



WMSC Commissioner Brief: W-0197 – Evacuation for Life Safety Reasons – Eastern Market Station – September 9, 2022

Prepared for Washington Metrorail Safety Commission meeting on January 24, 2023

# Safety event summary:

A Metrorail rider deliberately set a fire on the fifth car of a train on September 9, 2022. The Train Operator offloaded their train at Eastern Market Station and put out the fire with a fire extinguisher. The train and then the station were evacuated. The Train Operator was evaluated for smoke inhalation.

Another rider reported the fire to the Train Operator using one of the train's emergency call boxes. The Train Operator then properly reported the event to the Rail Operations Control Center, keyed down the train with all car doors open on the platform and investigated as directed. The Train Operator used a fire extinguisher that is kept in the operating cab to put out the fire. Metro Transit Police Department (MTPD) and District of Columbia Fire and Emergency Medical Services responded to the station.

The Station Manager helped the Train Operator evacuate the train and station and to put out the fire. However, during these activities, the Station Manager did not acknowledge several radio communications directing them to activate a fire alarm pull station and to ensure the station was evacuated. The investigation identified that the Train Operator experienced radio transmission issues with their handheld radio, which led to the Station Manager sharing their handheld radio with the Train Operator. That radio handoff was not communicated to the Rail Operations Control Center. This led to an inability of these key responding personnel to communicate on expected radio channels because the Train Operator was communicating on the operational radio channel used for the line, and the Station Manager typically communicates on a different channel, Ops 5. The Train Operator communicated to the Rail Traffic Controller that the Station Manager was on the train with them addressing the fire, however a Rail Operations Information Center Controller continued to make general announcements on the different, Ops 5 radio channel that the station manager at Eastern Market should evacuate riders from the station. Communication was made several minutes later between the Rail Traffic Controller and Train Operator confirming the station was being evacuated.

Metrorail did not follow its emergency response procedures when a Rail Supervisor was designated "On-Scene Commander" despite the presence of MTPD personnel. Fire department personnel authorized single tracking. Train Operators were instructed to single track, bypassing Eastern Market, with their environmental ventilation systems turned off to prevent smoke from entering their trains and ventilation fans were activated.

Damage from the fire included the left seat and side panel in the portion of the cab area of car 3286 that is open to riders when the car is not being used as a lead car of a train.

#### **Probable Cause:**

The probable cause of this event was a rider deliberately setting a fire onboard a train.





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

#### **Corrective Actions:**

The WMSC's February 2022 audit report of WMATA's Emergency Management and Fire and Life Safety Program found that Metrorail does not consistently follow the incident command system (ICS) structure and has procedures that do not comply with National Incident Management System (NIMS)/ICS requirements such as the use of plain language. Further, Metrorail's training requirements are insufficient to prepare personnel to respond to and/or manage emergencies within the NIMS/ICS framework. CAP C-0162, which was created to address this finding, includes requirements for Metrorail to develop, implement and provide ongoing training on unified, Metrorail-wide procedures that comply with NIMS and ICS. The CAP is due for completion in January 2025.

#### WMSC staff observations:

The safety investigation is parallel to any criminal investigation, and provides additional opportunity to reduce the risk of recurrence and to mitigate risk (i.e., materials that would lead to less smoke/fire, better smoke/fire monitoring abilities, improvements to or identification of evacuation processes that worked well).

The Train Operator and Station Manager involved in this event effectively put out this fire and allowed passengers to exit safely.

It is concerning that one of the Rail Traffic Controllers involved in this event stated in an investigative interview that they did not recall the event, despite the rarity of a fire on an in-service train and the attention immediately placed on this event by Metrorail due to the positive actions of the Train Operator to extinguish the flames.



# Washington Metropolitan Area Transit Authority Department of Safety (SAFE) Office of Safety Investigations FINAL REPORT OF INVESTIGATION A&I E22581

Date of Event:	September 9, 2022
Type of Event:	Evacuation for Life and Safety Reason – Train Fire
Incident Time:	09:28 hours
Location:	Eastern Market, Track 2
Time and How received by SAFE:	09:29 hours – Mission Assurance Coordinator (MAC)
WMSC Notification Time:	10:25 hours
Responding Safety Officers:	WMATA: N/A
	WMSC: N/A
	Other: N/A
Rail Vehicle:	L3152-3153x3154-3155x <b>3286</b> -3287T
Injuries:	Train Operator - Smoke Inhalation
Damage:	Fire/Smoke damage to seats, floor, and operator's
	cab area – Rail Car 3286
SMS I/A Incident Number:	20220909#102750MX

Incident Date: September 9, 2022 Time: 09:28 hours Final Report – Evacuation for Life Safety Reasons E22581

