

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT OF THE DIRECTOR
BUREAU OF SAFETY

ACCIDENT ON THE
WABASH RAILWAY

NEW HAVEN, IND.

SEPTEMBER 7, 1937

INVESTIGATION NO. 2198

SUMMARY

Inv-2198

Railway:	Wabash
Date:	September 7, 1937
Location:	New Haven, Ind.
Kind of accident:	Derailment
Train involved:	Passenger
Train number:	3
Engine number:	662
Speed:	30-50 m.p.h.
Track:	5° right curve; 0.3 percent ascending grade.
Weather:	Clear
Time:	10:17 p.m.
Casualties:	1 killed; 3 injured
Cause:	Excessive speed on sharp curve

October 14, 1937.

To the Commission:

On September 7, 1937, there was a derailment of a passenger train on the Wabash Railway at New Haven, Ind., which resulted in the death of one employee and the injury of one passenger and two employees. This accident was investigated in conjunction with the Indiana Public Service Commission.

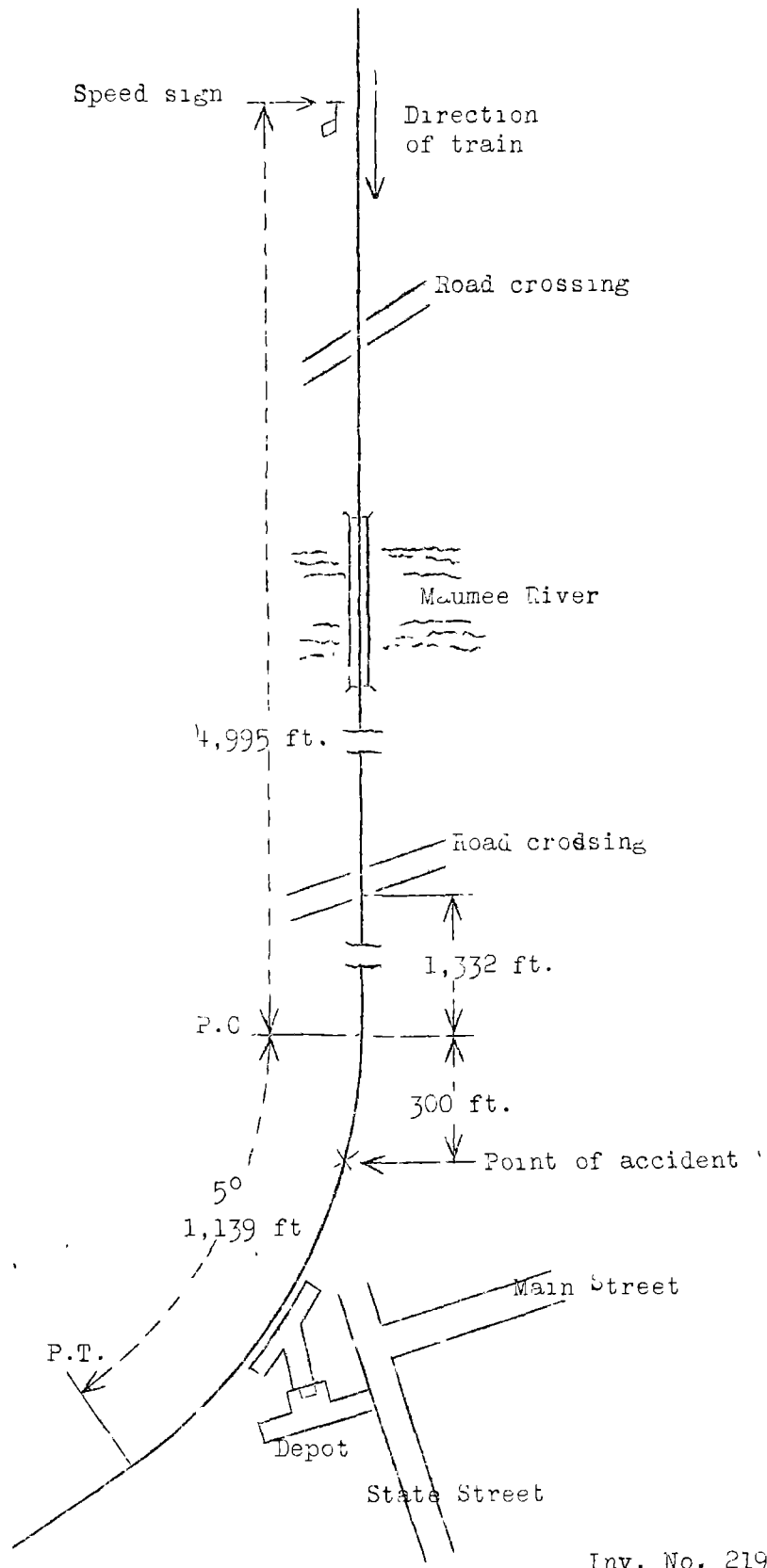
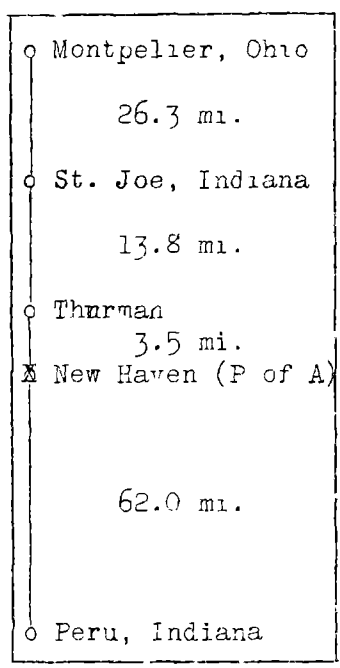
Location and method of operation

