

Issued: November 1, 2021

Railroad Accident Brief: RAB 21/07

New York City Transit Employee Fatality

Bronx, NY September 10, 2020

1. Factual Information

1.1 The Accident

On September 10, 2020, at 5:00 a.m. local time, a New York City Transit (NYCT) employee was found unresponsive between two tracks in the 239th Street Yard in Bronx, New York.¹ The employee was found by an NYCT car inspector who then radioed management of the unresponsive employee between tracks 52 and 53. The unresponsive employee was identified as a transit car cleaner (CTA).² Emergency medical services personnel were notified, arrived on the scene, and declared the CTA employee deceased.

The CTA was found lying near a light pole and several current collector assemblies mounted on nearby rail transit cars. (See figure 1.) Current collectors draw power from an electrified rail (third rail) on NYCT's transit system, and, should any current collector from a train be in contact with the third rail, then all assemblies on every car, even those not in contact with the rail, have the potential to be energized by electric current. The nearest current collector was about 12 inches from the light pole. Electric current collectors are used by trolley buses, trams, or electric locomotives to carry electrical power from overhead lines or electrical third rails to the electrical equipment of the vehicles.

¹ For more detailed information about this accident investigation, see the public docket at <u>https://data.ntsb.gov/Docket/Forms/searchdocket</u> and search for accident number RRD20LR007. Use the <u>CAROL Query</u> to search safety recommendations and investigations.

² The duties and responsibilities of a CTA are detailed in the NYCT Rule Book, Rule 10.01, which states that under general supervision, they clean, sweep, and wash subway and elevated stations, interiors and exteriors of subway cars and buses, and in shops, depots, and on the road.

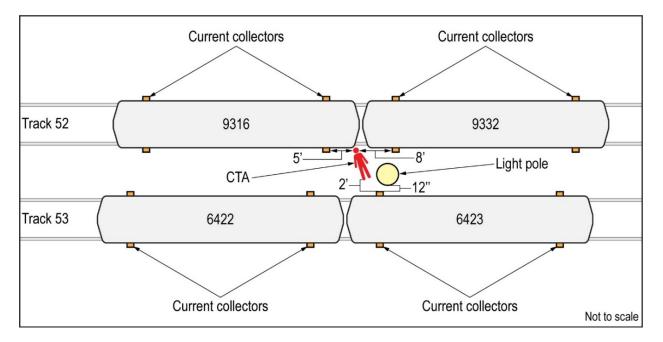


Figure 1. Diagram of accident area.

The CTA was found wearing an NYCT-issued reflective safety vest and safety boots and was in possession of his assigned cleaning equipment. His cleaning equipment and radio were observed laying in the immediate area he was found. The radio was in the on position; however, the battery was depleted. The CTA's flashlight and red flags were not accounted for.

Tracks 52 and 53, located in NYCT's 239th Street Yard, were occupied by several transit cars at the time of the accident. Upon review of the train movement records in the yard and employee interviews, the National Transportation Safety Board (NTSB) learned there were no movements in the area on tracks 52 and 53 between 12:30 a.m. and 5:00 a.m. the day the CTA was found. In interviews, employees told investigators that they were aware of clearance issues between tracks 52 and 53 created by light poles when trains are stored on both tracks.

On the day of the accident, there were periods of light and heavy rain throughout the night and early morning hours.

1.2 Before the Accident

Overnight yard personnel assigned to the NYCT 239th Street maintenance facility included maintenance supervisors, CTAs, and transit car inspectors. CTAs report in staggered shifts starting at 10:00 p.m., 11:00 p.m., and 12:00 a.m., respectively. The CTA reported for duty on September 9, 2020, at 11:00 p.m. and was among 14 CTAs on duty during this shift. At the beginning of the 11:00 p.m. shift, the maintenance supervisor conducted a safety briefing, inspected personal protective equipment, and assigned duties. Personal protective equipment assigned to CTAs includes NYCT-issued safety

boots, a high-visibility vest, safety glasses, gloves, a flashlight, red flags, and a portable two-way radio.

