FINAL REPORT OF INVESTIGATION A&I E19326

June 25, 2019

Failure to service station

W-0019

Adopted by the Washington Metrorail Safety Commission at its meeting on February 13, 2020.

Washington Metrorail Safety Commission
777 North Capitol Street, NE, Suite 402
Washington, DC 20002

FINAL REPORT OF INVESTIGATION A&I E19326

SMS 20190625#81013

Date of Event:	6/25/2019
Type of Event:	Operator Rule Violation: Failure to Service Station
Incident Time:	07:56 hrs.
Location:	Waterfront Station (F04), Track 2,
Time and How received by SAFE:	08:28 hrs., Safety On-Call Phone
Safety Officer Response:	No
Time of Safety Officer Arrival:	N/A
Time of Safety Officer Departure:	N/A
Rail Vehicle:	Train ID 503, Car **L**7098-99x7063-62x7476-77x7369-68**T**
Injuries:	None
Damage:	None
Emergency Responders:	RTRA

Executive Summary

On Tuesday, June 25, 2019 at 8:28 hrs., SAFE received notification from Rail Operations Control Center (ROCC) that a Greenbelt Division (E99) Train Operator (T/O) was removed from service for failure to service Waterfront Station (F04), Track 2 at 07:56 hrs. The incident was reported by a customer. During the SAFE interview the T/O reported servicing F04, but video footage confirmed that Train ID 503 (consist **L**7098-99x7063-62x7476-77x7369-68**T**) did not service F04 or attempt to stop at F04.

Close Circuit Television (CCTV) recording of F04 platform revealed that Train ID 503 T/O did not service or attempt to stop at the station.

Train ID 503 T/O was sent for Post Incident Testing on Tuesday, June 25, 2019 and interviewed by SAFE personnel. The consist involved was removed from service for post incident inspection.

Based on Advanced Information Management System (AIMS) Playback, SAFE came to the following conclusions related to the rail vehicles involved:

- At 07:55:33 hrs., an Outbound, Green Line Revenue Train ID 503 is on approach to F04, Track 2.
- At 07:56:33 hrs., an Outbound, Green Line Revenue Train ID 503 is entering F04, Track 2.
- At 07:56:57 hrs., an Outbound, Green Line Revenue Train ID 503 failed to service F04, Track 2 nor attempted to stop at F04.

NOTE: See below AIM diagram for the train involved in the incident where F04 was not serviced.

Based on review of the Audio Recording System (ARS), OPS 3, Green Line, the following information was revealed:

- At 08:12:00 hrs., ROCC Radio Controller made contact with Train ID 503 on OPS 3 radio channel confirming whether Train ID 503 serviced F04.
- At 08:12:23 hrs., T/O operating Train ID 503 responded to ROCC that it was affirmative Train ID 503 serviced F04.

Based on SPOTS event log data download, SAFE came to the following conclusion related to the rail vehicle involved:

- Train ID 503 head arrived at F04 at 07:56:35 hrs.
- Train ID 503 tail cleared F04 at 07:57:05 hrs.
- The platform side doors were never commanded open.

Considering all the salient facts, SAFE has concluded that this event was a result of human error and lack of procedural adherence from the T/O. Also, fatigue could be a contributing factor with the inattentiveness of the T/O because during the SAFE interview the T/O stated that he was tired and may have dozed off. Additionally, the T/O reported that he has had trouble sleeping in the past. The T/O from E99 was transported by an Office of Rail Transportation (RTRA) Supervisor for Post Incident Testing. There were no injuries reported at the time of the incident.

Finally, there was no data to support any anomalies with Train ID 503 that may have contributed to this incident.

Notification

Title	Time	Comment:
FTA	0850 hrs.	WMSC Notification
WMSC	0850 hrs.	WMSC Notification

Incident Site

Waterfront Station (F04), Track 2.