# Eastern Market, Track 2 - Evacuation for Life Safety Reasons

# September 9, 2022

# **Table of Contents**

Abbreviations and Acronyms	3
Executive Summary	4
Incident Site	4
Field Sketch/Schematics	5
Purpose and Scope	5
Investigative Methods	
Investigation	
Chronological Event Timeline	
Automated Information Management System (AIMS)	
Office of Vehicle Program Services (CENV)	
Interview Findings	
Buttons RTC	10
Radio RTC	1C
Weather	10
Human Factors	10
Fatigue Risk	10
Post-Incident Toxicology Testing	10
Findings	10
Immediate Mitigation to Prevent Recurrence	10
Probable Cause Statement	
Recommended Corrective Actions	
Appendix A – Interview Summaries	11
Appendix B - ROCC Report (Redacted)	
Appendix C – Scene Photo	16

Drafted By:

SAFE 710 – 11/02/2022

Reviewed By: SAFE 71 – 11/08/2022

Approved By: SAFE 70 – 01/04/2023

# **Abbreviations and Acronyms**

AIMS Advanced Information Management System

ARS Audio Recording System

CAD Computer-Aided Dispatch

**CAP** Corrective Action Plan

**CCTV** Closed-Circuit Television

**CENV** Office of Vehicle Program Services

**DCFEMS**District of Columbia Fire and Emergency Medical Services

**EV** Environmental System

ICP Incident Command Post

MAC Mission Assurance Coordinator

MSRPH Metrorail Safety Rules and Procedures Handbook

MTPD Metro Transit Police Department

NOAA National Oceanic and Atmospheric Administration

ROCC Rail Operations Control Center

ROIC Rail Operations Information Center

RTC Rail Traffic Controller

RTRA Office of Rail Transportation

**SAFE** Department of Safety

SMS Safety Measurement System

**SOP** Standard Operating Procedures

WMATA Washington Metropolitan Area Transit Authority

Drafted By:

SAFE 710 - 11/02/2022

Reviewed By: SAFE 71 - 11/08/2022

Approved By: SAFE 70 - 01/04/2023

WMSC Washington Metrorail Safety Commission

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

#### **Executive Summary**

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

On Friday, September 9, 2022, at 09:28 hours, the Train Operator of Train ID 902 [L3152-3153x3154-3155x**3286**-3287T] notified the Rail Operations Control Center (ROCC) Radio Rail Traffic Controller (RTC) that a customer aboard the train reported a fire. The Train Operator noted that the train was being offloaded at Eastern Market Station, Track 2. The Radio RTC instructed the Train Operator to key down the train and investigate the report. Upon arrival, the Train Operator reported a seat on fire inside rail car 3286. The Rail Operations Information Center (ROIC) instructed the Station Manager to evacuate the station. The Train Operator located the fire near the Operator's Cab of the car and extinguished the fire using a fire extinguisher. There was damage to two rail car seats, the floor, and the operator's cab. The Train Operator was transported for evaluation due to smoke inhalation. No other injuries were reported.

At 09:38 hours, The Metro Transit Police Department (MTPD) and District of Columbia Fire and Emergency Medical Services (DCFEMS) arrived on the scene. The RTRA Supervisor arrived and confirmed that the Station Manager evacuated the station.

At 09:41 hours, the Train Operator placed a handbrake on trailing car 3287. At 09:45 hours, the Train Operator confirmed that they had extinguished the fire and DCFEMS was still on the scene. The fire was determined to be intentionally set, and the rail car was designated as a crime scene. Additional investigative personnel arrived to process the scene.

At 11:19 hours, MTPD released the scene at Eastern Market Station and returned control of the station to Operations. A new consist with Train ID 902 was instructed to be the first train to service Eastern Market Station, Track 2.

The probable cause of the event was an intentional action by a passenger, causing a fire onboard car 3286. The train was evacuated, and fire was extinguished by the Train Operator. The investigation evaluated the safety aspects of the event, and criminal aspects were led by law enforcement.

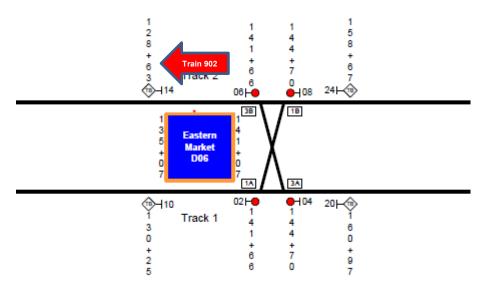
# **Incident Site**

Eastern Market Station, Track 2

Page 4

# Field Sketch/Schematics

Location is approximate and Not to scale.