This accident occurred on the First District of the Montpelier Division, extending between Montpelier, Ohio, and Peru, Ind., a distance of 105.6 miles; in the vicinity of the point of accident this is a single-track line over which trains are operated by timetable, train orders and an automatic block-signal system. The accident occurred on a sharp curve, at a point approximately 700 feet east of the station at New Haven. Approaching this point from the east the track is tangent for a distance of more than 24 miles, followed by a 5° curve to the right 1,134 feet in length, on which the accident occurred at a point 300 feet from its eastern end. The grade is 0.3 percent ascending westward at the point of accident. The track involved is on a fill, varying in height from 1½ to 19 feet, and is laid with 110-pound rail, 39 feet in length, with 24 ties to the rail length, fully tie-plated, double-spiked on the inside of the curve and ballasted with rock to a depth of 12 inches under the ties. Three gauge rods and four rail anchors per rail are used on the curve. The track is well maintained. The superelevation of the outside rail of the curve is 2 inches, which is standard for a speed of 25 miles per hour. The gauge varies from 4 feet 8½ inches to 4 feet 8 7/8 inches, being 4 feet 8 5/8 inches at the point of derailment.

The weather was clear at the time of the accident, which occurred about 10:17 p.m.

Description

Train No. 3, a west-bound passenger train, consisted of one mail car, one express car, one combination car, one coach, one chair car, one lounge car and two Pullman sleeping cars, in the order named, of all-steel construction, hauled by engine 662, of the 4-6-2 type, and was in charge of Conductor Kriebel and Engineman Karicofe. This train passed St. Joe, the last open office, 17.3 miles east of New Haven, at 10:01 p.m., according to the train sheet, on time, and was derailed on the curve at New Haven while traveling at a speed variously estimated to have been between 30 and 50 miles per hour.



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Engine 662, its tender, the first six cars and the forward truck of the seventh car were derailed toward the south; the rear car remained on the rails. The engine stopped on its right side, about 250 feet west of the point of derailment; it was stripped of its cab and all appurtenances and was otherwise badly damaged. The tender was torn from its trucks and stopped, end up, against the north side of the engine. The baggage and lounge cars stopped opposite and north of the tender, and the other four derailed cars passed by the engine and stopped leaning at angles of about 15 to 20 degrees, with the forward end of the third car in the train farthest west, it being approximately 500 feet west of the point of derailment. The employee killed was the engineman, and the employees injured were the fireman and baggageman-helper.

Summary of evidence

Fireman Miller stated that the air brakes worked properly in making stops en route. The engineman appeared to be in normal condition, there was nothing unusual about the run and the train was on time. Approaching New Haven the speed was about 70 miles per hour, and on reaching the public road crossing located east of the bridge over Maumee River, the engineman made a brake pipe reduction and the brakes responded properly. The fireman then got on the deck and started to work on the fire, and while so doing he noticed that upon reaching the second road crossing west of the bridge another brake pipe reduction was made, but was unable to say whether the brakes had been released between the two reductions. About the time the curve was reached he returned to the seat box and immediately realized that the speed was too great for the curve. He estimated the speed at the time of derailment to have been about 45 miles per hour, and thought that the engine truck was derailed first. He stated that the engineman had started braking a sufficient distance from the curve to permit of entering it at the proper speed. He had not noticed anything wrong with track conditions.

Conductor Kriebel stated that both standing and running air brake tests were made in Detroit terminal and that the brakes operated satisfactorily en route. He was in the fourth car reviewing his work reports as they approached New Haven and as the coach was lighted he could not see out into the dark. They passed over Maumee River bridge at 10:17 p.m. and almost directly afterwards he felt a service application of the air brakes, at about the customary place; the speed was reduced apparently as usual. He walked toward the front end of the car so as to be in position to look over the train as it rounded the curve, but just as he reached the door several jerks occurred and the cars began to surge. In conversing with the engineman at Detroit he had appeared to be in normal condition

and in good health. The train was on time and there was nothing unusual about the condition of the track.