Investigation

On June 25, 2019 at approximately 07:56 hrs., an Outbound, Green Line Revenue Train ID 503, Consist **L**7098-99x7063-62x7476-77x7369-68**T,** failed to service Waterfront Station (F04) on Track 2. ROCC contacted the T/O via radio after being informed by the Station Manager at F04, asking the T/O if he serviced F04. The T/O replied, "affirmative". Video footage and the AIM playback confirmed that the train did not service the F04 platform. The T/O was removed from service at Branch Avenue terminal and transported by a RTRA Supervisor for Post Incident Testing. During the investigation, SAFE conducted an interview with the T/O.

Train Operator (T/O)

Roadway Worker Protection (RWP): Level 2 Certified - Expiration August 2019
Report Work Location: Greenbelt Division (E99)
Seniority Date: Started off as a Bus Operator (B/O) on 2004 and then became a T/O on 2007.

Per T/O Interview Statement:

- He was coming off his two (2) days assigned off
- This was the second part of his round trip and did not experience any issues or station overruns prior to this incident
- The reason why he did not service the station at F04 is because he was tired and as he entered F04 platform he assumed he serviced F04 but may have dosed off and this may have contributed to incident
- Looking up and seeing that he had left F04 platform and wasn't at the eight (8) car marker he assumed he had serviced the station and continued on
- ROCC contacted him via radio at Suitland Station (F10) asking if he serviced F04, to which he replied, "Yes, I believe so"
- He has had trouble sleeping in the past
- Prior to the incident, he slept last on 06/24, at 23:00 hrs., and woke up at 03:00 hrs., on 06/25, to be out of the house by 03:30 hrs., to be at Washington

Metropolitan Area Transit Authority (WMATA) at 04:28 hrs., on 06/25. This indicates that the T/O had only gotten four (4) hours of sleep prior to coming into work

- T/O stated that his sleep schedule changes daily because he doesn't have a set schedule as a T/O
- T/O does not have a second job and there are no other activities outside of WMATA's work that could have been a contributor to the T/O being tired
- T/O arrived to WMATA's drug testing facility at 09:36 hrs., per the time stamp on his document, but the T/O was not administered the drug test within two (2) hours

Drafted By: SAFE 705 – 6/28/2019
Reviewed By: SAFE 701 – 06/28/2019
Approved By: SAFE 70 – 06/28/2019

due to crowding of other people waiting to test. WMATA's drug testing facility is first-come, first-served
- He has not been tested for sleep disorders in the past.

Office of Car Maintenance (CMNT)

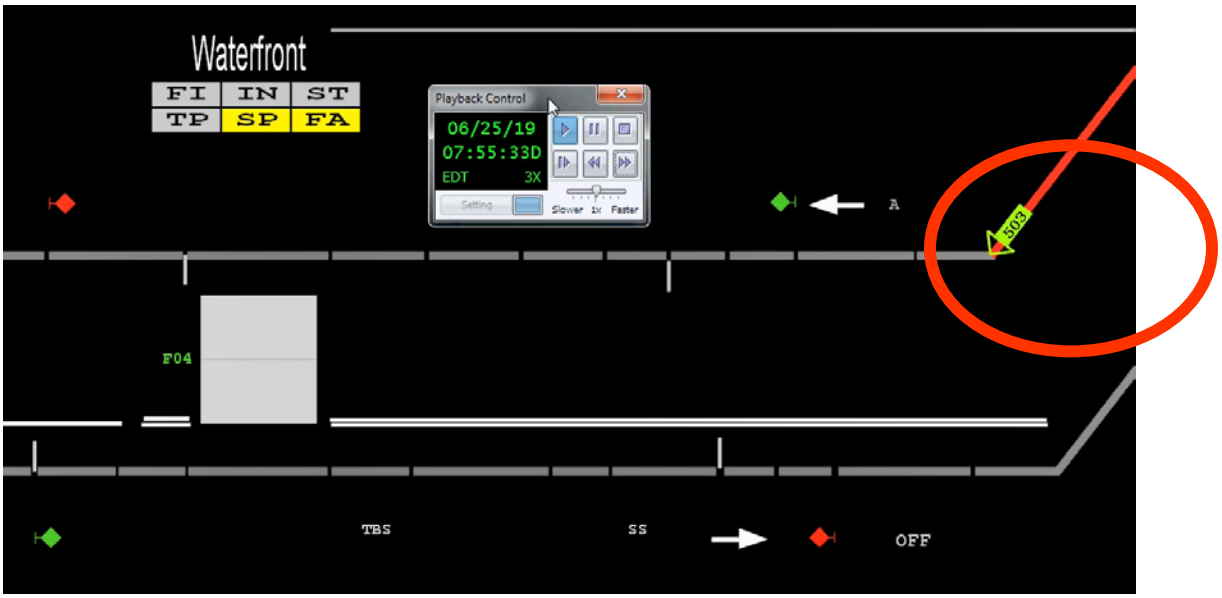
During the post incident inspection at E99 on the affected consist. CMNT personnel found no abnormalities with any of the following checks.

