

# **NATIONAL TRANSPORTATION SAFETY BOARD**

**WASHINGTON, D.C.**

## **Railroad Accident Brief Report**

ATL 96 FR 011

COLLISION

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

WAKEFIELD, MASSACHUSETTS

JANUARY 16, 1996

On January 16, 1996, at approximately 5:34 p.m., eastern standard time, a collision occurred between a northbound Massachusetts Bay Transportation Authority (MBTA) commuter train and a loaded semi-tractor trailer lowboy vehicle, which was hung-up on Forest Street road crossing, a signalized/manned crossing at grade, in the town of Wakefield, Massachusetts.

The train consisted of one diesel-electric locomotive and 6 cars, and was manned by three crewmembers: an engineer, a conductor, and a trainman. A company officer, a train master, was riding in the locomotive with the engineer. The train was northbound to Haverhill, Massachusetts, and was operating as an express train between Malden and Wakefield, Massachusetts. Of the estimated 500 passengers on the train, 36 passengers were injured. The injured passengers were transported to several area medical facilities for treatment. Twenty-one were treated and released and the remaining 15 were admitted for further evaluation purposes. None of the injuries were reported as life threatening. The engineer and the train master were not injured. The lead truck on the locomotive derailed and remained upright. None of the cars on the train were derailed.

During the collision, the tractor and semi-trailer separated and the cargo (excavating machine) was displaced from the semi-trailer, landing on its left side on the adjacent track. The driver got out of the truck before the collision and was not injured.

Weather conditions were reported as broken thin clouds with snow on the ground from a previous snowfall, dark with dusk time light conditions and an ambient temperature of 40 ° F. Damages were estimated at \$351,000.

This crew reported for duty at 7:00 a.m. that morning and operated several other trains until approximately 11:25 a.m., at which time they went off duty until 4:45 p.m. The train departed the North Station in Boston at 5:15 p.m. and made a stop at Malden Station before proceeding north as an express train to Wakefield.

The engineer stated that as the train rounded the left-hand curve just south of Greenwood station (approximately ¼ mile south of the accident site), he saw something at Forest Street crossing, but could not determine what it was. A few moments later he saw the equipment and realized an accident was about to occur. After the collision, the engineer made an emergency transmission over the radio and requested emergency medical services.

The route the truck driver used to reach the crossing was not a designated truck route. The road winds through a residential area and down a steep hill to the double main tracks. The driver stated he had missed a turn on the route, which placed him on that road. Snow covered the ground from a previous snow fall, but the roadway and the crossing were clear of snow and ice.

The grade crossing is equipped with an electronically operated warning system, which consisted of flashing red lights, gates, and an audible warning system. In addition, it had reflectorized crossbuck signs and a "two-track" warning sign. There is a crossing tender assigned to this crossing. He does not control the crossing signals or gates. His function is to keep vehicular traffic from blocking or stopping on the main tracks when the warning system is activated. The warning system consists of a buzzer that gives two warnings. The first one sounds about 1 ½ minutes before the crossing lights and bell are activated. The second buzzer sounds about 30 seconds before the lights and gates are activated.

The crossing tender stated he looked out at the crossing from a booth near the tracks and saw the vehicle stopped on the crossing, but thought that it was waiting for traffic to clear Main Street so it could proceed across the intersection. A few moments later when he did not see any movement he walked over to the vehicle and told the driver to clear the tracks; however, the driver was making a radio transmission and did not immediately acknowledge him. The crossing tender stated that less than a minute later the first buzzer sounded, signaling an approaching train, and at about the same time the truck driver informed the crossing tender that he could not move forward or backward. The crossing tender rushed inside the booth to inform the dispatcher of the situation by telephone, but receiving no answer after the second ring, he hung up when the second buzzer sounded and the gates lowered. The crossing tender grabbed a lantern and red flag and ran toward the approaching train in an attempt to flag the train down. A few seconds later the collision occurred.

During the driver's interview with the local police department, shortly after the accident, he stated that this was the first time he had ever driven a lowboy semi-trailer. However, in the interview with a Safety Board highway investigator, he stated he had operated lowboy semi-trailers similar to the one that was involved in the accident for the past 18 years.

## **PROBABLE CAUSE**

The National Transportation Safety Board determines that the probable cause of this accident was the failure of the truck driver to recognize the danger of getting hung-up on the crossing and driving the vehicle onto the grade crossing without knowing he could safely traverse the tracks.

Adopted: August 18, 1998