



**WMSC Commissioner Brief: W-0044 – Collision – Red Line – February 25, 2020**

*Prepared for Washington Metrorail Safety Commission meeting on September 22, 2020*

**Safety event summary:**

A person was struck after appearing to intentionally place themselves on the Red Line tracks near Rockville Station at approximately 5:35 a.m.

CCTV shows the person climbed over the fence separating the CSX freight rail tracks and the Metrorail right of way.

The person remained in the right of way, but deliberately avoided the first two trains that passed by.

Then the person stepped onto the tracks to lay down, and remained in the roadway as the train involved in the collision exited the Rockville station.

Upon observing the person, the train operator activated emergency braking, however the person was struck by the train and was rescued from under the sixth car of the train by the Rockville Volunteer Fire Department. The person was taken to the hospital with life-threatening injuries.

**Probable Cause:**

A person placed themselves in the path of a train.

**Corrective Actions:**

Metrorail repaired a damaged Train to Wayside antenna.

**WMSC staff observations:**

While this event involved a person deliberately placing themselves in the path of a train, it highlights the importance of vigilance and awareness, because, if the person had been visible to the prior passing trains or customers, it is possible that the collision could have been avoided.

**Staff recommendation:** Adopt final report.

**FINAL REPORT OF INVESTIGATION A&I E20105**

**SMS 20200225#86630**

<b>Date of Event:</b>	02/25/2020
<b>Type of Event:</b>	Collision/Person struck by train
<b>Incident Time:</b>	05:34 hrs.
<b>Location:</b>	Red line, Chain Marker (CM): A1- 791+00
<b>Time and How received by SAFE:</b>	02/25/2020 at 05:41 hrs. SAFE On-call phone
<b>WMSC Notification Time:</b>	07:07 hrs.
<b>Responding Safety Officers:</b>	WMATA SAFE: Yes WMSC: No Other: N/A
<b>Rail Vehicle:</b>	Train ID 116 7K 8-car consist Lead car 7126
<b>Injuries:</b>	Serious Injury
<b>Damage:</b>	Car 7126 – Broken Train to Wayside Communication Antenna
<b>Emergency Responders:</b>	Metro Transit Police Department (MTPD), Office of Car Maintenance (CMNT), Office of Rail Transportation (RTRA), Rockville Fire Department (RFD), Safety and Environmental Management (SAFE), Track and Structure (TRST).

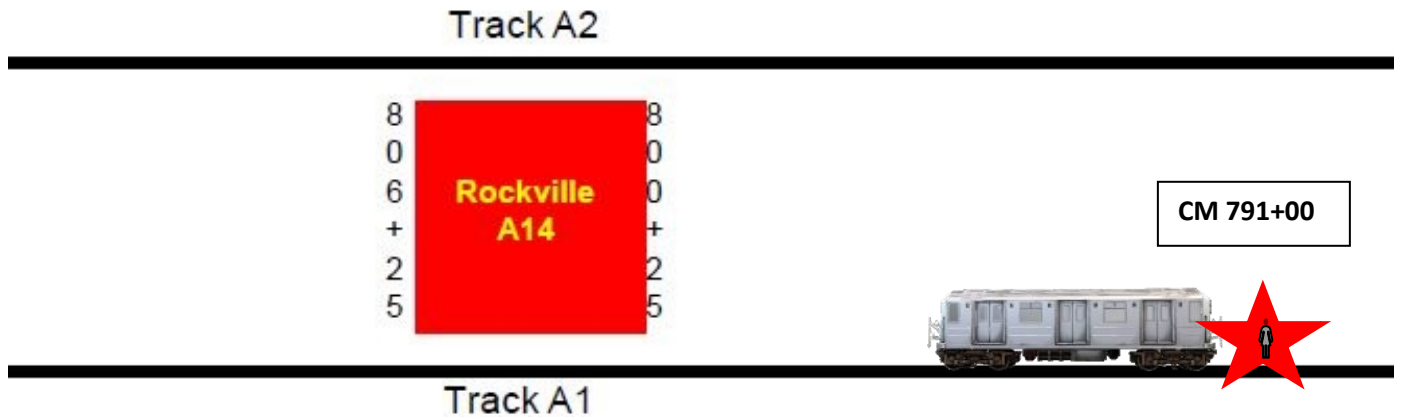
**Executive Summary**

On Tuesday, February 25, 2020, at 05:41 hrs., the Rail Operations Control Center (ROCC) notified SAFE that at approximately 05:34 hrs., a Train Operator (T/O) operating inbound Red line Train ID 116, Track #1, had notified ROCC of a person struck by train (outside platform limits). ROCC de-energized 3<sup>rd</sup> rail power, Rockville Volunteer Fire Department (RVFD) personnel responded to the scene and removed the person from underneath the affected consist. Red Line trains single-tracked between Twinbrook and Shady Grove Station via Track #2. The affected consist was removed from service and transported to Shady Grove yard for post-incident investigation. The T/O was removed from service for post-incident testing. CMNT personnel identified Train to Wayside Communication (TWC) Antenna broken; as a result fo the collision.