- Master controller operational checked good
- Found no propulsion faults on screen
- Check for any braking abnormalities
- No defects reported

Vehicle Program Services (CENV)

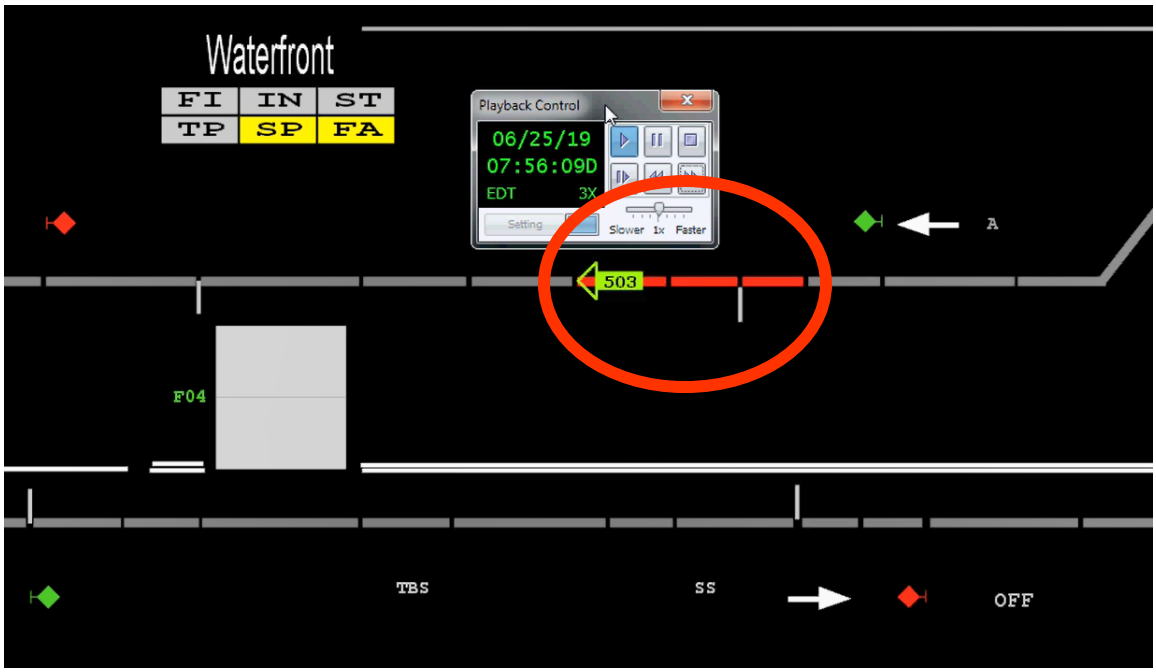
The Event Recorder analysis date shows no train anomalies. The forward-facing camera view shows Train ID 503 entering the Waterfront station platform approximately at 07:56:41 hrs., and leaving at 07:56:54 hrs., without servicing the station.

