

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON
THE CLEVELAND, ALLIANCE & MAHONING VALLEY RAIL-
ROAD NEAR ATWATER, O., ON SEPTEMBER 25, 1923

October 31, 1923.

To the Commission

On September 25, 1923, there was a rear-end collision between a freight train and a passenger train on the Cleveland, Alliance & Mahoning Valley Railroad near Atwater, Ohio, which resulted in the death of one employee, and the injury of two passengers and two employees

Location and method of operation

This accident occurred on the Alliance division, which extends between Ravenna and Alliance, Ohio, a distance of 18 5 miles, at a point 85 feet west of Stop 15, approximately 1 1/2 miles east of Atwater; in the vicinity of the point of accident this is a single-track electric road over which trains are operated by time-table and train orders, no block-signal system being in use. Approaching the point of accident from the east the track is tangent for more than 3 miles, while the grade is 0.5 per cent descending for a distance of 5,085 feet. It was very foggy and misty at the time of the accident, which occurred at about 5.43 a. m.

Description

Westbound passenger train No. 3, consisting of motor car No. 5, of wooden construction, in charge of Conductor Bennett and Motorman Schrader, left Ravenna Junction, according to Conductor Bennett, at 5:24 a. m., four minutes late, passed Edinburg siding at 5:33 a. m., two minutes late, picked up a passenger at Stop 15, and had proceeded about 85 feet from that point, traveling at a speed of about 10 miles an hour, when it was struck by westbound freight train extra 15.

Westbound freight train extra 15, consisting of motor car No. 15, a remodeled passenger car of wooden construction, in charge of Conductor Boosinger and Motorman Crays, left Ravenna Junction at 5:29 a. m., and collided with the rear end of train No. 3 at Stop 15 while traveling at a speed estimated to have been about 15 miles an hour.

The force of the impact telescoped the front end of car 15 a short distance, which locked both cars together, and in this position they ran down the track on the descending grade a distance of about 950 feet before they could be brought to a stop. The employee killed was the motorman of extra 15.

Summary of evidence.

Motorman Schrader, of train No. 3, said that on the morning of the accident it was so foggy that it was only possible to distinguish a red light about a pole length distant. Several stops were made after leaving Ravenna Junction, the time consumed being about the average, at Edinburg siding he looked at his watch and noted that it was then 5:33 a.m., and that they were two minutes late. At Stop 15 his train had stopped for a passenger and had proceeded about two pole lengths, attaining a speed of about 10 miles an hour, when the accident occurred. The force of the impact knocked him down, and upon regaining his feet he shut off the controller, applied the air brakes in emergency and then applied the hand brake, but was unable to bring the cars to a stop until they had traveled about 950 feet.

According to the statement of Conductor Bennett, of train No. 3, there were three red lights on the rear, consisting of a red lantern inside the vestibule resting on the controller and leaning against the window, a vestibule light, and an oil marker on the outside. He said that there was a short delay leaving Ravenna Junction on account of having to wait for a car of another line, and while he did not look at his watch after leaving Ravenna Junction he was satisfied that they were making running time. At Stop 15 he said the train was brought to a stop and a passenger boarded the car who appeared to be in a hurry, and who told him to look out for the freight train coming, as soon as the passenger had boarded the first step, he signaled the motorman to proceed. The train then started, and being unable to see clearly through the rear window, Conductor Bennett said he stepped to the doorway to look back, and about this time the collision occurred.

Conductor Boosinger, of extra 15, said that he did not compare time with Motorman Crays on the morning of the accident and he did not know the exact time of the departure of his train from Ravenna Junction, but he

thought it was about 5:30 a.m., very shortly after train No. 3 had departed, he noticed particularly that train No. 3 was displaying three red lights to the rear, a marker, the electric light, and a red lantern on the rear controller. After leaving Ravenna Junction he stood in the vestibule doorway a part of the time, talking with Motorman Cravs about train No. 3 and also about extra 10, which they knew was following them. At Stop 18 they stopped long enough to unload a sack of cement, this being the only stop made between Ravenna Junction and the point of accident, and after leaving Stop 18 Motorman Cravs mentioned the fact that on account of the condition of the power, extra 10 must be very close. At a point he estimated to have been about $\frac{1}{2}$ mile from Stop 15, while traveling at a speed of about 25 or 30 miles an hour, Motorman Cravs shut off the power, sounded the whistle and reduced speed about one-third, according to his statement the brakes had not been released when the rear of train No. 3 became visible through the fog about 25 or 30 feet distant, at which time he thought the speed of his train was about 15 miles an hour or more, he was unable to say whether or not train No. 3 was moving at the time. Immediately after the collision he started back to flag extra 10, overtaking Conductor Bennett in a dazed condition standing on the track, and after pushing Conductor Bennett safely to the side of the track he turned just in time to flag extra 10, that train stopping after it had passed him about a car length. Conductor Boosinger further stated that while the speed of extra 15 had been quite high, considering the mist and fog, and the wet rail, he thought it a safe speed in order to keep out of the way of extra 10. Under rule 191, during foggy or stormy weather, "lighted fuseses may be dropped from train at proper intervals onto the track when train is running, in order to protect rear of train," but Conductor Boosinger said he thought he was keeping clear of the following train, and apparently his mind was more occupied in keeping out of the way of that train than in the danger of his train overtaking the train ahead.

