INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT NO. 3432

THE PENNSYLVANIA RAILROAD COMPANY

IN RE ACCIDENT

NEAR EAST ORWELL, OHIO, ON

OCTOBER 16, 1951

SUMMARY

Date:	October 16, 1951
Railroad:	Pennsylvania
Location:	East Orwell, Ohio
Kind of accident:	Derailment
Train involved:	Freight
Train number:	Extra 9724 West
Engine number:	Diesel-electric units 9724A and 9725A
Consist:	1 car, caboose
Estimated speed:	25 m. p. h.
Operation:	Train orders and manual-block system
Track:	Single; tangent; 0.48 percent descending grade westward
Weather:	Foggy; misting
Time:	2:40 a. m.
Casualties:	3 injured
Cause:	Broken rail

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REPORT NO. 3432

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

THE PENNSYLVANIA RAILROAD COMPANY

November 20, 1951

Accident near East Orwell, Ohio, on October 16, 1951, caused by a broken rail.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On October 16, 1951, there was a derailment of a freight train on the Pennsylvania Railroad near East Orwell, Ohio, which resulted in the injury of three employees.

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[1] 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.

Report No. 3432
Pennsylvania Railroad
East Orwell, Ohio
October 16, 1951

Location of Accident and Method of Operation

This accident occurred on that part of the Lake Division extending between Detour and GR, Ashtabula, Ohio, 39.2 miles. In the vicinity of the point of accident this is a single-track line, over which trains are operated by train orders and a manual-block system. The accident occurred on the main track at a point 26.33 miles west of Detour and 1.03 miles west of the station at East Orwell. From the east there is a tangent 3.3 miles in length to the point of accident and 0.75 mile westward. The grade for west-bound trains is 0.48 percent descending at the point of accident.

In the vicinity of the point of accident the track is laid on a fill about 4 feet in height. The track structure consists of 130-pound rail, 39 feet in length, cropped and relaid in June, 1949, on an average of 22 ties per rail length. It is fully tieplated, single-spiked, provided with 4-hole 24-inch joint bars, fully bolted, and an average of 3 rail anchors per rail length. It is ballasted with cinders to a depth of 24 inches below the bottoms of the ties.

At the point of accident a slag-surfaced secondary highway crosses the railroad at an angle of about 90 degrees. The crossing is of cinder construction. It is 14 feet in width. Flangeways are not provided. The top of the highway surface at the crossing is about 1 inch below the level of the tops of the rails. In the vicinity of the point of accident an auxiliary track, used for the storage of cars, parallels the main track on the north.

The maximum authorized speed for the train involved was 30 miles per hour.

Description of Accident

Extra 9724 West, a west-bound freight train, consisted of Diesel-electric units 9724A and 9725A, coupled in multiple-unit control, one car and a caboose, in the order named. This train passed Detour at 12:41 a. m., departed from North Warren, the last open office, 20.93 miles east of the point of accident, at 1:47 a. m., and while it was moving at an estimated speed of 25 miles per hour the caboose was derailed at a point 1.03 miles west of the station at East Orwell.

The caboose stopped on its left side and south of the track, with the front end 200 feet west of the center-line of the highway. It was considerably damaged during the derailment and was further damaged by fire. No other equipment of the train was derailed.

The conductor, the front brakeman and the flagman were injured.

The weather was foggy and it was misting at the time of the accident, which occurred about 2:40 a. m.

Discussion

Extra 9724 West was moving on tangent track at a speed of about 25 miles per hour, in territory where the maximum authorized speed for this train was 30 miles per hour, when the derailment occurred. The brakes of this train had been tested and had functioned properly when used en route. The headlight was lighted brightly. The engineer and the fireman were maintaining a lookout ahead from their respective positions in the control compartment of the first Diesel-electric unit. The conductor, the front brakeman and the flagman were in the caboose. All members of the crew said the train was riding smoothly when the brakes became applied in emergency as a result of the derailment.

Examination of the equipment of Extra 9724 West disclosed no condition that would have caused the derailment. There was no indication of dragging equipment or of an obstruction having been on the track. Examination of the track disclosed that the surface, gage and alinement were adequately maintained for the maximum authorized speed in this territory.

After the accident occurred, a broken rail was found on the south side of the track at the rail-highway grade crossing. This rail was broken into many pieces, 10 of which were recovered. Breaks occurred at points 12 feet 11-1/2 inches, 14 feet 2 inches, 14 feet 5-1/2 inches, 14 feet 9-1/2 inches, 15 feet 3 inches and 15 feet 6 inches from the receiving end of the rail. An old break, approximately 58 inches in length, which had been covered by the cinder ballast, was found in the web of the rail. The breaks through the head, web and base of the rail were new and apparently had progressed from the old fracture. The head of the rail west of the failed portion was battered. Apparently one or more of the small pieces of the rail between the breaks became dislodged either by the locomotive or by the car, and the rear truck of the caboose was derailed at that point.

The track supervisor last inspected the track in the vicinity of the point of accident six days before the accident occurred and found no defective condition. The track in the vicinity of the point of accident was last inspected by the section foreman on the day before the accident occurred. He passed over the crossing on a track motor-car and observed no defective condition. Members of the crew of an east-bound freight train which passed the point of derailment about 1 hour 40 minutes before the accident occurred said that their train rode smoothly in the vicinity of the crossing and they observed no unusual or defective condition of the track. A rail-defect detector car was operated over this territory on June 18, 1951, at which time no defective condition of the rail involved was indicated.

Cause

It is found that this accident was caused by a broken rail.

Dated at Washington, D. C., this twentieth day of November, 1951.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,

Secretary.