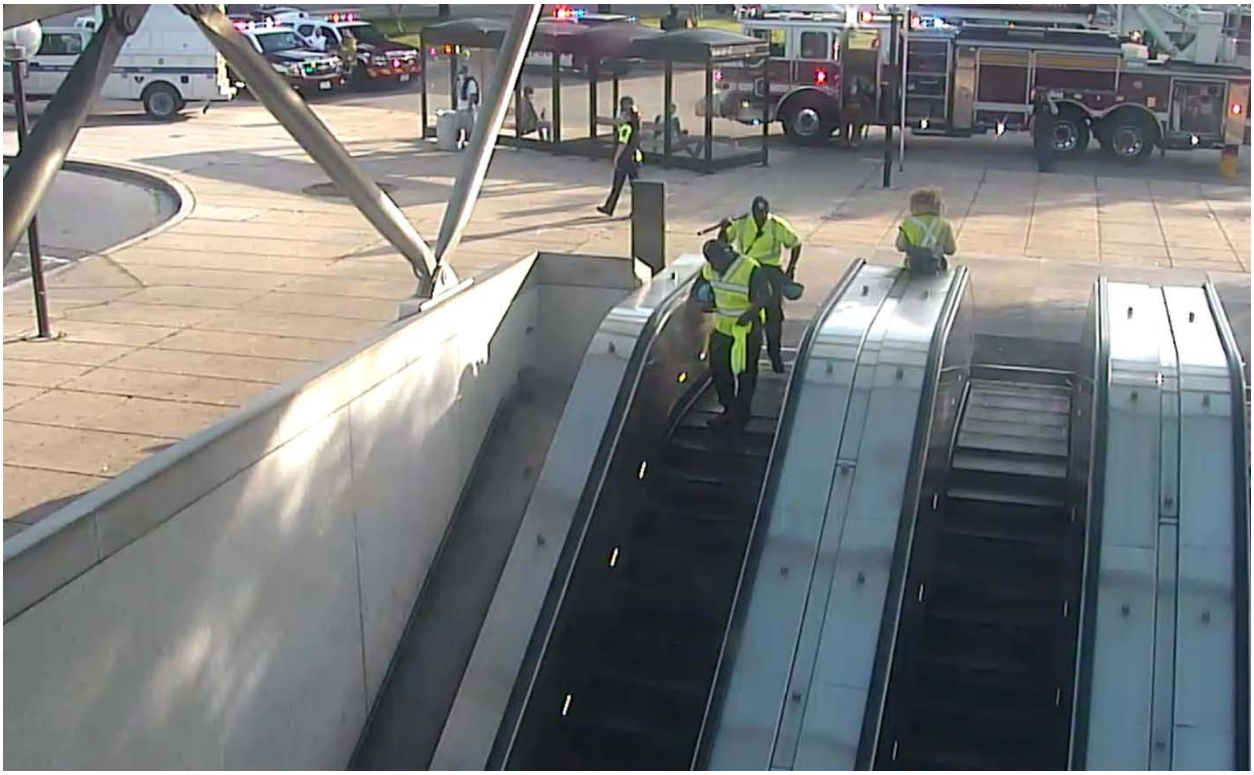


Photo 4 – 18:43 hrs. Additional ERT personnel bypass MTPD and Station Manager.

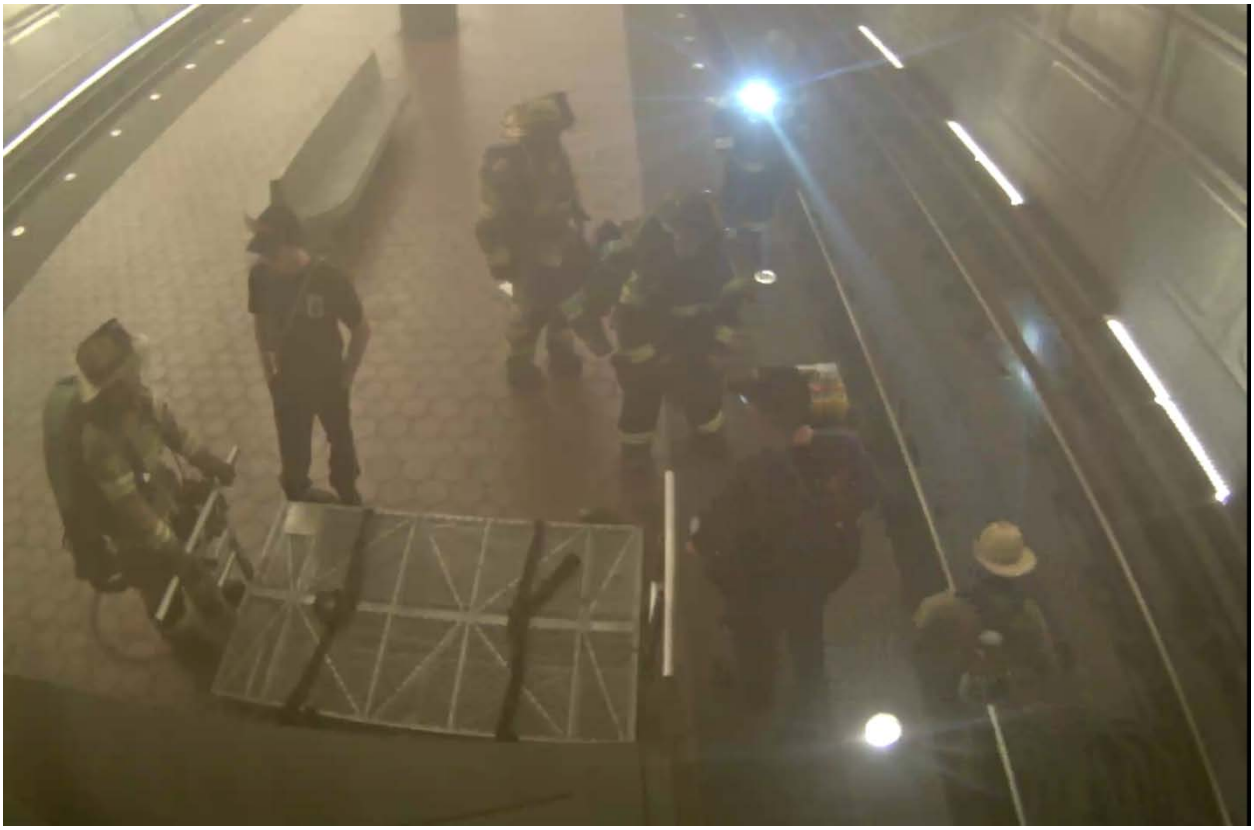


Photo 5 - 18:43 hrs. PGFD was observed on the roadway.

