

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE NEW YORK, CHICAGO & ST. LOUIS RAILROAD NEAR HAMBURG, N.Y., ON MARCH 22, 1926.

May 14, 1926.

To the Commission:

On March 22, 1926, there was a derailment of a passenger train on the New York, Chicago & St. Louis Railroad near Hamburg, N.Y., which resulted in the death of one employee. The investigation of this accident was made in conjunction with representatives of the Public Service Commission of New York.

Location and method of operation

This accident occurred on the Buffalo Division, which extends between Conneaut, O., and Buffalo, N. Y., a distance of 115.7 miles, and which in the vicinity of the point of accident is a double-track line over which trains are operated by time-table, train orders, and a manual block-signal system. There are two passing tracks in the vicinity of the point of accident, the eastbound train track and eastbound passing track are owned and maintained by the Pennsylvania Railroad, while the westbound main track and westbound passing track are owned and maintained by the New York, Chicago & St. Louis Railroad, which also handles train movements over all tracks. The point of accident was at the west switch of the eastbound passing track; the main track was maintained in good condition but the passing track was poorly maintained and not safe for the movement of trains at any material rate of speed.

The switch is constructed of 100-lb rails, with a No. 10 frog, with a curvature of $7^{\circ} 20'$. The switchstand located on the engineer's side of an eastbound engine, is of the ground-throw type, with a height of about $7\frac{1}{2}$ feet; day indications are white when the switch is closed and red when lined for a movement to the passing track, these indications being visible a distance of about 1,300 feet.

Approaching the switch from the west the track is tangent a distance of about 1 mile, while the grade is generally descending until within about 600 feet of the switch, where the grade changes to 0.3 per cent ascending.

The weather was clear at the time of the accident, which occurred at 2.12 p.m.

Description.

Eastbound New York, Chicago & St. Louis passenger train No. 6 consisted of one horse car, one express car, one combination mail and baggage car, one smoking car, one coach, and one Pullman sleeping car, hauled by engine 151, and was in charge of Conductor Clark and Engineman Pierce. The first car was of wooden construction, while the smoking car was of steel-underframe construction; the others were of all-steel construction. Train No. 6 passed Lake View, the last block office, 4.6 miles from Hamburg, at 2.07 p.m., 14 minutes late, and was derailed at the open switch leading to the eastbound passing track at Hamburg while traveling at a speed estimated to have been about 30 miles an hour.

The engine came to rest on its right side with its head end about 710 feet beyond the point of the switch. All the cars in the train were derailed, but they remained upright and were not seriously damaged. The employee killed was the engineman.

Summary of evidence.

On the day of the accident, at about 8 a.m., an eastbound freight train was derailed, on account of a broken car wheel, damaging the ties on the eastbound main track from a point approximately 1 mile west of the switch to a point approximately 50 car lengths east of the switch.

Section Foreman Manguso stated that he had been performing work in the vicinity of the eastbound passing track at Hamburg for two days prior to the accident. On his arrival at Hamburg on the morning of the accident, around 8 a.m., the switch was lined for the main track; while the rear end of the freight train was standing west of the switch. This train was finally moved away over the main track, and at about 12.30 p.m. Section Foreman Manguso requested authority from Operator O'Dell, at Lake View to use the eastbound passing track as a main track but he said the operator replied in the negative, saying that train No. 22 was by Angola, 11.8 miles west of Hamburg, and was therefore too close. After train No. 22 had passed on the eastbound main track, the section foreman said that he again called the operator, telling him that train No. 22 had passed, and requested that the eastbound passing track be used as a main track for all trains as he wanted to repair the main track, which arrangement he understood the operator to agree to, and therefore he told one of his men to open the switch, but did not provide flag protection, as required by the rules,

as he did not think it was necessary to do so, he was working at a point about 60 car-lengths east of the switch when train No. 6 was derailed. Section Foreman Manguso said he had expected that Operator O'Dell would communicate with the dispatcher and make arrangements for the necessary protection.

Operator O'Dell, stationed at Lake View, stated that at the time Section Foreman Manguso called him on the telephone for the second time, after train No. 22 had passed, nothing was said about passenger trains; he told the section foreman it would be all right to route freight trains through the passing track but to be sure to afford flag protection and stop the freight trains before they entered the switch. He did not communicate with the dispatcher, but he said that even had he communicated with the dispatcher and secured the necessary permission for all trains to use the passing track it would not have relieved the section foreman from the duty of affording flag protection while the track was under repair. Operator O'Dell further stated that train No. 6 passed his station on a clear block, no stop being made.

Supervisor of Track Rex, of the Pennsylvania Railroad, arrived at the eastbound passing track at Hamburg at about 10.20 or 10.25 a.m. At first he had a 6-mile-an-hour speed restriction placed covering the track at the point where the freight train had been derailed, and later he had this speed increased to 10 miles an hour. Section Foreman Manguso afterwards inquired of him as to the 6-mile-an-hour speed restriction and Supervisor Rex informed him that it had been increased to 10 miles an hour, and then inquired of the section foreman as to what arrangements he had made to route trains through the eastbound passing track, being informed by the section foreman that the operator at Lake View had given him permission to run trains through the passing track.

