INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE DENVER & RIO GRANDE WESTERN RAILROAD AT ROPER, UTAH, ON JUNE 22, 1931.

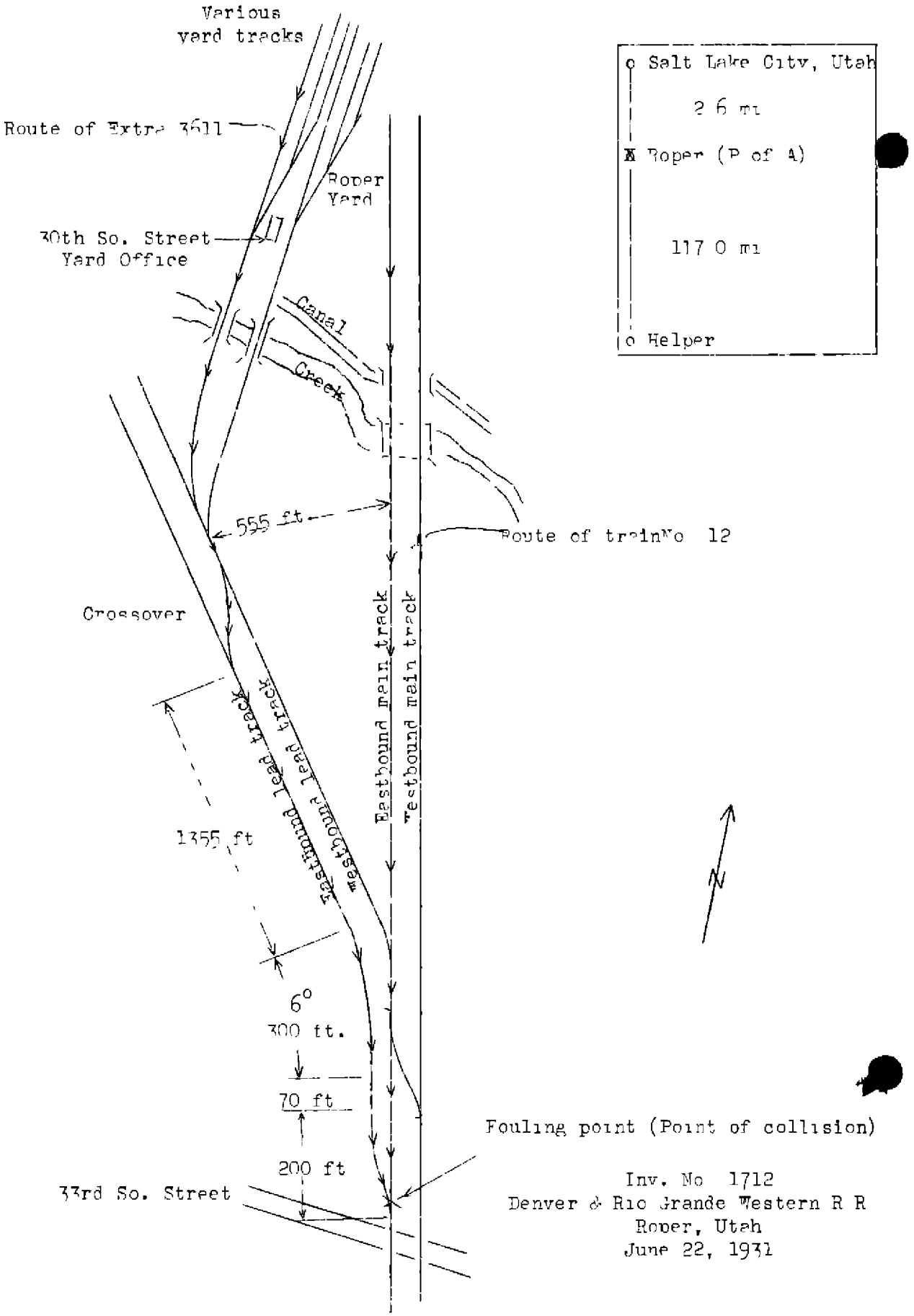
July 29, 1931

To the Commission

On June 22, 1931, there was a side collision between a passenger train and a freight train on the Denver & Rio Grande Western Railroad at Roper, Utah, resulting in the death of 1 employee, and the injury of 5 passengers, 5 employees, and 1 mail clerk. This accident was investigated in conjunction with a representative of the Public Utilities Commission of Utah.

