

RAILROAD ACCIDENT INVESTIGATION

REPORT NO. 4151

BESSEMER AND LAKE ERIE RAILROAD COMPANY

CONNEAUTVILLE, PA.

OCTOBER 12, 1969

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

Washington, D. C. 20591

Summary

DATE: October 12, 1969

RAILROAD: Bessemer & Lake Erie

LOCATION: Conneautville, Pa.

KIND OF ACCIDENT: Collision

EQUIPMENT INVOLVED: Freight train Automobile

TRAIN NUMBER: Extra 851 North

LOCOMOTIVE NUMBERS: Diesel-electric units
853, 831, 855

CONSIST: 80 cars, caboose

SPEEDS: 45 m p h. 5-15 m p.h

OPERATION: Signal indications

TRACK: Single; tangent; level

HIGHWAY: Tangent; level; crosses
track at angle of 67°

WEATHER: Clear

TIME: 8:57 p.m., dark

CASUALTIES: 9 killed

CAUSE: Failure of automobile driver
to keep his vehicle stand-
ing short of the rail-highway
grade crossing while automa-
tic warning signals were
indicating the close approach
of a train

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FEDERAL RAILROAD ADMINISTRATION
RAILROAD SAFETY BOARD

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Synopsis

On October 12, 1969, a Bessemer and Lake Erie Railroad freight train struck an automobile occupied by the driver and eight passengers at a rail-highway grade crossing in Conneautville, Pa. All nine occupants of the automobile were killed.

The accident was caused by failure of the automobile driver to keep his vehicle standing short of the rail-highway grade crossing while automatic crossing-warning signals were indicating the close approach of a train.

Location of Accident and Method of Operation

The accident occurred on that part of the Bessemer and Lake Erie Railroad extending from North Bessemer to Albion, Pa., a distance of 128.1 miles. In the accident area this is a single-track line over which trains operate by signal indications of a traffic control system. At Conneautville, 11.74 miles north of North Bessemer, the main track is paralleled on the west by a siding. Mulberry Street crosses the main track and siding at grade, 290 feet south of the Conneautville station.

The collision occurred on the main track at Conneautville, where the railroad is crossed at grade by Mulberry Street.

Track

The main track is tangent and practically level throughout a considerable distance north and south of the Mulberry Street crossing.

Mulberry Street and Crossing

Mulberry Street intersects the main track and siding at an angle of 67°00'. It is 46 feet wide at the crossing. Except for planking laid alongside each rail, the crossing is surfaced with bituminous material to the level of the tops of the rails.

Crossing Protection

Two automatic railroad-crossing warning signals of the flashing red-light type protect the crossing. One signal is adjacent to the south side of Mulberry Street, 26 feet west of the centerline of the main track. The signal mast is about 10 feet high. Attached near the top of the mast is a crossbuck bearing the words RAILROAD CROSSING in white letters on a black background. Below the crossbuck is a sign reading 2 TRACKS. Immediately below that sign two pairs of red lamps are attached to the mast back-to-back. They face eastward and westward. About eight inches below the red lamps, the mast bears a sign reading STOP ON RED SIGNAL.

The other crossing signal is in the northeast angle of the crossing and is similar to the one described above.

A railroad whistle sign for northbound trains is posted 2584 feet south of the Mulberry Street crossing.

The circuits of the automatic signals protecting the Mulberry Street crossing are so arranged that when a northbound train reaches a point 1920 feet from the crossing, the red lamps start to flash. They continue flashing until the train moves over the crossing.

Crossing Environment

Two other streets cross the main track at grade, 731 and 1347 feet south of the Mulberry Street crossing.

Structures of a feed-mill plant are along the south side of Mulberry Street, a short distance west of the railroad, as indicated in the sketch appended to this report. A shed, covering a truck scale, is the easternmost structure of the feed-mill. Because of the feed-mill structures, the driver of an eastbound vehicle approaching the railroad via Mulberry Street cannot see an approaching northbound train until his vehicle is about 40 feet from the crossing. Between this point and the nearest track, the driver may look through the shed or along its outside wall and see a northbound train approaching throughout a distance of about 1000 feet. His view southward along the railroad would be impeded,

however, if he stopped his vehicle opposite the outside wall of the shed. (See photograph for driver's view southward along the track)

At the time of the accident, no truck or other vehicle was in the shed for the feed-mill scale

Time and Weather

The accident occurred at 8:57 p m , under clear weather conditions

Authorized Train Speed

The railroad carrier's maximum authorized speed for freight trains in the Conneautville area is 45 m p h

The Accident

Extra 851 North, a northbound freight train, left North Bessemer at 4:18 p m. the day of the accident, after receiving the prescribed brake test.

