



WMSC Commissioner Brief: W-0035 – Fatality at Capitol Heights Station December 3,

2019 *Prepared for Washington Metrorail Safety Commission meeting on August 4, 2020*

Safety event summary:

A customer jumped from the Capitol Heights platform to the track bed as Silver Line Train 614 entered the station on Track 1 on December 3, 2019 at approximately 10:07 p.m.

Upon report of the collision, Metro Transit Police and Kentland Fire Department personnel responded to the station and third rail power was de-energized on Track 1. Power was de-energized to Track 1 at 1:07 p.m. Service resumed after 3 p.m.

Probable Cause:

Customer intentionally placed themselves in front of oncoming train.

Corrective Actions:

None planned in specific response to this event. Car 7428 TWC antenna repaired.

Staff recommendation: Adopt final report.

FINAL REPORT OF INVESTIGATION A&I E19661

SMS 20191204#84779

Date of Event:	12/03/2019
Type of Event:	Collision (Fatality)
Incident Time:	22:07 hrs.
Location:	Capitol Heights Station, Track 1
Time and How received by SAFE:	12/03/2019 at 22:33 hrs. SAFE on-call phone
WMSC Notification	12/03/2019 at 22:54 hrs. WMSC on-call phone
Responding Safety Officers:	WMATA SAFE: Yes, SAFE 203 WMSC: No Other: N/A
Rail Vehicle:	Train ID 614 7K 8-car consist Lead car 7428
Injuries:	Fatal Injury
Damage:	Car 7428 – Broken Train Wayside Communication (TWC) Antenna
Emergency Responders:	Metro Transit Police Department (MTPD), Office of Car Maintenance (CMNT), Office of Rail Transportation (RTRA), Kentland Fire Department (KFD), Safety and Environmental Management (SAFE), Track and Structure (TRST).

Executive Summary

On Wednesday, December 03, 2019, at 22:33 hrs., The Rail Operations Control Center (ROCC) notified SAFE that at approximately 22:07 hrs., the ROCC received a report of a person struck by outbound Silver line Train ID 614 7K 8-car consist Lead car 7428 at Capitol Heights Station, Track 1. Upon review of the playback video from the station’s Closed Circuit Television (CCTV), the customer alighted an inbound train on Track 2, traversed the center platform, and walked towards Track 1 platform edge. As the consist approached the station entrance, the customer jumped down into the roadway directly in front of the oncoming train and was fatally struck by the train. Third-rail power was de-energized. The incident consist was offloaded and remained within the station limits. The Kentland Fire Department (KFD) personnel responded to the scene. Blue/Silver line trains were single tracked between the D&G junction and Addison Road Station via Track 2.

The consist was subsequently transported to New Carrollton Yard for post-incident inspection.

Crisis Management Center (CMC) was notified on December 04, 2019, at 06:54 hrs.

Incident Site

The incident area was located at the Capitol Heights Station, Track 1

Field Sketch/Schematics



Investigation

On Wednesday, December 03, 2019, at 22:07 hrs., the ROCC received a report of a person struck by an outbound Silver line Train at Capitol Heights Station, Track 1. As the consist entered the station limits, a customer intentionally placed themselves in the roadway in front of the train from the platform area.

Based on CCTV recording playback of the Capitol Heights Station, it revealed the following information:

- The customer appeared to be traveling alone
- The customer alighted from an inbound train on Track 2, then walked directly across the station platform to Track 1 and looked down the tunnel towards Addison road
- Before the train entered the station, the customer jumped down onto the roadway and intentionally placing himself in the path of the approaching train.

SAFE performed an inspection of the station after the incident. There were no adverse safety concerns in any Washington Metropolitan Area Transit Authority (WMATA) station facility components that contributed to this event. There were no tripping hazards identified. All station Emergency Trip System (ETS) and Public Address (PA) systems were reported operational.

Office of Rail Transportation (RTRA)

After further investigation, RTRA determined the T/O actions were in accordance with Metrorail Safety Rules and Procedures Handbook (MSRPH). Therefore, RTRA excluded the T/O as a contributing factor for this event.

