

## INTERSTATE COMMERCE COMMISSION

SUPPLEMENTAL REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE CHICAGO, MILWAUKEE & ST. PAUL RAILWAY NEAR PORTSMOUTH, IA., ON MARCH 6, 1924.

December 3, 1924.

To the Commission:

A supplemental investigation has been made of the derailment of a passenger train on the Chicago, Milwaukee & St. Paul Railway near Portsmouth, Iowa, on March 6, 1924, resulting in the death of one employee, and the injury of eight passengers, two employees, and three trespassers.

Summary of Report of April 18, 1924

The accident occurred in single-track territory on a curve of 3° to the left, approaching which the track is tangent for a distance of about 900 feet. The track was laid with 90-pound rails, 33 feet in length, with an average of 20 ties to the rail-length, single-spiked, tie-plated on curves, and ballasted with gravel and cinders to a depth of from 8 to 12 inches. The speed limit for passenger trains at the time of the accident was 55 miles an hour.

The train involved was eastbound passenger train No. 20, which consisted of six all-steel cars, hauled by engine 6624, and was traveling at a speed variously estimated to have been between 35 and 45 miles an hour when it was derailed on the curve 264 feet from its western end. The entire train was derailed, the engine and first three cars turning over on their right sides. The employee killed was the engineman.

The statements of the fireman and also of the members of the train crew indicated that they had noticed nothing wrong until the derailment actually occurred, while examination of the engine failed to disclose anything which could have contributed to the occurrence of the accident. The examination of the track, however, showed it to be in generally bad condition and unsafe for the movement of trains at high speed. There were many decayed ties and broken tie plates on the curve, while several spikes were missing. Examination of the track for  $\frac{1}{2}$  mile west of the point of accident showed that there were 20 rail joints with no spikes in three successive ties, 80 rail joints with no spikes in two successive ties, and 27 rail joints

where only one tie was spiked. In many places spikes had been either sheared off or pulled out as a result of the bunching of the ties due in turn to the creeping of the rails, while many ties, apparently renewed during the preceding year, had been placed in the track without spikes, it was also noted that many spikes could be drawn out of the ties by hand. The supplemental investigation was made for the purpose of ascertaining what had been done to remedy these dangerous track conditions.

#### Results of the Supplemental Investigation

After repairs were made to the track at the point of accident an order was issued restricting the speed of passenger trains to 40 miles an hour, this order covering a total distance of approximately 30 miles on both sides of the point of accident. On April 7, according to the engineer of maintenance of way, the numerical strength of the various section gangs was increased, while an extra gang began general repairs, first relaying rails and re-ballasting and retieing the track on the curve where the accident occurred. This extra gang then did similar work on 5 miles of track at another point and on  $\frac{1}{2}$  mile track at a third point. On June 23, however, a storm occurred which resulted in washing away about 15 miles of track and the company then placed four extra gangs at work with 300 men, together with 100 section men, 2 locomotive cranes, 1 ditcher and the necessary work train service. This force, after restoring the roadbed where washed out, continued work in improving the general track conditions, the program as arranged calling for 14 track miles of new ballast in addition to the  $5\frac{1}{2}$  miles previously noted, for the renewal of 35,000 ties as well as 26,000 lineal feet of rails on curves, and for the installation of 20,000 rail anchor plates and 10,000 tie plates. In addition to the  $19\frac{1}{2}$  miles of track thus scheduled for reballasting, all of the remaining portion of the track within the territory of 60 miles was to be lined and surfaced with the idea of placing it in first-class condition. The proper execution of this work should result in the elimination of the conditions pointed out in the original report as being responsible for the derailment of train No. 20.

Respectfully submitted,

W. F. PORTLAND

Director