ERT arrives on location approximately 23 minutes later, parks on the sidewalk, and bypasses MTPD while entering the station. PGFD was observed on the roadway deploying a WSAD. Note: Power was de-energized within the platform limits before PGFD entered the roadway. Based on event log data, CCTV playback revealed ERT was in conversation with PGFD upon arrival. Shortly after, PGFD removed WSAD from the Third rail and exited the roadway. Refer to Photos 6-8.

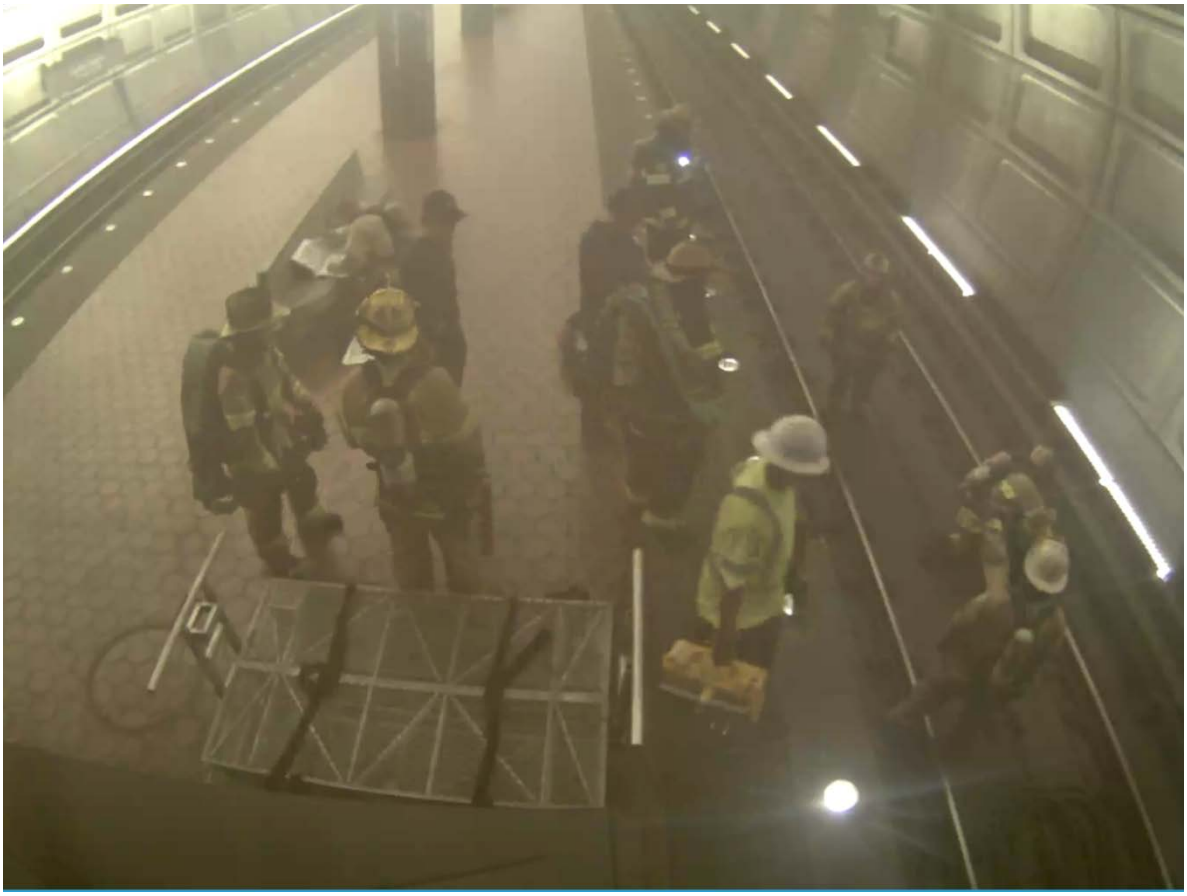


Photo 6 – 18:44 hrs. ERT arrived on location and engaged in conversation with PGFD.

Photo 7 – 18:47 hrs. PGFD cleared the roadway.