# **Purpose and Scope**

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

# **Investigative Methods**

The investigative methodologies included the following:

- Site Assessment through video and document review
- Formal Interviews SAFE interviewed three individuals as part of this investigation. The
  interviews included persons present at, during, and after the incident, those directly
  involved in the response process, and representatives from the Washington Metrorail
  Safety Commission (WMSC). SAFE interviewed the following individuals:
  - Train Operator
  - Rail Traffic Controllers (2)
- Documentation Review Collection of relevant work history information and process documentation contained in WMATA systems of record. These records include the following:

Drafted By:

SAFE 710 - 11/02/2022

Reviewed By: SAFE 71 – 11/08/2022

Approved By: SAFE 70 - 01/04/2023

- Employee Training Procedures and Records
- MTPD Event Report
- Computer-Aided Dispatch (CAD)
- Metrorail Safety Rules and Procedures Handbook (MSRPH)
- National Oceanic and Atmospheric Administration (NOAA) data
- Metrorail Stations Standard Operating Procedures Handbook
- Rail Operations Control Center Procedure Manual

- System Data Recording Review Collection of information contained in Metro Data Recording Systems. This data includes:
  - ARS (Audio Recording System) playback Radio Ops 2 and OPS 5.
  - Closed-Circuit Television (CCTV)

# **Investigation**

On Friday, September 9, 2022, at 09:27 hours, Orange Line Train ID 902 [L3152-3153x3154-3155x**3286**-3287T], traveling inbound towards Eastern Market Station, notified the RTC of a customer report of a fire aboard their consist, on the fifth car (3286).

The Audio Recording System (ARS) playback [radio and landline] indicated that at 09:28 hours, the Train Operator of Train ID 902 notified the RTC that a customer aboard the train reported a fire and the train was being offloaded at Eastern Market Station, Track 2. Closed-Circuit Television (CCTV) confirmed that the train was properly berthed at the eight-car marker and offloaded by the platform-side doors. At 09:30 hours, the Power Operations Center de-energized third rail power.

At 09:31 hours, the Train Operator reported that the Station Manager was assisting with extinguishing the fire. At the same time, ROIC instructed the Station Manager to evacuate the station. The Station Manager did not acknowledge ROIC instructions to evacuate the station. At 09:33 hours, the Radio RTC designated the Train Operator as OSC.

At 09:34 hours, the RTRA Rail Supervisor requested a means of transport from Smithsonian Station to Eastern Market Station by MTPD due to rail delays from the event.

At 09:37 hours, the RTC requested that the Station Manager evacuate the station. The OSC confirmed that the Station Manager was evacuating the station. At 09:38, DCFEMS and MTPD arrived on the scene.

At 09:41 hours, the Train Operator placed a handbrake on trailing car 3287. The Rail Supervisor arrived on the scene and was appointed the OSC. At 09:45 hours, the Train Operator confirmed that they had extinguished the fire and DCFEMS was still on the scene. At 09:46 hours, the RTC announced third rail power was restored track 1 only. At 09:48 hours, the RTC instructed all trains to single track by way of track 1 by passing Eastern Market station with their Environmental System (EV) switched off.

At 09:52 hours, the second Rail Supervisor arrived at Eastern Market Station and was designated RTRA Forward Liaison. DCFEMS established an Incident Command Post (ICP) at the street level. At 10:10 hours, the RTRA Forward Liaison reported that MTPD Crime Scene Search (CSS) officers arrived on the scene.

At 10:27 hours, DCFEMS turned the scene over to MTPD. At 10:38 hours, MTPD authorized power to be restored on track 2. At 10:46 hours, third-rail power was restored to Track 2 at Eastern Market Station.

At 10:48 hours, the handbrake was released on car 3287. MTPD requested a Transit Officer ride the train back to the rail yard. At 10:53 hours, the RTRA Supervisor confirmed that the train was able to release the brakes and was waiting for MTPD to board the train. At 10:57 hours, the train was transported to West Falls Church Yard.

Incident Date: September 9, 2022 Time: 09:28 hours Final Report – Evacuation for Life Safety Reasons E22581

At 11:19 hours, MTPD opened Eastern Market Station and transferred the scene to RTRA. The Radio RTC instructed Train ID 902 to be the first train to service Eastern Market Station on Track 2

