

INTERSTATE COMMERCE COMMISSION.

REPORT OF THE CHIEF OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE BALTIMORE & OHIO RAILROAD NEAR PHILO, OHIO, ON APRIL 22, 1922.

May 19, 1922.

To the Commission.

On April 22, 1922, there was a derailment of a passenger train on the Baltimore & Ohio Railroad near Philo, Ohio, which resulted in the death of 1 employee, and the injury of 13 passengers and 4 employees. The investigation of this accident was conducted in conjunction with representatives of the Public Utilities Commission of Ohio.

Location and method of operation.

The sub-division on which this accident occurred extends between Zanesville, Ohio, and Parkersburg, W. Va., a distance of 88.3 miles, and is a single-track line over which trains are operated by time-table, train orders, and a manual block-signal system. The accident occurred at a highway crossing at about $2\frac{1}{2}$ miles from Philo. Approaching this point from the west there are 1,760 feet of tangent, followed by a curve to the right of $2\frac{1}{2}^{\circ}$ which is 221 feet in length, the point of derailment being on this curve about 75 feet east of its western end. The grade is level at the point of accident. The track is laid with 85-pound rails, 33 feet in length, single-spiked to an average of 18 or 19 oak ties to the rail-length, ballasted with cinders; no tie plates are used. The general maintenance as to surface,

gauge and elevation was fair. The crossing planks are of oak, $3\frac{1}{2}$ inches in thickness, and about $12\frac{1}{2}$ feet in length, those between the rails being from 2 to $2\frac{1}{2}$ inches from the gauge side of the rails. The weather was clear at the time of the accident, which occurred at about 3.20 p.m.

Description.

Eastbound passenger train No. 58 consisted of 1 combination mail and baggage car and 2 coaches, hauled by engine 889, and was in charge of Conductor Reynolds and Engineman Preston. It left Philo at 3.15 p.m., 1 minute late, and was derailed at the crossing while traveling at a speed estimated to have been about 35 miles an hour.

The entire train was derailed to the left, the engine coming to rest on its left side about 200 feet beyond the point of derailment, at the bottom of a 30-foot embankment. The tender was on top of the engine, with the combination car resting on the tender. The second car also went down the embankment. The employee killed was the engineman.

Summary of evidence.

When approaching the crossing, Fireman Wainwright had looked out of the gangway for the purpose of seeing whether there were any vehicles on the crossing and had turned to work on the fire when the engine seemed to strike something and then jumped the track. He did not know whether the engineman applied the air brakes, and said that as far as he knew the engineman had not noticed any obstruction.

After the accident the fireman, conductor, brakeman and baggagemaster examined the track and found that a road scraper had been at work on the highway and that apparently it had scraped dirt over the crossing. Their statements varied as to details, but were to the effect that the left or outside rail had been covered with dirt several inches in depth for a distance of several feet, and that they could see where the left engine-truck wheel had plowed through the dirt and then had mounted the rail, running along it for a short distance before dropping off on the outside. They did not notice any stones mixed in with the dirt. Conductor Reynolds also said that dirt had been packed between the rail and crossing plank. Brakeman Brittegan said that on his way back to flag he examined the track but did not find any evidence of anything dragging, or of anything else which might have caused the accident.

Trainmaster Batchelder, who reached the scene of the accident about 3 hours after its occurrence, said the engine-truck wheels left the rail about 3 feet west of the eastern end of the crossing planks, while there was a mark on the left rail indicating that the engine-truck wheel had run along on the running surface of the rail a distance of about 14 feet before dropping off on the outside. He also found dirt on top of the rail, and between the left rail and the crossing plank. On examining the engine truck, in company with the road foreman of engines and the master mechanic, he found marks on the flanges of both leading engine-truck

wheels which indicated that they had encountered some hard substance, and said he thought the marks were such as might have been caused by stones on the rails or between the rails and the crossing planks.

Messrs. Merriam and Ribble, who were repairing the highway at this point, had been operating a scraper on the day of the accident, the former handling the tractor and the latter operating the scraper. According to Mr. Ribble, there were small holes in the surface of the road on each side of the crossing and in order to fill them it had been necessary to scrape dirt close to the crossing. They had passed over the crossing twice prior to 1 p.m., and were positive that they had not left any dirt on the rails, as each of them looked back at the time, while Mr. Ribble said he raised the blade of the scraper on each occasion in order to clear the rails and crossing planks. He thought it possible a little dirt might have dropped after the blade had been raised and that automobiles passing afterwards had packed it down. Mr. Merriam also said that when he went to the scene of the accident after its occurrence he found 2 or 3 inches of dirt on the crossing.

Dirt scraped towards or on the left rail would have to have been scraped when the scraper was crossing the track from left to right, which would have been on its way westward towards Philo. The last trip of the scraper in this direction was made at about 11 a.m. Eastbound passenger train No. 56 passed shortly after this time without difficulty, and

the most probable supposition is that dirt had been scraped close to the left rail and afterwards packed down on it, and between the rails and the crossing plank, by passing teams and automobiles.

A mail carrier, together with a passenger, passed over the crossing about 10 minutes before the accident occurred and neither of them noticed any dirt on the crossing, but on account of the sharp curves on either side of the crossing it is more than probable that persons passing in automobiles would be paying close attention to where they were going and would not be likely to notice whether there was dirt on the rail.

Careful examination of the equipment failed to disclose anything which could have contributed to the accident, and while measurements of the gauge and elevation showed some irregularities, they are not believed to have been of such a nature, or so located with respect to the point of accident, as to have contributed to its occurrence.

Conclusions.

This accident was apparently caused by dirt being scraped upon or close to the crossing by a road scraper, being afterwards packed down or forced over the left rail by passing teams and automobiles.

All the employees involved were experienced men, and none of them had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,
W. P. Borland,
Chief, Bureau of Safety.