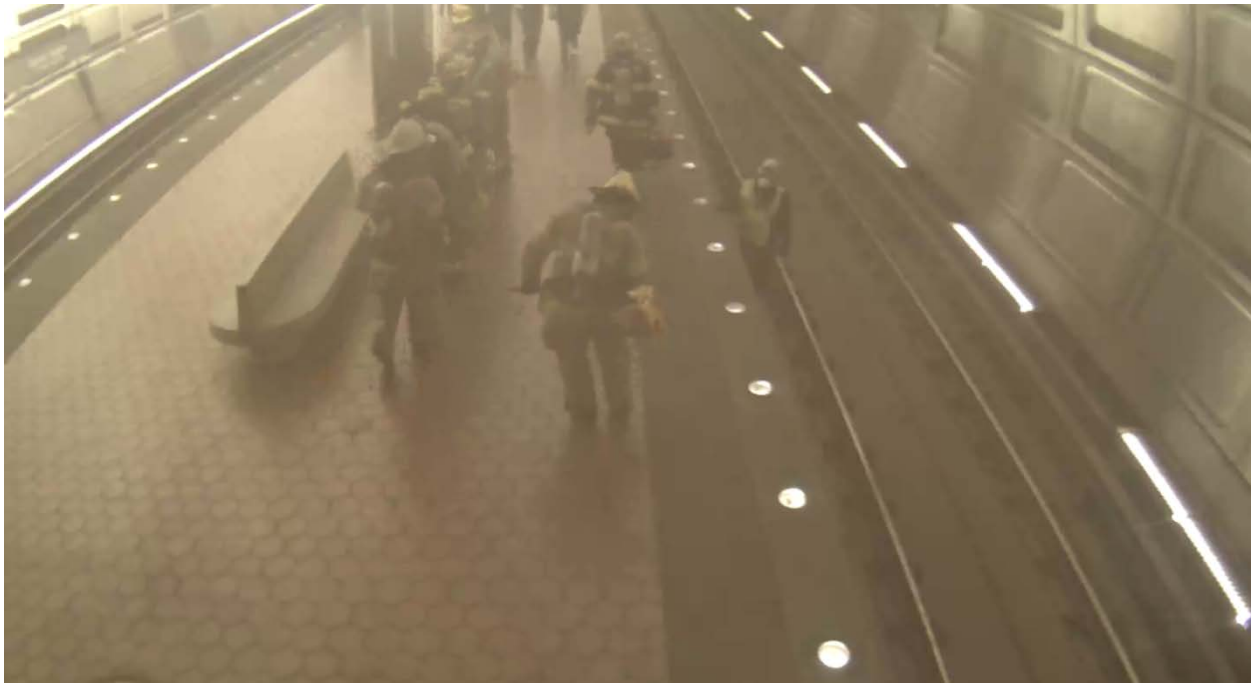


Photo 8 –19:22 hrs. PGFD observed leaving the station.

Interview Findings

Based on the investigation launched into the Capitol Heights Station Arcing Insulator event, SAFE conducted Ten (10) interviews via phone, including the investigation team and relevant Metro management. SAFE identified the following key findings associated with this event, as follows:

MTPD personnel involved stated, they observed four (4) employees with WMATA issued vests enter the station and respond to the platform, bypassing the Incident Command Post and On-Scene Commander location. MTPD personnel further stated they did not know exhaust fans' existed in the stations and did not report to the ICP based on a hand gesture from the IC. Furthermore, MTPD personnel stated they entered the station and remained positioned in the middle of the platform and not next to the PGFD investigation team near the incident area.

ROCC personnel involved stated, the Radio RTC did not use the console SOP checklist and stated, “These checklists are useless, for lack of better terms. Some checklists out there with boxes may be beneficial, but our checklist is dated, and the wording is not plain enough. It is unrealistic to use during emergency situations to look through these books reviewing the table of contents scanning for a page number is a waste of valuable time, and I do not find them helpful at all.” ROCC personnel stated, checklists are inadequate during respective emergencies and concerns that classroom training for RTC is very lengthy and does not add value to real-life events.

It was also stated during the ROIC Specialist interviews they were taught not to use the word “smoke” because it would potentially cause panic. ROIC’s suggestion that “brake dust” was the odor misrepresented the issue and delayed the response.

ERT personnel stated they did not report to the Incident command post upon arrival and observed PGFD vehicles on location upon arrival at the station. They stated that the Radio RTC did not instruct them to report to a Forward Liaison or ICP.

Findings

- ERT did not report to ICP upon arrival and requested that ROCC restore Third rail power without authorization from ICP. These actions were not in compliance with *MSRPH "SOP 1 A 5.4.8 All responders shall report to the staging area once established, MSPRH SOP 6,* 6.5.3.11 *which states, If the source of the fire/smoke was caused from a Track Component (i.e., insulators, stud bolts, cross ties, etc.), ROCC shall instruct Responding Qualified WMA TA Personnel to make contact with the IC to access the incident scene to locate the attributing component. ROCC shall provide Responding Qualified WMATA Personnel with chain marker and the nearest station to the incident location. 6.5.2.12.4 When Responding Qualified WMATA Personnel have corrected or removed the Track Component, ROCC will obtain permission from the IC to restore third rail power in accordance with SOP 2 - Emergency Removal and Restoration of Third Rail Power Mainline and request that the Rail System be placed back in operation."*
- Based on ARS playback, ROCC Fire Liaison was aware of PGFD on the roadway and subsequently notified ROCC Superintendent.
- The Radio RTC did not use the console SOP 6 checklist for Fire and Smoke on the roadway outlined in the internal ROCC procedures manual.
- The ROCC procedure manual does not reflect RTC removal from service reasons as specified for Train Operators.
- The Radio RTC was unfamiliar with speed restrictions for Track Inspections and did not inform the Train Operator of the condition for Track Inspection. These actions were not in compliance with MSRPH *3.172, which states, Hazardous Track Condition Inspection: Once a hazardous condition has been reported to the ROCC, and the train designated to perform the inspection is out of revenue service, and all customers are offloaded, the Train Operator will, from the cab, perform a visual examination, of the area and tracks along the roadway in the affected area identified by the ROCC, reporting any abnormalities to the ROCC,* and 3.172.1, which states, *when a train operator is instructed to perform a Hazardous Track Condition Inspection from onboard a train, the train operator will: a. Operate in mode 2, level 1.b. Proceed at restricted speed (absolute/permissive block procedures if applicable). c. Operate with caution and be alert for any unusual or hazardous conditions. d. Be ready to stop the train short of a hazardous condition. e. Report any unusual or hazardous conditions to the ROCC. f. Return to normal operation when clear of the affected area or at the next station as instructed by the ROCC."*
- The Radio RTC did not assign the first person on the scene [Station Manager] as OSC in lack of authorized OSCs [MTPD, RTRA Supervisor, Superintendents, Line Managers, etc.]. This action is not in compliance with MSRPH SOP 1A.5.1.2.15, which states, "*When none of the above-mentioned personnel are present at the scene, ROCC shall appoint an OSC from the personnel available. However, upon arrival of one of the above-mentioned personnel, the previously appointed OSC shall relinquish control and responsibility to the arriving person."*
- The Radio RTC did not instruct ERT to ICP. This action is not in compliance with *SOP 6 6.5.2.12 If the source of the fire/smoke was caused from a Track Component (i.e., insulators, stud bolts, cross ties, etc.), ROCC shall instruct Responding Qualified WMATA Personnel to make contact with the IC to access the incident scene to locate the attributing component. ROCC shall provide Responding Qualified WMATA Personnel with chain marker and nearest station to the incident location.*
- ROIC Specialist 1 failed to report the smoke event to Fire Department emergency responders immediately. This action is not in compliance with SOP 8 "*8.4.4. The ROIC is responsible for establishing communications with the Station Manager and the immediate notification of the Fire/Rescue Department (FRD) of the emergency, regardless of the time of day.*

