

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 3238
BOSTON AND ALBANY RAILROAD COMPANY
REPORT IN RE ACCIDENT
NEAR HUNTINGTON, MASS., ON
MARCH 11, 1949

SUMMARY

Date: March 11, 1949

Railroad: Boston and Albany

Location: Huntington, Mass.

Kind of accident: Rear-end collision

Equipment involved: Track motor-car : Freight train

Train number: : Extra 1012 East

Engine number: : Diesel-electric
units 1012,
2306, and
1013

Consists: Motor-car 8312-M : Caboose

Speeds: 15 m. p. h. : 48 m. p. h.

Operation: Automatic block-signal and train-stop
systems

Tracks: Double; 4°04' curve; 0.52 percent
descending grade eastward

Weather: Cloudy

Time: 10:10 a. m.

Casualties: 1 killed

Cause: Failure to provide adequate protection
for movement of track motor-car

Recommendation: That the Boston and Albany Railroad
Company provide adequate block-
signal or train-order protection
for movement of track motor-cars
on its line

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3238

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

BOSTON AND ALBANY RAILROAD COMPANY

April 19, 1949

Accident near Huntington, Mass., on March 11, 1949, caused
by failure to provide adequate protection for the
movement of a track motor-car.

REPORT OF THE COMMISSION¹

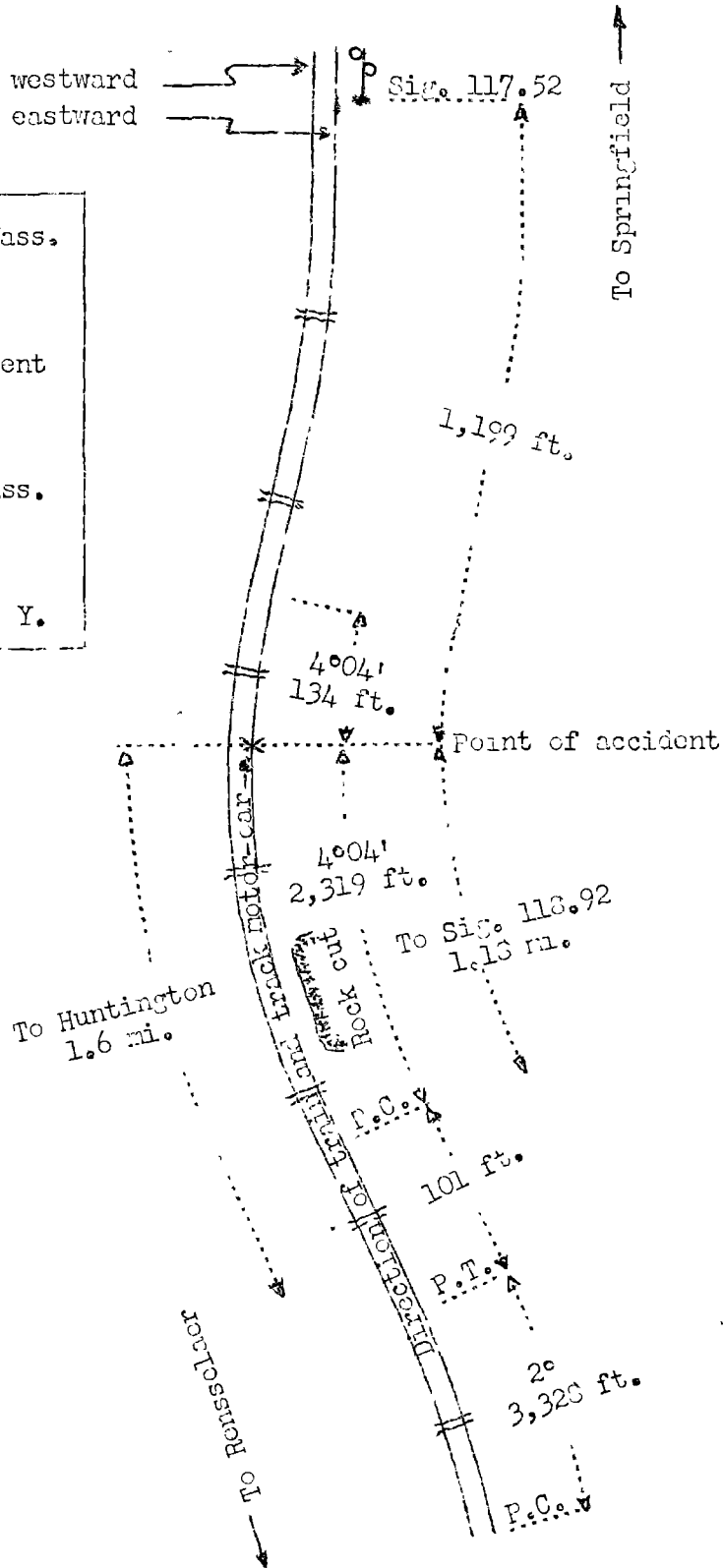
PATTERSON, Commissioner:

