

INTERSTATE COMMERCE COMMISSION

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 AT DEAN, PA., ON OCTOBER 25, 1929.

March 5, 1930.

To the Commission:

On October 25, 1929, there was a head-end collision between two freight trains on the New York, Chicago & St. Louis Railroad at Dean, Pa., which resulted in the injury of two employees.

Location and method of operation

This accident occurred on the Buffalo Division, extending between Buffalo, N.Y., and Conneaut, Ohio, a distance of 116.8 miles, in the vicinity of the point of accident this is a single-track line over which trains are operated by time-table and train orders, there is a manual block-signal system in use but it governs only the movement of passenger trains. The accident occurred approximately 100 feet east of the east passing-track switch at Dean, this passing track is about 4,500 feet in length and parallels the main track on the north. Approaching the point of accident from the west, the track is tangent for a distance of approximately 6,100 feet, followed by a 3° curve to the right 295.6 feet in length, from which point the track is tangent for more than 3 miles, the accident occurring on this tangent at a point about 1,050 feet from its western end. The grade is practically level at the point of accident. In the vicinity of the point of accident, the tracks of the New York Central Railroad are north of and parallel those of the New York, Chicago & St. Louis Railroad.

The weather was clear at the time of the accident, which occurred at about 7.53 p.m.

Description

Eastbound second-class freight train second No. 52 consisted of 68 cars and a caboose, hauled by engine 616, and was in charge of Conductor Clark and Engineer Wagner. At Thornton Junction, 20.7 miles west of Dean,

the crew received a copy of train order No. 110, Form 19, directing them to wait at Dean until 7.50 p.m. for train second No. 37. Train second No. 52 left Thornton Junction at 7.04 p.m., three hours and four minutes late on its schedule, passed Erie, 2.7 miles from Dean, at 7.47 p.m., passed the siding at Dean after the time named in the wait order, and collided with train second No. 37 while traveling at a speed estimated to have been between 10 and 15 miles per hour.

Westbound third-class freight train second No. 37 consisted of 70 cars and a caboose, hauled by engine 603, and was in charge of Conductor Lynch and Engineman Mickie. At North East, 11.7 miles east of Dean, the crew of this train received a copy of train order No. 110, on Form 17, previously mentioned. The train departed from North East at 7.32 p.m., according to the train sheet, 7 hours and 33 minutes behind its schedule, and had been brought to a stop east of the passing track at Dean when it was struck by train second No. 52.

Both engines were damaged but were not derailed. The second car in train second No. 37 had one truck derailed, the third and fourth cars were overturned to the south, and the fifth car was partly telescoped. None of the cars in train second No. 52 was derailed. The employees injured were the engineman and fireman of train second No. 52, both of whom jumped from the engine prior to the collision.

Summary of evidence

Engineman Wagner, of train second No. 52, stated that when the head end of his train reached a bridge located approximately 8,000 feet west of the point of accident, he looked at his watch, noted the time to be 7.50 p.m., and consequently he called it to the fireman's attention, in view of the time limit at Dean having expired, and after the fireman had consulted his watch, the fireman acknowledged in the affirmative. While the train was approaching the curve west of the point of accident, he remarked to the fireman that the opposing train had not arrived. The headlights of two engines east of the curve could be seen, but they appeared to be on the New York Central tracks and he watched them closely to make certain of it. He did not see the headlight of train second No. 37 until his own engine had completely rounded the curve, he immediately applied the brakes in emergency, jumping off when the engine was

about at the clearance point at the east end of the passing track. The speed of his train at the time it crossed the bridge west of Dean was about 17 miles per hour and it was about 30 miles per hour when he applied the brakes, but he thought this speed had been reduced to about 15 miles per hour by the time he jumped off. He said he did not see a fusee or any lights being used as a warning in the vicinity of the point of accident, neither did he see anyone standing at the east passing-track switch, and on account of being blinded by the headlight, he could not tell whether train second No. 37 was standing or moving. Engineman Wagner also stated that during his experience he has proceeded against an opposing train on a wait order when there was not sufficient time to reach the point specified in the wait order, although he had been cautioned about making movements of this kind.

Fireman Groger, of train second No. 53, was riding on his seatbox and when the train reached the west switch of the passing track at Dean, he looked at his watch and it was then 7.51 p.m. While rounding the curve west of the point of accident he noticed the reflection of a headlight, and in order to make certain as to which track it was occupying he crossed over to the engineman's side, and when the engine was just leaving the curve he discovered that the headlight was on the main track. After notifying the engineman to apply the brakes he got down in the gangway and jumped off. He estimated the speed of his train at the time the brakes were applied at 30 or 35 miles per hour. He saw no warning signals given with a fusee or lantern, although he did not pay particular attention as his only concern was to get off as soon as he realized the danger.

