

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE ILLINOIS CENTRAL RAILROAD AT CLINTON, ILL., ON FEBRUARY 1, 1924.

April 22, 1924.

To the Commission:

On February 1, 1924, there was a rear-end collision between two freight trains on the Illinois Central Railroad at Clinton, Ill., which resulted in the death of two employees.

Location and method of operation.

The Springfield Division extends northward from Clinton to the north yard limit board a distance of about $3\frac{1}{2}$ miles, from which point northward is the Wisconsin Division. This accident occurred on the southbound main track at a point approximately 560 feet south of the yard-limit board. Two freight yards, known as A and B yards, are located approximately one mile south of the yard limit board, movement of trains in this vicinity being governed by rule 93 of the Rules of the Operating Department, which reads as follows:

"Within yard limits the main track may be used protecting against first class trains.

"Second and third class trains and extra trains must move within yard limits prepared to stop unless the main track is seen or known to be clear."

The track is tangent and practically level for several miles in either direction from the point of accident. On account of fog the range of vision was restricted to a distance of about 300 feet at the time of the accident, which occurred at about 6.50 a.m.

Description.

Southbound freight train extra 2906 consisted of 82 empty cars and a caboose, hauled by engine 2906, and was in charge of Conductor Fitzgerald and Engineman Prytherch. It left Amboy, Ill., on the Wisconsin Division, at 3.20 p.m., January 31, and arrived at the north freight yard at Clinton at about 5.20 a.m., February 1, pulled across the northbound

main track in on a lead track at the entrance to yard A and stopped clear of the yard ladder track. The head brakeman then went forward to learn which track it was to occupy. As the train was blocking a state highway crossing and the northbound main track, the engineman after waiting a short time backed across the northbound main track and northward on the southbound main track until the engine cleared the highway crossing, and stopped the train with the caboose about 500 feet south of the yard limit board, having just reached this position at the expiration of his 16-hour period on duty. Extra 2906 had been standing at this point about 40 minutes when the caboose was struck by extra 3022.

Southbound freight train extra 3022 consisted of 83 empty cars and a caboose, hauled by engine 3022, and was in charge of Conductor Ross and Engineman McMahon. This train left Amboy at 4.15 p.m., January 31, and at 6.50 a.m., February 1, struck the rear end of Extra 2906, while traveling at a speed estimated to have been about 10 miles an hour.

The caboose of extra 2906 was telescoped its entire length by a steel gondola car ahead of it. The superstructure later caught fire and was destroyed, the fifth car ahead of the caboose was broken in two and thrown over upon the northbound main track. The front end of engine 3022 was slightly damaged. The employees killed were the conductor and flagman of extra 2906, the former receiving injuries from which he died the following day.

Summary of evidence.

Engineman Prytherch, of extra 2906, stated that his train arrived at the highway crossing known as Meridian Highway near the north end of yard A at Clinton at about 5.20 a.m., and after northbound passenger train No. 133 passed a minute or two later, he pulled ahead, crossed the northbound main track and in on the yard connection or lead track to yard A. His train stopped at that point and the head brakeman went forward to ascertain which track their train was to occupy. As he had not returned after about 25 or 30 minutes and as there had been considerable complaint about blocking the highway crossing, at about 5.50 or 5.55 a.m., when their 16-hour period on duty had nearly expired, he backed out on the southbound main track and northward on that track until his engine had cleared the highway crossing. He said he made the back-up movement without receiving a signal from the rear end, the fog being so dense it was impossible to see a lantern signal a greater distance than 6 or 7 car lengths, he depended upon the conductor setting the air brakes from the caboose in the event he did not think

the move advisable. From train orders he held he knew extra 3022 was following his train but thought that train would have to go into siding at Bloomington, 22 miles north of Clinton, to clear train No. 152, and that the back-up movement was therefore safe. Shortly after his engine had cleared the highway crossing the lead brakeman got on the engine and said track No. 10 was clear, but as their time, under the 16-hour law, was then up he did not move the train into the yard. The statements of Fireman Stone practically corroborated the testimony of Engineman Prytherch.