On March 11, 1949, there was a rear-end collision between a track motor-car and a freight train on the Boston and Albany Railroad near Huntington, Mass., which resulted in the death of one maintenance-of-way employee. This accident was investigated in conjunction with a representative of the Department of Public Utilities of Massachusetts.

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Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.

Track No. 1, westward
Track No. 2, eastward

- | | | |
|---|--------------------|-----------|
| ○ | Springfield, Mass. | 9.57 mi. |
| ○ | Westfield | 9.75 mi. |
| X | Point of accident | 1.60 mi. |
| ○ | Huntington | 13.40 mi. |
| ○ | Washington, Mass. | 24.13 mi. |
| ○ | State Line | 38.05 mi. |
| ○ | Rensselaer, N. Y. | |



Inv. No. 3236
Boston and Albany Railroad
Huntington, Mass.
March 11, 1949

Location of Accident and Method of Operation

This accident occurred on that part of the railroad extending between Rensselaer, N. Y., and Springfield, Mass., 101.5 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 signal indications and an automatic train-stop system. The main tracks from north to south are, No. 1, westward, and No. 2, eastward. The accident occurred on track No. 2 at a point 1.6 miles east of the station at Huntington. From the west there are, in succession, a 2° curve to the left 3,328 feet, a tangent 101 feet, and a 4°04' curve to the right 2,319 feet to the point of accident and 134 feet eastward. The grade is 0.52 percent descending eastward. Between points 1,000 and 1,340 feet east of the west end of the 4°04' curve the tracks are laid in a rock cut, the south wall of which rises to a height of about 25 feet.

Automatic signals 118.92 and 117.52, governing east-bound movements on track No. 2, are located, respectively, 1.18 miles west and 1,199 feet east of the point of accident. These signals are of the three-indication color-light type, and are approach lighted.

This carrier's operating rules read in part as follows:

11a. On portions of the road so specified on the time-table, trains may, after stopping, proceed prepared to stop short of train ahead or obstruction, without extinguishing fusee.

15. The explosion of two torpedoes is a signal to reduce speed and prepare to stop short of train ahead or obstruction. * * *

* * *

99. * * *

* * *

When a train is moving under circumstances in which it may be overtaken by another train, the flagman must take such action as may be necessary to insure full protection. By night, or by day when the view is obscured, lighted fusees must be thrown off at proper intervals.

* * *

Rules governing the operation of track motor-cars read in part as follows:

1906. Cars operated where track circuits are in use must have insulated wheels.

1916. * * * Cars that cannot be quickly removed from track must be protected.

1918. Employes in charge of operation of cars must obtain, so far as possible, and in writing when practicable, information concerning train and engine movements. Such information will not relieve persons in charge from insuring full protection. When conditions require, protection from train dispatcher must be obtained.

1919. Cars must be operated with the expectation of finding main track in use. A lookout for approaching trains must be maintained in both directions.

Timetable special instructions read in part as follows:

TRACK MOTOR CARS.

On two or more tracks employes in charge of operation of motor cars must have permission from the Train Dispatcher before occupying main track, specifying working limits, and must not proceed beyond such limits without permission from the Train Dispatcher. When motor car has cleared the main track employe in charge must so report.

EXCEPTION: Section Foremen operating motor cars within the limits of their own sections.

* * *

The maximum authorized speed was 50 miles per hour for the freight train, and 20 miles per hour for the track motor-car.

