

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3379
ELGIN, JOLIET & EASTERN RAILWAY COMPANY
IN RE ACCIDENT
AT WHITING, IND., ON
DECEMBER 8, 1950

SUMMARY

Date: December 8, 1950

Railroad: Elgin, Joliet & Eastern

Location: Whiting, Ind.

Kind of accident: Rear-end collision

Trains involved: Freight : Freight

Train numbers: Extra 809 East : Extra 215 East

Engine numbers: Diesel-electric : Diesel-electric
unit 809 : unit 215

Consists: 69 cars, caboose : 2 cars, caboose

Estimated speeds: 2 m. p. h. : 8 m. p. h.

Operation: Yard limits

Tracks: Double; 3° curve; 0.11 percent
ascending grade eastward

Weather: Cloudy; dusk

Time: 4:50 p. m.

Casualties: 1 killed; 3 injured

Cause: Failure properly to control speed of
following train moving within yard
limits

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3379

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

ELGIN, JOLIET & EASTERN RAILWAY COMPANY

January 30, 1951

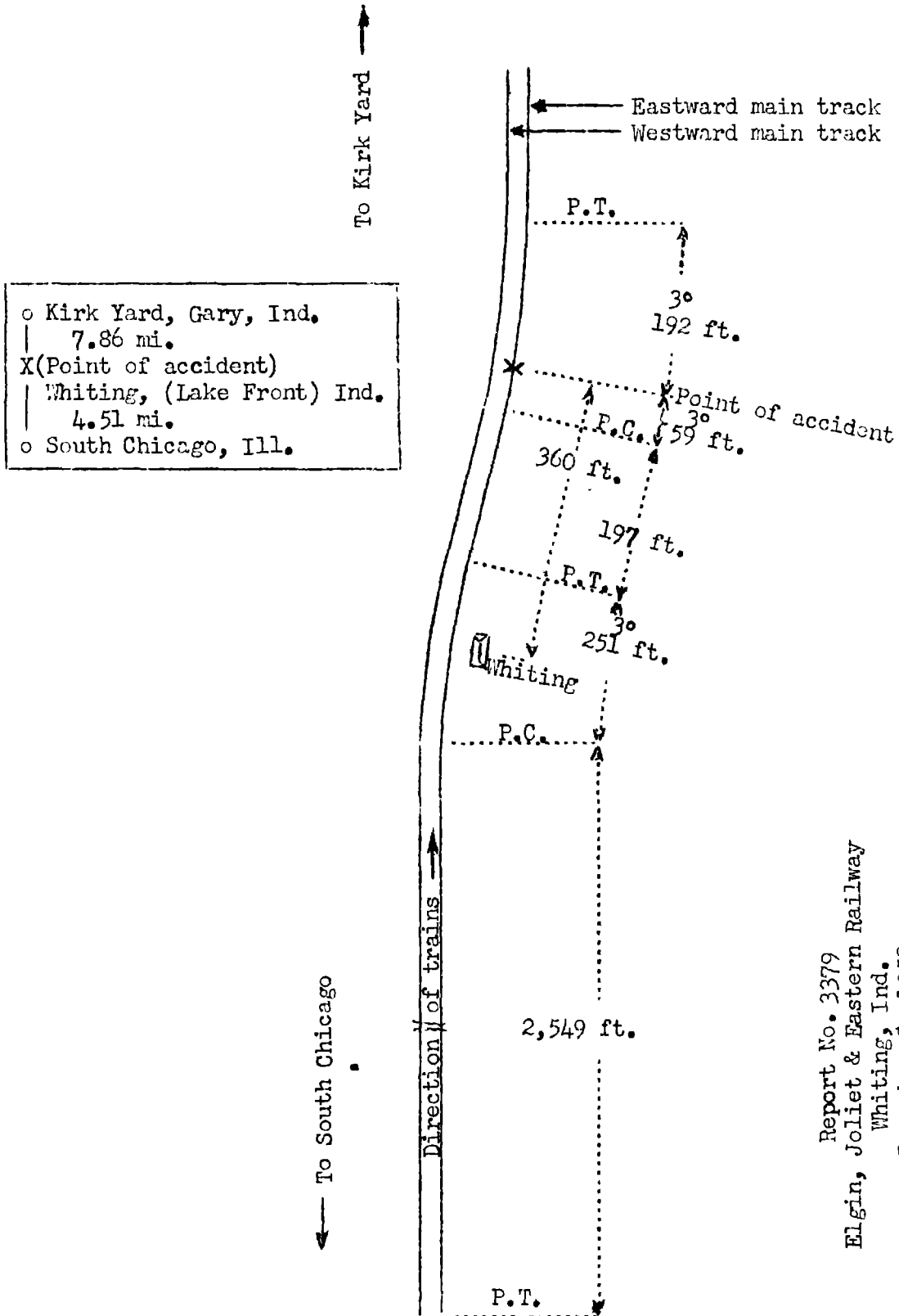
Accident at Whiting, Ind., on December 8, 1950, caused by
failure properly to control the speed of the following
train moving within yard limits.

REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On December 8, 1950, there was a rear-end collision
between two freight trains on the Elgin, Joliet & Eastern
Railway at Whiting, Ind., which resulted in the death of
one employee and the injury of three employees.

1
Under authority of section 17 (2) of the Interstate Com-
merce Act the above-entitled proceeding was referred by the
Commission to Commissioner Patterson for consideration and
disposition.



Report No. 3379
Elgin, Joliet & Eastern Railway
Whiting, Ind.
December 8, 1950

Location of Accident and Method of Operation

This accident occurred on that part of the Gary Division extending between South Chicago, Ill., and Kirk Yard, Gary, Ind., 12.37 miles, a double-track line, over which trains are operated by rules governing movements within yard limits. There is no block system in use. The accident occurred on the eastward main track at a point 4.58 miles east of South Chicago and 360 feet east of the station at Whiting, Ind. From the west there are, in succession, a tangent 2,549 feet in length, a 3° curve to the right 251 feet, a tangent 197 feet, and a 3° curve to the left 50 feet to the point of accident and 192 feet eastward. The grade is 0.11 percent ascending eastward.

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

DEFINITIONS.

Reduced Speed.--Proceed prepared to stop short of a train, obstruction, or anything that may require the speed of a train or engine to be reduced.

93. Within yard limits the main track may be used, protecting against first class trains.

Second and third class, extra trains and engines must move within yard limits at reduced speed unless the track is seen or known to be clear.

* * *

Timetable general instructions read in part as follows:

1. The Gary Division between South Chicago and Kirk Yard * * * is double track and yard limits over which trains and engines may move without train orders, clearance Form A, or time-table schedule.

The maximum authorized speeds were 15 miles per hour for trains handling hot-metal cars and 45 miles per hour for other freight trains.

Description of Accident

Extra 809 East, an east-bound freight train, consisted of Diesel-electric unit 803, 69 cars and a caboose. This train departed from South Chicago at 4:25 p. m., and while it was moving at a speed of about 2 miles per hour the rear end was struck by Extra 215 East at a point 360 feet east of the station at Whiting.

Extra 215 East, an east-bound freight train, consisted of Diesel-electric unit 215, 2 cars and a caboose. This train entered the eastward main track at 94th Street, about 4 miles west of Whiting, and departed from that point about 5 minutes after Extra 809 East had passed. While it was moving at a speed of about 8 miles per hour it struck the rear end of Extra 809 East.

The front truck of the Diesel-electric unit of Extra 215 East was derailed to the south, and the unit stopped with its front end 49 feet east of the point of accident and 11 feet 6 inches south of the center-line of the track. It was badly damaged. No car of either train was derailed. The rear end of the caboose of Extra 809 East was damaged in the collision, and the caboose was destroyed by fire resulting from the collision.

The conductor of Extra 809 East was killed. The flapper of Extra 809 East, and the engineer and the fireman of Extra 215 East were injured.

The weather was cloudy and it was dusk at the time of the accident, which occurred about 4:50 p. m.

The two cars which were in the train of Extra 215 East at the time of the accident were hot-metal cars owned by the Youngstown Sheet & Tube Company, and were used for transporting molten metal. Each car was 42 feet 6-1/2 inches in length and was constructed with a cylindrical body section suspended between two 6-wheel trucks. Because of the unusually heavy gross weights of these cars, they were equipped with brakes of a modified AB type. The brake assembly on each car included a standard AB valve, reservoir, and 10-inch by 12-inch brake cylinder, and, in addition, a B-3 relay valve, a 16-inch by 33-inch reservoir, and a 16-inch by 12-inch brake cylinder. Both the large reservoir and the AB reservoir were charged through the AB valve. The piston of the 10-inch brake cylinder was not connected to the brake rigging, and this brake cylinder served only to establish the pressure in the 16-inch brake cylinder. Brake-cylinder pressure in the 10-inch brake cylinder was regulated by the AB valve, as in conventional AB brake operation. This brake-cylinder pressure was reproduced in the 16-inch brake cylinder by the operation of the relay valve, which regulated the flow of air from the large reservoir to the 16-inch brake cylinder. The piston of the 16-inch brake cylinder actuated the foundation brake rigging in the application and the release of the brakes.