Metro Transit Police Department

MTPD report is available upon request.

Office of Car Maintenance (CMNT)

The CMNT personnel performed an exterior and interior inspection of the affected car and replaced the TWC antenna.

Closed Circuit Television (CCTV)

After a review of CCTV footage, SAFE determined that there were no slip/trip hazards associated with this event. The customer intentionally placed themselves onto the roadway within the dynamic envelope of the train.

Vehicle Program Services (CENV)

CENV completed the analysis of the downloaded Vehicle Monitoring and Diagnostic System (VMDS) and Event Recorder (ER). The data analysis shows that the operator released the "Deadman" on the Master controller (M/C) and depressed the Emergency Brake Mushroom (E/B) at the time of the incident. Details are as of the analysis as follow:

- At 22:06:59 hrs. (Approximately 1,401ft to the 8-car marker): The consist was traveling from the Benning Road station to the Capitol Height Station, picked up the F2 marker at 41.5MPH (Automatic Train Protection (ATP) Speed limit: 55MPH).
- At 22:07:03 hrs., (Approximately 1,177ft to the 8-car marker): ATP (Automatic Train Protection) speed limit decreased to 50MPH. The vehicle speed was 40.5MPH, and the M/C position was Coast.
- At 22:07:11hrs. (Approximately 698ft to the 8-car marker): Operator moved the M/C from B5 to EB Position at 38.6MPH, Emergency Train Line was triggered to Low, and the emergency brake was applied.
- At 22:07:12 hrs. (Approximately 644ft to the 8-car marker): Operator depressed the Emergency Pushbutton on the Cab Console at 36.5MPH.
- At 22:07:23 hrs. (Approximately 405ft to the 8-car marker): The consist achieved the zero-speed.

Based on the ER and VMDS,

- The operator applied the M/C Deadman and EB in one second and kept the M/C in the Deadman position until the vehicle achieved the Zero Speed.
- No wheel slip/slid condition was logged in the ER before/during/after the EB was activated.
- No faults or abnormal events were logged in the VMDS fault log at the time of the incident.
- Deceleration Rate of the vehicle from emergency brake train line drop (by M/C and EB at 38.6MPH) to achieving Zero Speed condition was approximately 3.22MPHPS (Criteria: Min - 2.8MPHPS and Max - 3.6MPHPS at 38MPH)

Weather

At the time of the incident, the temperature was 60°F. SAFE has concluded that weather was not a contributing factor in this incident (Weather source: National Oceanic Atmospheric Administration (NOAA) – Location: Capitol Heights, MD.

Findings

- CCTV recording shows:
 - The customer appeared to be traveling alone
 - The customer got off an inbound train
 - The customer walked directly over to Track 1
 - The customer looked down the tunnel
 - The customer jumped into the roadway and was struck by the train.
- ROCC restored 3rd rail power to Track 1 at the station at 02:36 hrs.

Immediate Mitigation to Prevent Recurrence

- T/O removed from service for post incident testing
- Track 1, 3rd rail power was de-energized
- The affected consist was removed from service for post-incident inspection and data download.

Conclusion

Based on the salient facts as part of this investigation, CCTV footage, SAFE concludes, the customer intentionally placed themselves onto the roadway fouling the dynamic envelope of the train and subsequently succumbing to their injuries as a result of this event.

SAFE further concludes, there were no adverse safety concerns with any WMATA station facility, vehicle, or human factors component that contributed to this event. RTRA Station Manager (S/M) personnel did not identify any tripping or slipping hazards. The station was well lit, the PA system was fully operational, and the Emergency Trip Station (ETS) box was operating properly.

In closing, CENV and CMNT performed a post-incident inspection of the affected-consist, and no operational anomalies were identified. Considering all the facts gathered from this investigation, SAFE has no further information to disclose regarding E19661.

Corrective Action

No Corrective Actions recommended as mitigation from a safety perspective for this event due to the customer intentionally placing themselves into the path of the oncoming train while entering the roadway and fouling the dynamic envelope of the train.