

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF ACCIDENTS WHICH OCCURRED ON THE VIRGINIAN RAILWAY AT LIVELY, W. VA., ON NOVEMBER 26, AND AT ELMORE, W. VA., ON DECEMBER 5, 1923.

January 15, 1924.

To the Commission:

On November 26 and December 5, 1923, there were headend collisions on the Virginian Railway occurring at Lively and Elmore, W. Va. Neither of these accidents resulted in any fatalities and for that reason no telegraphic report of their occurrence was made to the Commission. A complaint was made by representatives of the Brotherhood of Enginemen and the Brotherhood of Firemen and Enginemen, and the investigation of these accidents was made as a result thereof.

Accident at Lively.

The accident at Lively was between two freight trains and resulted in the injury of three employees.

Location and Method of Operation.

This accident occurred on that part of the New River Division extending between Princeton and Deepwater, W. Va., a distance of 95.1 miles, which division 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 point of accident was near the east passing-track switch at Lively. Approaching this point from the west there are several short curves and tangents, followed by a tangent about 1,500 feet in length and a curve of 1° to the right which is 528 feet in length, beyond which the track is tangent to the east switch, a distance of 1,500 feet. The grade averages 1.1% descending for a distance of approximately 5 miles to the west switch, on what is known as Silver Gap Hill, and is then level to the east switch, a distance of about 1,100 feet. The track on this grade is a succession of curves and short tangents, the speed limit for freight trains is 15 miles an hour on curves, but the number of curves is such that this speed limit applies practically to the entire distance. The weather was cloudy at the time of the accident, which occurred at 3.45 p.m.

Description:

Westbound freight train extra 433 consisted of 10 cars and a caboose, hauled by engine 432, and was in charge of Conductor Harris and Engineer Carter. The crew of this train held an order to meet eastbound extra 723 at Lively. The train passed Pax, 2.5 miles from Lively, at 3.40 p.m., and stopped at the east switch at Lively at about 3.45 p.m., the engineer intending to flag extra 723 and called by the switch for the purpose of taking water at a tank 200 feet beyond the switch, but shortly after coming to a stop the train was struck by extra 723.

Eastbound freight train extra 723 consisted of 49 cars and a caboose hauled by engine 725 and was in charge of Conductor Tate, with Master Mechanic Strong acting as engineer. Helper engine 719, in charge of Engineer Evans, was located in about the middle of the train. Extra 723 passed Oak Hill Junction, 6.1 miles from Lively, at 3.25 p.m., the crew receiving at this point a copy of the order to meet extra 433 at Lively. The train proceeded toward Lively and collided with extra 433 at that point while traveling at speed estimated to have been about 10 miles an hour.

Only slight damage was sustained by the two engines, but 8 of the first 10 cars in the train of extra 723 were destroyed by fire which broke out in the wreckage.

Summary of Evidence:

The statements of the crew of extra 433 were to the effect that that train had come to a stop at the east switch and Engineer Carter said Head Brakeman Pack had gone ahead to flag extra 723 so as to stop that train before it passed the water tank. Engineer Carter saw extra 723 approaching, but did not receive any warning signals indicating that it was not under control and said that had he received any such signal he would have had ample time in which to back his train and avoid the accident. Head Brakeman Pack saw the engine of extra 723 approaching, and he said he ran toward it giving stop signals. He then saw the engine crew jump from the engine, and said he thought the train passed him at a speed of 13 or 15 miles an hour.

Extra 723 was made up at Page, 15.2 miles from Lively. The brakes were tested and Engineer Strong notified that there were 50 cars in the train 4 of which had their air brakes cut out. A stop was made at the summit of the hill and Engineer Strong said that after departing from that point the train had attained a speed of about 35 or 30 miles an hour on the descending grade before he made