- RTC was not aware that an arcing insulator [electrical fire] cannot be extinguished with an extinguisher.
- Utility Assistant Superintendent failed to bridge the line of communication with Fire Liaison during the emergency SOP 1A.4.1 in the MSRPH, which states, "*The Assistant Superintendent of the Rail Operations Control Center (ROCC) is responsible for the overall control and coordination of emergency situations on the Rail System, except at the incident scene."*
- The Superintendent did not notify RTC's PGFD investigation team was entering the roadway after the third rail power was confirmed de-energized.
- The Superintendent assumed control and provided directives to the Utility Assistant Superintendent.
- The Utility Assistant Superintendent was on the phone planning RTRA Supervisor placement when the Fire Liaison notified the Superintendent of PGFD's next actions to enter the roadway.
- MTPD Forward Liaison failed to remain side by side with the PGFD Investigation team.
- MTPD OSC failed to secure the incident location, allowed personnel to enter the station without authorization from IC, and failed to report to IC after established. This action is not in compliance with "*SOP 1A. 4.3 The OSC is responsible for overall control and coordination of all WMATA activities at incident scene SOP 1A.5.4.1 OSC will confirm over the radio when they have linked up with IC and give a status report SOP 1A 5.4.8 All responders shall report to the staging area once established."*
- Based on the Utility Assistant Superintendent training record review, there is no documentation to support training for the respective position. Note: The ROCC Director selects the Utility Assistant based on management's input, and the employee undergoes Six (6) week OJT, 2 weeks respectively on each shift, e.g., midnight, evening, day.
- The ROIC specialist stated they were taught not to use the word "smoke" because it would potentially cause panic. ROIC's suggestion that "brake dust" was the odor misrepresented the issue and delayed the response.

Weather

On June 6, 2020, at the time of the incident, NOAA recorded the temperature as °84 F, with mostly cloudy skies throughout the evening. The relative humidity was 46 percent, with precipitation of .090 inches over the last 24 hours. On the previous 2 days before the incident [June 4-5, 2020], the total precipitation was recorded at 2.26 inches. This unusually high precipitation may have contributed to this incident. (Weather source: National Oceanic Atmospheric Administration (NOAA) – Location: Capitol Heights, MD.)

Human Factors

Fatigue

The employees' 30-day work schedule leading up to the incident was compliant with *WMATA's Policy/Instruction 10.7/1 Hours of Service Limitations for Prevention of Fatigue.* It did not present a significant risk of impairment due to fatigue. Based on employee interviews, there were no personal factors present that would have increased the likelihood of fatigue-related impairment. The employees had no history of sleep issues to report.

Post-Incident Toxicological Testing

At the time of this incident, ROCC managerial staff did not remove any ROCC staff for post-incident testing. Based on SAFE's investigative findings and Metro's drug and alcohol policy, ROCC managerial staff should have removed ROCC personnel from service for post-incident testing given the known facts at the time of the incident. Under WMATA's current *Drug and Alcohol*

Policy and Testing Program Policy Instruction 7.7.3/5, Post-Incident Testing may be performed on employees and contractors whose performance cannot be "completely discounted,"

Training Issues

ROCC staff raised concerns related to classroom lengthiness and classroom field simulations that are not conducive to real-life situational events. Additionally, ROCC staff expressed concerns about proactive managerial staff versus a reactive disciplinary environment approach for incident education, such as collective overviews of previous events such as educational boot camps. ROCC staff voiced concerns about dated checklists that conflict with post-incident re-instruction, e.g., Hazardous conditions: which states operate at restricted speed for inspection. The checklist does not reflect this information, although outlined in MSRPH, causing inconsistency and lack of standardization. Based on a review of the Utility Assistant Superintendent training record, there is no documentation to support training for the respective position. Note: The ROCC Director selects the Utility Assistant Superintendent based on management input, and the employee undergoes six (6) weeks OJT, 2 weeks respectively on each shift, e.g., midnight, evenings, and days.

Probable Cause Statement

SAFE determined the probable cause of the incident was as an arcing insulator in the vicinity of Capitol Heights Station, CM G2 - 438+80 and G2 - 438+70 [approximately 10 feet from each other] created a smoke condition on the roadway in the tunnel, which subsequently reached the station limits positioned approximately 1260 feet away. It is most probable the insulator was oxidized from environmental tunnel deposits, and moisture/water intrusion from a previous rainstorm resulted in an arcing event igniting the insulator as the train traversed the area.
The investigation identified several processes and procedural gaps that directly or indirectly contributed to the incident, as follows:

Upon completion of an analysis of data collected from systems of record and the results of interviews with staff, multiple human factors failures occurred in response to this incident. Upon report of a smoke event, ROIC Specialist 1 failed to communicate the initial call to emergency responders, which subsequently extended response time for emergency personnel. The Radio RTC failed to follow SOP 1A, failed to establish OSC present at the location with the Station Manager. The Radio RTC failed to implement a speed restriction for the inspection train and provide details of the inspection to the Train Operator and did not follow the playbook on the console, which outlines all emergency SOP's in checklist form for respective events. The Radio RTC did not direct responding personnel to the ICP per SOP 1A. ERT failed to check in with the ICP and initiated a conflict with PGFD. MTPD personnel failed to establish communication and to report to the ICP upon arrival. Utility Assistant Superintendent and Fire Liaison failed to establish a line of communication during the event to ascertain the arrival of FD, ICP location. The Superintendent did not notify RTC's the PGFD investigation team would enter the roadway after third-rail power was confirmed de-energized. MTPD Officers did not coordinate with ICP to establish Unified Command.

Communication breakdowns, including the use of inaccurate descriptors such as "brake dust," gaps in management oversight, and a lack of adherence to written procedures and processes, contributed to this event collectively.

Immediate Mitigation to Prevent Recurrence

- ERT removed two (2) defective insulators at CM G2 - 438+80 and G2 - 438+70.
- ERT management reinstructed the responding ERT Supervisor on SOP 1A procedures when responding to an event.

- ROCC Management reviewed SOP 1A with involved staff.
- COMM performed a functional test of radio transmission at the Capitol Heights Station, Track 1, and platform limits. No discrepancies were noted as a result of these inspections.

SAFE Recommendations

As a result of its investigation, the SAFE makes the following safety recommendations:

To ROCC, establish an emergency management team for events that will directly affect RTC's ability to oversee normal operations on the roadway, i.e., directing traffic around the incident, troubleshooting efforts for mechanical breakdowns.

For WMATA to review and revise SOP 1A and associated checklists. After the review and revisions are completed, conduct annual recertification training of all ROCC employees on revisions to SOP1A to include using accurate terminology when describing a potential incident and incorporate an after-action review 'Hot Wash" process.

