

SUMMARY FOR FE-28-03
SELECTED AND POSSIBLE CONTRIBUTING FACTORS

SELECTED FACTORS

Railroad: Long Island Railroad
Location: Copiague, New York
Region: 1

Month: October
Date: Oct. 20, 2003
Time: 10:20 a.m., EST

Data for Fatally Injured Employee(s)

Electrician/Third Railman (acting as Watchman/Lookout)
41 years old
17 years of service
Last rules training: N/A
Last safety training: May 5, 2003
Last physical: July 16, 2003

Data for All Employees (Craft, Position, Activity)

Craft: Maintenance of Way

Positions:

Gang No. 5

Gang Foreman
Electrician/Third Railman acting as Watchman/Lookout
Second Watchman/Lookout
Seven other gang members

Long Island Railroad (LIRR) Passenger Train No. 34

Locomotive Engineer
Off-duty Train Service Employee

Activity: Performing Watchman/Lookout duties
while rest of gang performed track maintenance

EVENT

An Electrician/Third Railman, who was acting as Watchman/Lookout for his MOW gang, was fatally injured when struck in the back by an oncoming passenger train.

SUMMARY FOR FE-28-03 CONTINUED

POSSIBLE CONTRIBUTING FACTORS

PCF No. 1

The Electrician/Third Railman acted in non-compliance with the railroad's operating rules by standing on the track of an oncoming train, and by not anticipating equipment to move on any track, in either direction, at any time. His back was to the oncoming train, most likely, because he assumed the eastbound train was on the adjacent track, as a westbound train had passed by on the track where he was standing just 10 minutes before. However, LIRR passenger trains habitually operated over this section of the railroad on both tracks, in either direction; both tracks were equipped with signals for bi-directional traffic.

PCF No. 2.

The Gang Foreman conducted a job briefing only for the five crew members in his truck, not including the second Watchman/Lookout, who was riding in the second truck with two others, and a fourth who was riding his own vehicle. As instructed, the other gang members assembled on the north side of Track No. 1, to allow the two assigned Watchmen/Lookouts to get into position. Up to the time of the accident, the second Watchman/Lookout (who had not been briefed) had not assumed his post. A second Watchman might have alerted the first Watchman to the oncoming train and prevented the fatal incident.

REPORT: FE-28-2003

RAILROAD: Long Island Railroad (LIRR)

LOCATION: Copiague, New York

DATE & TIME: Oct. 20, 2003; 10:20 a.m., EST

EVENT¹: An Electrician/Third Railman, who was acting as Watchman/Lookout for his gang, was fatally injured when struck in the back by an oncoming passenger train.

EMPLOYEE:

Craft:	Maintenance of Way (MOW)
Activity:	Performing Watchman/Lookout Duties while MOW gang did track maintenance
Occupation:	Electrician/Third Railman
Age:	41 years
Length of Service:	17 Years
Last Rules Training:	N/A
Last Safety Training:	May 5, 2003
Last Physical:	July 16, 2003

CIRCUMSTANCES PRIOR TO THE ACCIDENT

Work Crew (Gang No. 5)

On Oct. 20, 2003, at approximately 7:45 a.m., an LIRR Electrician (a.k.a. Third Railman) reported for his normally assigned shift (8 a.m. to 4 p.m.) at the railroad's Electric Traction Department, a maintenance facility in Valley Stream, New York, following a 1-week vacation. He was assigned to a 10-person roadway work group (a.k.a.. Gang No. 5) under the supervision of a Gang Foreman. The assigned duties for the work group that day were shimming and gauge alignment of the third rail, and picking up scrap materials left along the railroad right-of-way between the Lindenhurst and Copiague Passenger Stations. Following routine pre-shift activities and casual conversation with co-workers, the roadway work crew members met with the Foreman to receive their work assignments for the day. According to co-worker statements, the

¹ "Event" is defined as "occurrence that immediately precedes and directly results in the fatality." Possible contributing factors are identified in the following report and attached summary.

Third Railman's demeanor was normal, and he appeared to be in good spirits. At approximately 8:30 a.m., after they loaded tools and equipment onto company trucks, the crew members departed Valley Stream in two trucks en route to the job site. The Foreman rode in the larger truck with five of the crew members while the other three crew members followed in a smaller truck (one employee traveled to the site in his personal vehicle).