Advanced Information Management System (AIMS) Playback

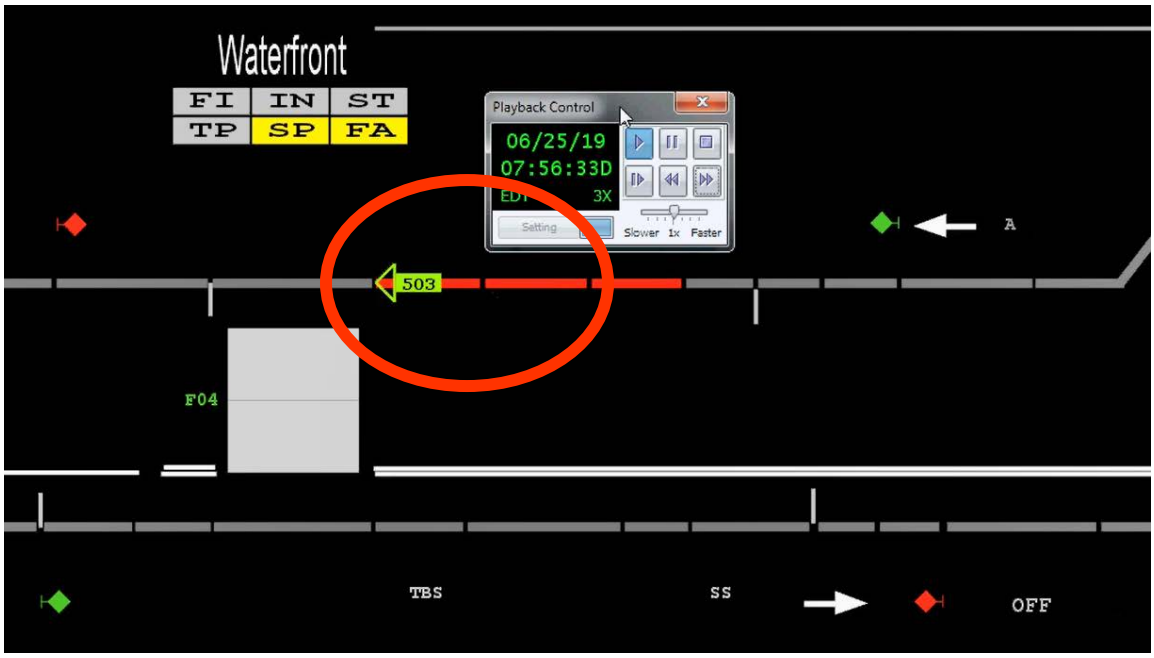


07:55:33 hrs. An Outbound, Green Line Revenue Line Train ID 503 on approach to F04, Track 2.

Drafted By: SAFE 705 – 6/28/2019
Reviewed By: SAFE 701 – 06/28/2019
Approved By: SAFE 70 – 06/28/2019

