

RAILROAD ACCIDENT INVESTIGATION

Report No. 3808

THE BALTIMORE AND OHIO RAILROAD COMPANY

LODI, OHIO

APRIL 3, 1958

INTERSTATE COMMERCE COMMISSION

Washington

INTERSTATE COMMERCE COMMISSION

REPORT NO 3808

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

THE BALTIMORE AND OHIO RAILROAD COMPANY

September 29, 1958

Accident near Lodi, Ohio, on April 3, 1958, caused by failure to stop a motortruck and trailer short of a train moving over a rail-highway grade crossing

REPORT OF THE COMMISSION¹

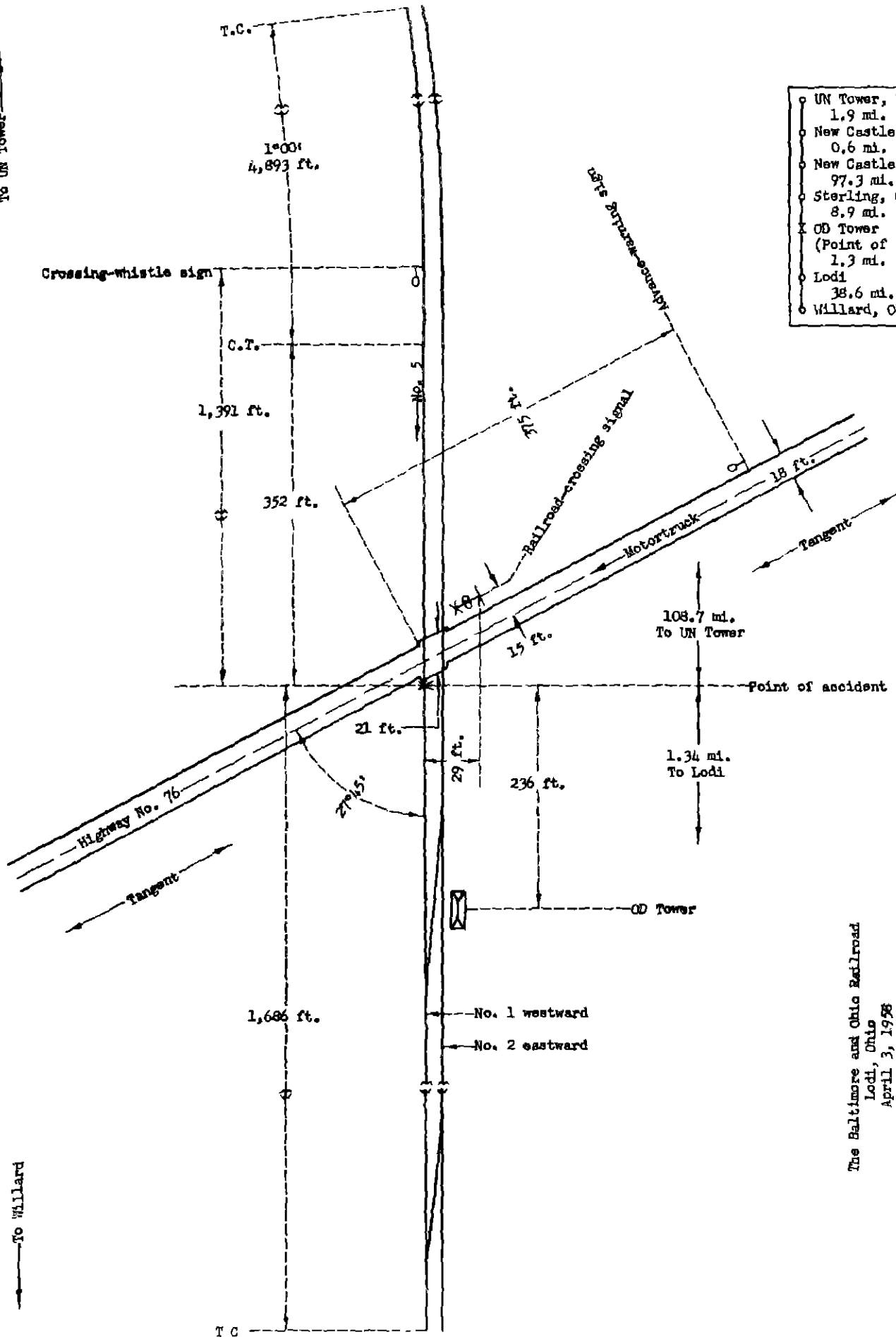
TUGGLE, Commissioner

On April 3, 1958, there was a collision between a passenger train on the Baltimore and Ohio Railroad and a motortruck and trailer at a rail-highway grade crossing near Lodi, Ohio, which resulted in the injury of the driver and another occupant of the motortruck, 33 passengers, 7 dining car employees, 2 Pullman Company employees, and 2 train service employees

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

To UN Tower

To Willard



- UN Tower, Pa. 1.9 mi.
- New Castle Jct. 0.6 mi.
- New Castle 97.3 mi.
- Sterling, Ohio 8.9 mi.
- OD Tower (Point of accident) 1.3 mi.
- Lodi 38.6 mi.
- Willard, Ohio

The Baltimore and Ohio Railroad
 Lodi, Ohio
 April 3, 1958

Location of Accident and Method of Operation

This accident occurred on that part of the Akron Division extending between UN Tower, near New Castle, Pa., and Willard, Ohio, 148.6 miles, a double-track line over which trains are operated by timetable, train orders, and an automatic block-signal system. The main tracks from north to south are designated as No. 1 westward and No. 2 eastward. The accident occurred on track No. 1 at a point 108.66 miles west of UN Tower, 236 feet east of OD Tower, Ohio, and 1.34 miles east of the station at Lodi, Ohio, where the railroad is crossed at grade by Ohio State Highway No. 76. From the east there are, in succession, a 1° curve to the right 4,893 feet in length, and a tangent 352 feet to point of accident and 1,686 feet westward. The grade for westbound trains is 0.27 percent descending in the vicinity of the point of accident.