Head Brakeman Stephenson, of extra 2906, said upon the arrival of his train at the north yard at Clinton, Engineman Prytherch told him to go ahead and find out where they were to head in. He went forward and upon inquiry was told by a yardman that there was an open track but it had a few cars on it, and he then informed the yardman that their time was nearly up and they wanted to get in as soon as possible. Brakeman Stephenson said while they were talking Engineman Prytherch came up and said if there was not an open track right away to give him a back-up signal and he would clear the road crossing. Brakeman Stephenson went with the yardman to a shanty nearby and while the yardman was talking by telephone with the yardmaster's office regarding a track for extra 2906, Engineman Prytherch sounded a back-up signal and started to back out on the main line. A track was found to be clear and the yardman told him to go out and flag extra 2906, but on account of the fog and being some distance from the engine his signals apparently were not seen. The engineman on a switch engine standing nearby sounded a stop signal several times, but as extra 2906 did not stop he got on that engine and rode to the yard track switch and then walked to the highway crossing, boarded the engine and informed Engineman Prytherch that track No. 10 was clear. He could not recall the engineman's reply, but as he did not move he took it for granted that their time was up.

Engineman McMahon, of extra 3024, said the brakes on his train were in good working order and he had experienced no difficulty in making the various stops en route. He knew extra 2906 was ahead of his train as he had noticed that it was listed out of Amboy one hour ahead of his train, and at Mononk, a station about 52 miles north of Clinton he had seen the caboose of that train. He shut off steam about one-fourth mile before reaching the yard limit board at Clinton and the train was running at a speed of about 15 miles an hour at the time of passing the yard limit board.

The weather was very foggy and it was not possible to see the marker lights of extra 2906 until his train was about 8 car lengths distant from it. He had started to take up slack with the independent brake, and upon seeing the marker lights of the caboose ahead he called a warning to the fireman and brakeman and at the same time applied the air brakes in emergency, which reduced the speed of his train to about 8 miles an hour at the time of the collision. He jumped from the engine just before the collision and because of the rate of speed and poor footing he fell, he thought the rate of speed was higher than 10 miles an hour at that time, but with the brakes applied in emergency, and within the 3 or 4 car lengths the train traveled after he had jumped from the engine, the speed was reduced to 8 or 10 miles an hour at the time of impact. He said the caboose of extra 2906 was only about 10 or 11 car lengths south of the yard limit board and as he did not encounter any torpedoes or see a flagman, the first warning he had was upon seeing the marker lights ahead. He expressed the opinion that had torpedoes been used, or had he been given any kind of warning, even a short flag, he would have been able to stop his train and avert the accident. He said the collision occurred at 6.50 a.m. Fireman Walker and Head Brakeman Stout estimated the speed of their train at the time of the collision to have been about 8 miles an hour.

Conductor Ross, of extra 3022, said his train consisted of 84 cars, on two of which the air brakes were not working and on two other cars the air brakes had been cut out. He said no difficulty had been experienced in handling the train on this trip. He estimated the speed of his train to have been about 20 miles an hour at the time of passing Wapella, 4.6 miles north of Clinton; after the caboose was approximately half a train length south of the station he heard the station whistle signal sounded for Clinton, the speed of the train having been reduced to about 16 or 18 miles an hour; the slack was lunched in the train at this time, which he said was sooner than is ordinarily done, but he thought that because of unfavorable weather conditions the engineman was getting his train under control. The brakes were applied in emergency shortly afterwards, the speed of the train at this time being about 15 or 16 miles an hour, the train moved about 4 or 5 car lengths, then there was a jolt and the train came to a stop. He looked at the air gauge in the caboose and noted that the air pressure was all gone, his first impression was that the train had broken in two and after instructing the flagman to protect the train he started toward the head end. He looked at his watch just as he was alighting from the caboose and noted that it was then 6.50 a.m. He estimated the speed of the train at the time of the collision to have been about 12 miles an hour.

Engine Foreman Collins, in charge of switch engine 317, said he was working at the north end of yard A on the morning of the accident, and upon the arrival of extra 2906 at about 5.30 or 5.55 a.m. he stopped it near the crossover which leads from yard A to the scale track in yard B. The head brakeman came forward and wanted to know where his train was to head in, in reply to which he said that as soon as he had completed one more switching movement he would find out for him. He completed the movement and then went to the telephone shanty nearby, called the yardmaster's office, the clerk answered the telephone and said Yardmaster Stewart was busy, he was informed that Yardmaster Stewart said that if track No. 10 was clear to put extra 2906 in on that track. Engine Foreman Collins said he then switched end No. 53 out of track No. 10, and told the brakeman of extra 2906 that his train could pull in on that track. While talking with the yardmaster's office he heard the engineman of extra 2906 sound a back-up whistle signal and start a back-up movement, he called to the brakeman, who was standing near the doorway to stop extra 2906. He did not know whether stop signals were given or not, in any event extra 2906 did not stop and he told the brakeman to have the engineman of engine 317 sound stop whistle signals. Engine Foreman Collins said he had no previous knowledge that extra 2906 would be on short time and upon hearing the brakeman of that train say that their time would be up at 6.10 a.m. he immediately went to the telephone shanty and got in touch with the yardmaster's office, as he thought he could obtain results quicker than the brakeman. He said it was the practice for trains to head in the north yard and for him then to inform them where they were to go. He also said there was a telephone at the switch on the main line at the entrance to the north yard, but it was his understanding that this telephone was out of order and it is necessary for trains to proceed to the entrance of yard A, a distance of approximately 1,500 feet, stop, and then ascertain which track they were to occupy.

