

IN RE INVESTIGATION OF A RAILROAD ACCIDENT
 GREAT NORTHERN RAILWAY COMPANY, NORTH.
 SEPTEMBER 19, 1919.

October 29, 1919.

On September 19, 1919, there was a rear-end collision between two freight trains on the Great Northern Railway at Farland, Mont., which resulted in the death of 1 employee and 1 caretaker of stock and the injury of 1 employee. After investigation of this accident, the Chief of the Bureau of Safety reports as follows:

The District of the Great Northern Railway on which this accident occurred extends from Whitefish, Mont., to Troy, Mont., a distance of 134 miles. It is a single-track line, over which train movements are governed by time-table and train orders, no block signal system being in use. Trains of the same direction are spaced 10 minutes apart at telegraph stations. Beginning at the station board at Farland and approaching the point of accident from the east there are 1,706 feet of tangent track followed by a 1-degree curve to the left 1,374 feet in length, then 2,718 feet of tangent track, a 1-degree curve to the left 621 feet in length and 1,438 feet of tangent track to the point of accident. A train standing at the point of accident may be seen by the engineer of a train approaching from the east for a distance of about 1,500 feet. The grade at the point of accident is level. The speed of freight trains over this line is restricted by time-card rule to 20 miles an hour.

West bound freight train extra 3103, consisting of a locomotive, 17 loaded cars, 6 empty cars and a caboose, in charge of Conductor Rykward and Engineer Durham, left Whitefish at 10.30 p.m., September 18, and arrived at Rexford at 6.50 a.m., September 19.

At Rexford, Engineman Durham, on account of sickness, was relieved from duty by Traveling Engineer Sholf, and he went to the caboose to deadhead to Troy. Extra 3103 left Rexford at 9.05 a.m., with 18 cars and a caboose, after receiving train order No. 234, which read as follows:

Order #234.

C. & N. Extra 3103 West

Eng 3103 run extra Rexford to Troy meet extra 3089 east at Rexford. Has right over two extras 1754 and 1320 east Rexford to Libby, but wait at Ural 9.50 A.M. Volcove 10.00 A.M. Farland 10.10 A.M. Yearnell 10.25 A.M. Jennings 10.40 A.M. for two extras 1754 and 1320 east.

The train passed Stonehill at 9.30 a.m., Volcove at 10.02 a.m., and arrived at Farland, 31.56 miles west of Rexford, at 10.12 a.m., where it was stopped on account of the train order board being in the stop position. Extra 3103 had been standing at this point about 5 minutes when its rear end was struck by extra 1752.

Westbound freight train extra 1752 left Whitefish at 6.10 a.m., September 19, with a locomotive and 16 loaded cars in charge of Conductor Hinds and Engineman Lanyon. At 8.40 a.m., this train arrived at Rexford where the crew received train order No. 238 reading as follows:

Order #238

C. & N. Extra 1752 West

Engineer 1752 run extra Rexford to Troy meet extra 3089 east at Rexford, has right over two extras 1754 and 1320 east Rexford to Libby, but wait Ural 9.50 A.M. Volcove 10.00 A.M. Farland 10.10 A.M. Yearnell 10.25 A.M. Jennings 10.40 A.M. for two extras 1754 and 1320 east.

Extra 1752 left Rexford at about 9.30 a.m., passed Stonehill at 9.46 a.m., 16 minutes behind extra 3103, and at 10.14 a.m., while running at a speed estimated to be about 15 miles an hour, collided with the caboose of extra 3103.

The caboose of extra 3103 was of wooden construction and was entirely demolished; the box car immediately ahead of the caboose was entirely destroyed and the adjoining car was also damaged.

The locomotive of extra 1752 turned over on its left side. The persons killed were Fireman J. H. Hunt and a man who was in charge of live stock; both were riding in the caboose of extra 3103.

Conductor Tykeard of extra 3103 stated that his train arrived at Rexford at 6.50 a.m., on the morning of the accident and some time before leaving, extra 1752 arrived at that point. He stated that he and Conductor Hinds of extra 1752 were at the telegraph office at the same time asking for orders, but he did not see the orders received by Conductor Hinds, nor did Conductor Hinds see the orders he received. He stated further that his train arrived at Warland at 10.12 a.m., and stopped on account of the train order board being in the stop position. When the train stopped he started forward toward the head end of the train, while his flagman started back to flag. He said exactly two minutes elapsed from the time his train stopped until it was struck by extra 1752.