Location and method of operation

This accident occurred on that part of the Salt Lake Division extending between Salt Lake City and Helper, Utah, a distance of 119.6 miles, in the immediate vicinity of the point of accident this is a double-track line over which trains are operated by time-table and train orders, no block-signal system being in use. The accident occurred within yard limits, at the fouling point of the eastbound lead track with the eastbound main track, at the east end of Roper yard; this lead track, which is paralleled by the westbound lead track, extends from southwest to northeast and connects with the eastbound main track, the switch being a trailing-point spring switch for eastbound movements. Approximately 1,925 feet westward from the switch, there is a crossover connecting the two lead tracks; the distance from the lead tracks straight across to the main tracks, from a point in the vicinity of this crossover, is about 550 feet. Beginning at the crossover and proceeding eastward, the eastbound lead track is tangent for a distance of 1,355 feet, followed by a 6° curve to the right 300 feet in length and then about 70 feet of tangent extending to the turnout, which consists of a reverse curve 200 feet in length. The eastbound main track is tangent for a distance of about 3,800 feet west of the switch, and for a considerable distance east thereof. The grade for eastbound trains is ascending on both tracks, being 0.50 per cent on the lead track and 0.44 per cent on the main track at the switch.



Inv. No 1712
Denver & Rio Grande Western R R
Roper, Utah
June 22, 1931

The weather was clear at the time of the accident, which occurred about 2.40 a.m.

Description

Eastbound freight train extra 3611 consisted of 91 cars and a caboose, hauled by engine 3611, and was in charge of Conductor Loftis and Engineman Sorenson. This train moved from the yard at Roper and proceeded through the crossover to the eastbound lead track, after which it continued out through the trailing-point spring switch and upon the eastbound main track, without authority instead of remaining in the clear, not being brought to a stop until engine 3611 and the first 34 cars in the train were upon the main track, when it was realized that first-class train No. 12 had been overlooked. Immediately afterwards, while standing at this point, extra 3611 was struck by train No. 12 about at the thirty-fourth car in its train.

Eastbound passenger train No. 12, consisted of 1 dining car, 1 mail and baggage car, 1 baggage car, and 1 coach, in the order named, hauled by engine 775, and was in charge of Conductor Sinister and Engineman Grossbeck. This train left Salt Lake City, 2.6 miles west of Roper, at 2.30 a.m., according to the train sheet, on time, and collided with the side of extra 3611 while traveling at a speed estimated to have been about 30 miles per hour.

As a result of the accident five cars in extra 3611 were derailed, three of them coming to rest across the westbound main track, while the other two were south of the tracks, two other cars in the freight train were damaged. Engine 775 came to rest on its right side, considerably damaged, with its rear end 145 feet east of the point of collision; none of the other cars in train No. 12 was derailed except the forward truck of the first car, however, the first three cars were more or less damaged. The employee killed was a fireman who was deadheading on engine 775, while the employees injured were the engineman, fireman, brakeman, joint train baggageman and express messenger, of train No. 12, and a general car foreman.

Summary of evidence

Engineman Sorenson, of extra 3611, stated that before starting out of Roper yard, he and Conductor Loftis were in the yard office together; the engineman received the register check, several train orders, and