En route, the crew stopped at a local coffee shop for approximately 15 minutes before arriving at the job site at approximately 9:45 a.m. The driver parked the truck on a public street under a railroad viaduct near the job site. The second truck had not yet arrived. Before climbing the embankment up to track level, the Gang Foreman conducted a job briefing for the employees in his truck. He assigned the Electrician to be Watchman/Lookout for the crew, providing the train approach warning for eastbound trains. Another employee (riding in the second truck) was to be assigned the duties of Watchman/Lookout, providing the train approach warning for westbound trains. Following the briefing, the men collected their equipment and climbed up the railroad embankment to track level.

The work site was located on LIRR's Montauk Branch, and comprised two main line tracks. The two east/west (timetable direction) tracks were electrified (third rail) and identified as: Track No. 1 to the north, and Track No. 2 to the south. Long Island passenger trains operated over this section of the railroad on both tracks, in either direction. Both tracks were equipped with signals for bi-directional traffic. The maximum authorized timetable speed for passenger trains was 80 mph, and there were no temporary speed restrictions in effect. The distance between the two track centers was approximately 25 feet and the third rail for each track was located between the tracks. Approaching from the west, there was a slight curve to the north. Copiague Passenger Station was located approximately 1,000 feet west of the accident site.

Long Island Passenger Train No. 34

Long Island Passenger Train No. 34 departed New York's Penn Station at 9:31 a.m., en route to Montauk, New York. The train operated eastbound on signal indication, making scheduled passenger station stops at Woodside, Jamaica, and an intended final stop at Babylon. The train passed Copiague Passenger Station, operating on Track No. 1, at 67 mph as it approached the work crew's location at MP 32.6. The Locomotive Engineer was seated in the control cab on the right side of the lead MU 9040. An off-duty, LIRR train service employee was dead-heading on Train No. 34 to Montauk, New York, and was positioned on the left side of the MU car, adjacent to the Engineer.

At the time of the accident, the sky was clear, and the temperature was approximately 48° F. There was also snow on the ground from a previous snowfall.

THE ACCIDENT

After climbing up the embankment to track level, the crew assembled on the north side of Track No. 1, to wait for the arrival of the other crew members and to allow the two assigned Watchmen/Lookouts to get into position. The Gang Foreman instructed the Watchman/Lookout to walk west to be in position when the other Watchman/Lookout arrived. The Electrician crossed over Track No. 1 and walked between Tracks Nos. 1 and 2, approximately 900 feet west. The Foreman told the other crew members to remain in the clear of the tracks until both Watchmen/Lookouts were in position. At about this time, an LIRR passenger train, operating westbound on Track No. 1, approached the area. The Watchman/Lookout alerted the crew by sounding his air horn and holding up his Watchman's disk toward Track No. 1. The Gang Foreman acknowledged the warning by waving. The train passed the worker's location and continued westbound. Approximately 10 to 12 minutes later (10:20 a.m.), an eastbound LIRR passenger train (No. 34) approached the area. According to statements of crew members who witnessed the accident, the Electrician sounded the air horn and pointed toward Track No. 2 with his watchman's disk. The Electrician then stepped from his position between Track No. 1 and Track No. 2, and stood within the gage of Track No. 1 while continuing to indicate with his disk toward Track No. 2. The crew members (still standing in the clear) acknowledged the watchman's warning by waving to him. The witnesses observed the Electrician standing, facing east, with his back toward the approaching train. They first observed the approaching train and realized that it was on Track No. 1 when it was approximately 200 feet from the Watchman/Lookout's position. They heard the train horn sound as it approached the Electrician, but he never turned around.

The Engineer of Train 34 observed the employee on the track ahead, and sounded the locomotive horn. When it became apparent that the employee was not going to move in the clear, he initiated an emergency application of the train's brakes. Train 34 struck the Electrician from behind, fatally injuring him. When the train came to a stop, the Engineer contacted the LIRR Dispatcher to report the accident.

The Gang Foreman immediately ran down the embankment toward the parked truck to summon emergency responders, while other members of the work crew covered the body with their jackets. The employee was pronounced dead at the scene by a local medical official.