Assistant Yardmaster Stewart said at about 2.30 a.m. he talked with the foreman in charge of switching at the north end yard regarding incoming trains and instructed him that as extra 2906 would arrive on short time, he should see to it that they were not delayed any longer than was absolutely necessary. At about 5.50 a.m. the north end foreman called his office, the yard clerk answered the telephone and said extra 2906 had arrived and wanted to know where he intended that train to go, and after ascertaining that track No. 10 was clear he told the clerk to tell the north end foreman to put extra 2906 in on that track. He took no further action in the matter, saying he naturally supposed

this would be done. He said he did not know just what action the north end foreman took relative to letting extra 2906 into the yard, and could not understand why he did not put that train in on track 10 immediately upon its arrival at the yard, it being his impression that that track was clear at the time. At about 6.10 a.m. the north end foreman again called his office and said the train he had previously called about "had backed up in the country". He said he was relieved from duty at 6.00 a.m. at which time he was of the impression that extra 2906 was in on track 10, and so reported to Assistant Yardmaster Emmitt who relieved him but upon learning that extra 2906 had backed out on the main line he then informed Assistant Yardmaster Emmitt that extra 2906 was not in on track 10 as he had previously told him but had backed out on the main line. Assistant Yardmaster Emmitt made no reply and he then informed his relief crew which had been called to meet an incoming train which would arrive at the east yard on short time.

Assistant Yardmaster Emmitt said the first knowledge he had that extra 2906 was out on the main line was upon hearing of the accident at about 6.50 a.m. He stated that Assistant Yardmaster Stewart had reported extra 2906 as being in on track 10 and had no recollection of later being informed that it had backed out on the main line. He further stated that upon going on duty he was told that a crew had been called to relieve a crew arriving at the east yard on short time, and that the relief crew would then haul extra 2906 out of track 10 in yard A.

Conclusions.

This accident was caused by the failure of Engineer McMahon of extra 3023 to operate his train under proper control within yard limits.

Engineer McMahon should have had his train under such control as to be able to stop within range of vision upon entering the yard limits, as required by Rule 93, of the Rules and Regulations of the Operating Department, which provides in part, that

*****Second and third class trains and extra trains must move within yard limits prepared to stop unless the main track is seen or known to be clear."

In view of the existing weather conditions, the speed of the train upon entering yard limits necessarily would have had to be very low, it is apparent that the speed of extra 3022 had not been properly reduced before entering yard limits because notwithstanding the emergency application of the brakes which Engineman McMahon made when he saw the caboose of the preceding train, the speed of his train at the time of collision was estimated to have been from 8 to 12 miles an hour.

Engineman Prytherch exercised bad judgment in backing away from the entrance to the yard before learning definitely whether there was a yard track available to receive his train.

Assistant Yardmaster Stewart is also at fault for his failure to see to it that space was prepared before the arrival of extra 2906 so as to avoid delay to that train in entering the yard upon arrival, in view of the fact that he knew this train was expected to arrive on short time.

This accident again directs attention to the inherent weakness of the human element in train operation. Had an adequate automatic train-control device been in use on this line, this accident would have been averted.

The engine crew of extra 2906 had been on duty 16 hours and 40 minutes at the time of the accident, having tied up on the main line at the expiration of their 16-hour period on duty, previous to which they had been off duty 11 hours and 45 minutes, the train crew while not on duty at the time of the accident, was about the train, having relieved themselves at the expiration of 16 hours on duty, previous to going on duty on this trip they had been off duty 9 hours and 40 minutes or more. At the time of the accident the engine and train crew of extra 3022 had been on duty 15 hours 35 minutes, and 15 hours 15 minutes, respectively, after an off duty period of 9 hours and 40 minutes or more.

Respectfully submitted,

W. P. BORLAND,

Director.