For ROCC to include removal from service processes for Rail Traffic Controllers, that mirrors the matrix for Train Operators.

That continued progress on infrastructure mitigation projects takes place to explore opportunities for expediting conditional repair programs.

For ROCC to conduct training exercises with ROCC staff to simulate emergency scenarios and provide critical feedback to employees on their actions and performance during these exercises.

For ROCC to undertake a review of emergency SOP checklists to identify opportunities to improve the utility of the checklists for employees.

For ROCC to develop training documentation and record-keeping for Utility Assistant Superintendents.

Appendix A - Photos

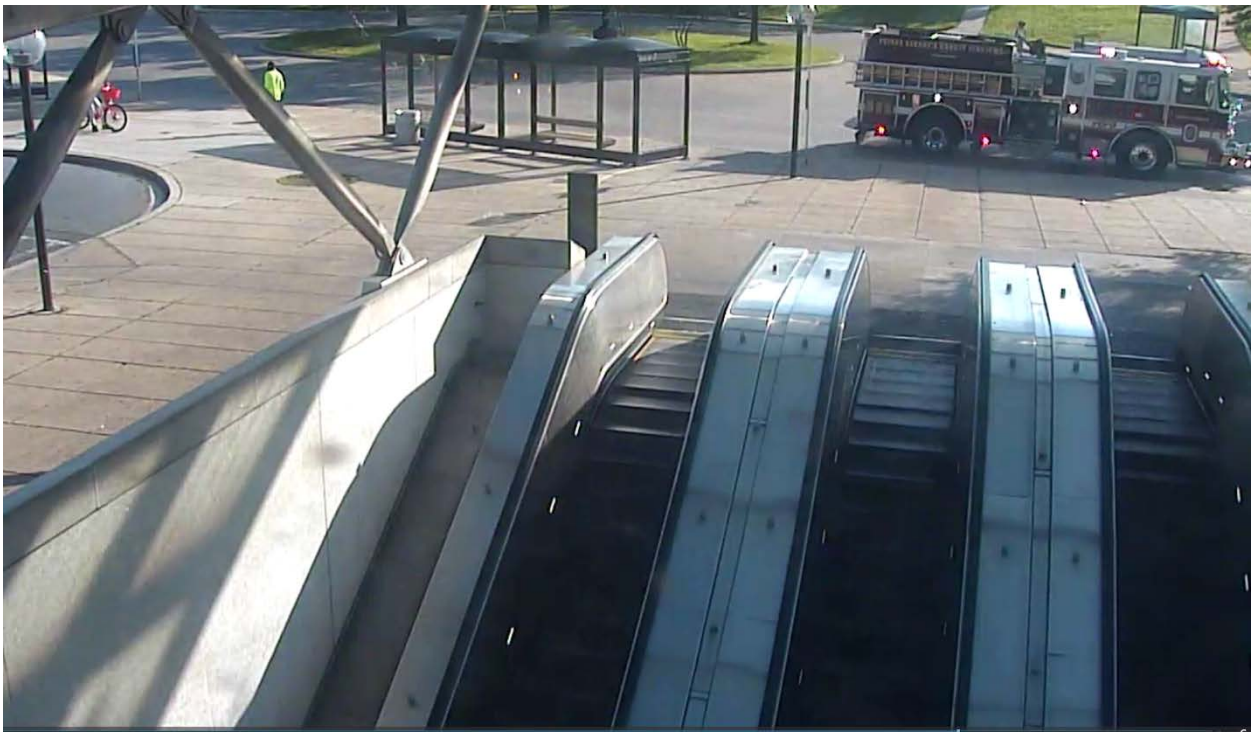


Photo 1 – 18:17 hrs. PGFD arrives at Capitol Heights Station.

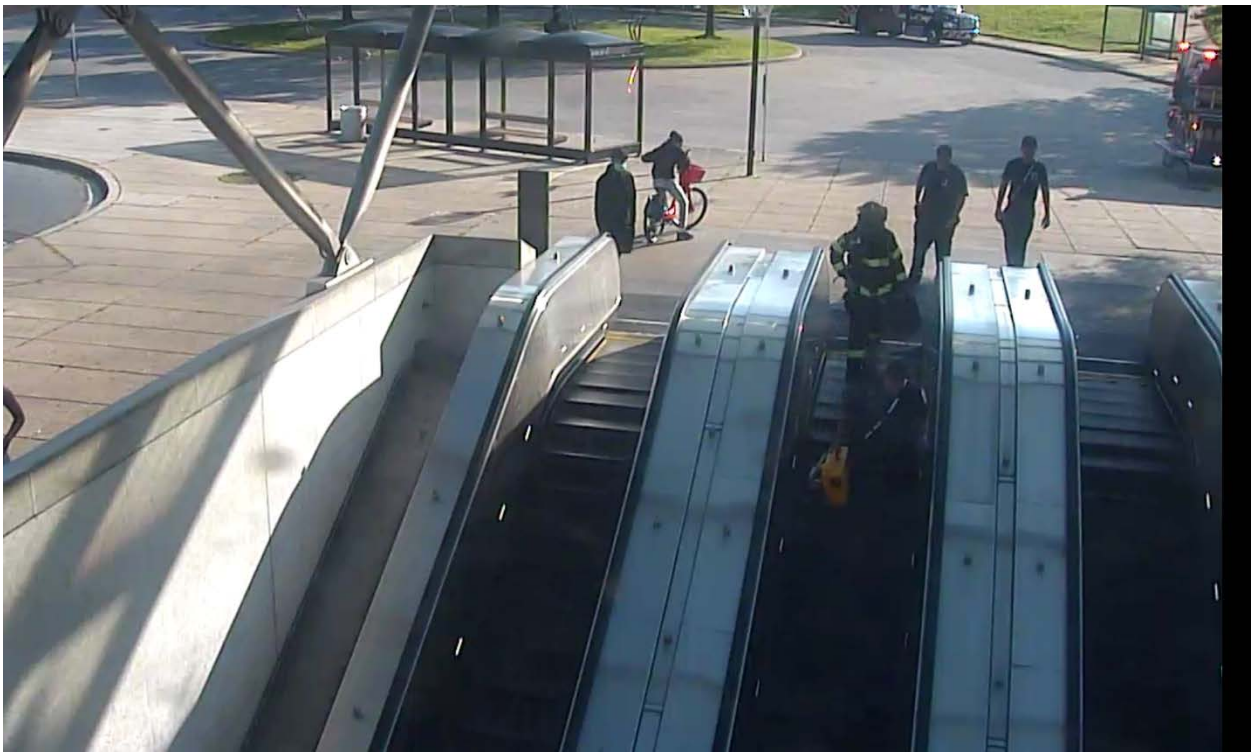


Photo 2 – 18:19 hrs. PGFD Enters Capitol Heights Station.