POST-ACCIDENT INVESTIGATION

The Metropolitan Transit Authority (MTA) Police Department and LIRR officials investigated events leading up to the employee fatality. FRA's investigation would determine whether a violation of Federal safety regulations or railroad operating rules had caused or contributed to the fatality. Statements were obtained from all involved individuals. Data from the train's event recorder supported statements made by the Engineer and other eye witnesses at the scene.

LIRR training records indicated the employee had received Roadway Worker Protection/On-Track Safety training (RWP/OTS) and was qualified by the railroad to perform the duties of Watchman.

Conclusion and Analysis

Prior to the arrival of Train No. 34, eye witnesses stated they had observed the Watchman/Lookout move from his safe location between the two tracks to Track No. 1. He warned the other crew members of the approaching train by sounding his air horn and pointing his watchman's disk toward Track No. 2. It was evident to them that the Watchman/Lookout assumed that the approaching eastbound train was operating on Track No. 2. Witnesses stated that the employee never turned around to verify which track the approaching train was on prior to being struck. Investigation findings revealed that the employee was qualified and capable of performing the assigned duties of a Watchman/Lookout. For reasons unknown, the employee mistakenly assumed that the approaching eastbound train was operating on Track No. 2, when in fact, it was on Track No. 1.

APPLICABLE RULES

49 CFR Part 214.313

- a) Each roadway worker is responsible for following the on-track safety rules of the railroad upon which the roadway worker is located.
- b) A roadway worker shall not foul a track except when necessary for the performance of duty.
- c) Each roadway worker is responsible to ascertain that on-track safety is being provided before fouling a track.

49 CFR Part 214.315

- a) When an employer assigns duties to a roadway worker that call for that employee to foul a track, the employer shall provide the employee with a job briefing that includes information on the means by which on-track safety is to be provided, and instruction on the on-track safety procedures to be followed.
- b) A job briefing for on-track safety shall be deemed complete only after the roadway worker has acknowledged understanding of the on-track safety procedures and instructions presented.
- c) Every roadway work group whose duties require fouling a track shall have one roadway worker designated by the employer to provide on-track safety for all members of the

group. The designated person shall be qualified under the rules of the railroad that conducts train operations on those tracks to provide the protection necessary for on-track safety of each individual in the group. The responsible person may be designated generally, or specifically for a particular work situation.

49 CFR 214.339

Each railroad shall require that the locomotive whistle be sounded, and the locomotive bell be rung, by trains approaching roadway workers on or about the track. Such audible warning shall not substitute for on-track safety procedures prescribed in this part.

Long Island Railroad Roadway Worker Protection Program, On-Track Safety Manual

A. Job Briefings:

Before beginning work, all roadway workers must participate in a job briefing.

B. Responsibilities of Roadway Workers:

If you are a roadway worker, you have the responsibility to:

1. Comply with the rules and instructions in the Roadway Worker Protection/On-Track Safety Manual, as well as all other applicable instructions, i.e., 49 CFR Part 214, Subpart C, etc.

C. Crossing Tracks:

When you are crossing tracks, expect equipment to move on any track, in either direction, at any time. Follow these precautions when crossing tracks:

1. Look both ways, then take the safest route. If you must cross the track, stop and look both ways before crossing each track.
4. Avoid crossing in front of a moving train or equipment. If you must cross in front of a moving train or equipment, make sure you can reach the opposite side and be in a position of safety at least 15 seconds before the train or equipment arrives and have at least 4 feet of clearance from the field side of the rail.

D. Assigning Watchmen:

Employees in Charge are responsible for a safe operation and must take every reasonable precaution to protect Roadway Workers in their charge. They will assign Watchmen and Advance Watchmen when needed.

1. When a gang fouls a track outside the work limits, assign one or more Watchmen to give warning of approaching trains that will allow them to be in a safe position in the clear at least 15 seconds before the engine(s) or on-track equipment arrives at the location where they are working.
2. Assign only trained and qualified Watchmen who have current RWP/OTS qualifications.

E. Responsibilities of Watchmen:

Where working limits are not established, the Employee-in-Charge assigns Watchmen to watch for approaching trains and to warn Roadway Workers to clear the tracks. If you have been assigned as a Watchman, you must:

1. Give full attention to detecting the approach of trains and warning roadway workers to clear the tracks; and
2. Not perform any other duties, even momentarily.