an application of the air brakes, reducing the speed to 16 or 18 miles an hour. Before the brake pipe had been fully recharged, the speed had increased to 25 miles an hour, and by the time the train had reached Big Mossy Tunnel, about 3 miles from Silver Gap, he had made five applications of the air brakes, and he said he was then being pushed by the helper engine at a speed of about 30 miles an hour. Approaching the station mile board at Lively at a speed of about 35 miles an hour, he said he could see that the helper engine was being worked with the throttle practically wide open, and he said he made a 12-pound reduction from a brake-pipe pressure of 52 pounds, reducing the speed to 15 or 18 miles an hour, after which he placed the brake valve in full release position so as to recharge the train line preparatory to making a stop between the switches at Lively, the brake-pipe pressure was 30 pounds when he released the brakes. Observing that he was being pushed by the helper engine he said he made a service application from a brake-pipe pressure of 45 pounds while running at a speed of about 25 miles an hour, following this almost immediately by an emergency application, but that the brake-pipe pressure had been so depleted that an emergency effect could not be obtained, and seeing that a collision could not be prevented he sounded a back-up signal to the crew of extra 433, reversed the engine and jumped. Engineman Strong further stated that he had told the head brakeman he did not want the retainers turned up, and that he had not called for hand brakes. He also stated that none of the various brake-pipe reductions made by him were of less than 12 pounds.

Head Brakeman Wolfe estimated the speed to have been 35 miles an hour, and he thought the train was running rather fast. Engineman Evans, in charge of helper engine 719, said he was familiar with the grade and knew that there was no necessity for the helper engine working steam, and said that he had the throttle barely open, for drifting purposes, at no time working the engine otherwise. He thought the maximum speed was 30 miles an hour, did not consider it excessive, and said he was depending on Engineman Strong to make the stop at Lively.

Conductor White and Rear Brakeman Johnson were riding in the caboose and their statements indicate that they were not paying attention to the exact manner in which Engineman Strong was handling the train down the grade, although the brakeman stated that just before reaching Lively he remarked to the conductor that they were going too fast. Conductor White thought the speed was 30 miles an hour, but said he was not alarmed.

Engineman Strong was employed as a machinist in 1910, becoming general foreman in 1918, and was promoted to master machanic on February 1, 1923. On November 8, 1923, he began service as an engineman, he said, however, that since his service with the Virginian Railway in 1910, he had been obtaining permits from the superintendent of motive power at times when the shops were closed and had ridden and handled engines on the New River Division and that he was familiar with the track conditions in the vicinity of the point of accident.

Accident at Elmore.

The accident at Elmore was between two passenger trains and resulted in the injury of four persons.

Location and Method of Operation:

This accident also occurred on that part of the New River Division extending between Princeton and Deep-water, but in this vicinity the division is a double-track line over which trains are operated by time-table and train orders, no block-signal system being in use. The point of accident was approximately 1/2 mile east of the station at Elmore, approaching this point from the east there is a long compound curve to the left, 318 feet or tangent, and a compound curve to the right approximately 1,200 feet in length, the point of accident being in about the center of this curve where the curvature is 13°. The grade at this point is approximately level. No. 1 crossover is located near the western end of the first curve, the west switch being on the tangent 63 feet from the western end of the curve. The switches of this crossover are trailing-point switches for trains moving against the current of traffic. The view around the curve to the right is much restricted on account of a rock bluff on the inside of the curve. The weather was cloudy at the time of the accident, which occurred at about 7.59 a.m.

Description:

Eastbound passenger train No. 12 consisted of one baggage car and two coaches, hauled by engine 201, and was in charge of Conductor Kanode and Engineman J.W. Crotty. At Elmore the crew of this train received a copy of train order No. 25, reading as follows:

"No 11 eng 211 was right over opposing trains on eastward track crossover Herndon to No 1 crossover Elmore"

After taking coal and water, train No. 11 moved eastward a short distance and was brought to a stop about 600 feet

west of the west switch of No. 1 crossover to enable train No. 11 to pull by the switch and back through the crossover to the westbound track. While standing at this point it was struck by train No. 11.

Westbound passenger train No. 11 consisted of two baggage cars and two coaches, hauled by engine 211, and was in charge of Conductor Kelly and Engineman D. Crotty, with General Foreman Foster acting as pilot. At Clark's Gap, 15.4 miles from Elmore, the crew received a copy of the order previously quoted, crossed over to the eastbound track at Herndon and proceeded, making several station stops en route, the last of which was at Trales, about one-third of a mile from the point of accident. It then proceeded toward Elmore, passed No. 1 crossover, and collided with train No. 12 while traveling at a low rate of speed.

None of the equipment was derailed, and the damage sustained by the engines was so slight that each continued with its train to its respective destination.