Appendix B – Attachments

Attachment 1 - Tabletop documents pages 1-11 attached separately.

Attachment 2 - RTRA Enhanced Radio Communication Page 1 of 1.

RTRA OPERATIONS PERSONNEL NOTICE

Monday, July 27, 2020

Enhanced Radio Communications During Emergencies

The Office of Rail Transportation (RTRA) is implementing the following communication enhancements when employees communicate, via radio, to the Rail Operations Control Center (ROCC) when an emergency is occurring or has occurred.

Emergency: *Any condition which can or has resulted in harm to customers or employees; damage to equipment or property; a service disruption; or any combination of these circumstances.*

As defined above, when an employee is involved in or is witnessing an emergency and needs to communicate immediately with ROCC via radio, the employee shall immediately make the following transmission: "**Emergency, Emergency, Emergency!"**

"Emergency, Emergency, Emergency!" shall be stated prior to providing identifying information to ROCC. (*i.e., train/unit number or name/title and location*) ROCC shall instruct all other employees to "**clear the air**" once an emergency communication has been received.

Example Emergency Radio Communications

Fire on the Roadway:
"Emergency, Emergency, Emergency! Central, this is Train one-zero-nine, track 1, Grosvenor, there is a cable fire on the roadway directly ahead of my train, over."

Red Signal Overrun:
"Emergency, Emergency, Emergency! Central, this is Train one-zero-nine, track 2, Grosvenor, my train has passed A11-42 signal Red, over."

Derailment:
"Emergency, Emergency, Emergency! Central, this is Train one-zero-nine, track 2, Grosvenor, my train may have derailed after passing A11-42 signal, over."

All RTRA employees are also reminded to adhere to the following MSRPH General Rules when communicating during emergencies:

GR 1.74: *Emergency messages shall be transmitted over the most expedient means of communication consistent with clear understanding.*

GR 1.75: *Employees shall give priority to emergency communications, keeping communications channels clear until the emergency is over.*

GR 1.76: *Employees shall use plain language when describing emergency situations.*

I acknowledge the receipt of and understanding of this RTRA Operations Personnel Notice, ***"Enhanced Radio Communications During Emergencies."***

Note: A Permanent Order regarding language used to report an emergency will be forthcoming.

Print Name/Payroll#	Signature
Date Received	Supv. Print Name / Signature

Appendix C – Interview Summaries

Fire Liaison

WMATA OEM employee with five (5) years of experience and with a Fire Department Background

Based on SAFE interview questions related to fatigue factors, signs, and symptoms, the Fire Liaison did not report evidence of signs and symptoms of fatigue. A review of the Fire Liaison's 30-day work history determined the employee's hours of service were in accordance with WMATA's Fatigue Risk Management Policy 10.6 and Hours of Service Limitations for Prevention of Fatigue Policy 10.7. Evidence, along with statements, indicate that the employee was not at an elevated risk of fatigue during this event.

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

On June 6, 2020, the Fire Liaison was notified via ROIC conversation and ROCC management of the smoke event. Third rail power remained energized until the inspection train bypassed Capitol Heights Station and went to Benning Rd. Station with no injuries reported by Train Operator aboard. PGFD was notified third rail power was still energized and to remain clear of the roadway. PGFD was notified the Train Operator was going to the roadway to extinguish the fire but later rescinded the instruction. PGFD assembled an investigation on the platform. At approximately 18:39 hrs. ROCC Superintendent notified the Fire Liaison of power de-energization with associated Chain Markers. WMATA de-energized Third rail power before PGFD entering the roadway. A Rail Supervisor was not on location due to the inability to mobilize to the location due to Third Rail Power de-energized, no Non-Revenue vehicle available, and reduced MTPD officer's assistance as a result of COVID limitations.

The Fire Liaison notified ROCC PGFD that the Superintendent was on the roadway deploying a Warning and Strobe Alarm Device (WSAD), and ERT failed to check in with IC upon arrival. ERT notified RTC that PGFD was on the roadway in close parameters of Fire Liaison notification to ROCC Superintendent; therefore, information was in the process of being relayed to Radio RTC. ERT engaged in a dispute with PGFD as a result of this miscommunication. Radio RTC received an ERT request to re-energize third rail power to identify affected components. PGFD later gave the authorization to restore third rail power for purposes of the inspection; after identification, third rail power was again de-energized. PGFD later considered the event a maintenance issue and turned the event over to MTPD. The PGFD IC [Battalion Chief] was new to the position and not familiar with this type of event.

ROCC Superintendent

WMATA employee with three (3) years of experience as a superintendent and 24 years of service in various roles, including controller, assistant superintendent, and bus operator with a Fire Department Background

Based on SAFE interview questions related to fatigue factors, signs, and symptoms, the Superintendent did not report evidence of signs and symptoms of fatigue. A review of the Superintendent's 30-day work history determined the employee's hours of service were in accordance with WMATA's *Fatigue Risk Management Policy 10.6* and *Hours of Service Limitations for Prevention of Fatigue Policy 10.7.* Evidence, along with statements, indicates that the employee was not at an elevated risk of fatigue during this event.