Description of Accident

About 9:50 a. m., track motor-car 3312-M was placed on track No. 2 at a point about 3 miles west of Huntington, then it proceeded eastward, passed the station at Huntington about 10 a. m., and while moving on track No. 2 at an estimated speed of 15 miles per hour it was struck by Extra 1012 East.

Extra 1012 East, consisting of Diesel-electric units 1012, 2306 and 1013, coupled in multiple-unit control, and a caboose, passed State Line, 42.53 miles west of Huntington, at 9:02 a. m., passed Huntington at 10:07 a. m., and while moving on track No. 2 at a speed of 48 miles per hour it struck track motor-car 8312-M.

Motor-car 8312-M was demolished, and the front cover plate over the front coupler of the first Diesel-electric unit was damaged. The wreckage of the motor car lodged against the pilot of engine 1012 and was pushed eastward 1,705 feet to the point where the front of engine 1012 stopped.

It was cloudy at the time of the accident, which occurred about 10:10 a. m.

A maintenance-of-way employee, who had been on the track motor-car, was killed.

Motor-car 8312-M was of the 4-wheel type, and was insulated to prevent the shunting of track circuits. It weighed 935 pounds, had seating capacity for 8 persons, was 7 feet 6 inches long, 3 feet 8-15/16 inches in height above the tops of the rails, and was 5 feet 3-11/16 inches wide. Movable rear-lift extension handles were provided for use in removing it from the track.

During the 30-day period preceding the day of the accident, the average daily movement of trains in the territory involved was 20.8 trains, eastward, and 22.3 trains, westward.

Discussion

The investigation disclosed that about 9:15 a. m. on the day of the accident, the foreman of the maintenance-of-way force assigned to the section of track on which this accident occurred requested from the agent-operator at Huntington a line-up of train movements on tracks Nos. 1 and 2. The agent communicated with the train dispatcher and copied a line-up of train movements from the dispatcher. The line-up contained information that Extra 1019 West had departed from Westfield, 11.35 miles east of Huntington, at 8:58 a. m., that No. 78, an east-bound passenger train, had departed from Washington, 18.4 miles west of Huntington, at 9:15 a. m., and that Extra 1012 East had departed from State Line, 42.53 miles west of Huntington, at 9:07 a. m. A copy of this line-up was delivered to the foreman. After Extra 1019 West, moving on track No. 1, had passed Huntington, the

maintenance-of-way force, consisting of the foreman and three laborers, placed track motor-car 8312-M on track No. 1 and departed west-bound about 9:40 a. m. When this force reached a point 2.75 miles west of Huntington, the track motor-car was placed upon track No. 2, and it departed east-bound about 9:50 a. m., passed the station at Huntington about 10 a. m., passed automatic signal 118.92, which was dark, and, when it was about 1,500 feet west of signal 117.52, members of the maintenance-of-way force observed that the signal was lighted and that it indicated Clear. Since the track motor-car was insulated to prevent the shunting of track circuits and since signal 117.52 is approach lighted, the foreman realized that the block was occupied to the rear of the track motor-car. He applied the brakes and warned the other members of the force to alight, then he observed Extra 1012 East approaching about 300 feet distant. As the train was so close no attempt was made to remove the motor-car from the track, and it was moving at the time of the collision. One maintenance-of-way employee was killed when he was struck by the train as he attempted to regain his footing after falling between the tracks.

As Extra 1012 East was approaching the point where the accident occurred the speed was about 48 miles per hour, as indicated by the tape of the speed-recorder with which the first Diesel-electric unit was equipped. The headlight was lighted dimly. The enginemen were maintaining a lookout ahead from their respective positions in the control compartment of the first Diesel-electric unit, and the members of the train crew were in the caboose. Signal 118.92 indicated Clear, and the enginemen called the indication. No train order restricting the movement of Extra 1012 East with respect to track motor-cars had been issued, and the crew of this train had not been informed that a track motor-car was occupying the main track. The engineer first observed the motor-car a short distance ahead when his engine emerged from the rock cut near the western portion of the curve. He immediately moved the brake valve to emergency position, but the collision occurred before the action of the brakes materially decreased the speed of the train. The brakes of this train had been tested and had functioned properly en route. The south wall of the rock cut at the west end of the curve restricted the view of the point where the accident occurred to a distance of 1,000 feet.

