



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Issued: June 6, 2023

Railroad Investigation Report: RIR-23-05

Chicago Transit Authority Employee Fatality

Chicago, Illinois

July 16, 2022

1 Factual Information

1.1 Accident Description

On July 16, 2022, about 1:52 a.m. local time, southbound Chicago Transit Authority (CTA) Brown Line passenger train 3285 (train 3285) struck a CTA customer service assistant (CSA) at the La Salle/Van Buren station in Chicago, Illinois.¹ Review of platform surveillance video data by the National Transportation Safety Board (NTSB) showed that the CSA descended the stairs from the west end of the inner loop platform to access the tracks and fell onto the outer loop high voltage rail.² The CSA laid motionless on the track for about 3 minutes, whereupon he was struck by train 3285. Visibility conditions at the time of the accident were dark, and the weather was 71°F with light rain.

¹ (a) All times in this report are local time unless otherwise noted. (b) Visit www.nts.gov to find additional information in the public docket for this National Transportation Safety Board (NTSB) accident investigation (case RRD22LR012). Use the [CAROL Query](#) to search safety recommendations and investigations. (c) A CSA's general duties and responsibilities include opening and closing the stations, monitoring the station, maintaining kiosk security, providing customer service, responding to assistance requests, and providing emergency assistance.

² The *loop* is a circuit of elevated track about 1.79 miles long that forms the hub of the Chicago "L" system. The loop's high voltage rail operates at 600 V d.c.



Figure 1: Location of the accident.

Surveillance video data reviewed by the NTSB showed the CSA proceeded to the west end of the inner loop platform to access the tracks about 1:46 a.m., where he made his first attempt to cross the right-of-way (ROW).³ The CSA stumbled while walking across the tracks and subsequently stopped his first attempt to cross. About 1:47 a.m., the CSA returned to the inner loop platform to aid his balance before beginning his next attempt to cross the tracks. About 1:48 a.m., the CSA attempted to cross the tracks once more from the inner loop platform to the outer loop platform. The CSA lost his footing near the gauge side of the running rail and fell across the area between the inner and outer running rails near the electrified rail.⁴ About 1:49 a.m., the CSA attempted to stand and, while doing so, fell over top of the electrified third rail. The CSA remained still for about 3 minutes until being struck by train 3285. Train 3285 then traveled about 430 feet before it stopped at the berth marker.⁵ About 1:57 a.m., the operator requested power be removed due to a person under the train, and about one minute later, a call was placed to 911. About 2:06 a.m., police, firefighters, and an ambulance arrived on scene.

³ *Right-of-way* or ROW is the strip of land on which a railroad track is built.

⁴ The *gauge side* is the side of the rail that guides the wheel flange. The *running rail* is the rail or surface on which the tread of the wheel bears.

⁵ A *berth marker* indicates the point at which the lead railcar of the train should stop to ensure that the train doors are aligned with the platform.

1.2 Before the Accident

The CSA started his shift at 10:00 p.m. on July 15, 2022, for job number 780 at the LaSalle/Van Buren station. He had been off duty for the preceding 16 hours.

The NTSB reviewed the rail station defect log and customer service daily activity reports and did not note anything from the CSA's shift that would have required him to enter the ROW.⁶

1.3 CSA Training History

The CSA was hired by Chicago Transit Authority on November 11, 2013. The NTSB's review of the CSA's training records showed he took initial CSA training from November 12, 2013, to November 23, 2013. Initial CSA training includes classroom training, a rail safety tour, and practical experience working alongside a qualified CSA. On the rail safety tour, trainees are required to practice walking across the tracks in different environments, one of which is on elevated structures. Trainees are also educated about the electrical hazard presented by the third rail. The CSA did not have refresher training following the initial training.

1.4 Autopsy and Toxicology

According to the autopsy performed by the Office of the Medical Examiner, County of Cook, Illinois, the cause of the CSA's death was electrocution due to contact with the third rail, and the manner of death was accident.

In accordance with Title 49 *Code of Federal Regulations* 219.201, the Federal Aviation Administration Forensic Sciences Laboratory conducted postaccident toxicology testing on the CSA.⁷ The testing identified low levels of ethanol but no other tested-for substances of abuse.⁸

⁶ A *rail station defect log* is a log used by CSAs to report station defects to the Control Center, except for fare equipment, at their station. CSAs use *customer service daily activity reports* to report additional comments and information about defect conditions to the station clerk.

⁷ The following substances were tested for: amphetamines, barbiturates, benzodiazepines, buprenorphine/metabolite, cannabinoids, cocaine/metabolites, fentanyl/acetyl fentanyl, methadone/metabolite, methamphetamine/MDMA, opiates, oxycodone/oxymorphone, and phencyclidine.

⁸ Ethanol may be produced in the body after death by microbial activity. Extensive trauma increases the spread of bacteria and raises the risk of ethanol production after death.

1.5 CTA's Transit Operations Standard Operating Procedure

CTA's Calling On and Off the Right of Way rule 8131 requires personnel to call the rail controller by two-way radio to request permission to enter the ROW at a specific location before entering the area. The rail controller will then notify approaching trains of the presence of personnel on the ROW.⁹

1.6 Postaccident Actions

On November 28, 2022, CTA began requiring rail safety refresher training for all CSAs every two years to maintain their job classification. As of February 2023, CSAs who were identified as needing the refresher training have been trained. The refresher training program provides a review of CTA's Agency Safety Plan. CTA's Agency Safety Plan governs rail safety and includes standard operating procedures, rules, and policies. This plan will be modified and released in 2024 to include the CSA refresher training requirement.

2 Analysis

In this accident, the CSA employee entered the ROW for an unknown reason and contacted the third rail while attempting to cross the tracks. The CSA had not followed CTA's established standard operating procedure to contact the rail controller to request permission before entering the ROW; therefore, the rail controller was unable to notify approaching trains of the presence of personnel on the tracks in that area. The NTSB could not determine why the CSA chose to enter the track ROW.

Postaccident toxicological testing of the CSA identified ethanol; however, the injuries sustained by the CSA and low levels of ethanol found in his system indicate that the likely ethanol source was other than ingestion. The NTSB determined that the identified ethanol did not contribute to the accident.

The NTSB's review of surveillance video footage showed the CSA lost his footing near the gauge side of the running rail and fell across the area between the inner and outer running rails near the electrified rail during his final attempt to cross the tracks. The CSA was then seen trying to stand, and as he did, he fell over top of the electrified third rail, where he remained until he was struck by CTA train 3285. As a result of this accident, CTA now requires CSAs to complete refresher training on rail safety every two years to maintain their job classification.

⁹ CTA Transit Operations Standard Operating Procedure. Publication No. 8131. Issued May 17, 2015.

3 Probable Cause

The National Transportation Safety Board determines that the probable cause of the July 16, 2022, CSA fatality was electrocution due to contact with the third rail when the CSA fell attempting to cross the right-of-way for unknown reasons.

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable cause of the accidents and events we investigate and issue safety recommendations aimed at preventing future occurrences. We also conduct safety research studies and offer information and other assistance to family members and survivors for any accident investigated by the agency. Additionally, we serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)).

For more detailed background information on this report, visit the NTSB investigations website and search for NTSB accident ID RRD22LR012. Recent publications are available in their entirety on the NTSB website. Other information about available publications also may be obtained from the website or by contacting—

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