

INTERSTATE COMMERCE COMMISSION.

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE SPOKANE, PORTLAND & SEATTLE RAILWAY NEAR SOUTH CHENEY, WASH., ON MARCH 31, 1923.

April 26, 1923.

To the Commission:

On March 31, 1923, there was a derailment of a passenger train on the Spokane, Portland & Seattle Railway near South Cheney, Wash., which resulted in the death of one employee, and the injury of one person carried under contract and two employees.

Location and Method of Operation.

This accident occurred on that part of the third subdivision extending between Spokane and Pasco, Wash., which, in the vicinity of the point of accident, 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 nearly 2 miles east of South Cheney, approaching this point from the west the track is tangent for several miles, followed by a curve of 20° to the left which is 1,494 feet in length, the point of accident being in about the center of this curve. The grade is 0.4 per cent descending for a distance of more than 1 mile.

The track is laid with 90-pound rails, 33 feet in length, with an average of 20 ties to the rail length, tie-plated, double-spiked on curves, and ballasted with about 4 feet of gravel. Beginning in the vicinity of mile post 361, about 1 mile west of the point of accident, and continuing for a distance of about 4 miles, the track extends through a cut ranging in depth from 10 to 50 feet, being about 25 feet in depth at the point of accident. On account of this cut the range of vision of the fireman of an east-bound train is restricted to 350 feet, while the engineman, being on the outside of the curve, would be able to see less than half that distance. It was daylight and the weather was clear at the time of the accident, which occurred at 6:12 a.m.

Description.

Eastbound passenger train No. 2 consisted of two baggage cars, two coaches, one tourist sleeping car, two standard sleeping cars, and an observation sleeping car, hauled by engine 106, was in charge of Conductor Dunn and Engineman Koontz. The first car was of wooden construction, the second and fourth of steel, while the others were of steel-underframe construction. This train left Lamont, 24.9 miles from South Cheney, at 5.30 a.m., eight minutes late, and was derailed as a result of striking a rock on the track at a point east of South Cheney, while traveling at a speed estimated to have been 35 or 40 miles an hour.

The engine and tender were derailed, the engine coming to rest against the bank of the cut on the outside of the curve. The wooden baggage car was demolished, while the steel baggage car telescoped the head end of the following coach a distance of about 12 feet. Both of these cars, together with the fourth car in the train and the forward truck of the fifth car, were derailed. The employee killed was the engineman.

Summary of Evidence.

Fireman Whitten said he was riding on his seat box looking ahead, saw a rock on the track which appeared to be about 3 feet high and 4 feet wide, and called to the engineman, who at once applied the air brakes in emergency. He thought the rock was about five passenger car lengths distant when he first saw it, and estimated the speed of the train at the time to have been about 35 miles an hour. Conductor Dunn, Head Brakeman Guernsey, and Flagman Bancroft noticed nothing wrong prior to the emergency application of the air brakes, and they said the derailment occurred immediately afterwards. The conductor estimated the speed at 40 miles an hour, and the two brakemen at 35 miles an hour.

During periods of rainy weather a track walker is employed for the purpose of patrolling the 4 miles of track through the cut where the accident occurred. Trackwalker Martin had been so employed since December 1, 1922, being on duty from 8 p.m. until 7 a.m., and during good weather he usually makes three round trips, beginning at the eastern end of the cut, while in stormy weather a fourth round trip is made. According to his statement, on the morning of the accident he began the return portion of his last round trip at about 5:15 a.m., found no rocks on the track or anything to indicate that there was danger of rocks falling, and at

about 6 10 a.m., when about half way between mile posts 363 and 364, which would be about $1\frac{1}{2}$ miles from the point of accident, heard a noise, but did not know what it was. He said he reached the end of his beat at about 6:25 a.m., and after waiting until 7 a.m., became uneasy on account of the fact that train No. 2 had not passed and started back through the cut. On reaching the point of derailment, he found some small rocks in the ditch and indications of where rocks had fallen from the bank of the cut, but did not see any large rocks on or near the track and thought that if there had been a large rock on the track, it had been broken into small pieces when struck by the engine. Trackwalker Martin further stated that it had been about a month since any large rocks had fallen, and that at that time he had had to flag eastbound passenger train No. 4.

The last train through the cut was an eastbound freight train. Engineman Peterson of this train said he saw the trackwalker between mile posts 363 and 364, this being at about 1.35 a.m. Roadmaster Schulstrom said no previous trouble had been experienced in this vicinity, and that he did not consider the point at which the rock fell to have been unusually dangerous. He also said that no new work had been done recently in this vicinity. It further appeared that there had been no rain for six days prior to the day of the accident. Careful examination of the side of the cut indicated that the rock fell from the right side of the track, and that its fall was due entirely to natural causes. The weather for several days had been warm during daylight hours, and cool at night, although not below freezing, and it is possible that there may have been frost coming out of the ground, which would have caused the rock to fall.

Conclusions.

This accident was caused by a rock falling on the track.

The evidence indicates that the trackwalker employed to patrol the cut in which the accident occurred passed the point of accident within less than an hour before its occurrence, at which time he noted nothing wrong, and the investigation failed to develop anything which could have caused the rock to fall.

The engine crew in charge of engine 106 were experienced men. At the time of the accident they had been on duty nearly 5 hours, after nearly $12\frac{1}{2}$ hours off duty, while the members of the train crew had been on duty about $11\frac{1}{2}$ hours, after nearly 59 hours off duty.

Respectfully submitted,

W. P. BORLAND

Director.