

[FE-05-98](#) (document link)

SUMMARY FOR FE-05-98:
SELECTED AND POSSIBLE CONTRIBUTING FACTORS

SELECTED FACTORS

Railroad: Belt Railway Company of Chicago

Location: Bedford Park, Illinois

Region: Region 4

Month: February

Date: 02/04/98

Time: 5:33 p.m., CST

Data for Fatally Injured Employee(s)

Conductor

42 years old

23 years of service

Last rules training: November 1997

Last safety training: November 1997

Last physical: October 1991

Data for Employees (Craft, Positions, Activity)

Craft: Transportation

Positions:

Job 1424

Engineer

Conductor

Switchman

East Yardmaster

Hump Yardmaster

Activity: Switching

SUMMARY FOR FE-05-98 CONTINUED

POSSIBLE CONTRIBUTING FACTORS

EVENT

The Conductor was fatally injured when struck by a single car cut while switching.

PCF No. 1

At the time of the incident, the fatally injured Conductor was fouling the track almost an hour after the Yardmaster had put it back into service. In fact, the Conductor previously had indicated to the Yardmaster that he could put the track back into service.

PCF No. 2

The incident occurred shortly after sunset, so visibility could have been a factor. Although artificial lighting on three towers illuminated all of the retarders in the yard, glare and shadows were also present at the accident site.

REPORT: FE-05-98

RAILROAD: Belt Railway Company of Chicago (BRC)

LOCATION: Bedford Park, Illinois

DATE & TIME: Feb. 4, 1998, 5:33 p.m. CST

PROBABLE CAUSE: The Conductor was fatally injured when struck by a single car cut while he fouled Track 11 almost an hour after the Yardmaster had put Track 11 back into service, with his knowledge.

EMPLOYEE:

Occupation:	Conductor
Age:	42 Years
Length of Service:	23 Years
Last Rules Training:	Nov. 24, 1997
Last Safety Training:	Nov. 24, 1997
Last Physical Examination:	Oct. 14, 1991

CIRCUMSTANCES PRIOR TO THE ACCIDENT

On the day of the accident, a yard crew went on duty at 2:30 p.m. at the East Yard office, in the Belt Railway Company of Chicago's (BRC) Clearing Yard in Bedford Park, Illinois. The crew, assigned Job 1424, comprised an Engineer, Conductor, and Switchman. The Job 1424 crew was assigned locomotives BRC 500 and 515, with the BRC 500 leading and facing east. All of the crew members had completed their statutory off-duty periods. The accident occurred in the East Classification Yard.

Clearing Yard was a double hump facility extending eastward and westward, where hump operations could be conducted simultaneously. The East Yard comprised departure, receiving, and classification yards.

The East Classification Yard had 56 tracks. From the north were Tracks Nos. 23 to 0 and 31 to 63. There were no Tracks Nos. 24 to 30 or Track No. 49. Lead tracks at the northeast end of the East Classification Yard extended respectively from the northwest to the southeast. On the southeast end of the yard, lead tracks extended from the southwest to the northeast. The west end of the yard was the bowl area of the eastward hump. The yard grade was descending from

west to east. The west end of the East Classification Yard was artificially lighted from three towers. There was one light tower at the east end of the yard situated between the East Classification Yard and the East Departure Yard. There were inert retarders on the classification tracks near the east end of the yard. The track centers at the point of impact were 13 feet, as were most of the track centers in the East Classification Yard.

The East Yardmaster first assigned to the Job 1424 crew the task of coupling the cars on Track No. 38 in the East Classification Yard and pulling them to the East Departure Yard.

Next, the Job 1424 crew was instructed by the East Yardmaster to couple the cars in the East Classification Yard Tracks Nos. 7, 11, and 9 and pull them to the East Departure Yard. At 4:34 p.m., the Conductor gave the Engineer of Job 1424 permission to proceed eastward to the departure yard with the cars from Tracks Nos. 7, 11, and 9. At 4:37 p.m., the Conductor told the East Yardmaster he was done with Track No. 11, and this was repeated by the Yardmaster. Hump computer records show Track No. 11 was returned to service at 4:43 p.m. After completing these tasks, the Conductor returned to the East Yard office for a break.

