

RAILROAD ACCIDENT INVESTIGATION

REPORT NO. 4150

LONG ISLAND RAIL ROAD COMPANY

PENN CENTRAL COMPANY

ACCIDENTS

January 25, 1969
May 27, 1969
June 23, 1969 (2)
August 13, 1969

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

Washington, D. C. 20591

LONG ISLAND RR ACCIDENT - June 23, 1969Location and Method of Operation

The accident occurred near the east end of Pennsylvania Station, on the four-track line over which Long Island Rail Road trains operate between Pennsylvania Station and Long Island C interlocking is located between the west portals of the East River Tunnels and Pennsylvania Station. Its signals govern movements of LI Rail Road trains between the west end of tracks No 3 and No 4 of the four-track line and station tracks 14 to 21. The interlocking station is at the east end of platform No 10, between Pennsylvania Station tracks 18 and 19.

The current of traffic on track No 4 of the four-track line is westward. The collision occurred on this track, 612 feet east of C interlocking station and a few feet east of the home interlocking signal governing westbound movements from track No 4 to station tracks 14 through 21.

Circumstances Prior to Accident

Some time before the accident, passenger train equipment was placed on Pennsylvania Station track 21 for temporary storage. Anticipating that station forces would remove this equipment before arrival of passenger train No 751, a Long Island Rail Road yardmaster instructed the C interlocking operator to route No 751 to station track 21. However, due to station forces experiencing difficulty with its air brake system, the passenger train equipment still occupied track 21 when No 751 neared the station.

No 751, a westbound passenger train consisting of seven electrically-propelled passenger cars left Hempstead, L I, at 2:09 p m. When the train stopped at Woodside, the conductor, acting without authority but in accordance with what appears to be a common practice, went home after arranging for an off-duty employee, a ticket collector, to replace him for the remainder of the trip to Pennsylvania Station. The ticket collector had been a conductor at one time, but had been disqualified from working in that capacity since 1962 because of a physical condition. No 751 left Woodside without the engineer knowing the regularly assigned conductor had left the train.

About 2:55 p m, after proceeding through the East River Tunnels on track No 4 and entering C interlocking, No 751 began to enter Pennsylvania Station track 21 at slow speed. The engineer then saw that track 21 was occupied by passenger train equipment, and stopped his train with the front end about 170 feet short of that equipment and 160 feet from the track platform. The rear end stopped within C interlocking limits. After the train stopped, it waited for station forces to remove the equipment from the track ahead.

No. 159, a westbound Long Island Rail Road passenger train consisting of 8 electrically-propelled passenger cars, left Babylon, L I at 1:49 p m. About 2:53 p m, while moving on track No 4, it entered the East River Tunnels and continued toward Pennsylvania Station, following No 751 at an interval of about three minutes. Seven minutes later, No 159 stopped on track No. 4 at the C interlocking home signal, which indicated Stop due to the rear end of No 751 occupying its track circuit. The engineer saw No 751 standing about 200-250 feet ahead, and waited for the home interlocking signal to display a proceed aspect.

The Accident

Approximately five minutes after stopping short of the passenger train equipment occupying station track 21, the engineer of No. 751, in response to a request of three off-duty employees, began to move his train slowly forward toward the east end of the track platform, causing loud electrical arcing sounds at the locations of the third-rail contact shoes on the cars. As the train moved forward, the communicating whistle sounded two short blasts (when moving, a signal to stop) and the engineer stopped the train a few feet short of the platform. A few seconds later, according to his statements, the engineer heard the communicating whistle sound three short blasts (when standing, a signal to back up) and looked into the passenger compartment of the first car for the conductor, but did not see him. Assuming the conductor had obtained authority for the reverse movement and had gone to the rear of the last car to protect the reverse movement, the engineer started to back his train through C interlocking without stationing himself at the controls of the leading car in the direction of the reverse movement, as required by the carrier's rules. The engineer stated that on two separate occasions after starting the reverse movement, the communicating whistle sounded three short blasts (when moving, a signal to stop at the next station). He construed these whistle signals as being confirmations of the first signal to back up. The train continued its reverse movement through C interlocking and, about 3:05 p.m., backed onto track No 4 of the four-track line. Immediately thereafter, while moving backward at about 10 m.p h, it struck No. 159, which was standing on track No 4 a few feet east of the home interlocking signal.

Statements of the three off-duty employees in the vestibule at the front of the train substantiate those made by the engineer of No. 751 relating to the communicating whistle signals sounded before the collision.

The off-duty ticket collector, who was acting as the train conductor, was in the vestibule at the rear of the first car when No 751 began to move in reverse. He heard the communicating whistle signals received by the engineer and took no exception to the reverse movement.

The flagman of No. 751 was in the vestibule at the front of the 6th car while his train waited on Pennsylvania Station track 21 for station forces to remove passenger train equip-

ment from the track ahead. When his train moved slowly forward toward the station platform, intermittent arcing noise occurred at the locations of the third rail contact shoes. (The investigation revealed it is common practice for LI Rail Road engineers to use arcing sound, instead of train horn sound as required by rule, when recalling a flagman out providing protection against following trains. This is accomplished by setting the train brakes, then applying and shutting off power the number of times specified for the horn signal prescribed for recalling flagmen.) Upon hearing the arcing noise, the flagman pulled the communicating whistle cord twice (when stopped, a signal to proceed; when moving, a signal to stop), intending this as a signal that he was on the train and not out providing protection against following trains. Since the train was moving when this signal was sounded, the engineer construed it to be a stop signal and promptly stopped the train, a few feet from the track platform and the passenger-train equipment ahead.

Apparently realizing that he had unintentionally caused the train to stop, the flagman again pulled the communicating whistle cord to signal the engineer to proceed. However, instead of sounding two short whistle blasts, he apparently sounded three short blasts (when standing, a signal to back up), resulting in the engineer moving the train in reverse. The reverse movement startled the flagman, and he pulled the communicating-whistle cord with the intention of signalling the engineer to stop. Instead of sounding two short whistle blasts, it appears he again sounded three short blasts (when moving, a signal to stop at the next station), resulting in the engineer assuming this was a confirmation of the first signal to back up and continuing the reverse movement. The flagman then decided to go to the rear vestibule of the 6th car, apparently with the intention of operating the emergency brake valve or the communicating-whistle signal apparatus in that vestibule. While going through the car, he again pulled the communicating-whistle cord with the intention of sounding a Stop signal and with the same result as described above. A few seconds later, No 751 backed onto track No 4 and struck No 159.

Casualties

Approximately 175 passengers and employees of both trains sustained injuries, which were primarily of the abrasion, contusion, sprain, and neck-whiplash types. Most injuries were relatively minor in nature. Numerous injured passengers were transported to hospitals for first aid. Best available information indicates that three passengers were injured seriously enough to require hospitalization.

Damages

No 159 was moved 13 feet backward by the impact. A rail under the 2nd and 3rd cars turned over, resulting in derailment of two trucks. The 1st, 2nd and 3rd cars were slightly damaged.

No 751 stopped with the last (7th) car against the front of No. 159. This car and the 3rd and 4th cars were slightly damaged

The total cost of damages to both trains was estimated to be \$3,500

Cause

The accident was caused by passenger train No 751 making a reverse movement in an interlocking without proper authority, resulting from the flagman improperly giving the engineer a communicating whistle signal to back up and failure of the engineer to station himself at the controls of the leading car in the direction of the reverse movement, as required by the carrier's rules