# **Chronological Event Timeline**

Time	Description
09:26:53 hours	Train ID 902 arrived at Eastern Market Station, track 2 [Spots]
09:28:01 hours	Train ID 902 Train Operator: Central Emergency 3286; this is 902 track 2 Potomac Ave. [Train Operator incorrectly identified their location initially] Radio RTC: 902, go ahead with your message for central. Train ID 902 Train Operator: 3286 there is a fire on the train; I am offloading the train at this time. Radio RTC: I copy 3286; fire on the train, and you are offloading. [Radio OPS 2]
09:29:00 hours	Radio RTC: Operator on Train 902, did you key the train down? [Radio OPS 2]
09:31:00 hours	ROIC Specialist: A blanket announcement was made to the Station Manager at Eastern Market to activate the manual fire alarm and evacuate the station. [Radio OPS 5]
09:31:15 hours	Radio RTC: Operator on Train 902, is the fire extinguished at this time?  Train ID 902 Train Operator: You all are calling for the Station Manager; they are on the train with me and the extinguisher.  Radio RTC: Acknowledged. [Radio OPS 2]
09:33:28 hours	<u>Train ID 902 Train Operator</u> : Confirmed the fire is still burning. <u>Radio RTC</u> : Operator on Train 902, you are the On-Scene Commander (OSC). <u>Train ID 902 Train Operator</u> : Acknowledged. [Radio OPS 2]
09:34:12 hours	ROIC Specialist: A blanket announcement was made to the Station Manager at Eastern Market Station to evacuate the station. [OPS 5].  RTRA (Rail Transportation) Supervisor: Requested MTPD to respond to Smithsonian Station to be transported to Eastern Market Station.  Radio RTC: Acknowledged. [Radio OPS 2]
09:35:27 hours	ROIC Specialist: A blanket announcement was made to the Station Manager at Eastern Market Station to evacuate the station. [OPS 5].
09:36:35 hours	ROIC Specialist: A blanket announcement was made to the Station Manager at Eastern Market Station to evacuate the station. [OPS 5].
09:37:36 hours	Radio RTC: Requested the station be evacuated by the Station Manager.  Train ID 902 Train Operator: Confirmed the station was currently being evacuated and reported that the train's seat was set on fire.  Radio RTC: Acknowledged. [OPS 2]
09:38:33 hours	Train ID 902 Train Operator: Reported DCFEMS and MTPD arrived on the scene. [It was not confirmed that MTPD arrived on the scene and a command post was not established]  RTC Radio: Acknowledged.  Train ID 902 Train Operator: Requested to engage the handbrake on the railcar.  Radio RTC: Acknowledged and Approved. [OPS 2]
09:41:11 hours	Train ID 902 Train Operator: Confirmed a handbrake was placed on railcar 3287.  RTC Radio: Acknowledged.  RTRA Supervisor: Confirmed they were on scene at Eastern Market Station.  Radio RTC: Acknowledged and assigned the RTRA Supervisor as OSC. [OPS 2]
09:45:32 hours	<u>Train ID 902 Train Operator:</u> Updated ROCC that DCFEMS was still on scene and the fire had been extinguished. [OPS 2]

Incident Date: September 9, 2022 Time: 09:28 hours Final Report – Evacuation for Life Safety Reasons E22581

