

**RAILROAD ACCIDENT INVESTIGATION**

**Report No 3823**

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**BOSTON AND MAINE RAILROAD**

**SOUTH WILMINGTON, MASS**

**OCTOBER 28, 1958**

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**INTERSTATE COMMERCE COMMISSION**

**Washington**

## SUMMARY

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DATE	October 28, 1958
RAILROAD	Boston and Maine
LOCATION	South Wilmington, Mass.
KIND OF ACCIDENT	Collision
EQUIPMENT INVOLVED	Passenger train                      Motortruck
TRAIN NUMBER	395
CONSIST	5 diesel-powered passenger units
SPEEDS	60 m p h                      Slow
OPERATION	Timetable, train orders, and automatic block-signal system
TRACK	Double; tangent; 0.39 percent ascending grade northward
PRIVATE ROAD	Tangent, crosses track at angle of 90°; level
WEATHER	Foggy
TIME	8:06 a. m.
CASUALTIES	1 killed, 2 injured
CAUSE	Motortruck occupying grade crossing immediately in front of approaching train.

INTERSTATE COMMERCE COMMISSION

REPORT NO 3823

IN THE MATTER OF MAKING ACCIDENT INVESTIGATION REPORTS UNDER  
THE ACCIDENT REPORTS ACT OF MAY 6, 1910

BOSTON AND MAINE RAILROAD

January 29, 1959

Accident at South Wilmington, Mass , on October 28, 1958, caused by a motortruck occupying a grade crossing immediately in front of an approaching train

REPORT OF THE COMMISSION<sup>1</sup>

*FREAS, Commissioner*

On October 28, 1958, there was a collision between a passenger train on the Boston and Maine Railroad and a motortruck at a grade crossing at South Wilmington, Mass , which resulted in the death of 1 train-service employee, and the injury of 1 train-service employee and the driver of the motortruck. This accident was investigated in conjunction with representatives of the Massachusetts Department of Public Utilities

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<sup>1</sup> Under authority of section 17 (2) of the *Interstate Commerce Act* the above-entitled proceeding was referred by the Commission to Commissioner Freas for consideration and disposition



### Location of Accident and Method of Operation

This accident occurred on that part of the Boston Division extending between Boston, Mass. and White River Jct., Vt., 142.9 miles. In the vicinity of the point of accident this is a double-track line over which trains moving with the current of traffic are operated by timetable, train orders, and an automatic block signal system. At South Wilmington, 12.7 miles north of Boston, a siding 2,600 feet in length parallels the main track on the west. The north switch of the siding is located 419 feet north of the station sign. The accident occurred on the northward main track at a point 77 feet north of the station sign at South Wilmington where the tracks are crossed at grade by a private road. The main tracks are tangent throughout a distance of 3,461 feet immediately south of the point of accident and 2,759 feet northward. The grade is 0.39 percent ascending northward at the point of accident.

In the vicinity of the point of accident New Boston Street parallels the railroad on the west. The centerline of the street is approximately 140 feet west of the centerline of the siding. In the vicinity of the point of accident a parking area extends between New Boston Street and the railroad. The east boundary of the parking area is approximately 15 feet west of the siding. A chemical plant is located a short distance east of the main tracks. Access to the chemical plant from the parking area is provided by a private road which intersects the railroad at an angle of about 90 degrees. The road is surfaced with bituminous material. The crossing is approximately 20 feet in width. A 4-inch by 8-inch plank is laid on the gage side of each rail of the main tracks and siding throughout the width of the crossing, and the area between the planks is surfaced with bituminous material to the level of the tops of the rails. The road is tangent immediately east and west of the point of accident. From the west the average grade is 3.6 percent ascending throughout a distance of approximately 25 feet to the west rail of the southward main track, and it is level over the main tracks.

A manually-operated crossing gate is located about 18 feet west of the centerline of the siding. It consists of an arm 22 feet 1 inch in length mounted on a pedestal located on the south side of the road about 64 feet north of the station sign. The arm consists of two wooden sections. One end of each section is pivoted on an operating shaft which extends through the pedestal. The opposite ends of the sections are joined. Counterweights are provided at the pedestal end of the arm. Alternate white and black stripes are painted on the outside surfaces of the arm. The pedestal is equipped with a manually-operated crank connected by gears to the operating shaft for the raising and lowering of the arm. In the horizontal position the arm extends across the road and is 3 feet 6 inches above the surface of the road. Two signs are mounted on the arm. The sign nearer the pedestal bears the words "ONLY WATCHMAN OPEN GATE" and the other sign bears the words "NO TRUCKS BETWEEN 12 and 12 30". The normal position of the crossing-gate arm is horizontal, and, when required, it is raised to permit the movement of vehicles in either direction between the parking lot and the chemical plant.

A crossing watchman employed by the chemical company is regularly assigned to operate the crossing gate between 8:00 a. m. and 5:00 p. m.

The rules of the carrier do not require the engineers of trains to sound locomotive horns when approaching or moving over the road crossing. There is no warning device provided at the crossing to indicate the approach of trains.

The carrier's timetable's special instructions read in part as follows:

Rule 17 \* \* \* The headlight, lighted, will be displayed to the front of every Diesel-powered and Rail Motor Car train by day and of every train by night \* \* \*

The maximum authorized speed for passenger trains in the vicinity of the point of accident is 70 miles per hour.