Ohio State Highway No. 76 is surfaced with bituminous material to a width of 18 feet 6 inches. It intersects the railroad at an angle of 27°45'. The crossing is 20 feet 8 inches in width. Planking is laid along each side of each rail throughout the width of the crossing and the remaining area of the crossing is surfaced with bituminous material to the level of the tops of the rails. The highway is tangent throughout a considerable distance north and south of the crossing. The grade for northbound vehicles is slightly descending throughout a considerable distance north and south of the crossing but it is approximately level in the immediate vicinity of the crossing.

A circular railroad-crossing advance-warning sign is located on the east side of the highway about 375 feet south of the crossing. This sign is 30 inches in diameter and is mounted on a post 4 feet 10 inches above the level of the highway. It bears two diagonal lines intersecting at right angles and the letters "RR" in black on a yellow background. A railroad-crossing signal of the flashing-light type is located 15 feet 3 inches east of the centerline of the highway and 28 feet 10 inches south of the centerline of track No. 1. A standard cross buck is mounted on the mast with the top 11 feet 6 inches above the level of the highway. It bears the words "RAILROAD CROSSING" in black letters on a white background. Two hooded red lamps are mounted back-to-back at each end of a horizontal bar which is attached to the mast at a point approximately 7 feet 10 inches above the level of the highway. A reflectorized sign which bears the figure "2" and the word "TRACKS" is mounted on the mast above the lamps, and a reflectorized sign which bears the words "STOP ON RED SIGNAL" is mounted on the mast below the lamps. A similar signal is located in the north-west angle of the intersection. The warning aspect is displayed by the alternate illumination of the lamps when a westbound train occupies any portion of track No. 1 throughout a distance of 3,325 feet immediately east of the crossing. A crossing-whistle sign for westbound trains is located 1,391 feet east of the crossing.