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

The ROCC Superintendent stated that on June 6, the Station Manager notified the ROIC Specialist of a smoke event. The ROIC Specialist failed to report the event immediately. The Superintendent stated that they were unaware the ROIC Specialist 1 failed to take action; this was later ascertained during a tabletop discussion. The Station Manager later reported the event via radio, and the ROCC Utility Assistant Superintendent overheard the report and notified the Fire Department, ROCC Superintendent, and Fire Liaison. Non-Revenue Train ID 800 was instructed to perform a Track Inspection. The Train Operator reported observing a small fire and smoke upon passing through the affected area; thereafter, the Train Operator reported the associated Chain Markers. The Train Operator requested to go onto the roadway to extinguish the fire; ROCC Radio RTC instructed the Train Operator to reverse ends and clear the area. Third rail power was de-energized on Track 1 and 2, and train traffic was stopped in all directions. The Fire Liaison spoke with the ROCC Superintendent to verify Chain Markers for information relay purposes. The ROCC superintendent did not recall if the Fire department was on location at this time; however, later, they did observe PGFD on CCTV cameras displayed in the ROCC. The Fire Liaison notified the ROCC Superintendent that PGFD was going to the roadway to deploy WSADs. ERT arrived and notified RTC of their arrival. The ICP communicated with Superintendent via landline to ascertain the plan of action. PGFD authorized power restoration to identify failed insulator, insulator was identified, and then power was de-energized. The arcing insulator was removed, and PGFD turned the event over to MTPD and Rail Transportation.

Gaps Identified from ROCC Superintendent's Perspective

- RTC failed to inform the Train Operator of the inspection purpose and failed to give a speed restriction.
- The Train Operator operated their train over the fire event condition.
- The Radio RTC did not assign OSC with available personnel, e.g., the Station Manager, on-location before MTPD arrival.
- ROIC Specialist 1 failed to report the smoke event immediately.
- The Superintendent suggested that Rail Traffic Controllers require more on the job training to respond to incidents.

<u>Radio RTC</u>

WMATA employee with one (1) year and nine (9) months of experience as a Rail Traffic Controller and certified as Rail Traffic Controller in August 2019.

Based on SAFE interview question related to Fatigue Factors and review of employee's 30-day work history, SAFE determined, employee hours of service were in accordance with WMATA's *Fatigue Risk Management Policy 10.6* and *Hours of Service Limitations for Prevention of Fatigue Policy 10.7* and discounted Fatigue as a contributing factor for this event.

Based on SAFE's interview, the Radio RTC recounted the following:

On June 6, 2020, the Radio RTC received notification via ROIC Specialist 2 with instructions to inquire about platform conditions and use terminology as brake dust, not smoke. The non-revenue train performed a Track Inspection and rode over the fire event. Third Rail Power was de-energized after the inspection train left the area. The Station Manager Evacuated customers from the station, and no On-scene Commander (OSC) OSC was assigned. The Radio RTC stated, typically, we do not assign a Station Manager. The Radio RTC observed PGFD on

CCTV; however, no communication was given reporting their arrival. Upon arrival, ERT requested to enter the roadway, and Radio RTC subsequently gave the authorization to enter the roadway. Thereafter, ERT asked Radio RTC were they aware PGFD was on the roadway, and Radio RTC stated negative. Power was re-energized and de-energized twice to remove two defective insulators.

SAFE's conclusion from Radio RTC Interview:

- The Radio RTC did not use the console SOP checklist and stated, “these checklists are useless, for lack of better terms. Some checklists out there with boxes may be beneficial, but our checklist is dated, and wording is not plain enough. It is unrealistic to use during emergency situations to look through these books reviewing the table of contents scanning for a page number is a waste of valuable time, and I do not find them helpful at all.”
- The Radio RTC was unfamiliar with speed restrictions for Track Inspections.
- The Radio RTC did not inform the Train Operator of the condition for the Track Inspection.
- The Radio RTC did not assign the first person on the scene (Station Manager) as OSC.
- The Radio RTC was not informed of the Fire Department on the roadway.
- The Radio RTC was not informed when the Fire Department personnel arrived.
- The Radio RTC was not aware of an arcing insulator [electrical fire] cannot be extinguished with an extinguisher.
- The Radio RTC did not instruct ERT personnel to report in with ICP.
- The Radio RTC requires more OJT, preferably classroom modules, then applied in the field syllabus.

<u>ROCC Utility Assistant Superintendent</u>

WMATA employee with three (3) months of experience as a Utility Superintendent and 2-years as a controller. The Utility Superintendent re-certified as Rail Traffic Controller in June 2020.

Based on SAFE interview question related to Fatigue Factors and review of Utility Assistant Superintendents’ 30-day work history, SAFE determined, Utility Assistant Superintendent hours of service were in accordance with WMATA’s *Fatigue Risk Management Policy 10.6* and *Hours of Service Limitations for Prevention of Fatigue Policy 10.7* and discounted Fatigue as a contributing factor for this event.

Based on SAFE’s interview, the ROCC Utility Assistant Superintendent recounted the following:

The ROCC Utility Assistant Superintendent overheard a Station Manager reported smoke at Capitol Heights Station. Thereafter, a notification was made with emergency response personnel. Reportedly, the Utility Assistant Superintendent was not updated by the Fire Liaison during the event. The Utility Assistant did hear ERT notify that PGFD was on the roadway; however, they were not aware PGFD was on the roadway. The Utility Assistant Superintendent stated the focus was on assisting newer controllers and gathering information to ensure a fluid operation. The Utility Assistant Superintendent recounted the events as all other involved personnel.

ROIC Specialist 1

WMATA employee with one (1) year, four (4) months of experience as an ROIC Specialist, and 9-years of service in various roles, including Train Operator and Bus Operator.

“From what I remember, the Station Manager called and said they had smelled smoke or dust from the brakes of the train.” They stated they were going to do a station and radio check and advise. A Train Operator stated they had seen a fire on the roadway, and Utility Assistant Superintendent notified PGFD. It was later determined to be an arcing insulator on the roadway that was not in the Station Manager's view from the platform. The ROIC Specialist 1 did not recall the Station Manager who reported the event via radio; however, they did recall a Train Operator reported a fire on the roadway.

–

ROIC Specialist 2

WMATA employee with two (2) years of experience as an ROIC Specialist and 15-years of service in various roles, including Station Manager and Bus operator.

Based on SAFE interview question related to Fatigue Factors and review of ROIC Specialist 2 30-day work history, SAFE determined, ROIC Specialist 2 hours of service were in accordance with WMATA’s *Fatigue Risk Management Policy 10.6* and *Hours of Service Limitations for Prevention of Fatigue Policy 10.7* and discounted Fatigue as a contributing factor for this event.