Hear Brakeman Scott of extra 3103 stated that upon arrival at Warland his train stopped and he started back immediately to flag and had gone about 4 or 5 paces when he saw extra 1752 approaching on the straight track west of the curve. He then got back on the caboose in order to warn the men who were in it, got off again and ran toward the approaching train with a red flag in his hand. He reached a point about 50 feet from his caboose when the locomotive of extra 1752 passed him. He stated further

that he had not seen extra 1752 since leaving Rexford and did not know it was following so closely behind. He did not know that his train would stop at Warland and had not thrown off fuses approaching that point.

Traveling Engineer Shoaf, of extra 3100, stated that his train left Rexford at 9.05 a.m., passed Stonehill at 9.20 a.m., passed Velocour at 10.02 a.m., and arrived at Warland at 10.11 a.m. He thought the average speed of his train between Rexford and Warland was 30 miles an hour and he estimated that about 2 minutes elapsed from the time he stopped to the time his train was struck by extra 1752.

Fireman Christensen of extra 3100 stated that he thought the average speed of his train between Rexford and Warland was 26 miles an hour and he stated that they did not stop at any point. He thought about 2 minutes elapsed between the time his train stopped at Warland and the time of the collision.

Conductor Hinde of extra 1752 stated that his train arrived at Rexford at 8.40 a.m., and then he went into the office for orders. The conductor of extra 3100 was also in the office and both extra 3100 and his own train were figuring on leaving Rexford on the arrival of train No. 4. He did not see the orders received by Conductor Tykward nor did Conductor Tykward see the orders he received. He stated that train No. 4 arrived at Rexford at 9.05 a.m., and extra 3100 departed soon thereafter, but he did not know the exact time. He stated that his own train left Rexford not later than 9.26 or 9.27 a.m. He was riding in the cupola of the caboose approaching the point of accident and he said that the gauge in the caboose showed 75 pounds train line pressure

at this time. He saw the caboose of extra 3103 at about the same time as his engineman made an emergency application of the brakes. He estimated that the caboose of extra 3103 could be seen from a point about 50 car lengths distant. Conductor Hinde further stated that according to his judgment the speed of his train between Rexford and Warland was from 55 to 58 miles an hour, and while he knew this was in excess of that allowed by the time-card rule, he thought it was a safe rate of speed and made no attempt to have it reduced. He also stated that it was customary for conductors on this line to allow enginemen to use their own judgment as to speed and to make up all the time possible.

Head Brakeman Spencer and Rear Brakeman Sloan of extra 1752 estimated the speed of their train between Rexford and Warland at about 35 miles an hour, Brakeman Spencer saying it was no faster than is made every day. Both were riding in the caboose of extra 1752 and neither saw the caboose of extra 3103 until the engineman had made an emergency application of the air brakes.

Engineman Lamunyon of extra 1752 stated that he saw extra 3103 ahead of him at Rexford, but did not know what train it was. He then went in to eat breakfast and when he returned to his train, the train ahead had gone. He stated that his train left Rexford between 9.20 and 9.25 a.m., and that its speed between Rexford and Warland was 35 or 36 miles an hour. He and the fireman saw extra 3103 at Warland at about the same instant, at which time the engine had reached the straight track or about 1300 feet from the caboose and was running at a speed of about 30 miles an hour. The engineman stated that he immediately applied the brakes in emergency, but the brake valve worked

hard and required him to use both hands. He said the speed was reduced to about 7 or 8 miles an hour and he was unable to reduce the speed further, the train running along at that rate of speed until it collided with the train ahead. He stated further that the braking power on his train was better than on many trains he had handled and that he had had no trouble in stopping at any previous time; the brakes were not responsible for his not stopping in time, it was the short distance. With his train running at a speed of 35 miles an hour he thought he should be able to stop within a distance of 2,000 feet. Engineman Lammeyon attributes the accident to his not being informed of the fact that both his train and extra 3103 held orders containing the same waits, and he said that had he known extra 3103 was just ahead of him he would have entered arland under control. He also thought that if a force had been thrown off by extra 3103 he could have stopped in time to avoid the collision and is sure that if he had sighted extra 3103 when 3 or 4 car lengths farther east, he could have stopped before striking it. He also stated that all enginemen on this district exceed the speed limit of 30 miles an hour.

Fireman Smith of extra 1752 stated that a approaching arland the stoker had stopped and he was turning on steam; he estimated that when he looked up and saw the rear end of extra 3103 ahead, his train was about 36 car lengths from it. He called to

Engineman Lammeyon who immediately applied the brakes in emergency. He was the regular fireman on the engine and said that sometimes the brake valve handle would catch in the last notch before emergency and he thought that the period of time that

the handle would stick in that position would be long enough to destroy the emergency feature of the brakes. He did not know that the trouble had ever been reported.