## Incident Site

Red line, Chain Marker (CM) A1-791+00

## Field Sketch/Schematics



## Investigation

On Tuesday, February 25, 2020, at 05:41 hrs., ROCC notified SAFE that at approximately 05:34 hrs., the ROCC received a report of a person struck by inbound Red line Train ID 116 as the train departed the Rockville Station, Track #1. As the consist exited the station limits, a customer intentionally placed themselves in the roadway in front of the train. Based on accounts from the incident, T/O, and Vehicle Monitoring System (VMS) download information, the T/O initiated braking application and depressed the emergency stop button after observing an individual on the roadway. The event was reported to ROCC, and third-rail power was de-energized. ROCC contacted emergency personnel and implemented single tracking operations on Track #2 from Twinbrook to Shady Grove station.

Based on Closed Circuit Television (CCTV) recording playback, it revealed the following information related to the person struck by train event:

- The person appeared to be traveling alone.
- the trespasser entered WMATA property via the CSX tracks adjacent to WMATA's right of way, by climbing over the boundary fence bisecting our properties

- Before the train entered the station, the person can be seen lying down on the roadway and intentionally placing their person in the dynamic envelope of the train.

RVFD removed the injured person from underneath the sixth car (within consist) and subsequently transported them to the Suburban Hospital Center (SHC) with life-threatening injuries. Thereafter, the event train operated back to Rockville station for offload. The event train was transported to Shady Grove Yard via Track #1 for post-incident investigative processes.

### **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.

### **Office of Car Maintenance (CMNT)**

The CMNT personnel performed an exterior and interior cleaning and inspection performed on the affected car. CMNT removed and replaced the damaged Train to Wayside Antenna. A Daily Inspection (DI) was performed, and the affected car was released for revenue service.

### **Closed Circuit Television**

After a review of CCTV footage, SAFE determined that the person 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 of the analysis are as follows:

- 05:34:38 hrs. – Train ID 116 (Car 7126 Leading) left Rockville Station after dwelling 37 seconds for service.

- 05:35:01 hrs. – The train traveled 992.6 feet away from the station, then suddenly, the master controller went into Emergency Braking position at vehicle speed 47.45 mph while the APT speed limit 50.
- 05:35:12 hrs. – Emergency Pushbutton was activated at train speed 16.16 mph, and the train traveled 528 under M/C EM brake position.
- 05:35:17 hrs. – The train completely stops after traveled 570 feet more in both emergency braking mode in place.
- 05:36:57 hrs. – The car was keyed down.

## **Human Factors**

### Post-Incident Toxicology Testing

After reviewing the T/O's post-incident testing results, it was determined that the T/O was not in violation of the Drug and Alcohol Policy and Testing Program 7.7.3/5; therefore, being under the influence of a controlled substance has been excluded as a contributing factor.

## **Weather**

At the time of the incident, the temperature was 40°F and raining. SAFE has concluded that weather was not a contributing factor in this incident (Weather source: National Oceanic Atmospheric Administration (NOAA) – Location: Rockville, MD.

## **Findings**

- CCTV recording shows:
  - The trespassing person appeared to be alone
  - Entered the property via the CSX tracks by climbing over a boundary fence
  - The person appeared to hide from 2 trains
  - The person intentionally fouled the roadway (lay down on tracks)

## **Conclusion**

Based on the salient facts as part of this investigation, CCTV footage, SAFE concludes, the person trespassed onto WMATA property and intentionally placed themselves onto the roadway fouling the dynamic envelope of the train subsequently receiving serious injuries as a result of this event.

SAFE further concludes that WMATA station facility, vehicle, or human factors component did not contribute to this event.

In closing, CENV and CMNT performed a post-incident inspection of the affected-consist, and no operational anomalies were identified.

## **Corrective Action**

No Corrective Actions required as a mitigation for this event due to the customer intentionally placing themselves onto the roadway fouling the dynamic envelope of the train.