

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON
THE CHICAGO, MILWAUKEE & ST. PAUL RAILWAY AT
MURDO MACKENZIE, S. D., ON OCTOBER 2, 1927.

October 29, 1927.

To the Commission:

On October 2, 1927, there was a derailment of a freight train on the Chicago, Milwaukee and St. Paul Railway at Murdo Mackenzie, S. D., which resulted in the death of one employee.

Location and method of operation

This accident occurred on the Mitchell and Murdo Mackenzie Sub-division, which extends between Mitchell and Murdo Mackenzie, S. D., a distance of 142.3 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 within the yard limits at Murdo Mackenzie, on the house track, which parallels the main track on the south. The house track at the point of accident is situated on a fill approximately 10 feet in height, and is practically level. It is laid with 60-board rails, 30 feet in length, with about 18 ft. ties to the rail-
length and is ballasted with cinders, it is maintained in fair condition.

The weather was cloudy and misty at the time of the accident, which occurred at about 2.35 a. m.

Description

Westbound freight train No. 191 consisted of 13 cars and a caboose, hauled by engine 2515, and was in charge of Conductor McComish and Engineer Caldwell. This train arrived at Murdo Mackenzie at 4.35 a. m., 8 hours and 20 minutes late, and after setting out some cars in the yard the forward part of the train was backed up on the house track and coupled to a cut of cars standing on that track, where it remained until eastbound passenger train No. 22 had passed. Train No. 191 then started to head out on the main track but before reaching the switch it was derailed upon encountering a broken rail while traveling at a speed estimated to have been about 5 miles per hour.

The engine was overturned and came to rest on its left side parallel with the track, with the rear of the tender about opposite the break in the track; none of the other equipment was derailed. The employee killed was the fireman.

Summary of Evidence

Engineer Caldwell stated that the head end of the train was backed in on the house track and coupled to a cut of cars standing on that track, the train then consisted of 24 cars with the air coupled through 12 of them. As soon as train No. 32 had passed he received a proceed signal and began to work steam but had only moved a distance of about four car-lengths when he felt the front end of the engine settle, and realizing that it was derailed he immediately applied both the automatic and straight air brakes and attempted to shut off the throttle, but did not succeed in getting it entirely closed before he jumped from the cab just as the engine tipped over. He estimated the speed at the time of the accident at about 5 miles per hour and thought the engine moved approximately 80 feet after becoming derailed, attributing this distance to the fact that the rails were wet and the air not fully coupled up. After the accident he examined the track and found a broken rail which in his judgment caused the accident. The statements of Conductor McComish and Brakeman Boland and Graves practically corroborated those of Engineer Caldwell.

Examination of the track disclosed that the first indication of the derailment was where a section of rail 21 inches in length had been broken out of the south side of the track, the initial break occurring at a point approximately 14 feet 8 inches from the receiving end of the rail. The surfaces of the fracture at this point showed a transverse fissure in the central part of the base and a flaw in the web; the metal in the head of the rail indicated a fresh break, as did the metal at the opposite end of the 21-inch section. The western end of this section of rail was slightly battered, and it is possible it was broken when the train was backing in on the house track. It was impossible to determine the brand of the rail which failed, but it was laid in the track in 1906 and presumably was a second-hand rail at that time.

Conclusions

This accident was caused by a broken rail.

Examination of the track showed that a short section

of rail had been broken out of the track area on one end of this section there were defects indicative of the reason for its failure. These defects, however, were of such a nature as would have made it difficult, if not impossible, to have discovered them by ordinary inspection. It is possible the failure of this rail occurred when the head end of train No. 191 was being backed in on the house track but nothing definite on this point can be stated.

The employees involved were experienced men and at the time of the accident none of them had been on duty in violation of any of the provisions of the rules of service law.

Respectfully submitted,

W. D. Borland,

Director.