Summary of Evidence:

Neither Engineman F. Crotty nor Fireman Rowland, of train No. 11, was acquainted with the numbers of the four crossovers at Elmore, which are numbered from one to four consecutively, beginning at the east end of the yard. Pilot Foster said he was not positive but felt reasonably sure on the point, that he told Engineman Crotty he thought No. 1 crossover was the first one which would be encountered but that they would proceed slowly and find out. Engineman Crotty said the speed of his train did not exceed 10 or 12 miles an hour after leaving Trales, that he had made a service application of the air brakes and after proceeding about the length of his train saw the engine of train No. 12. At first he thought it was on another track and did not discover his error until the two trains were within a very short distance of each other, at which time the speed was 6 or 7 miles an hour, and he at once placed the brake valve in the emergency position, and he expressed the opinion that he obtained an emergency effect. Engineman Crotty further stated that the air brakes on his train were in good working order and that he had not received a signal from the train crew until about the time he saw train No. 12. Pilot Foster stated he was looking back toward the rear of the train when passing the crossover for a stop signal from the train crew, that a stop signal was sounded on the air-whistle signal, and on turning around he saw train No. 12 two or three car lengths away, it being at this time that Engineman Crotty applied the air brakes in emergency.

Conductor Kelly said he was standing on the rear platform of the rear car and when it had passed the west

crossover switch he sounded a stop signal, but the train was not brought to a stop until the collision occurred. According to Assistant Trainmaster Fry, a bulletin notice giving the number of each of the four crossovers at Elmore had been posted on all bulletin boards about two years previously.

Pilot Foster had had about 11 years' experience as machinist, foreman and general foreman on the Chesapeake & Ohio Railway prior to entering the service of the Virginian Railway as general foreman in December, 1916. With the exception of time spent while in the service of the Chesapeake & Ohio Railway in rising engines and making tests of various devices, he had not had any experience in engine service prior to November 8, 1923, since which time he had been running engines, this particular trip being his first trip as a pilot. Although he had been employed at Elmore at one time, this was more than five years prior to the occurrence of this accident and before the present numbers of the various crossovers at this point were established. Engineman D. Crotty said he had made a few trips to learn the road and that this was his second trip as a qualified engineman. He had had several years' experience as fireman and engineman on other railroads.

Conclusions.

The accident at Lively was due to the inexperience of Master Mechanic Strong in the operation of a train on a long descending grade. While he claimed the train was being pushed by the helper engine, this statement could not be supported, and his own statements indicated that he allowed the train to attain an excessive rate of speed when starting down the grade before he applied the air brakes, and that he then proceeded to waste brake-pipe pressure, and it seems probable that at no time after starting down the grade did he have the train under proper control, and that he did not realize this fact until his train approached the switch at Lively, when it was then too late for him to call for hand brakes or to properly recharge the train line so as to obtain sufficient brake pipe pressure to enable him to bring the train to a stop.

The accident at Elmore was due to the fact that neither the pilot nor the engineman of train No. 11 were sufficiently acquainted with the locations of the various crossovers at that point to know how far their train could proceed under the rights given it by train order No. 25. That the accident was not of a much more serious character was due to the fact that they realized their position and were operating their train at a very low rate of speed.

From the above it will be seen that the underlying cause of each of these accidents was the use of employees in engine service without their being properly qualified for the positions they were holding. While this condition resulted from the fact that the engine service employees on this railway are on strike, this is no reason why the railway company should jeopardize the safety of the other employees and also of the traveling public by the use in responsible positions of persons whose lack of proper training and experience is apt at any time to result in the occurrence of accidents. The employee at fault for the accident at Lively was the master mechanic, the engineer in charge of train No 11, at Elmore, had had many years' previous experience in engine service but had only been employed on the Virginian Railway since November 28, 1923, while Pilot Foster was a general foreman who made his first trip as an engineer on November 8, 1923, with no previous engine experience. It is clearly apparent that none of these employees was qualified for the position which he was occupying, and it is incumbent on the officials of this railway to take immediate steps towards seeing that the lives of the traveling public are not placed in danger through the use of unqualified employees in responsible positions.

None of the employees involved in either of these accidents had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. BORLAND,

Director.