Radio RTC: Made a blanket announcement that third-rail power is about to be restored track 1 only. [OPS 2]   ROIC Specialist; Made a blanket announcement that third-rail power is about to be restored track 1 only. [OPS 5]   09:48:35 hours   Radio RTC: Made a blanket announcement instructing all trains to single track by way of track 1 by passing Eastern Market station with their environmental ventilation (EV) switched off. [OPS 2]   09:52:15 hours   2nd Rail Supervisor: Arrived at Eastern Market Station Radio RTC: Designated 2nd Rail Supervisor as the RTRA Forward Liaison. [OPS 2]   10:15:30 hours   Radio RTC: Dispatched CMNT to Eastern Market Station CMNT: Acknowledged and confirmed. [OPS 2]   10:16:55 hours   CMNT: Arrived at the scene. Radio RTC: Acknowledged and confirmed. [OPS 2]   10:27:22 hours   RTRA IC Liaison: Reported DCFEMS turned the scene over to MTPD. Radio RTC: Acknowledged and confirmed [OPS 2]   10:38:49 hours   RTRA IC Liaison: Reported that MTPD authorized power to be restored on track 2, at Eastern Market Station Radio RTC: Acknowledged and confirmed [OPS 2]
ROIC Specialist: Made a blanket announcement that third-rail power is about to be restored track 1 only. [OPS 5]  09:48:35 hours  Radio RTC: Made a blanket announcement instructing all trains to single track by way of track 1 by passing Eastern Market station with their environmenta ventilation (EV) switched off. [OPS 2]  09:52:15 hours  2nd Rail Supervisor: Arrived at Eastern Market Station Radio RTC: Designated 2nd Rail Supervisor as the RTRA Forward Liaison. [OPS 2]  10:15:30 hours  Radio RTC: Dispatched CMNT to Eastern Market Station CMNT: Acknowledged and confirmed. [OPS 2]  10:16:55 hours  CMNT: Arrived at the scene. Radio RTC: Acknowledged and confirmed. [OPS 2]  10:27:22 hours  RTRA IC Liaison: Reported DCFEMS turned the scene over to MTPD. Radio RTC: Acknowledged and confirmed [OPS 2]  10:38:49 hours  RTRA IC Liaison: Reported that MTPD authorized power to be restored on track 2, at Eastern Market Station
be restored track 1 only. [OPS 5]  09:48:35 hours  Radio RTC: Made a blanket announcement instructing all trains to single track by way of track 1 by passing Eastern Market station with their environmental ventilation (EV) switched off. [OPS 2]  09:52:15 hours  2nd Rail Supervisor: Arrived at Eastern Market Station Radio RTC: Designated 2nd Rail Supervisor as the RTRA Forward Liaison. [OPS 2]  10:15:30 hours  Radio RTC: Dispatched CMNT to Eastern Market Station CMNT: Acknowledged and confirmed. [OPS 2]  10:16:55 hours  Radio RTC: Acknowledged and confirmed. [OPS 2]  10:27:22 hours  RTRA IC Liaison: Reported DCFEMS turned the scene over to MTPD. Radio RTC: Acknowledged and confirmed [OPS 2]  10:38:49 hours  RTRA IC Liaison: Reported that MTPD authorized power to be restored on track 2, at Eastern Market Station
O9:48:35 hours   Radio RTC: Made a blanket announcement instructing all trains to single track by way of track 1 by passing Eastern Market station with their environmental ventilation (EV) switched off. [OPS 2]
by way of track 1 by passing Eastern Market station with their environmental ventilation (EV) switched off. [OPS 2]  09:52:15 hours  2nd Rail Supervisor: Arrived at Eastern Market Station Radio RTC: Designated 2nd Rail Supervisor as the RTRA Forward Liaison. [OPS 2]  10:15:30 hours  Radio RTC: Dispatched CMNT to Eastern Market Station CMNT: Acknowledged and confirmed. [OPS 2]  10:16:55 hours  CMNT: Arrived at the scene. Radio RTC: Acknowledged and confirmed. [OPS 2]  10:27:22 hours  RTRA IC Liaison: Reported DCFEMS turned the scene over to MTPD. Radio RTC: Acknowledged and confirmed [OPS 2]  10:38:49 hours  RTRA IC Liaison: Reported that MTPD authorized power to be restored on track 2, at Eastern Market Station
ventilation (EV) switched off. [OPS 2]  09:52:15 hours  2nd Rail Supervisor: Arrived at Eastern Market Station Radio RTC: Designated 2nd Rail Supervisor as the RTRA Forward Liaison. [OPS 2]  10:15:30 hours  Radio RTC: Dispatched CMNT to Eastern Market Station CMNT: Acknowledged and confirmed. [OPS 2]  10:16:55 hours  CMNT: Arrived at the scene. Radio RTC: Acknowledged and confirmed. [OPS 2]  10:27:22 hours  RTRA IC Liaison: Reported DCFEMS turned the scene over to MTPD. Radio RTC: Acknowledged and confirmed [OPS 2]  10:38:49 hours  RTRA IC Liaison: Reported that MTPD authorized power to be restored on track 2, at Eastern Market Station
O9:52:15 hours   2nd Rail Supervisor: Arrived at Eastern Market Station   Radio RTC: Designated 2nd Rail Supervisor as the RTRA Forward Liaison. [OPS 2]