a clearance card. Engineman Sorenson then coupled the engine to the train of 91 cars and a caboose and made the usual air-brake test, after the blue flag was removed from the engine and the carmen had informed him that they were all through with their duties, the engineman whistled off brakes, received a proceed signal from the rear, which signal the engineman fully understood merely indicated that the conductor was at the caboose and that it was all right to depart at the proper time, this proceed signal was also received by Head Brakeman Erickson and Flagman Martin, both of whom were on the ground beside the engine at that time. Engineman Sorenson started the train out of the yard at 2.32 a.m., and the head brakeman boarded the engine, while the flagman started back to the caboose. After the engine had proceeded through the crossover and reached a point on the eastbound lead track near the eastbound main track, Engineman Sorenson got up in the window of the engine cab and looked back along the train, remaining in that position, looking for a final departure signal from the caboose, saying that the head brakeman was standing in the gangway on the engineman's side of the cab and also looking back, as from that point the caboose could be seen when it reached the vicinity of the crossover. No signals or lights were seen, except the yard lights, until the caboose reached that point. When the caboose came in sight the engineman remarked that he did not see anyone and therefore guessed that everything was all right. Engineman Sorenson then reached over and opened the throttle a little and at about this time he saw a lighted red fusee being waved from the top of the caboose, whereupon, the engineman remarked to Fireman Ladd and Head Brakeman Erickson about the fusee, following which he shut off steam, applied the independent engine brake, and then realized what was wrong, saying that he had entirely overlooked train No. 12, immediately after his train came to a stop, at about 2.38 a.m., the accident occurred. Engineman Sorenson did not notice any air-brake application made from the rear just prior to the accident, saying that with a train of 91 cars, it would be possible to open the emergency valve gradually without it showing on the engine immediately, due to the large compressor on the engine, and working with the brake valve in release position would counteract the discharge of air from the rear with a supply from the forward end. Engineman Sorenson further stated that there was no defect about the engine to distract his attention, that he was in possession of a time-table and was fully aware of the schedule of train No. 12, it being due at Roper at 2.35 a.m., and that that train completely slipped from his memory

Fireman Ladd and Head Brakeman Erickson gave testimony similar to that of Engineman Sorenson, both the fireman and the head brakeman had seen the register check, train orders and clearance card, but they overlooked the fact that train No. 12 had not yet passed, it not occurring to them until Engineman Sorenson remarked about the fusee after the forward end of their train was out on the main line, too late to avert the accident.

Conductor Loftis, of extra 3611, stated that after the carmen were through testing the air, at 2.32 a.m., he gave a proceed signal from the caboose with his lighted lantern, and the carmen also gave a similar signal. Conductor Loftis thought that his train would be brought to a stop in the clear on the eastbound load track, as customary, and wait for train No. 12 to pass. In order to be brought to a stop in the clear, the conductor figured that his train could move a distance of about 90 to 100 car-lengths. After the train had moved a distance of about 30 or 40 car-lengths, Flagman Martin boarded the caboose, having been at the engine when the proceed signal was given, and when the train continued moving beyond where the conductor judged it should move, he became uneasy and asked the flagman whether the engineman was pulling up to clear train No. 12. The flagman replied that he did not know, but that he guessed that was the case. Conductor Loftis then instructed the flagman to get on top of the caboose and give a slow sign or a stop sign, and the flagman did so by swinging his lighted electric lamp back and forth, during which time their train traveled an additional distance of about 10 or 15 car-lengths. As this signal apparently was not seen by the engineman, due to the length of the train and the electric lights in the yard, and in the meantime the engineman had whistled for a grade crossing, the conductor then instructed the flagman to get down and get a fusee and give signals with it from the top of the caboose, which was done. By this time the conductor was very uneasy, as the speed of his train had been increased slightly, therefore, he also lighted a fusee. After the caboose got by several cuts of cars that stood on the yard tracks and obstructed the view across to the main line, the conductor looked across to the main line and saw the reflection of the headlight of train No. 12, at which time that train was at the west end of Roper yard, so he told the flagman to run across as quickly as possible with the fusee and flag train No. 12. The flagman got off before their train was brought to a stop, with the caboose west of the

crossover, and started across to flag train No. 12 and then the conductor started to apply the air brakes gradually by means of the emergency valve in the caboose, not wanting to apply them suddenly and probably break the train in two, knowing that the forward end of his train was then out on the main line, and it was just after the train came to a stop that the accident occurred. Conductor Loftis also stated that just prior to the accident he heard a stop signal sounded on the engine whistle of a switch engine in the yard.