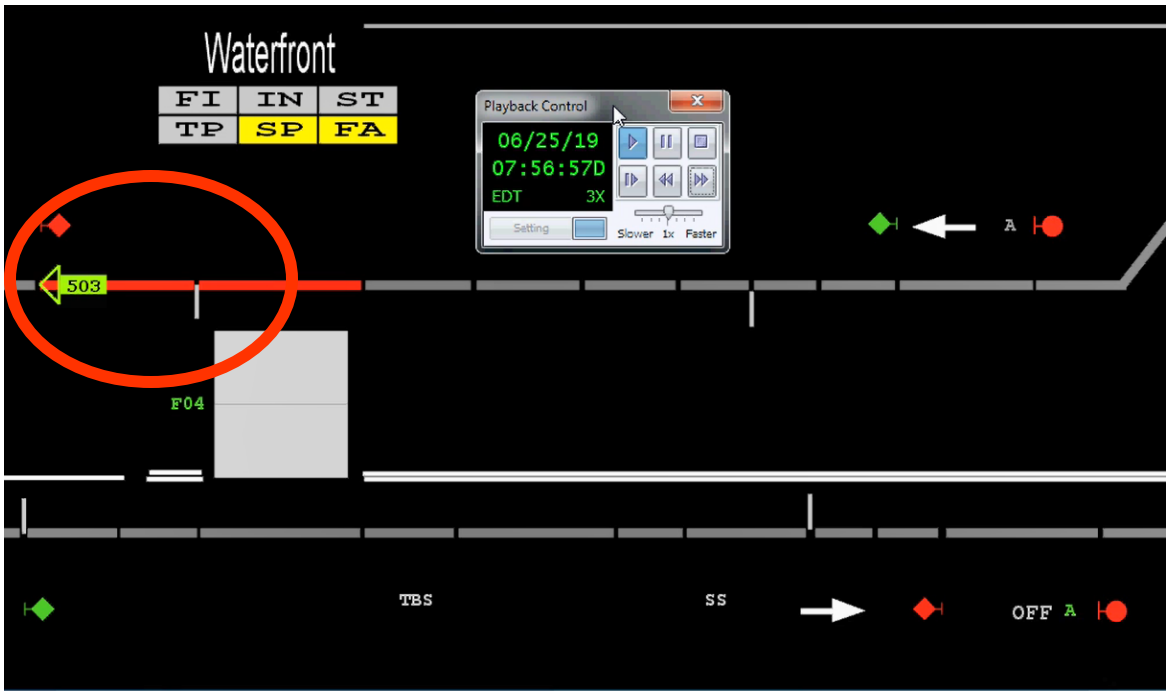


07:56:09 hrs. An Outbound, Green Line Revenue Line Train ID 503 on approach to F04, Track 2.



07:56:33 hrs. An Outbound, Green Line Revenue Line Train ID 503 entering F04, Track 2.

Drafted By: SAFE 705 – 6/28/2019
Reviewed By: SAFE 701 – 06/28/2019
Approved By: SAFE 70 – 06/28/2019



07:56:57 hrs. An Outbound, Green Line Revenue Line Train ID 503 failed to service F04, Track 2 nor attempted to stop at F04

Communications

Communications did not report any anomalies associated with the radio communication system at F04 that contributed to this incident.

Human Factors

SAFE Fatigue Risk Management System Safety Manager Analysis

The following analysis was performed by the Department of Safety and Environment Management Fatigue Risk Management System Safety Manager using available information from the past 30 day work history timekeeping data:

- Fatigue behaviors were present. The T/O reported dozing off around the time of the event.
- The work schedule likely contributed to the risk of fatigue related impairment:
  - The work schedule is characterized variability in start times; the T/O works "the board" and will experience some unpredictability in work start times. The week leading up to the event includes both day and night work. In some cases, the release period before the start of night work was < 12 hours. Model analysis of the schedule estimates that a significant amount of work time in the period leading up to the event was spent at low performance effectiveness. **Note:** Employee work schedule will be furnished on request.

- The T/O's sleep schedule likely contributed to the risk of fatigue:

- The T/O reports getting ~4 hours of sleep in the night leading up to the event. Based on the schedule, it's reasonable to anticipate that the effects of this short sleep would only compound the effects of significant sleep debt that would have accumulated in the prior week. The T/O also reports a history of sleep issues.

Post-Incident 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 70°F, and clear. SAFE has concluded that weather was not a contributing factor in this incident (Weather source: National Oceanic Atmospheric Administration (NOAA) - Location: Washington, DC.)

Findings

- T/O have no prior record of fail operational infractions in past 3 years.
- T/O failed to report the occurrence to ROCC
- Fatigue Analysis revealed T/O was at risk for fatigue based on work schedule and reported sleep activities

Immediate Mitigation to Prevent Re-Occurrence

- The T/O was removed from service for post-incident testing
- The affected consist was removed from service for post-incident inspection

Conclusion

Based on the salient facts presented in the investigation, SAFE concludes that the Train Operator involved in this incident failed to have his train under control when completely bypassing the Waterfront station. Additionally, there's no evidence to support that the train made a station stop as reported by the Train Operator.

Post incident inspection and analysis provided by CENV and CMNT revealed that the rail car consist involved in this incident was working ass intended with no anomalies reported.

Based the analysis performed by SAFE's Fatigue Risk Management System Safety Manager, SAFE concludes that the work and sleep schedule of the Train Operator involved in this incident may have contributed to the risk of fatigue. Fatigue may be a contributing factor for overrunning the F04 station.

Corrective Action Plan

1. RTRA shall submit T/O for a Fitness for Duty examination by WMATA Medical Department prior to returning for full service work duties

Drafted By: SAFE 705 – 6/28/2019
Reviewed By: SAFE 701 – 06/28/2019
Approved By: SAFE 70 – 06/28/2019