

INTERSTATE COMMERCE COMMISSION

REPORT OF THE CHIEF OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE CHICAGO & NORTH WESTERN RAILWAY NEAR WAUKESHA, WIS., ON AUGUST 30, 1922.

September 23, 1922.

To the Commission:

On August 30, 1922, there was a derailment of a passenger train on the Chicago & North Western Railway near Waukesha, Wis., which resulted in the death of 1 employee and the injury of 1 employee.

Location and method of operation.

This accident occurred on that part of the Madison Division extending between Belton and Madison, Wis., a distance of 72.8 miles, this being a single-track line over which trains are operated by time-cable and train orders, with a manual block-signal system in operation between 7 a.m. and 7 p.m. The accident occurred about $1\frac{1}{2}$ miles west of Waukesha; approaching the point of accident from the west the track is tangent for a considerable distance, followed by a 2-degree 30-minute curve to the left, 607 feet in length, in about the center of which is a highway crossing at which the derailment occurred. The grade is descending for more than 3,000 feet, varying from 0.32 to 0.66 per cent. The track is laid with 70-pound rails, 30 feet in length, with an average of 17 hardwood ties to the rail-length, ballasted with gravel, and well maintained. The speed limit for passenger trains between Wales and Waukesha, within which territory the accident occurred, is 30 miles an hour. The weather was clear at the time of the accident, which occurred at about 10.35 a.m.

Description.

Eastbound passenger train No. 610 consisted of 1 mail car, 1 baggage car, 5 coaches and 1 parlor car, hauled by engine 2213, and was in charge of Conductor Hubbard and Engineer True. It left Wales, 8 miles from Waukesha at 10.24 a.m., 41 minutes late, and was derailed near Waukesha while traveling at a speed estimated to have been between 20 and 25 miles an hour.

The engine came to rest on its right side, down an embankment on the right side of the track, 1,075 feet beyond the initial point of derailment. The first two cars

and the forward truck of the third car were derailed. The engine was not badly damaged, and the cars were only very slightly damaged. The employee killed was the engineman.

Summary of evidence.

Fireman Tyrer said the speed was about 30 miles an hour, and that when within 150 yards of the crossing the engineman made an application of the air brakes, reducing the speed to about 20 miles an hour as the train passed over the crossing. As the engine passed the crossing Fireman Tyrer noticed a cloud of dust and when this dust continued to appear he called to the engineman that there was something wrong. The engineman then leaned out of the window, after which he reached for the brake valve and placed it in the emergency position. The fireman said the engine then started to turn over, righted itself, and finally turned over just before it came to a stop.

The statements of Conductors Hubbard and McGirr, the last mentioned being an assistant conductor, were to the effect that there was a heavy application of the air brakes, followed by the jolts of the derailment. On examining the track it was found to be apparently in good condition. They also examined the engine and cars, but were unable to find anything which could have caused the accident.

Section Foreman Finn was working at a point about 1,000 feet east of the crossing and witnessed the derailment. According to his statements there was dust flying from under the engine as it passed over the crossing and shortly afterwards he saw that the right forward engine-truck wheel was derailed, and he at once began to signal the engineman to stop. Immediately after reporting the occurrence of the accident, he made an examination of the track and found it to be in good condition, and was unable to determine the cause of the accident.

The first marks of derailment were on a track brace on the outside of the south rail, following which there were flange marks on the ties, made by both forward truck wheels, extending a distance of about 950 feet to where the right wheel left the ends of the ties. Measurements made of the gauge and elevation of the track on the curve failed to disclose any irregularities which could have caused the derailment, while careful examination of the engine also failed to develop evidence of anything which could have caused the accident, nor did the examination of the track show that there had been any dragging equipment.

The highway which crosses the track at the point of initial derailment is paved with concrete up to the ends of the ties on either side of the railway track; the intervening space is filled with finely crushed rock, maintained by the railway company, and the only opinion advanced by the various witnesses, including a track foreman who was a passenger on the train, was that possibly some rocks and dirt might have been packed close to the gauge side of the rails by heavy traffic, particularly trucks, passing along the highway, and that this caused the engine-truck wheels to be derailed. Section Foreman Finn had passed over this crossing on an inspection trip, riding on a hand car, shortly after going on duty at 7 a.m. on the day of the accident, and passed over it again at about 8.30 a.m., at which time he noticed nothing wrong, while about half an hour later freight train No. 669 passed without anything unusual occurring.

Conclusions.

It is believed that this accident was due to rock and dirt being packed close to the gauge side of the rails at the highway crossing.

It appears that the right forward engine^d-truck wheel was the first to be derailed, and that this may have been due to an accumulation of rocks and dirt is evidenced from the fact that when the wheel was derailed it made no flange mark on the running surface of the rail, apparently being lifted high enough to clear the rail. The engineman had just made several applications of the air brakes, and it is probable that when he placed the brake valve in the emergency position after noticing the derailment of the engine truck, a full emergency effect was not obtained, accounting for the distance the train ran before coming to a stop.

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.