Based on SAFE’s interview, ROIC Specialist 2 recounted the following:

The Capitol Heights Station Manager notified ROIC of the Smoke event via radio. ROIC asked the Station Manager if it was brake dust or smoke. The Station Manager responded: “I was a previous Train Operator; I can distinguish the difference between the two.” The ROIC Specialist 2 stated Utility Assistant Superintendent notified the fire department. Upon arrival, the ROIC relinquished their duties monitoring the event. SAFE was trying to ascertain why smoke is not stated over the radio; the ROIC Specialist 2 stated to prevent panic within a station, their personal preference is not to voice issues via radio as a preventative measure. The ROIC Specialist 2 did observe PGFD on-location via the controller’s projection screen.

ERT Supervisor

WMATA employee with Four (4) Years of experience as an ERT Supervisor and Seven (7) Years of service in various roles including Track maintenance and ERT.

Based on SAFE interview question related to Fatigue Factors and review of ERT Supervisor 30-day work history, SAFE determined, ERT Supervisor hours of service were in accordance with WMATA’s *Fatigue Risk Management Policy 10.6* and *Hours of Service Limitations for Prevention of Fatigue Policy 10.7* and discounted Fatigue as a contributing factor for this event.

Based on SAFE’s interview, the ERT Supervisor recounted the following:

They did not report to the ICP upon arrival and observed PGFD vehicles on location upon arrival to the station. They stated that RTC did not instruct them to report to a Forward Liaison or ICP, and after observing PGFD on the roadway, they reported to RTC. They made contact with PGFD and instructed them to clear the roadway. Upon arrival, they were not aware of the Third rail power status; however, they requested ROCC restore Third rail power without the ICP authorization. They requested and were granted permission to enter the roadway to perform an inspection. Third

rail power was eventually restored after the communication breakdown, insulators were removed, and power was restored.

MTPD Sergeant

WMATA employee with two (2) Years of experience as an MTPD Sergeant and Ten (10) years of service as an MTPD officer.

Based on SAFE interview question related to Fatigue Factors and review of the MTPD Sergeant 30-day work history, SAFE determined, the MTPD Sergeant hours of service were in accordance with WMATA's *Fatigue Risk Management Policy 10.6* and *Hours of Service Limitations for Prevention of Fatigue Policy 10.7* and discounted Fatigue as a contributing factor for this event.

Responsibility: Relieved OSC upon arrival MTPD Sergeant arrived at Capitol Heights Station after the ERT entered the station. The relieved OSC communicated via phone when ERT entered the station. The MTPD Sergeant relieved the first arriving officer as OSC and reported to ICP as OSC. The relieved OSC [Officer 1] communicated via phone when ERT entered the station. Officer 1 said being waved off by PGFD Chief when she attempted to walk over to ICP. There was no face to face communication during hand down upon arrival. Based on MTPD Sergeant, PGFD was reportedly receptive. Hot wash concerns, establishing better security during IC and SOP 1A. The Rail Supervisor was not at ICP. MTPD conducted a Hot Wash on the sidewalk near the bus bay Incident Command Post staging area after service was restored. MTPD addressed PGFD concerns with ERT adherence to SOP 1A and how to identify Incident Commander location [Green Light on top of the vehicle] upon arrival.

MTPD Officer 1

WMATA employee with four () Years of experience as an MTPD officer. Based on SAFE interview question related to Fatigue Factors and review of MTPD Officer's 30-day work history, SAFE determined, the MTPD Officer hours of service were in accordance with WMATA's *Fatigue Risk Management Policy 10.6* and *Hours of Service Limitations for Prevention of Fatigue Policy 10.7* and discounted Fatigue as a contributing factor for this event.

At 18:00 hrs., MTPD Officer 1 received a call for fire, and smoke was observed in the tunnel at Capitol Heights Station; after that, the MTPD officer responded from Deanwood Station. The ROCC Fire Liaison stated fire/smoke was visible with possible location CM G2-438+00. Upon arrival, PGFD was staging in the bus bay area. MTPD officer approached the area where PGFD was staging to locate the uniform command post. On approach, the MTPD officer noticed an SUV style vehicle occupied by one (1) individual and a person on the exterior of the vehicle in conversation. The person on the exterior vehicle began to shake their head with a hand motion, and the MTPD officer interpreted this gesture as a dismissal of their presence. After that, the officer reported they went to the station entrance and spoke with the Station Manager. Later the MPTD Officer notified MTPD CCU of ICP location [top side]; MTPD assumed the OSC role and reported MTPD CCU MTPD Officer 2 was assigned MTPD Forward Liaison. The OSC instructed the MTPD Forward Liaison to inspect Capitol Heights Station for the smoke to determine if fans required activation. MTPD Officer 2 reported a light haze in the station and recommended fan activation. The OSC requested fans be activated in the station to mitigate the smoke condition. While updating MTPD Sergeant via phone, the OSC observed four (4) employees with WMATA issued vests entered the station and responded to the platform. After that, the OSC asked MTPD Sergeant, "Who do you think they may be" due to personnel not checking in with the ICP before accessing the station. MTPD arrived on location and relieved OSC of duties, and assumed the OSC role at the ICP

MTPD Officer 2

WMATA employee with One (1) year of experience and service as an MTPD Officer. Based on SAFE interview question related to Fatigue Factors and review of the MTPD 30-day work history, SAFE determined, the MTPD hours of service were in accordance with WMATA's *Fatigue Risk Management Policy 10.6* and *Hours of Service Limitations for Prevention of Fatigue Policy 10.7* and discounted Fatigue as a contributing factor for this event.

MTPD Officer 2 arrived at Capitol Heights Station for possible smoke and identified MTPD officer 1 on location; Officer 1 was the OSC and assigned Officer 2 as Forward Liaison. The OSC was positioned near the escalator and not the ICP; the Forward Liaison entered the station with Fire Department personnel and observed the platform for a smoke condition. The Forward Liaison notified the OSC of smoke in the station, and the OSC notified Fire Liaison to activate the tunnel at Capitol Heights Station. The MTPD Forward Liaison re-entered Capitol Heights Station to monitor the platform. The MTPD Forward Liaison entered the station and remained positioned in the middle of the platform and not next to the PGFD investigation team near the incident area.

After hearing of Fire Department and ERT's miscommunication, the Forward Liaison notified ERT all communication goes through the Fire Department. The Forward Liaison was not present during miscommunication with ERT and PGFD; however, they did see PGFD exit the roadway. MTPD performed a Hot wash; however, the officer did not attend; they had to respond to another event.