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

Engine Whistle Signals

14 The whistle must be sounded at whistle posts, and where required by rule or law * * *

* * *

Note - The signals prescribed are illustrated by "o" for short sounds and "- -" for long sounds * * *

| Sound | Indication |
|---------------|--|
| (1) — — o — — | Approaching public crossings at grade, to be prolonged or repeated until crossing is reached |

18 The headlight will be displayed to the front of every train by day and night * * *

* * *

Engine Bell

33 The engine bell must be rung

* * *

Approaching and passing public road crossings at grade

* * *

Motor vehicle laws of the State of Ohio read in part as follows

Sec 4511.62 No person shall drive a vehicle across a railroad grade crossing in the following instances

(A) When a clearly visible electric or mechanical signal device gives warning of the immediate approach of a train;

* * *

The maximum authorized speed for passenger trains in the vicinity of the point of accident is 75 miles per hour

Description of Accident

No 5, a westbound first-class passenger train, consisted of diesel-electric units 1455 and 1453, coupled in multiple-unit control, 1 baggage-dormitory-lounge car, 2 coaches, 5 sleeping cars, 1 dome-lounge-sleeping car, 2 dining cars, and 4 sleeping cars, in the order named. The second, the third, and the eighth cars were of conventional all-steel construction. The other cars were of lightweight steel construction. All cars except the second, the third, and the eighth were equipped with tightlock couplers. This train departed from New Castle Jct, 1.9 miles west of UN Tower, at 1:19 a. m., 9 minutes late, passed Sterling, 99.8 miles west of UN Tower, the last open office, at 2:58 a. m., on time, and while moving at a speed of 72 miles per hour, as indicated by the tape of the speed-recording device, the locomotive and the first car were struck by a motortruck at the intersection of the railroad and Ohio State Highway No. 76 at a point 236 feet east of OD Tower.

The vehicle involved was a motortruck and trailer owned and operated by B. R. Kidney, Grafton, Ohio. The motortruck was occupied by the driver, who was an employee, and a passenger. The driver held Ohio chauffeur's license No. 688315. The motortruck was a 1956 model Mack Tandem and it bore Ohio license No. 20-B-53. It was powered by a 6-cylinder 170-horsepower diesel engine and was equipped with a conventional cab. It was provided with tandem rear axles with dual tires. The trailer was a 1955 model Gramm. It bore Ohio license No. 99-AJ-11. Both the front and rear axles of the trailer were provided with dual tires. Both the motortruck and the trailer were equipped

with air brakes. The total length of the motortruck and trailer, coupled, was approximately 57 feet. The capacities of the motortruck and the trailer were, respectively, 25,000 pounds and 26,000 pounds. At the time of the accident they were loaded, respectively, with 20,000 pounds and 25,200 pounds of bituminous coal. This vehicle was moving northward on highway No. 76 at an undetermined speed when it entered the crossing and struck No. 5.

All trucks of the 1st to the 14th cars, inclusive, and the front truck of the 15th car were derailed. Separations occurred at each end of the 3rd car, and between the 5th and 6th cars. The locomotive stopped with the front end 2,802 feet west of the point of accident. The 1st and 2nd cars stopped upright in line with the track. The 3rd car stopped upright in line with the track with the front end 1,996 feet west of the point of accident. The 4th and 5th cars stopped on the track structure with the front end of the 4th car 1,640 feet west of the point of accident. The 5th car leaned to the south at an angle of approximately 60 degrees. The other derailed cars stopped approximately upright on the track structure with the front end of the 6th car 1,415 feet west of the point of accident. The 1st diesel-electric unit was slightly damaged and the 2nd unit was somewhat damaged. Nine of the derailed cars were heavily damaged, 2 cars were somewhat damaged and 4 cars were slightly damaged. The motortruck and the trailer stopped on the track structure of track No. 2 at points, respectively, approximately 190 feet and 290 feet west of the crossing. The motortruck was destroyed and the trailer was heavily damaged.

The conductor and the brakeman of No. 5 were injured.

The weather was clear at the time of the accident, which occurred about 3:06 a. m.

During the 30-day period preceding the day of the accident the average daily movement over the crossing was 27.96 trains. During the 24-hour period beginning at 12:01 a. m. April 7, 1958, 1071 automobiles and 433 motortrucks passed over the crossing.