Operator McCarthy on duty at Monohill stated that extra 3103 passed his station at 9.50 a.m., and extra 1752 at 9.46 a.m. He said both trains were going at a pretty high rate of speed but that the second was going considerably faster than the first.

Station Agent Mahdell at Warland stated that extra 3103 arrived at Warland at 10.12 a.m., and that the collision occurred at 10.14 a.m.

Operator Gageon, on duty at Rexford, stated that while he was preparing orders for Conductor Tykward of extra 3103, Conductor Hinds of extra 1752 came into the office and said "You might as well fix me up, we will be ready to go on the arrival of train No. 4 too". He stated that his records show extra 3103 as leaving Rexford at 9.05 and extra 1752 as leaving at 9.30 a.m.

Dispatcher Depeu on duty between 8.00 a.m., and 4.00 p.m., on the day of the accident stated that it is not customary to give one extra train copies of the orders received by a preceding extra, and that the management has criticised the practice of verbally informing one train of the whereabouts of other trains. He said when he went on duty his instructions were to the effect that locomotive 3103 was to tie up at Rexford and that locomotive 1752 was to pick up both trains. Later he learned that Traveling Engineer Shoaf was to handle extra 3103 and could reach Troy within 16 hours providing he received through orders, or orders that would cause no delays. Therefore, in order to expedite

the movement of extra 3104, Dispatcher Deane put out order No. 234 to that train. At that time he thought extra 1752 would not be ready to leave Rexford for some time, but shortly afterwards Operator Jackson informed him that extra 1752 was ready to go and he then issued order No. 238 to extra 1752, which order contained the same waits as order No. 234 issued to 3102. He said that had he known that both extras were going to leave Rexford near the same time, he could have included both trains on the same order.

This accident was caused by Engineer Lamington of extra 1752 exceeding the speed limit and his failure to have his train under such control as to enable him to stop when he saw extra 3103.

Rule 481 of the Great Northern Railway Company reads as follows:

"Engineers of trains following other trains must approach stations with care and with train under such control as will enable them to avoid collision with trains ahead."

The exact time extra 1752 left Rexford is disputed. The operator says it cleared at 9.20 a.m. and so he reported it, while the conductor says the train started ahead on the siding at 9.25 a.m., and that it was not later than 9.26 or 9.27 a.m., when the train reached the main line and the switch had been closed. The engineer says the train started between 9.20 and 9.25 a.m. If the train left at 9.30 a.m., then it consumed only 44 minutes in traveling from Rexford to Garland, a distance of 31.55 miles, or an average rate of speed of about 43 miles an hour. If it left Rexford at 9.25 a.m., then it consumed 49 minutes, with an average speed of nearly 39 miles an hour. Then it is also considered that the fastest westbound

train on the road, a mail train, which does not stop either at Rexford or Garland, consumes 61 minutes between the two stations, it is clear that extra 1732 was being operated at an excessive rate of speed. Had the train been operated at a rate of speed within the limit permitted by the time-card rule, and had Engineman Lamunyon been maintaining a proper lookout approaching Garland, it is probable that he would have been able to stop his train in time to avoid the collision.

On the day following the accident a test was made to ascertain the distance from which an object at the point of accident could be seen. A tender was placed at the point where the caboose of extra 3103 stood at the time of the accident and was approached from the east on locomotive 3110. It was found that without leaning very far out of the window of the locomotive the engineman was able to see the tender when 2,542 feet distant therefrom. The curvature approaching the point of accident is slight, there are no trees or buildings to obstruct the view and no reason can be assigned for the failure of Engineman Lamunyon to see an equally long distance on the day of the accident.

A test was also made of the brake valve on the locomotive operated by Engineman Lamunyon on the day of the accident, but nothing wrong with it could be found. Two other tests were made of the brakes on the train and while two of the cars showed 11-inch piston travel and another a 4-inch piston travel, the brakes on the whole were in good condition.

Engineman Lamunyon was employed as a fireman on this division in April, 1910, having previously worked eight years on other divisions and railroads as fireman. He was promoted to engineman in

August, 1916. In July, 1917, he was given a 15-days suspension when it developed that he operated his train at a high rate of speed, knowing that another train was ahead, which resulted in his train running into the rear of the preceding train.

At the time of the accident the crew of extra 1752 had been on duty less than 5 hours.

This accident serves to call attention again to the weaknesses of the train order systems of operation, under which a train moving at a high rate of speed may close up on a slower moving train without warning of the movements of the train ahead with the result that it may at any time suddenly come in sight of that train and be unable to stop in time to avoid a collision, as was the case in this instance. Had an adequate block signal system been in use on this line, this accident would undoubtedly not have occurred.

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