

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE HOCKING VALLEY RAILWAY AT LINWORTH, OHIO, ON JUNE 24, 1924.

August 8, 1924.

To the Commission:

On June 24, 1924, there was a rear-end collision between two extra trains at Linworth, Ohio, which resulted in the death of one employee, and the injury of one employee.

Location and method of operation

This accident occurred on the Toledo Division which extends between Columbus, and Toledo, Ohio, a distance of 123 miles, in the vicinity of the point of accident this is a single-track line over which trains are operated by timetable, train orders and a manual block-signal system. The accident occurred at a point 1,370 feet north of the station at Linworth. The track is tangent for several miles in either direction from the point of accident, while the grade is 0.39 per cent descending for approximately 4,000 feet approaching the point of accident from the north. A dense fog restricted the range of vision to a distance of about 4 car lengths at the time of the accident, which occurred at 4.15 a.m.

Description

Southbound wrecking train extra 255 consisted of one freight car, a gerrick car, an idler, one truck car, two tool cars, a tie car, a relief car, and a caboose, in the order named, hauled by engine 255, and was in charge of Conductor Lafferty and Engineman Keesman. It left Powell, 5 miles north of Linworth and the last open office, at 3.41 a.m., according to the train sheet, under a caution block signal, and while moving at a speed of about 3 miles an hour preparatory to stopping for water at Linworth, the rear end was struck by extra 138.

Southbound freight train extra 138 consisted of 39 loaded ore cars and a caboose, hauled by engine 138, and was in charge of Conductor Blosser and Engineman Stein. This train left Walbridge, Ohio, at 3.45 p.m., June 23, passed Powell at 3.53 a.m., June 24, 13 minutes behind extra 255, under a caution block signal, and while traveling at a speed of about 9 miles an hour collided with extra 255 at Linworth.

The impact demolished the caboose of extra 255 and slightly damaged the two cars next to the caboose. The front end of engine 138 was also slightly damaged. The employee killed was the brakeman of extra 255.

Summary of evidence

Engineman Keeshan of extra 255 said his train left Powell under a green or caution block signal and as three helper engines had entered the block ahead of his train he proceeded at a rate of speed of about 15 miles an hour, reducing speed to about 5 or 8 miles an hour at the north switch of the passing track at Linworth. He said he had informed Conductor Lafferty that it would be necessary to take water at Linworth and although he had not sounded the whistle signal for the flagman to protect the rear of the train at the time of the collision, it was his intention to do so as soon as the train was brought to a stop. He said the fireman was standing in the gangway ready to alight and turn the water spout which was just about opposite the engine cab when the collision occurred. Engineman Keeshan said the fog was so dense that at no time between Powell and the point of accident was he able to see more than a car length distant.

The testimony of Fireman Carpenter of extra 255 practically corroborated that of Engineman Keeshan.

Conductor Lafferty of extra 255 said he met Engineman Keeshan while in the office at Powell getting orders and was informed that it would be necessary to take water at Linworth. Accordingly this was his understanding of the reason for steam being shut off and speed being reduced near the north passing-track switch at Linworth, but when steam was again used shortly afterwards he thought Engineman Keeshan had changed his mind about taking water. He said steam was again shut off and the train permitted to drift and was slowing down when from his position in the cupola he first noticed an engine approaching a short distance to the rear. He called a warning to the brakeman and flagman, went out by way of the rear door and had just alighted on the ground when the collision occurred. He estimated the speed of his train at the time of the impact to have been from 3 to 5 miles an hour. He said it was his practice in foggy weather to throw off lighted fusees when approaching a station at which he knew water was to be taken but was of the opinion that it would not have had any effect in this instance as extra 138 was following his train too closely to have stopped or averted the collision. He said there was no rule which relieved the conductor or flagman from protecting their train notwithstanding the fact that the following train has been given a caution block signal.

Flagman Bennett of extra 255 said the speed of his train was about 8 miles an hour at the time of passing the north passing-track switch at Linworth, at which time he was riding in the right side and Conductor Lafferty in the left side of the cupola. Shortly after passing the switch and as speed was being gradually reduced Conductor Lafferty, who had been maintaining a lookout to the rear, called a warning, jumped down and left the caboose by way of the rear door while he and Brakeman Sears started toward the front door but for some reason the brakeman was unable to open the door and they were both in the caboose at the time of the impact. He admitted that he did not afford proper protection for his train and was of the opinion that had he thrown off a lighted fusee when the speed of his train was first reduced preparatory to stopping this accident would have been averted. He said he did not know that his train was to take water at Linworth.