Statements of Brakeman Robinson, Flagman Warren, Baggage man Stoker and Baggage man-Helper Combs were similar to those of the conductor; the brakeman was in the third car and the flagman in the rear car. The flagman said that the speed was about 45 or 50 miles per hour before the brakes were applied in the usual manner when crossing the bridge, and that it was reduced to about 30 or 35 miles per hour at the road crossing. The brakeman felt the air brakes applied in the usual manner when the train was crossing the bridge at a speed of about 40 miles per hour and shortly afterwards the train lurched and the derailment occurred.

Section Foreman Hauser stated that the stretch of track one mile east of New Haven curve is the best piece of track on his section, and that it is only necessary to give it occasional spot surfacing and lining; there are no soft spots. Because of the 15 mile per hour speed restriction on the curve involved very little maintenance work has been necessary to keep it in good condition. The surface, gauge and alinement of this curve are checked twice a week, and it is in safe condition for the permissible speed; the gauge is maintained 1/8 inch to 1/4 inch wide. The train was derailed about 300 feet west of the east end of the curve and the engine turned over about 250 feet from where it jumped the high rail of the curve.

Division General Car Foreman Chappell and Master Mechanic Rieck examined the train at New Haven; the air brakes were set on the two Pullman sleeping cars at the rear of the train and all of the angle cocks that were not torn off as a result of the derailment were in open position. Thorough examination of the engine made by the master mechanic, including tires, running gear, engine truck, center castings, engine truck center casting rockers, and all reciprocating parts, failed to disclose any condition that would have contributed to the accident.

Division Engineer Bennett stated that the distance from the point of derailment to where the track was torn up measured 137 feet, and from that point westward it was necessary to rebuild 156 feet of track, requiring four 39-foot rails on each side of the track and two other rails to replace bent rails.

Road Foreman of Engines Cospers stated that in connection with Engineman Karicofe's character and general application to his work he had always found the engineman temperate in his habits, of good health, a steady worker, observant of the rules and special instructions and careful in train handling; he considered him a good engineman.

Observations by Inspectors

Inspection of the track by the Commission's inspectors in company with officials of the railway disclosed the first marks of derailment to be at a point 300 feet west of the eastern end of New Haven curve. These consisted of a slight indentation, apparently a flange mark, on the head of a rail anchor, and along the base of the south rail for a distance of 29 inches. A slight abrasion on the top of the tieplates in the same vicinity indicated that the tread of the same wheel had passed over them. After leaving the base of the rail the flange mark continued across the top of the first three ties and passed off the end of the third tie. No other marks of any description were found on the side of or between the running rails between that point and the point where the track was torn out, indicating that the head cars in the train were not derailed until they reached a point 137 feet west of the point where the engine was derailed. Inspection of the locomotive after the accident disclosed no defects that might have caused the derailment. All brake beams and attachments were in place; the flanges on all of the wheels were in good condition and none of the reciprocating parts displayed signs of excessive wear.

Discussion

According to the evidence, Engineman Karicofe was considered a good engineman and was temperate in his habits; he had good health, was a steady worker and was observant of the rules and special instructions. Efficiency checks showed that on three occasions since July 1st he properly observed speed restrictions and one of these checks concerned the curve on which the accident occurred. On the trip in question the engineman appeared normal, and the statement of the fireman established the fact that he was alert approaching New Haven. The maximum authorized speed for passenger trains in this locality is 80 miles per hour; however, all trains are required by general rule to reduce speed around sharp curves, and under special instructions contained in the timetable speed is restricted to 15 miles per hour around New Haven curve. The attention of enginemen is directed to this speed restriction by a sign located north of the track on the engineman's side of a west-bound train at a point 4,995 feet east of the curve; at night this sign is made visible by a disk which reflects the rays of the headlight of an approaching engine. Fireman Miller said that approaching New Haven the speed was about 70 miles per hour and that the engineman made a brake pipe reduction when east of Maumee River bridge at a point about 4,500 feet east of the curve, and that the brakes responded properly; also that on reaching a point about 1,300 feet east of the curve

another reduction was made. However, the speed was not reduced sufficiently, and the train entered the curve at a speed of between 40 and 50 miles per hour and became derailed. Conductor Kriebel stated that the air brakes were not applied until after the train passed over the bridge, while Brakeman Robinson and Flagman Warren said they were applied while crossing the bridge, and their estimates of speed ranged from 30 to 45 miles per hour. Engineman Karicofe was killed as a result of the accident; consequently it was impossible to determine whether he misjudged the speed of the train, or the braking distance to the curve. The air brakes had been tested at Detroit and worked properly en route, and there was nothing found about the condition of the equipment or track that would have contributed to the accident. The lack of marks at the initial point of derailment and the distance the equipment traveled after being derailed indicate conclusively that the accident was caused by excessive speed in view of existing curvature and elevation.

Conclusion

This accident was caused by excessive speed on a sharp curve.

Respectfully submitted,

W. J. PATTERSON

Director.