Head Brakeman Reffner, of train second No. 52, stated that as the train was passing over the bridge west of Dean, the engineman called attention to the time and he looked at his own watch, which indicated the time as 7.50 p.m. When the engine reached the west switch of the passing track, he went over to the right side of the cab with the intention of watching the train as it rounded the curve. After glancing towards the rear he looked ahead and noticed a headlight, the fireman, who was also on the engineman's side, apparently observed this headlight at about the same time, as the fireman called to the engineman to apply the brakes. Head Brake-

man Reffner then got down on the steps and while preparing to step off, he heard the brakes apply in emergency, he estimated the speed at that time at 25 miles per hour. He did not see a fusee being used to flag his train at the time he looked ahead, and if one was later used for this purpose he failed to notice it, as he did not look ahead again after starting to get off.

Conductor Clark, of train second No. 52, noted the time to be 7.47 p.m. when his train passed Erie, 2.7 miles west of Dean, and also noticed that it was 7.50 p.m. when the caboose reached the east end of the bridge west of Dean. He then entered the cupola of the caboose to watch the train while rounding the curves, and when the rear of the train had reached a point near the west passing-track switch, he noticed the flash of a yellow fusee ahead of his engine and at about the same time he felt the brakes apply in emergency. He estimated the speed at the time of the brake application at 25 miles per hour and thought the train travelled a distance of 15 or 20 car-lengths before the collision occurred, the speed at this time having been reduced to 10 or 12 miles per hour. Immediately after the accident he noticed the time to be 7.53 p.m. Conductor Clark said that although headlights in this vicinity could be seen for some distance, yet on account of the curve it was difficult to determine whether they were on the New York Central or on the line of the Nickel Plate.

The statements of Flagmen Marsh substantiated those of Conductor Clark as to the time their train passed Erie, and the bridge west of Dean, as well as the time of the accident, he having noted the time on each occasion.

Engineman Mickie, of train second No. 37, stated that upon arrival at North East he received train order No. 110, requiring train second No. 52 to wait at Dean until 7.50 p.m., in addition to other waits east of that point, which he clearly understood. He said his train left North East at 7.29 p.m., passed the west switch at Wesley, 1.3 miles east of Dean, at 7.46 p.m., and that when it reached the General Electric switch, approximately 3,000 feet east of the east switch at Dean, he instructed the head brakeman to light a fusee and the brakeman complied with this instruction. The train was brought to a stop about one-half car-length from the east switch at 7.48 p.m., after which he noticed the

brakeman running ahead with a fusee, but shortly after the brakeman started eastward the fusee went out. Train No. 52 was then entering the curve west of that point and in order to provide additional protection Engineman Mickie lighted a fusee, got off the engine, and started forward, but only reached a point about two car-lengths from his engine when the head end of the opposing train passed him, the accident occurring at 7.51 p.m. Engineman Mickie further stated that the time-table schedule of his train between Wesley and Dean is five minutes and as he had four minutes in which to reach the latter point before the expiration of the time named in the wait order, he thought this was sufficient time to make the movement and provide protection. He knew that train second No. 52 was superior to his train and was familiar with the rule requiring inferior trains to take siding and clear the superior train five minutes, but at the time he passed Wesley he had in mind that possibly the superior train would arrive at Dean a few minutes later than the time shown on the wait order, which would allow additional time in which to provide flag protection. He did not remember hearing the head brakeman call his attention to the fact that the time was 7.47 p.m. when they passed the east switch at Wesley.

Fireman Hill, of train second No. 37, stated that he was aware train second No. 52 was required to wait at Dean until 7.50 p.m., and he noticed that it was 7.45 p.m. when his train was approaching the east switch at Wesley, but did not mention this fact to the engineman, who at that time was operating the train at a speed of about 45 miles per hour. He observed the head brakeman talking to the engineman while passing Wesley, but was unable to hear the conversation. Fireman Hill noted the time again when the train stopped east of the passing track at Dean and it was 7.48 p.m. Just before the train came to a stop, the brakeman lighted a fusee but it sputtered and failed to give a good light so Fireman Hill handed another fusee to the brakeman, who got off and started running eastward waving this fusee until it was extinguished a short time later, but the brakeman continued to give signals with a white lantern. Realizing that the opposing train was getting pretty close, Fireman Hill lighted a yellow fusee and held it out of the window and the engineman also lighted a fusee, then got off the engine and ran towards the switch.

Head Brakeman Dames, of train second No. 37, stated that he was familiar with the requirements of train order No. 110 and was of the opinion that his train would not proceed beyond Wesley against train second No. 52. His train passed Wesley, however, at 7.47 p.m., and at that time he told the engineman the time was pretty short to go to Dean but the engineman made no reply, although he looked at his watch. When the engine passed the General Electric switch, he lighted a fusee but before the train stopped this fusee went out. He got off the engine with another burning red fusee and a white lantern, before the engine had come to a complete stop, and started ahead giving warning signals to the approaching train, but upon reaching a point about one car-length west of the east passing-track switch, this second fusee also went out, he continued running forward swinging his lantern, and was about eight car-lengths from his engine when the head end of the opposing train passed him. On account of attempting to flag the eastbound train, he failed to note the time his train stopped and the time of the accident. He further stated that he had been on trains quite often when they did not have their scheduled running time in which to travel between stations and meet a train holding a wait order, but the trains would continue on short time.