Engineman Stein of extra 138 said his train left Powell under a caution block signal and proceeded slowly through the block. Approaching a road crossing located just north of the passing track switch at Linworth, he sounded the whistle signal twice for this crossing and at the same time made a brake application which bunched the slack in his train and had reduced speed to about 12 miles an hour at the passing-track switch. He stated that the fog was very dense on the morning of the accident and had been the entire distance between Powell and the point of accident. The first intimation he had of the train ahead was upon hearing his fireman call "red block", about the same time he saw the reflection of the headlight on the door of a caboose about 3 or 4 car lengths distant, and he immediately applied the air brakes in emergency, which reduced the speed of his train to about 8 or 9 miles an hour at the time of the collision, the force of the impact shoving extra 255 forward a distance of about 5 car lengths.

Fireman Reed of extra 138 said his train was drifting at the time it approached the road crossing just north of the north passing-track switch at Linworth. Engineman Stein sounded the whistle signal twice for the road crossing and about that time made a brake application which reduced the speed of the train to about 12 miles an hour. The fog had been very dense all of the way from Powell and was especially heavy near Linworth limiting the view of the track ahead to a very short distance. Shortly after passing the north passing-track switch he saw through the fog what he thought to be a red signal and called "red block", to the engineman who made a brake application, the collision occurring immediately afterwards.

The testimony of the other members of the train crew of extra 138 added nothing of importance to the evidence.

Rule 99 provides in part:

When a train stops or is delayed, under circumstances in which it may be overtaken by another train, the flagman must go back immediately with stop signals a sufficient distance to insure full protection

Under the rules, conductors and enginemen are jointly and equally responsible for the safety of the train and the proper use of all precautions required by the rules.

Rule 923 is as follows:

Enginemen of trains following others must approach water stations with proper care, with the train under such control as will prevent collision with the forward train.

Under the form of manual block system in use on this line, trains are permitted to follow a freight train into a block, such movements being authorized by the display of a green or caution block signal indication. With reference to such movements, a special time-table rule provides as follows:

Enginemen proceeding under "Green Block," as indicated in Rule 301 (c), will be held responsible in case of accident, caused by overtaking the preceding train, however, the use of block signals and the rules governing same do not relieve employees in train service from the duty of promptly and properly protecting their trains. They will be held strictly responsible for the observance of Rule 99.

Conclusions

The primary cause of this accident was the failure of the conductor and the flagman of extra 255 properly to protect their train and the failure of the engineman of extra 138 to operate his train under proper control after having received a caution block signal indication. The underlying cause was lax operating practices and rules which were inadequate to provide for the safe operation of trains under the conditions existing at the time of this accident.

The investigation disclosed that Conductor Lafferty and Flagman Bennett of extra 255 took no measures whatever for the protection of their train as its speed was reduced preparatory to stopping for water at the point of accident. Conductor Lafferty had previously been advised of the intention of the engineman to stop for water at this point, and because of the dense fog both he and the flagman should have been particularly diligent in providing necessary flag protection. Had they dropped off lighted fuses approaching this point, the accident would probably have been averted.

Although Engineman Stein of extra 138 said he proceeded slowly through the block, it appears according to his own statement that the speed of his train for part of the distance exceeded 12 miles an hour and at the time of accident was 8 or 9 miles an hour. In view of the dense fog which limited the range of vision to a distance of three or four car lengths, it is evident that he did not operate his train under control as required by the caution block signal indication and the special time-table rule quoted above, had he done so he would probably have been able to stop in time to prevent the accident.

While the manual block system was nominally in effect on this line, the investigation disclosed that in this instance five trains were admitted to the block in succession, extra 255 being preceded by three helper engines. Under these circumstances it is apparent that no protection whatever was afforded by the so-called block system. Rule 91 (a) provides that operators shall space passing trains 5 minutes apart during clear weather and 10 minutes apart during foggy or stormy weather. This appears to be the only precaution expressly provided by the rules for additional protection when view is obscured by weather conditions. It is a dangerous practice to allow trains to enter an occupied block at short intervals of time when the view is obscured by fog, storm or otherwise. Under the weather conditions which existed at the time of this accident, in order properly to safeguard train movements an absolute block for all trains should have been placed in effect.

Had an adequate block signal system or an automatic train control device been in use on this line, this accident would undoubtedly have been prevented.

At the time of the accident the train and engine crew of extra 255 had been on duty 6 hours and 45 minutes, after an off duty period of 14 hours or more, the train and engine crew of extra 138 had been on duty 13 hours and 15 minutes after an off duty period of 9 hours or more.

Respectfully submitted,

W. P. BORLAND,
Director.