Radio RTC: Designated 2 <sup>nd</sup> Rail Supervisor as the RTRA Forward Liaison. [OPS 2]   10:15:30 hours   Radio RTC: Dispatched CMNT to Eastern Market Station   CMNT: Acknowledged and confirmed. [OPS 2]   10:16:55 hours   CMNT: Arrived at the scene.   Radio RTC: Acknowledged and confirmed. [OPS 2]   10:27:22 hours   RTRA IC Liaison: Reported DCFEMS turned the scene over to MTPD.   Radio RTC: Acknowledged and confirmed [OPS 2]   10:38:49 hours   RTRA IC Liaison: Reported that MTPD authorized power to be restored on track   2, at Eastern Market Station
2]   10:15:30 hours   Radio RTC: Dispatched CMNT to Eastern Market Station   CMNT: Acknowledged and confirmed. [OPS 2]   10:16:55 hours   CMNT: Arrived at the scene.   Radio RTC: Acknowledged and confirmed. [OPS 2]   10:27:22 hours   RTRA IC Liaison: Reported DCFEMS turned the scene over to MTPD.   Radio RTC: Acknowledged and confirmed [OPS 2]   10:38:49 hours   RTRA IC Liaison: Reported that MTPD authorized power to be restored on track   2, at Eastern Market Station   Radio RTC: Dispatched CMNT to Eastern Market Station   CMNT: Acknowledged and confirmed [OPS 2]   10:38:49 hours   RTRA IC Liaison: Reported that MTPD authorized power to be restored on track   2, at Eastern Market Station   10:40:40:40:40:40:40:40:40:40:40:40:40:40
10:15:30 hours  Radio RTC: Dispatched CMNT to Eastern Market Station CMNT: Acknowledged and confirmed. [OPS 2]  10:16:55 hours  CMNT: Arrived at the scene. Radio RTC: Acknowledged and confirmed. [OPS 2]  10:27:22 hours  RTRA IC Liaison: Reported DCFEMS turned the scene over to MTPD. Radio RTC: Acknowledged and confirmed [OPS 2]  10:38:49 hours  RTRA IC Liaison: Reported that MTPD authorized power to be restored on track 2, at Eastern Market Station
CMNT: Acknowledged and confirmed. [OPS 2]  10:16:55 hours  CMNT: Arrived at the scene.  Radio RTC: Acknowledged and confirmed. [OPS 2]  10:27:22 hours  RTRA IC Liaison: Reported DCFEMS turned the scene over to MTPD.  Radio RTC: Acknowledged and confirmed [OPS 2]  10:38:49 hours  RTRA IC Liaison: Reported that MTPD authorized power to be restored on track 2, at Eastern Market Station
10:16:55 hours  CMNT: Arrived at the scene. Radio RTC: Acknowledged and confirmed. [OPS 2]  10:27:22 hours  RTRA IC Liaison: Reported DCFEMS turned the scene over to MTPD. Radio RTC: Acknowledged and confirmed [OPS 2]  10:38:49 hours  RTRA IC Liaison: Reported that MTPD authorized power to be restored on track 2, at Eastern Market Station
Radio RTC: Acknowledged and confirmed. [OPS 2]   10:27:22 hours   RTRA IC Liaison: Reported DCFEMS turned the scene over to MTPD.   Radio RTC: Acknowledged and confirmed [OPS 2]   10:38:49 hours   RTRA IC Liaison: Reported that MTPD authorized power to be restored on track 2, at Eastern Market Station
10:27:22 hours   RTRA IC Liaison: Reported DCFEMS turned the scene over to MTPD.   Radio RTC: Acknowledged and confirmed [OPS 2]   10:38:49 hours   RTRA IC Liaison: Reported that MTPD authorized power to be restored on track 2, at Eastern Market Station
Radio RTC: Acknowledged and confirmed [OPS 2]  10:38:49 hours RTRA IC Liaison: Reported that MTPD authorized power to be restored on track 2, at Eastern Market Station
10:38:49 hours RTRA IC Liaison: Reported that MTPD authorized power to be restored on track 2, at Eastern Market Station
2, at Eastern Market Station
Radio RTC: Acknowledged and confirmed IOPS 21
10:41:07 hours Radio RTC: Blanket announcement that third rail power was being restored or
track 2, at Eastern Market Station. [OPS 2]
10:44:27 hours RTRA IC Liaison: Reported Train ID 902 was released from MTPD and the
station can reopen when third power is restored.
Radio RTC: Acknowledged and confirmed. [OPS 2]
10:46:50 hours Radio RTC: Reported third rail power was restored on track 2, at Eastern Market
Station and requested confirmation that the hand brake is released from rail cal
3287.
RTRA Forward Liaison: Acknowledged [OPS 2]
10:48:33 hours RTRA Forward Liaison: Reported the handbrake was released from rail cal
3287.
Radio RTC: Acknowledged [OPS 2]
10:57:57 hours RTRA Forward Liaison: Reported Train ID 902 was moving and headed to West
Falls Church rail yard.
Radio RTC: Acknowledged [OPS 2]
10:59:05 hours Radio RTC: Blanket announcement to enter Eastern Market Station at a
restrictive speed and to continue bypassing the station without the EV turned of [OPS 2]
11:19:10 hours RTRA IC Liaison: Reported MTPD turned the station over to RTRA and
confirmed the station was open for service.
Radio RTC: Acknowledged and confirmed. [OPS 2]
11:19:45 hours Radio RTC: Blanket announcement Eastern Market Station was open for service
on tracks 1 and 2. [OPS 2]