### Description of Accident

No. 395, a northbound first-class passenger train, consisted of diesel-powered passenger-passenger unit No. 6203, and diesel-powered passenger units 6146, 6112, 6929, and 6132, in the order named, coupled in multiple-unit control. This train departed from Boston at 7:50 a. m., on time, passed Winchester, the last open office, 7.8 miles north of Boston at 8:02 a. m., 1 minute late, and while moving at an estimated speed of 60 miles per hour it struck a motortruck at a point 77 feet north of the station sign at South Woburn, where the railroad is crossed at grade by a private road.

The vehicle involved consisted of a tractor and semitrailer owned by The Sidney Lipman Company of Lynn, Mass. The driver, who was the sole occupant, held Massachusetts operator's license No. 095918C. The tractor was a 1956 model Diamond T and bore Massachusetts license B/6829. It was powered by a gasoline engine and was provided with a conventional cab and dual drive wheels. The semi-trailer was an open-top, low-side body, 1947 Highway Van Trailer with a single axle and dual wheels. It bore Massachusetts license T40931. Both the tractor and the semi-trailer were equipped with air brakes. At the time of the accident the semi-trailer was loaded with scrapings from fleshed hides. The overall length of the vehicle was about 36 feet, and the gross weight was estimated to be 45,000 to 50,000 pounds. About 7:15 a. m., the vehicle entered the parking area from New Boston Street and stopped at the crossing gate. About 8:05 a. m., the crossing watchman raised the crossing-gate arm to the vertical position. The vehicle then entered the crossing and while moving at a slow speed it was struck by No. 395.

No separations occurred between the units of No. 395 and none of the equipment was derailed. The first unit stopped with the front end 1,538 feet north of the point of accident. The front end of the first unit was heavily damaged, and the second unit was slightly damaged. A separation occurred between the tractor and the semi-trailer. The tractor stopped on its right side about 100 feet north of the point of accident at right angles to, and about 20 feet east of the northward main track. The semi-trailer stopped upright on, and in line with, the southward main track with the rear end 15 feet north of the crossing. The tractor and semi-trailer were destroyed.

The fireman of No. 395 was killed, and the engineer was injured.

The weather was foggy at the time of the accident, which occurred about 8:06 a. m.

During the 30-day period preceding the day of the accident the average daily movement over the crossing was 25 trains. During a 10-hour period beginning at 7:30 a. m., on November 5, 1958, 11 motortrucks passed over the crossing.

### Discussion

As No. 395 was approaching the point where the accident occurred the speed was about 60 miles per hour. The fireman, a qualified engineer, was operating the train from the engineer's station.

at the front of the first unit, and the engineer was standing beside him. The members of the train crew were in various locations in the units of the train. The brakes of this train had been tested and had functioned properly en route. The headlight was lighted dimly. The engineer said that visibility was materially restricted by fog. He said that he instructed the fireman to sound a warning blast on the horn when the train was approximately 1,590 feet south of the crossing although such warning was not required by the carrier's rules. He said that the fireman then sounded the horn and actuated the automatic bell ringer. The engineer said that when the train was approximately 250 feet south of the crossing, the fireman and he observed the crossing-gate arm move to the vertical position. He then observed a motortruck entering the crossing and called a warning to the fireman. The fireman immediately initiated an emergency application of the brakes but the speed of the train was not materially reduced before the collision occurred. The first the members of the train crew became aware of anything being wrong was when the collision occurred. The conductor and the flagman said that because of fog the range of vision was restricted to approximately 450 feet in the vicinity of the point of accident.

The motortruck involved arrived in the parking area at 7 15 a. m. on the day of the accident and stopped with the front end approximately 20 feet west of the crossing gate. The driver alighted from the motortruck about 7 50 a. m. He said that shortly after 8 00 a. m. the crossing watchman raised the crossing-gate arm and instructed him to proceed over the crossing. The driver then boarded the motortruck. He said that he looked northward and southward for approaching trains before entering the crossing at slow speed. He said that visibility was restricted by fog and he estimated that his range of vision was about 25 feet. He said that he did not hear either the sounding of the horn or the ringing of the bell of the approaching train. He observed No. 395 closely approaching as the motortruck moved over the crossing. He said that when the collision occurred he was attempting to clear the northward main track by increasing the speed of the motortruck.

The crossing watchman said that shortly after 8 00 a. m. on the day of the accident he proceeded to the center of the crossing and looked northward and southward for approaching trains. He said that visibility was restricted by fog and he estimated that his range of vision was between 200 and 300 feet. He said he neither saw nor heard anything to indicate that a train was approaching. He then went to the crossing gate, raised the crossing-gate arm to the vertical position, and returned to the center of the crossing. He again looked northward and southward but did not see or hear anything to indicate that a train was approaching. He said that he then gave a signal to the driver of the motortruck to proceed over the crossing. The crossing watchman said that he observed No. 395 approaching when it was approximately 200 feet distant and that he made an unsuccessful attempt to warn the driver of the motortruck.

The crossing watchman had been employed in that capacity for several years. He said he was aware that No. 395 was due at the crossing shortly after 8 00 a. m. but that since he did not see or hear anything to indicate the approach of No. 395, he thought that there was sufficient time to permit the motortruck to move over the crossing.

#### Cause

This accident was caused by a motortruck occupying a grade crossing immediately in front of an approaching train.

Dated at Washington, D C , this twenty-ninth  
day of January, 1959

By the Commission, Commissioner Freas

Harold D McCoy,

Secretary

(Seal)