While at the yard office, the Conductor of Job 1424 received instructions from the East Yardmaster to couple the cars on Tracks Nos. 15, 17, and 12 in the East Classification Yard. The Job 1424 crew would then shove these cars west on the Track No. 1 approach in the East Receiving Yard where they would be humped westward at a later time. The Yardmaster told the Conductor that the Hump Yardmaster had taken Tracks Nos. 15 and 17 out of service at the hump end. The Job 1424 crew would have to call for permission to enter Track No. 12. When the Switchman returned to the yard office, the Conductor relayed the Yardmaster's instructions to him.

At approximately 5:05 p.m., the Conductor walked west toward Track No. 15 from the yard office, and the Switchman returned to the locomotive. At approximately 5:15 p.m., work began on Track No. 15 with the Conductor performing the ground work from east to west. At 5:22 p.m., the Conductor told the Engineer to pull the cars on Track No. 15 up to the east end of the track, and that Track No. 17 was next.

After coupling the cars on Track No. 15, working east to west, the Conductor was close to the west end of Track No. 15. At 5:26 p.m., the Job 1424 crew started coupling the cars on Track No. 17. The Conductor was executing the ground work, moving west to east. At 5:28 p.m., the Conductor told the Engineer to pull the cars on Track No. 17 to the east end.

At 5:29 p.m., the East Yardmaster called the Conductor and told him Track No. 12 was "out," which meant the Hump Yardmaster had taken it out of service. This transmission was acknowledged by the Conductor.

The locomotive pulled the cars on Track No. 17 to the east end of the track and proceeded to Track No. 12. The cars on Track No. 12 were intended to be the easternmost cut of cars of the three tracks, Nos. 15, 17, and 12, to be shoved west to be humped again. It was necessary to set the air in the easternmost eight to 10 cars of Track No. 12, as these would be the east end of the cut. The west end of the cut would be on an ascending grade when shoved westward and left to be humped.

According to the Engineer, the Conductor walked around the eastern end of the yard toward Track No. 12, where there were 26 cars. After reaching Track No. 12, he proceeded west on the south side of the track past some locations where the Switchman could make the hoses when the locomotive arrived on Track No. 12. The Conductor started making hoses approximately five cars from the east end.

The locomotive was brought onto Track No. 12 in a westward direction with the Switchman riding the west end of the locomotive on the south side and the Engineer in his seat on the south side and facing westward. The Switchman coupled the locomotive to the east car on Track No. 12 and connected the air hoses, but did not cut in the air. The Switchman proceeded along the south side of Track No. 12 and connected the hoses between the first and second car and also the second and third car. He proceeded to the location between the third and fourth car and found these hoses already connected.

While the Switchman was at this location, the Conductor called him on the radio and said "I think I got all the hoses after that next one, [Switchman's last name]." The Switchman believed this meant the Conductor knew where he was and had knowledge of the rest of the hose connections. The Switchman believed the Conductor was telling him to return to the locomotive. He proceeded back to the locomotive to cut in the air.

Because the pressure in the brake line would not build up, the Engineer and Switchman thought they possibly had an open air line. The Switchman walked westward along the south side of Track No. 12 to look for the problem as the Engineer tried to contact the Conductor by radio. The Engineer attempted to contact the Conductor six times in the next four minutes, but received no response.

Sunset the day of the accident was at 5:10 p.m. An FRA MP&E inspector was in Clearing Yard at the time of the accident. He stated the skies were clear and visibility was good with a temperature of about 35° F.

THE ACCIDENT

The Switchman worked his way west, making hose connections. Finding a broken air line on the east end of the tenth car on Track No. 12, he closed the angle cock. He then continued westward, looking for the Conductor. At a gap between the 16th and 17th cars, the Switchman crossed over to the north side of Track No. 12 and continued to walk west looking for the Conductor.

Another BRC Switchman heard the calls on the radio for the Conductor of Job 1424 and met the Switchman at the west end of Track No. 12. They agreed to walk back eastward alongside Track No. 12 with the Switchman on the north side and the second Switchman on the south side. When the second Switchman reached the east end, he asked the Engineer of Job 1424 what track they had come from and proceeded to Track No. 17 to look for the Conductor.