Note: Times above may vary from other systems' timelines based on clock setting and reporting sources

Drafted By:

Reviewed By: SAFE 71 – 11/08/2022

Approved By: SAFE 70 - 01/04/2023

Page 8

# **Automated Information Management System (AIMS)**

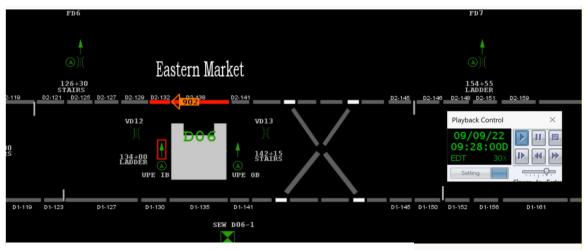


Figure 1 – Train ID 902 at Eastern Market Track 2

# Office of Vehicle Program Services (CENV)

CENV completed their inspection on car 3286, reported in the fire incident. The operator's cab area left seat and side panel were found burnt, and a considerable amount of combustible material such as paper and trash were observed on the floor with burn damage. Based on the evidence, the fire source was external and not related to train components failure or malfunction.

#### **Interview Findings**

As part of the investigation launched into the Evacuation for Life Safety Reasons event, SAFE conducted three interviews via Microsoft Teams, including the Investigations Team and the WMSC. Findings detailed below included reported information from interviews and may conflict with other data sources contained in the report. The Interview identified the following key finding associated with this event.

#### **Train Operator**

- A passenger notified the Train Operator of a fire on railcar 3286 via the emergency call box on the train.
- The Train Operator was located at Eastern Market Station when they offloaded the train, retrieved the fire extinguisher from the lead car, and attempted to extinguish the fire in railcar 3286.
- The Train Operator experienced transmission issues with their handheld radio, so they utilized the Station Manager's handheld radio.

Drafted By:

SAFE 710 - 11/02/2022

Reviewed By: SAFE 71 - 11/08/2022

Approved By: SAFE 70 - 01/04/2023

- The Station Manager assisted with extinguishing the fire with a second fire extinguisher.
- No passengers on the train or in the station claimed injury.
- All passengers were evacuated from the train and station.
- The fire was extinguished before DCFEMS arrived.

# **Buttons RTC**

• No significant interview findings.

#### Radio RTC

- Stated that the Train Operator reported a customer report of fire onboard the train and they were evacuating at Eastern Market Station.
- Coordinated single-tracking around the incident train and instructed trains to disable their environmental system prior to bypassing the station.

#### Weather

At the time of the incident, NOAA recorded the temperature at 76° F, with clear skies throughout the morning. The event occurred within a tunneled section of the rail system. Weather was not a contributing factor in this incident (Weather source: NOAA – Location: Washington, DC.)

#### **Human Factors**

# Fatigue Risk

The biomathematical fatigue modeling application (SAFTE-FAST Web SFC) was not applied for this event.

# Post-Incident Toxicology Testing

Post-Incident Toxicology Testing was not conducted for this event.

# **Findings**

- The source of the fire appears to be an intentional action by a passenger. No train components were found to be contributory to the event.
- The train was offloaded per emergency procedures, and the station was evacuated.
- The Train Operator extinguished the fire using the lead car fire extinguisher. The Station Manager responded with a second fire extinguisher.
- No significant findings related to the event's emergency response, command, and control.

#### **Immediate Mitigation to Prevent Recurrence**

None

#### **Probable Cause Statement**

The probable cause of the event was an intentional action by a passenger, causing a fire onboard car 3286. The train was evacuated, and fire was extinguished by the Train Operator. The investigation evaluated the safety aspects of the event, and criminal aspects were led by law enforcement.

#### **Recommended Corrective Actions**

There are no recommended corrective actions for this event.

# **Appendices**

# Appendix A – Interview Summaries

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

#### **RTRA**

#### Train Operator

The Train Operator is a WMATA employee with Twenty-Two Years of service and thirteen years of experience as a Train Operator. The Train Operator holds a Roadway Worker Protection (RWP) Level 4 certification that expires in June 2023.

During the virtual interview, the Train Operator stated that a passenger contacted them via the emergency call button on the train and said there was a fire on railcar 3286. The Train Operator stated they contacted the Radio RTC to report the fire incident and then keyed the train down. While the train was stopped on the platform with all the train doors open, the train operator took the fire extinguisher from the operator's cab and went to investigate the fire report.

The Train Operator stated that after leaving the operators cab in the lead car, they saw passengers running off the fifth car from the lead car (3286). The Train Operator said that when they arrived at the second railcar from the rear of the train, they saw flames on the train. The Train Operator then extinguished the burning fire in the train seat. The Train Operator stated that the RTRA Station Manager responded to the scene to assist the customers. The Train Operator said they were experiencing radio trouble and had to utilize the RTRA Station Managers' radio to notify Radio RTC that the fire was extinguished.

The Train Operator stated that the RTRA Station Manager began evacuating the station. The Train Operator said they noticed third rail power was de-energized and inquired if a Radio RTC wanted a handbrake placed on the trailing car 3287. The Train Operator stated they did activate a handbrake on the trailing car (now the lead car in the opposite direction).

The Train Operator stated that the RTRA Supervisor and Metro Transit Police Department (MTPD) arrived on the scene.

# **ROCC**

# **Buttons RTC**

The Buttons RTC is a WMATA employee with twenty-four years of service and five years of experience as a Rail Traffic Controller. The Buttons RTC holds a Roadway Worker Protection (RWP) Level 4 certification that expires in July 2023.