Flagman Martin said that shortly after boarding the caboose he remarked that they were getting close to the main line and then heard Engineman Sorenson whistle for a grade crossing east of the main line switch. He gave stop signals with a lantern and then with a fusee, and after their caboose got beyond where the cars on the other yard tracks obstructed the view across to the main line, he and the conductor saw the reflection of the headlight of train No. 12 at about the same time. Flagman Martin said he jumped off the caboose with his lighted fusee, in the vicinity of the canal, located about 1,200 feet west of the crossover connecting the two lead tracks, and started running across toward the main line, about 400 or 500 feet distant, in an endeavor to flag train No. 12, but he encountered swampy ground, returned to the track and crossed over a bridge, and then started across toward the main track again. After covering about half the distance, however, train No. 12 passed and then the accident occurred.

Engineman Groesbeck, of train No. 12, stated that immediately after he sounded the signal on the engine whistle for the crossing at 33rd South Street, which crossing is located about 50 feet east of the switch involved in the accident, he noticed that there were cars occupying the main track, at which time his own train was about 30 car-lengths distant and the speed of his train about 40 to 50 miles per hour, he immediately shouted a warning of danger, shut off steam, and applied the air brakes in emergency, following which the collision occurred. Engineman Groesbeck did not see any fusee, but said that he heard the blast sounded on the whistle of the switch engine, although he did not realize that it was done to attract his attention. The air brakes on his train had been tested and worked properly and the headlight was in good condition. Fireman Baker had just finished putting in a fire and was getting up on his seat box when the engineman shouted a warning of danger.

Conductor Simister estimated the speed of his train to have been about 30 miles per hour at the time of the collision in the accident report he filled out and filed with the railroad company. Statements of Brakeman O'Hartnett brought out nothing additional of importance.

Members of the crew of the switch engine which stood in the yard near the 30th South Street yard office, waiting for extra 3611 to depart, this being the crew which sounded the blast on the whistle in an endeavor to attract the attention of the engineman of train No. 12, gave testimony to the effect that signals were given with a fusee from the top of the caboose of extra 3611 and also that the flagman of that train had started across toward the main line with a fusee in an endeavor to prevent the accident.

Conclusions

This accident was caused by extra 3611 occupying the main track on the time of a first-class train, without authority, for which Engineman Sorenson is primarily responsible; Fireman Ladd and Head Brakeman Erickson are partly responsible for having also overlooked the superior train.

Engineman Sorenson was in possession of a time-table and was fully aware of the schedule of train No. 12, it being due at Roper at 2 35 a.m., while the accident occurred about 2.40 a.m. For some unexplained reason, however, Engineman Sorenson forgot train No. 12 and as a result, after starting out of the yard, about 2.32 a.m., instead of bringing his train to a stop in the clear on the eastbound lead track and waiting for train No. 12 to pass, he continued out through the main-track switch and did not realize his error until he looked back along his train for a final departure signal and then saw a lighted red fusee being waved from the rear of his train, he at once brought his train to a stop, with about 34 cars out on the main line, and immediately afterwards the accident occurred. Both Fireman Ladd and Head Brakeman Erickson also overlooked the fact that train No. 12 had not yet passed, it not occurring to them until after Engineman Sorenson remarked about the fusee being waved from the rear of the train.

It would have been very difficult for Conductor Loftis to be positive as to just where the rear end of his train was located, and after reaching a point where he could have been reasonably certain it is very doubtful whether he could have stopped the train in time to prevent the accident.

Engineman Sorenson was employed as fireman on February 5, 1902, and was promoted to engineman on November 3, 1905; Fireman Ladd was employed as hostler's helper on April 20, 1909, and was promoted to fireman on August 13, 1909, Head Brakeman Erickson entered the service as brakeman on September 4, 1910, and was made conductor on January 29, 1922. All of the other 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 hours of service law.

Respectfully submitted,

W. P. BORLAND,

Director.