Fireman Hall, of train No. 6, stated that on reaching a point just west of the road crossing, located 1,050 feet west of the switch involved, a service application of the air brakes was made and shortly afterwards the derailment occurred, at which time he estimated the speed to have been about 30 miles an hour; he had been engaged in wetting down coal and sweeping the deck, and had not observed the indication of the switch target. Conductor Clark said that the speed of his train was about 40 or 45 miles an hour prior to the service air-brake application which was made west of the road crossing, which reduced the speed to about 30 miles an hour by the time the accident occurred. The statements of Head Brakeman Bowman, Baggage-master Raugh, and Flagman Donnerworth added nothing additional of importance in connection with the investigation.

The investigation developed that when dispatcher Brown was first notified that the track had been damaged as a result of the broken wheel in the freight train, he was told by the conductor that the passing track could be used as a main track, but very shortly after issuing a train order to that effect he was told that the passing track switch was blocked by the rear end of the freight train, and the train order was annulled four minutes after it had been issued. After the relief train reached the scene and had rerailed one of the cars in the freight train, Dispatcher Brown was told that the speed of trains would have to be restricted to 6 miles an hour until repairs to the track could be completed and he then issued this restriction in the form of a notice as was customary, addressed to all eastbound trains at Angola, at 10.46 a.m. Later he was notified by the track supervisor that the speed limit would be changed to 10 miles an hour and a bulletin to that effect was put out at 12.37 p.m. This bulletin was issued for posting on all bulletin boards and the 6-mile-an-hour notice was taken up at 12.43 p.m. When the chief dispatcher sent to Dispatcher Brown the copy of the 10-mile-an-hour bulletin as it was to be posted on the bulletin boards he also included instructions to Dispatcher Brown to write on the face of the bulletin the numbers of the various trains already en route which would not have access to bulletin boards and therefore would have to have the bulletin notice addressed to them at some intermediate station. Dispatcher Brown wrote out the numbers of several trains but overlooked including train No. 6, with the result that the crew of that train, which had already left its terminal, did not receive a copy of the 10-mile-an-hour bulletin, and, the 6-mile-an-hour notice having been taken up, they therefore knew nothing of the speed restriction which had been placed in effect. This error on the part of Dispatcher Brown was not discovered until after the occurrence of the accident.

Conclusions

The primary cause of this accident was the failure of Section Foreman Manguso to provide proper flag protection.

The section foreman claimed that he obtained permission from the operator to use the passing track as a main track for all trains, while the operator said this related only to freight trains and that he cautioned the section foreman to provide proper flag protection for the open switch and to stop the freight trains before they entered the switch. Regardless of any arrangements which had been made with the operator, Section Foreman Manguso was not in any way relieved of the duty of complying with the provisions of paragraph E, Rule 39, of the rules and regulations for the government of the track department of the New York, Chicago and St. Louis Railroad, which rule reads as follows:

"(E) In no case must block signals of any kind, or telegraph orders, be relied upon for track protection, nor will permission obtained for the use of track, release the duty of protecting it as prescribed by the rules."

For his failure to obey this rule, Section Foreman Manguso is responsible for the occurrence of this accident.

It would also appear that there is a measure of responsibility to be placed on Track Supervisor Rex. He was the section foreman's superior, presumably was fully acquainted with the provisions of the rules requiring flag protection, and had ample opportunity for seeing that the necessary flag protection was provided independent of any arrangement the section foreman might have made with the operator. Had Track Supervisor Rex given attention to this matter and directed Section Foreman Manguso to protect the open switch by flag, this accident undoubtedly would not have occurred.

Up to the time of this accident it had been the practice to issue slow orders in the form of a bulletin or notice over the signature of the superintendent, these notices being delivered to train crews accompanied by a clearance card giving the number of the notice or, if merely a message, or a notice without a number, by stating "One message". No signatures were required, the notices were not recorded in the dispatcher's train-order book, and they were not always given a number. When writing on the face of the 10-mile-an-hour bulletin notice involved in this accident the numbers of the trains already en route which would have to be furnished with copy of it. Dispatcher Brown overlooked train No. 6, resulting in the failure of the crew of that train to know that there was any speed restriction in effect. Dispatcher Brown was unable to offer any explanation for his failure. Had the crew of train No. 6 been furnished with a copy of the bulletin notice this accident undoubtedly would not have occurred.

In this connection attention is called to the fact that the issuance of a speed restriction in such form affords entirely too much opportunity for the occurrence of just such an error as occurred in this instance. Since the occurrence of the accident, however, the arrangements have been changed so as to require the issuance of a train order to all trains, the crews of which do not have access to a bulletin board, thus providing for trains already en route.

Had an adequate automatic block-signal system been in use on this line, this accident probably would not have occurred; an adequate automatic train stop or train control device would have prevented it.

All of the 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.