During the virtual interview, the Buttons RTC stated that they did not recall the incident and that everything they reported the day of the incident was documented in the written report.

Drafted By:

SAFE 710 - 11/02/2022

Reviewed By: SAFE 71 – 11/08/2022

Approved By: SAFE 70 - 01/04/2023

Radio RTC

The Radio RTC is a WMATA employee with four years of service and four years of experience as a Rail Traffic Controller. The Radio RTC holds a Roadway Worker Protection (RWP) Level 4 certification that expires in October 2022.

During the virtual interview, the Radio RTC stated that the Train Operator called an emergency over the radio, reporting that the train was on fire. The Radio RTC said that the Train Operator had begun evacuating the train and headed to inspect the affected railcar while making the initial emergency report out to ROCC.

The Radio RTC stated that the fire was extinguished by the Train Operator with a fire extinguisher. The Radio RTC said they dispatched an RTRA Supervisor and Rail Car Mechanic to Eastern Market Station.

The Radio RTC stated that they began single-tracking trains around the defective train and that passing trains deactivated the environmental airflow system. The Radio RTC said the damaged train was sent to West Falls Church railyard in non-revenue service.

The Radio RTC stated that the Train Operator was transported to the hospital to be checked out for smoke inhalation. The Radio RTC noted that no other injuries were reported.

Drafted By: SAFE 710 - 11/02/2022 Reviewed By: SAFE 71 – 11/08/2022 Approved By: SAFE 70 - 01/04/2023

Page 12

#### View Approved Incident Report



Incident Date: September 9, 2022 Time: 09:28 hours Final Report – Evacuation for Life Safety Reasons

E22581

# View Approved Incident Report

0930	Third rail power de-energized track two at Eastern Market.
0933	Train Operator reported that the fire had been extinguished and was the result of a sea being set on fire. Operator was designated as the on-scene commander.
0936	Eastern Market Station Manager evacuated customers out of the station. Third rail power de- energized track one at Eastern Market per request of DC Fire department personnel.
0939	Train 604 operator, track one in approach to Captiol South, was instructed to stop their train, make announcements to customers, reverse ends and given an absolute block back to Federal Center SW to offload and go in service from Federal Center towards Whiele-Reston East to mitigate delays.
0941	Operator instructed to apply handbrakes on car 3287.
0942	, RTRA Supervisor , reported on scene and was appointed as the on-scene commander.
0944	RTRA Supervisor, reported they were en route to Eastern Market station via MTPD pickup was instructed to assume the role of RTRA forward liaison when they arrived on scene.
0945	Third rail power energization announcements made to restore power track at Eastern Market. Train operators instructed to continue bypassing and turning environmental systems off as they pass through Eastern Market station.
0946	Single tracking operations implemented between Eastern Market and Federal Center SW utilizing track one. All trains instructed to bypass Eastern Market station with environmental systems turned off.
0948	Train 907 operator instructed to offload customers at McPherson Square track one for service back towards Vienna. Train 405, was the first train to single track between Federal Center and Eastern Market in the direction of Largo Town Center.
0954	Incident command post was designated to be topside outside Eastern Market station.
0957	Train 402 was the first train to single tracking from Eastern Market to Federal Center via track 1 in the direction of Franconia-Springfield.
1005	Train 622 serviced train 604 customers track one at Capital South ending the customer delay in the direction of Largo Town Center. Shuttle bus number service was established for incident passengers between Capitol South and Potomac Avenue. Bus 7303 servicing customers.
1010	ROCC was notified the scene was designated as a crime scene by MTPD.
1012	Train 606 instructed to offload at Foggy Bottom track one for service back towards Whiele Reston. Rail service adjustment implemented. Sliver line trains operating between Foggy Bottom and Whiele-Reston East to mitigate delays.
1017	CMNT reported on scene at Eastern Market.
1027	Fire Department turned the scene over to MTPD.
1038	ROCC received authorization to restore third rail power on track two at Eastern Market. Third rail power restoration announcements made.
1046	Third rail power was restored on track two at Eastern Market.
1053	reported handbrake was released on car 3287 and train 902 was re-blocked to 702.  was able to get a brakes-off on the train and MTPD officers keyed themselves onto the train to ride from Eastern Market to West Falls Church yard.
1057	Train 702 continued non revenue towards West Falls Church yard pending MTPD investigation. Trains continue to bypass Eastern Market. Single tracking concluded.
1119	reported incident scene returned back to RTRA from MTPD and Eastern Market station was back open. Trains continue to bypass station.

#### View Approved Incident Report



Figure 4 – ROCC Incident Report for Train Fire Page 3 of 3

Incident Date: September 9, 2022 Time: 09:28 hours Final Report – Evacuation for Life Safety Reasons

E22581

# Appendix C - Scene Photo



Figure 5 – Post-event photo of seat damage

E22581