Operators of track motor-cars in this territory are given line-ups, either written or oral. A line-up neither confers right over trains or other track motor-cars, nor relieves the operator of responsibility for collision if the

line-up is erroneous. Within the limits of their assigned section, as in this case, section foremen are not required to obtain permission to occupy any main track, nor to report clear of any main track. Train crews and the operators of other track motor-cars are not informed when a track motor-car is occupying the main track. Trains may be created at any time after the issuance of a line-up and without the issuance of a superseding line-up, and operators of track motor-cars operating within their assigned territory are not required to obtain further information. Because track motor-cars are insulated to prevent them from shunting track circuits, automatic block-signal and automatic train-stop systems do not indicate to train crews that the track is occupied by a track motor-car.

The rules governing the operation of track motor-cars on this line require that track motor-cars must be protected by their crews at all times, and this protection must be of the same degree whether a line-up of train movements is provided or not. Such protection consists of visual observation in both directions by the occupants of track motor-cars, and by flag protection. At the time of the accident the motor-car involved was equipped with the required flagging signals and a portable telephone. The foreman said that when the motor-car was placed on track No. 2 and before proceeding eastward he placed two torpedoes about 75 feet apart on the south rail of this track, then placed a lighted 5-minute red fusee about 300 feet farther east. In addition, lighted fusees were dropped at each automatic signal, including signal 118.92, and the laborer assigned to maintain a lookout to the rear was preparing to light a red fusee to drop at signal 117.52. This employee said that when he alighted from the motor-car just before the collision occurred he lighted the fusee and gave stop signals, but these signals were not answered. The foreman was aware that the maximum authorized speed of Extra 1012 East was 50 miles per hour, but he calculated on the basis of the usual running time of 1 hour 30 minutes between State Line and Huntington that sufficient time remained to proceed farther eastward. However, the movement of this train was faster than the foreman anticipated. Extra 1012 East passed State Line at 9:02 a. m., passed Huntington at 10:07 a. m., and the accident occurred at 10:10 a. m. An average speed of 38.93 miles per hour was maintained between State Line and the point of accident, and the total elapsed time was 1 hour 8 minutes. None of the members of the maintenance-of-way force, except the foreman, had information as to the expected arrival of trains on either track, because they did not see and the foreman did not tell them the contents of the

line-up. It neither was a practice nor a requirement that they be informed concerning the actual or anticipated movements of trains. The line-up in the instant case contained information that Extra 1012 East had passed State Line at 9:07 a. m., when it actually had passed that point at 9:02 a. m. The train dispatcher said that he had given the time as 9:02 a. m. from his record of movement of trains. The agent-operator at Huntington said he understood the train dispatcher to say that the time was 9:07 a. m., and he copied that time on the line-up which he gave to the foreman. The members of the crew of Extra 1012 East said their train exploded no torpedo in the territory traversed by motor-car 8312-M, and they encountered no burning fusee in that territory. The last fusee dropped by the maintenance-of-way force was a 5-minute fusee dropped near signal 118.92, about 10 a. m. Extra 1012 East passed this point about 10:07 a. m., therefore, this fusee was consumed. The engineer said that he sounded a grade-crossing signal on the pneumatic horn for a private-road crossing located about 1,800 feet west of the point of accident. The maintenance-of-way force said they did not hear the sound of the horn above the noise of the motor of the track motor-car.

During the past six years the Commission has investigated twenty collisions involving track motor-cars, including the instant case. These accidents resulted in the death of 43 persons, and the injury of 81 persons, and were caused by failure to provide adequate protection for the movement of track motor-cars. If an adequate block system had been provided to protect the movement of the track motor-car, both the train and the track motor-car would not have been permitted to occupy the same block simultaneously. If adequate train-order protection had been provided for the movement of the track motor-car, the members of the crew of Extra 1012 East and the employees on the track motor-car would have had a common understanding with respect to the movements in question.

Cause

It is found that this accident was caused by failure to provide adequate protection for the movement of a track motor-car.

Recommendation

It is recommended that the Boston and Albany Railroad Company provide adequate block-signal or train-order protection for the movement of track motor-cars on its line.

Dated at Washington, D. C., this nineteenth day of April, 1949.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.