After setting off cars at Butler, 34.9 miles north of North Bessemer, and receiving the required brake test, the train, consisting of 3 diesel-electric units, 80 cars and a caboose, resumed its trip northward. The engineer and front brakeman were in the control compartment at the front of the first locomotive unit. The conductor and flagman were in the caboose.

About 8:57 p m., the train neared the street crossings at Conneautville while moving at 45 m p h , as indicated by the speed-recording tape. According to the engineer and front brakeman, the headlight was lighted, the locomotive bell was ringing, and the horn was being sounded in approach to the street crossings.

As the train neared the Mulberry Street crossing, the front brakeman, according to his statements, saw that the red lamps of the crossing signals were flashing. In addition, both he and the engineer saw an eastbound automobile stopped on Mulberry Street short of the crossing signal on the west side of the railroad. They stated that they then saw the automobile move slowly forward and suddenly dart onto the main track. Immediately afterward, the train entered the crossing and struck the automobile in the middle of its right side. The engineer applied the train brakes about the same time the collision occurred, stopping the train beyond the crossing.

The automobile was thrown against the crossing signal on the east side of the main track, where it swung around into the east sides of the second and third locomotive units. It was then propelled northward, coming to rest on the east side of the main track about 150 feet north of the crossing.

The attendant at a service station located about one city block from the Mulberry Street crossing stated that he saw the crossing-warning signals flashing and heard the train horn sounding before the accident. He neither saw the train nor the automobile.

Damages

The train stopped with its rear end about 500 feet north of the Mulberry Street crossing. None of its equipment derailed. The front of the first locomotive unit, and the east sides of the second and third units, were slightly damaged.

The crossing signal struck by the automobile was slightly damaged.

The estimated cost of damages to railroad equipment was \$800 94.

The automobile was destroyed.

Casualties

The collision instantly killed seven occupants of the automobile. The other two occupants died after being taken to a hospital.

History of the Automobile Movement

Some time earlier in the evening of the accident, the driver, age 39, drove two adults, and six children ranging in ages from 2 to 14 years old, to services being held at the Pentecostal Church located about one mile west of the crossing. About 8:30 p m, at the end of the church services, all the aforesaid persons reentered the automobile and proceeded eastward into Conneautville via Mulberry Street. Inasmuch as none of the automobile occupants survived the accident, and there were no witnesses other than the train engineer and front brakeman, no information concerning the automobile's movement at the crossing could be developed, except that provided by the engineer and front brakeman.

Automobile and Driver

The automobile was a 1963 Rambler 2-door sedan. Its owner had loaned it to the driver on the day of the accident.

The driver, a resident of Conneautville, held no valid driver's license. About one week before the accident he had been arrested by a Pennsylvania State trooper and cited for driving an automobile without a valid driver's license. The case was still pending at the time of the accident.

The investigation revealed nothing that would indicate the driver was under the influence of alcohol or drugs at the time of the accident.

Traffic at Crossing

During the 30-day period preceding the accident, the average daily railroad movement over the crossing was 13 9 trains

A traffic count revealed that in a 24-hour period beginning 8:00 a m November 10, 1969, 1194 automobiles, 349 trucks and 15 buses moved over the crossing

Train Crew's Hours of Service

All the crew members had been on duty 5 hours 27 minutes, after having been off duty 12 hours 10 minutes

Findings

1 The train approached the crossing at 45 m p h and in accordance with applicable rules and regulations

2 The automatic crossing-warning signals were indicating the close approach of the train.

3 The automobile was driven by an unlicensed driver, in violation of Pennsylvania State law

4 The driver heeded the crossing signals by stopping his vehicle short of the crossing

5 Inasmuch as the train engineer and front brakeman saw the automobile standing short of the track as they approached the crossing, the driver evidently stopped his vehicle at a point where his view of the on-coming train was good

6 However, when the approaching train reached a point a few hundred feet from the crossing, the automobile moved slowly forward and then darted onto the crossing immediately in front of the train

7 Because of its speed and proximity to the crossing when the automobile moved onto the tracks, the train could not avoid striking the automobile

8 The reason why the automobile did not remain standing clear of the crossing until the train had passed could not be determined

9 The crowded condition of the automobile might have been a contributing factor in the accident

Cause

The accident was caused by failure of the automobile driver to keep his vehicle standing short of the rail-highway grade crossing while automatic warning signals were indicating the close approach of a train

Dated at Washington, D. C., this 7th
day of April 1970
By the Federal Railroad Administration,

Mac E. Rogers, Director
Bureau of Railroad Safety

NOTE. The Federal Railroad Administration has no jurisdiction over railroad operating rules; track structures; bridges; rail-highway grade crossing protection; track clearances; consist of train crews; qualifications or physical condition of railroad employees; running and draft gear on cars, or the construction of cars except those appurtenances within jurisdiction of the Safety Appliance Acts and the Power Brake Law of 1958