When the Switchman reached the east end of Track No. 12, he returned along the south side of Track No. 12 in a westward direction, but was looking south at Track No. 11. At 6:01 p.m., the Switchman found the Conductor's radio next to the gage side of the south rail of Track No. 11 and conveyed this information over his radio. Shortly after he found the radio, the Switchman found the body of the

Conductor under the west truck of the third car from the east end of Track No. 11, ATSF 524968. The Switchman said over the radio he had found the Conductor. The Engineer then initiated a call for an ambulance.

The Bedford Park, Illinois Fire and Police Departments responded to the accident scene. Their records show that a 911 call, initiated by the East Yardmaster, was received at 6 p.m.

Emergency personnel arrived on the scene and found the Conductor face down in a fetal position between the rails of Track No. 11 with his head toward the north. The Conductor's left leg had been severed, and when they turned over the body, emergency personnel found massive damage to the chest area.

The Conductor was pronounced dead at 6:31 p.m., and his body was transferred to the Cook County Medical Examiner's Office.

POST-ACCIDENT INVESTIGATION

Post-accident inspection of the cars on Track No. 11 was conducted by the BRC. No deficiencies were noted which could have caused or contributed to the accident. The BRC also conducted post-accident testing on locomotives BRC 500 & 515, which were assigned to Job 1424, with no deficiencies noted.

A track inspection of Tracks Nos. 11 and 12 was conducted by an FRA Track Safety Inspector on Feb. 9, 1998, after the cars had been removed. No deficiencies which could have contributed to or caused the accident were noted. Track No. 11 was constructed of wood crossties, continuous welded rail, and various types of ballast.

Inspection of UTLX 640477, the east car on Track No. 11, revealed blood and body parts on the second wheel of the east truck on the south side. This car had cleared the crest of the hump at 5:28 p.m. and was a single car cut. The next cut onto Track No. 11, a 2-car cut, CP 318365 and ATSF 524968, cleared the crest at 5:30 p.m.

Computer records showed that UTLX 640477 departed the group retarder at 8.76 mph, 1.72 mph below the computer requested speed. On Feb. 12, 1998, an FRA Track Safety Inspector monitored the speed of cars humped into the East Classification Yard, and compared this data with the hump computer information. No exceptions were noted.

An interview with the Engineer of Job 1424 revealed that he had seen the Conductor walk around the eastern end of Track No. 15 toward Track No. 12 when the locomotives were proceeding eastward to transfer onto Track No. 12. This was the only interview which supplied information about how the Conductor got from Track No. 17 to Track No. 11.

The radio transcript also showed the last transmission of the Conductor as "I think I got all of the hoses after that next one, [Switchman's last name]." The last word was garbled and may have been uttered when the Conductor was struck by the tank car. By saying he had gotten all the hoses except

for the hoses the Switchman had made, the Conductor implied he may have walked by some, leaving them for the Switchman.

The Conductor then proceeded west where he connected some hoses and would be in place to see the progress of the Switchman. After viewing the progress of the Switchman, the Conductor could walk west to connect the final hoses and find the first location where coupling was necessary. The Switchman would be walking east towards the locomotive to open the angle cock to allow air to be set in the cars where the air hoses had been connected.

The Conductor was not wearing a hat or hood which could have obstructed visibility.

FRA toxicological testing was performed on the Conductor, Engineer, and Switchman assigned to Job 1424. The tests were all negative.

APPLICABLE RULES

General Code of Operating Rules

Third Edition

Effective--April 10,1994

1.20 Alert to train Movement (in part)

Employees must expect the movement of trains, engines, cars, or other movable equipment at any time, on any track, and in either direction.

Employees must not stand on the track in front of an approaching engine, car, or other moving equipment.

Belt Railway Company of Chicago Safety Rules

106. Employees working or walking on or about the tracks must be alert, watchful and keep out of danger, exercising care to avoid injury to themselves and others.
109. Do not walk on the track or foul of the track when practicable to walk elsewhere.