Under the rules, conductors and motormen are required to obtain correct time before starting on their runs and make a written record of this comparison, they are also required to compare time with each other. A general order was subsequently issued giving location of the standard clock, but the requirement that a written record be kept has not been enforced, the company

having failed to provide the necessary registration sheets. The crews of the two trains involved did not obtain correct time on the morning of the accident, nor compare time with each other, and on account of the scant attention paid by them to the times of their respective trains at the various stations it is difficult to determine how much time there was between the two trains at any given point. As near as can be determined, however, train No. 3 left Ravenna Junction at 5:34 a. m., and extra 15 at about 5:33 a. m., the accident occurring at about 5:43 a. m., under its time-table schedule train No. 3 is due to leave Atwater, $1\frac{1}{2}$ miles beyond the point of accident, at 5:43 a. m.

While rule B, of the special time-table instructions, requires in part that extra trains approach all stations under control, Stop 15 is not a station within the meaning of the word as used on this railroad, but under Rule 163 of the Rules and Regulations, trains running in the same direction are required to keep not less than 1 mile apart except in closing up at stations or meeting points, and where the view is obscured by fog they must be under such control that they may be stopped within one-half the range of vision. The distance from Ravenna Junction to the point of accident is approximately 7.7 miles, and the fact that extra 15 traveled this distance at an average speed in excess of 30 miles an hour shows that the requirements of rule 163 were not being rigidly observed. The evidence also indicates that train No. 3 had about made its schedule running time from Ravenna Junction to the point of accident, still being approximately 4 minutes late when the accident occurred.

Conclusions

This accident was caused by extra 15 being operated at an excessive rate of speed in view of the existing weather conditions.

The evidence indicates that while train No. 3 was late in departing from Ravenna Junction, it had maintained its scheduled running time. On the other hand, extra 15 had gained approximately four minutes on the schedule of train No. 3, having been operated at an average speed of about 33 miles an hour. Without allowing for the delay occasioned by making a short stop at Stop 18, and it is obvious that this train was not being operated in accordance with that part of rule 163 requiring that where the view is obscured by fog, trains must

be under such control that they can be stopped within one-half the range of vision. While Stop 15, at which the accident occurred, is not a station within the meaning of the word as used on this railroad, it is a point where passengers get on and off and good judgment on the part of Motorman Crays should have prompted him to approach this point under full control, had he done so, this accident probably could have been prevented.

This accident again directs attention to the total inadequacy of a rule, often found on interurban railroads, requiring trains in the same direction to keep at least 1 mile apart except when closing up at stations or meeting points. Under favorable weather conditions and with the view unobscured by curves, it is possible to secure a fair degree of compliance with the requirements of this rule, but in foggy or stormy weather, or when the view is otherwise obscured, it is unreasonable to expect train crews to maintain the required space interval unless an adequate block-signal system is in use.

The investigation disclosed that the matter of obtaining correct time is left entirely to the employees, without any adequate check being made, and, in this case, at least, they had not obtained correct time nor had they compared time with each other. The necessity for railroad employees having correct time is too obvious to require discussion, the officials of this railroad should at once take necessary steps to correct this unsafe condition.

While not involved in this accident, it also appeared that train orders which had been issued to the crews involved were made complete by the dispatcher without first obtaining the signatures of the conductors and motormen, in violation of rule 217, which requires that after a train order has been given to a crew it shall be repeated back to the dispatcher, who will then give "complete". It is understood that the necessary steps to correct this situation have already been taken.

The employees involved were experienced men. At the time of the accident the crew of each train had been on duty less than 1 hour, previous to which the crew of train No. 3 had been off duty 14 hours and the crew of extra 15 about 12 hours.

Respectfully submitted,
W. P. BORLAND,
Director