Conductor Lynch, of train second No. 37, stated that he understood from the train order received at North East that his train had until 7.50 p.m. to reach Dean. The train passed the east switch at Wesley at 7.46 p.m. and at that time he remarked to the flagman that the time was pretty short to proceed to Dean. The brakes were applied when the caboose reached the west switch at Wesley and he thought the engineman intended to back the train into clear, although it was then traveling about 30 miles per hour. He looked ahead from the steps of the caboose before the train came to a stop and noticed a burning fusee. When the train stopped, the caboose was about 25 or 30 car-lengths from the west passing track switch at Wesley and at that time it was 7.48 p.m. He got off the caboose and started towards the engine, and was about 12 car-lengths from the caboose when his train was struck by train second No. 52, and according to his watch, it was then 7.51 p.m. He said he made no attempt to stop the train when he realized that it was not going into clear at Wesley, in view of the short distance from that point to Dean, and with four minutes remaining in

which to reach the latter point on the wait order, he thought there was ample time in which to do so and still have time to provide proper flag protection. The statements of Flagman Allen, of train second No. 37, added no additional facts of importance.

Conclusions

This accident was caused by train second No. 37 being operated against a superior train on short time, for which Conductor Lynch and Enginemen Mickie are responsible.

The rules provide that at meeting points between trains of different classes, the inferior train must take siding and clear the main track at least five minutes. The statements of the members of the crew of train second No. 37 as to the time at which their train passed Wesley vary from 7.45 to 7.47 p.m.; under the provision of the rules just referred to, their train was required to be in to clear at 7.45 p.m. Engineman Mickie was familiar with this rule, and was aware that his train was running on short time, but was of the opinion that the opposing train might be a few minutes late on the order and that his own train could reach Dean before the time limit on the wait order expired and that flag protection could then be afforded. Conductor Lynch also knew that train second No. 52 was required to wait at Dean until 7.50 p.m., and according to his own watch, when his train passed Wesley only four minutes remained before that time expired. The reason he took no action to bring the train to a stop was that, due to the short distance between Wesley and Dean, he thought the train would reach the latter point in time to provide protection. It is also to be noted that train second No. 37 departed from North East, according to the train sheet, at 7.32 p.m. The distance from North East to Dean is 11.7 miles, and the schedule of train No. 37 calls for a running time of 56 minutes, yet this crew had only 13 minutes at their disposal if they were to clear the opposing superior train by the five minutes required by the rules. No justification can be found for the operation of their train under such circumstances.

The physical characteristics in the vicinity of the passing track at Dean are such that when on trains approaching/the west, it is difficult to determine
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whether engines in the vicinity of the east passing-track switch are on the tracks of the New York Central or on the line of the Nickel Plate, and usually there are from one to five engines standing in the New York Central yard with headlights burning.

In the report covering the investigation of the accident which occurred on this railroad at Edwardsville, Ill., on March 26, 1929, attention was called to the fact that it appeared to be somewhat of a practice to run on short time to the extent of using some of the five-minutes clearance time required by the rules, and the following statement was made:

"This practice has resulted in the occurrence of many accidents in the past; is recognized as dangerous, and immediate steps should be taken for its discontinuance."

The circumstances surrounding the accident here under investigation suggest that the lesson to be learned from the Edwardsville accident was not of much benefit in the present case, for this was an even more flagrant violation of the rules than was involved in the Edwardsville accident. The operation of trains in haste at the expense of safety is something which should not be tolerated, and it is recommended that the operating officials of this system give this matter their immediate attention, with a view to seeing to it that the rules are rigidly enforced and obeyed by all concerned.

In the Edwardsville accident, it was found that the average train movement during the 30 days preceding the date of the accident was slightly more than 23 trains daily, and a recommendation was made that consideration be given to the question of installing an adequate block system. In the case of the accident on this same railroad, near Swanville, Pa., on June 13, 1928, it was found that between Brocton and Thornton Junction, passenger movements were protected by a block-signal system; as to freight trains, however, it appeared that there were 6 westbound and 7 eastbound trains operated daily, in addition to sections and such extras as might be operated from time to time, and it was pointed out that with such a traffic density the operation of the block-signal system should be extended to govern train movements of all classes. In the case

of the accident here under investigation at Dean, which, like Swanville, is in the territory between Brocton and Thornton Junction, it appears that the average train movement during the 30 days preceding the date of the accident was slightly more than 33 trains daily. Obviously, the recommendation contained in the Swanville report has been amply justified, and in this connection it is to be noted that plans have been made to install an automatic block-signal system, and that the material for this installation is now being awaited.

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.