The braking ratio was 46.7 percent when the cars were empty and 24 percent when the cars were loaded to capacity limit. The light weight and the load limit of each car were, respectively, 285,000 pounds and 560,000 pounds. At the time of the accident the cars were loaded, and the gross weight of the two cars was 953,100 pounds.

The Diesel-electric unit of Extra 215 East was equipped with 14-EL brake equipment, and the caboose was equipped with AB type brake equipment.

Discussion

As Extra 809 East was approaching the point where the accident occurred, the enginemen and the front brakeman were in the control compartment of the Diesel-electric unit, and the conductor and the flagman were in the caboose. When the train was being stopped behind a preceding train, the rear end was struck by Extra 215 East. A supply of oil in the caboose became ignited immediately after the collision occurred, and the flames spread rapidly through the wooden superstructure of the caboose. The enginemen said that the train was stopped by the use of the independent brake. They noticed an unusual movement of the Diesel-electric unit several seconds before the train stopped, but the automatic brakes of the train were not applied as a result of the collision and the enginemen were not aware that an accident had occurred until they observed that the caboose was burning. The flagman said that the conductor did not give a warning and apparently did not observe the approach of Extra 215 East. Until the collision occurred, the flagman was unaware that a following train was approaching. He said that the marker lights on the rear of the caboose were lighted when the train departed from South Chicago and also when he observed them a short time before the train passed the station at Whiting.

The two cars in the train of Extra 215 East were added to that train at 94th Street. These two cars had been handled by the same crew on a previous trip on the day of the accident. The brakes had been tested and had functioned properly at that time. As Extra 215 East was approaching the point where the accident occurred, the enginemen were maintaining a lookout ahead from the control compartment of the Diesel-electric unit, and the members of the train crew were in the caboose. The headlight was lighted brightly. The speed was about 13 miles per hour. Because of curvature of the track and several buildings adjacent to the track, the engineer's view of the point where the accident occurred was

restricted to a distance of 562 feet. The control compartment was at the rear of the Diesel-electric unit of Extra 215 East, and the fireman's view of the point where the accident occurred was restricted to a distance of 300 feet. The engineer said that he did not observe the marker lights of Extra 809 East, and that he first observed this train by the reflection of the headlight on the rear windows of the caboose about 400 feet distant. He immediately made an emergency application of the brakes, but the collision occurred before the train could be stopped.

Several days after the accident occurred, braking tests were made of the two cars and the caboose which were in the train of Extra 215 East. A Diesel-electric unit of the same class as Diesel-electric unit 215 was used in these tests. When the tests were conducted, the gross weight of the two hot-metal cars was 1,125,260 pounds, as compared with 953,100 pounds at the time of the accident. The assistant superintendent of the car department of the carrier said that no adjustments or repairs had been made to the brake equipment of these cars between the time of the accident and the time of the tests. During the first test, the brake-pipe pressure was 70 pounds. When a service brake-pipe reduction of 20 pounds was made, 21 seconds elapsed before maximum brake-cylinder pressure was obtained. During the next test, the brake-pipe pressure again was 70 pounds. The brake valve was then placed in emergency position. Twenty-one seconds elapsed before maximum brake-cylinder pressure was obtained, the same length of time as was required during the service application of the brakes. During another test a speed of 13 miles per hour was attained with this train, and a service brake-pipe reduction of 20 pounds was initiated at the point at which the engineer first could have obtained a view of the point where the accident occurred. The train stopped with the Diesel-electric unit 548 feet east of the point at which the brake application was initiated and 214 feet west of the point of accident. There was nothing disclosed in these tests to indicate that the brakes of the following train were not functioning properly on the day of the accident.

This accident occurred on a main track designated by timetable as within yard limits, and under the rules Extra 215 East was required to be operated in such manner that it could be stopped short of a train or an obstruction.

Cause

It is found that this accident was caused by failure properly to control the speed of the following train moving within yard limits.

Dated at Washington, D. C., this thirtieth day of January, 1951.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.