Discussion

As No. 5 was approaching the point where the accident occurred the enginemen were maintaining a lookout ahead from their respective positions in the control compartment at the front of the locomotive. The members of the train crew were in various locations in the cars of the train. The headlight was lighted brightly. The brakes of the train had been tested and had functioned properly when used en route. The locomotive bell was ringing. The engineer sounded the prescribed whistle signal as the train approached the crossing and he prolonged the signal until the locomotive was over the crossing. The fireman said that when the locomotive was closely approaching the crossing he observed the vehicle involved in the accident at a distance of 150 feet to 200 feet south of the crossing. He said he expected that it would stop short of the crossing and that he immediately directed his attention to the track ahead. He was unable to estimate the speed of the vehicle. The first the members of the crew became aware of anything being wrong was when the collision occurred. According to the tape of the speed-recording device the speed of the train was 72 miles per hour when the collision occurred.

The operator at OD Tower, which is located south of the main track and west of the crossing, said that he was at the door of his office on the east side of the second floor of the building as No. 5 was approaching the crossing. He said that the crossing warning signals were operating before the

train came into view. As the train was approaching on the curve east of the crossing he observed that the headlight was lighted brightly and he heard the crossing-whistle signal being sounded. He said he observed the vehicle involved in the accident approaching the crossing before No. 5 came into view. He estimated that the speed of the vehicle was between 45 miles per hour and 50 miles per hour. He said that from his position in the tower he usually could see the illumination of the rear lights when brakes were applied on vehicles approaching the crossing from the south but he did not see any indication that the brakes were applied on the vehicle involved in the accident.

The motortruck and the trailer involved in the accident were loaded at a coal mine near East Cadiz, Ohio, approximately 80 miles southeast of the point of accident, and departed from the loading point about 12:30 a. m. on the day of the accident. The driver said that en route there were no apparent defects in the braking system of the vehicle. He said that when the vehicle was about 1,000 feet south of the crossing he observed that the crossing warning signals were operating and that he immediately applied the brakes lightly. He said that there was less retardation than normal and that he then fully applied the brakes but there was no resulting decrease in speed. He said that he then asked the passenger who was in the cab of the motortruck the location of the train and when informed that it was closely approaching he attempted to turn the vehicle to the left parallel to the track immediately before the collision occurred. He thought that the speed was about 30 miles per hour when he last observed the speedometer as the vehicle was approaching the crossing. The passenger said he observed that the crossing warning signals were operating when the vehicle was in the vicinity of the railroad-crossing advance-warning sign. He estimated that the speed of the vehicle was about 35 miles per hour at that time. He said that the brakes were ineffective and failed to reduce the speed of the vehicle.

The motortruck and the trailer were damaged in the accident to the extent that their brake systems could not be tested and the condition of the brakes at the time of the accident could not be determined. The owner said that the brakes of the motortruck were last tested and inspected on March 30, 1958, at which time the brake system functioned properly. No defective condition of the brakes had been reported by the driver of the motortruck between the date of this inspection and the time the accident occurred.

Throughout a distance of approximately 1,000 feet in approach to the crossing the driver of a northbound vehicle on highway No. 76 has sufficient view to discern locomotives or cars on the tracks at any point throughout a distance of more than 1,400 feet east of the crossing. At several points in this area there are shallow cuts or embankments along the south side of the tracks and small elevations in the field between the highway and the railroad which obstruct the view from the highway to some extent. However, from a point on the highway 125 feet south of the crossing the driver of a northbound vehicle has an unobstructed view of the tracks eastward throughout a distance of more than 1,400 feet and there are no obstructions to the view eastward between this point and the crossing, except a line pole located adjacent to the warning signal.

Cause

This accident was caused by failure to stop a motortruck and trailer short of a train moving over a rail-highway grade crossing.

Dated at Washington, D C , this twenty-ninth
day of September, 1958

By the Commission, Commissioner Tuggle

(SEAL)

HAROLD D McCOY,

Secretary

Interstate Commerce Commission

Washington 25, D C

OFFICIAL BUSINESS

RETURN AFTER FIVE DAYS

**POSTAGE AND FEES PAID
INTERSTATE COMMERCE COMMISSION**