

INTERSTATE COMMERCE COMMISSION

REPORT OF THE CHIEF OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE MACON, DUBLIN & SAVANNAH RAILROAD NEAR FITZPATRICK, GA , ON SEPTEMBER 11, 1922.

September 27, 1922.

To the Commission:

On September 11, 1922, there was a derailment of a light engine on the Macon, Dublin & Savannah Railroad near Fitzpatrick, Ga , which resulted in the death of 2 employees and the injury of 2 employees.

Location and method of operation.

This railroad extends between Macon and Vidalia, Ga., a distance of 92.26 miles, and is a single-track line over which trains are operated by time-table and train orders, no block-signal system being in use. The accident occurred at a point about 1/2 mile west of Fitzpatrick, approaching this point from the east, there are about 1,500 feet of tangent and a 2-degree curve to the right 114 feet in length, the first mark of derailment being on tangent track 48 feet beyond the leaving end of this curve. The grade is descending for westbound trains, varying from 0.33 to 0.70 per cent for a distance of about 3,300 feet, followed by 800 feet of 0.92 per cent ascending grade to the point of accident. The track is laid with 65-pound rails, 30 feet in length, with 16 or 17 untreated pine and cypress ties to the rail-length, single-spiked, and without ballast, the ties resting on the clay and dirt roadbed. The weather was clear at the time of the accident, which occurred at about 9.12 a. m.

Description

Westbound light engine extra 167 was in charge of Conductor Le Sueur and Engineman Moody. It passed Jeffersonville, about 8 miles from the point of accident and the last open office, at 8.45 a. m., and was derailed while running at a speed estimated to have been about 30 miles an hour.

The engine and tender went down the embankment on the left side of the track, the engine coming to rest nearly bottom up with its front end 322 feet west of the point of derailment. The tender frame remained coupled to the engine, parallel with the track, while the tender trucks were in the rear of the frame, with the cistern between the frame and the track. The employees killed were the conductor and another employee who was deadheading on the engine.

Summary of evidence

According to Engineman Moody and Fireman King, the first they knew of anything wrong was when the forward tender truck was derailed, at which time the engine was drifting at a speed of about 25 or 30 miles an hour. They had not noticed any rough riding of the engine, while Engineman Moody said it had ridden well on previous trips. The wedge for adjusting the slack between the engine and tender was missing, Engineman Moody said he had reported it before leaving Macon for Vidalia on the preceding day, and that another one had been put in. This second wedge was lost on the trip and Fireman King thought there was considerable slack between the engine and tender as a result. Engineman Moody had looked over the engine before departing for Vidalia, and also when stopping for water at Dublin, 38 miles from Fitzpatrick, but had noticed nothing wrong. Master Mechanic Coombs said his examination of the engine did not disclose anything which could have caused the accident, and expressed the opinion it was due to excessive speed.

Engineman C. S. Cain, who had operated engine 167 on September 9, said he had noticed nothing unusual in its riding qualities. While on that trip the lead wheels of the rear tender truck had derailed to the left on the outside of a curve while traveling at a speed of about 25 miles an hour, but he did not ascertain the cause of that derailment.

Engine 167 is of the 4-6-0 type having a total weight, engine and tender, of 196,000 pounds. Examination showed that all wheels were within the limits as to gauge, while the lateral motion was also within the prescribed limits. The flanges on the right engine truck wheels, also on the right No. 1 tender truck wheel, had some vertical wear, but were within the condemning limit. The flange on the right No. 2 tender truck wheel was worn vertical to about the condemning limit, but the first marks of derailment were on the opposite side of the track, and the flanges on that side were found to be in good condition. Examination of the work reports, dating back to September 1, disclosed nothing which had any bearing on this accident.

Examination of the track showed that the first mark of derailment was a flange mark made by a tender truck wheel on the running surface of the left rail, this mark extending diagonally across the rail toward the left side for a distance of 27 feet 4 inches to where the wheel dropped off on the outside. Both pairs of wheels of the forward tender truck were derailed at this latter point, and the marks then continued on the ties a distance of 51 feet, gradually leading to the left, the ties were then bunched and broken for a distance of about 190 feet. Marks on the embankment indicated that the tender wheels left the ties 130 feet from the initial mark, and apparently it was at this point that the engine was derailed, the four following rails on the left side of the track being torn up and badly bent. At a point 275 feet from the initial mark there were flange marks on the ties made by the engine truck wheels, apparently just prior to the time the engine overturned.

On examining the track approaching the point of accident, nothing was found to indicate that there had been any dragging equipment. The condition of the track, however, was not very good. For 1/2 mile in either direction ties were found which were in bad condition, some were not spiked, while in other instances the spikes appeared to have been driven very recently. As previously stated, there is no ballast under the ties, the track being laid on the clay roadbed, and it was found that the clay and dirt had worked out from under the ends of the ties in many places, leaving the track centerbound, and it was observed that the track was greatly depressed under the weight of passing trains. The gauge was in good condition. The surface of the track approaching the curve varied considerably; beginning at a point 750 feet east of the curve the left rail was from 1/4 inch to 7/8 inch lower than the right rail for a distance of 230 feet, and from that point to within 90 feet of the curve the right rail was from 1/4 inch to 7/8 inch lower than the left rail. The superelevation of the curve varied from 1 1/8 to 1 3/8 inches. While the investigation of this accident was being made, there was another derailment at a point about 1 mile distant, due to the turning of a rail, and it was found that at that point the ties were not in the best condition, were without ballast, and that in some cases they were unspiked.

Section Foreman C. T. Cain, who reached the scene of the accident very shortly after its occurrence, stated he could find nothing about the track or engine which would have caused the accident. He considered the track to be in fairly good condition.

Conclusions.

This accident is believed to have been due to excessive speed over uneven track.

Engineran Moody made a statement that the speed at the time of the accident was as high as at any point on the trip, and according to the train sheet, engine 167 was operated at an average speed of about 32 miles an hour between Dublin and Jeffersonville, a distance of 30.65 miles. When considered in connection with the distance the engine ran after the derailment, and the manner in which the track was torn up, it seems apparent that the speed at the time of the derailment must have been at least 30 miles an hour, and it is probable that this speed, coupled with the variations in elevation and the centerbound condition of the track resulted in the tender rocking to such an extent as to cause the forward tender truck wheels to be derailed.

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.