The maintenance supervisor assigned the accident CTA to clean subway cars on tracks 49, 50, 51, and 52. In general, each CTA works independently and is typically assigned four tracks per tour, which is about 40-50 subway cars. CTAs retrieve their tools after receiving their assignments and walk to their assigned tracks in the yard. The CTAs are required to check in with the car desk supervisor periodically throughout their shift and whenever they move from one train to another.

Employees told the NTSB that the accident CTA was last observed on September 9, 2020, about 11:30 p.m. when he departed the maintenance facility to begin work after attending the safety briefing. At 3:00 a.m., the maintenance supervisor completed an inspection of the subway cars on track 51 and contacted the accident CTA by radio instructing him to clean the subway cars on track 57 instead of track 51. There were conflicting accounts during employee interviews with the NTSB as to whether the CTA responded to the radio transmission.

1.3 Transit Car Cleaner

The 40-year-old CTA was hired by NYCT on January 30, 2017. A review of his disciplinary records revealed no performance or discipline issues. Employee records showed that the CTA completed NYCT's New Cleaner Curriculum (January 2017), Track Safety Training (February 2017), and Track Safety Refresher Training (February 2019).

1.4 Postaccident

1.4.1 Autopsy and Toxicological Testing

According to the autopsy issued by the Office of the chief medical examiner, City of New York, the cause of death for the CTA was electrocution. Toxicology tests performed at the Forensic Toxicology Laboratory, City of New York, during the autopsy were negative for all tested-for substances.³

1.4.2 NYCT Maintenance Facility Inspection

An NYCT postaccident inspection found the accident area to be wet (e.g., ballast, ties, trains, light poles,) but no puddles of water were observed nor were there any reports that the incident area is prone to flooding. Miscellaneous debris (e.g., track tie

³ (a) Testing included blood tests for ethanol, basic drugs, and evidence of cocaine, barbiturates, opiates, amphetamines, benzodiazepines, cannabinoids, methadone, and fentanyl; vitreous was also tested for ethanol. (b) Postaccident Department of Transportation toxicology testing was not performed.

plates, litter) were also present. The area was free of scuff marks and uneven ballast. Based on employee interviews and the postaccident inspection, the light at the top of the light pole was working.

1.4.3 Postaccident Actions



Figure 2. Postaccident identification of restricted clearance area. (Source: NYCT)

As a result of this accident, NYCT mounted insulation on its light poles along with a warning sign with the wording: "DO NOT PASS between train and pole RESTRICTED CLEARANCE." (See figure 2.)

NYCT issued three safety advisories. One safety advisory focused on ensuring that employees attend and acknowledge daily safety briefings before starting work. Each safety briefing must include an observation by a supervisor that each employee is in possession of all required personal protective equipment, including a working flashlight and red flags, as needed. The safety briefings should be documented, filed, and available for review upon request.

Another NYCT-issued safety advisory detailed the hazards employees may encounter while working in the train yards, with emphasis on personal clearance hazards (e.g., no-clearance and limited clearance), electrical hazards, and the safe egress of employees.

Lastly, NYCT issued a safety advisory requiring communication between personnel and management on an hourly basis. The

communication must be documented by management, to include time of contact and location of the employee at that time. If contact is not made, a physical search will be conducted to locate the employee.

2. Probable Cause

The National Transportation Safety Board determines that the probable cause of this employee fatality was electrocution as a result of contact with an electrified transit car current collector that likely occurred when the employee walked between a light pole and a stationary transit car. The National Transportation Safety Board (NTSB) is an independent federal agency dedicated to promoting aviation, railroad, highway, marine, and pipeline safety. Established in 1967, the agency is mandated by Congress through the Independent Safety Board Act of 1974, to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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 RRD20LR007. 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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