INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE LINE OF THE ILLINOIS TRACTION SYSTEM NEAR DELONG SIDING, ILL., ON MAY 31, 1928.

July 24, 1928.

To the Commission:

On May 31, 1928, there was a head-end collision between two passenger trains on the line of the Illinois Traction System near Delong Siding, Ill., resulting in the death of 6 passengers and 1 employee, and the injury of 15 passengers and 1 employee. This accident was investigated in conjunction with a representative of the Illinois Commerce Commission.

Location and method of operation

This accident occurred on that portion of the Eastern Division extending between Danville and Champaign, Ill., a distance of 33.7 miles; in the vicinity of the point of accident this is a single track electric line over which trains are operated by time-table and train orders, no block-signal system being in use. The accident occurred at a point about 750 feet east of the east switch of Delong Siding, this siding is approximately 1,075 feet in length and parallels the main track on the south. Approaching the point of accident from the west the track is tangent for a considerable distance and then there is a 0° 38' curve to the right 254 feet in length, 293 feet of tangent, a 0° 30' curve to the left 343 feet in length, and another tangent which extends to the point of accident, a distance of 730 feet, and for a considerable distance beyond that point. The grade at the point of accident is 0.33 per cent ascending for eastbound trains.

West of Delong the power poles are located on the south side of the main track, while east of Delong the poles are located on the north side of the track. Owing to the two slight curves located between the switches of the siding there is a difference of 15.3 feet between the track centers of the two tangents on either approach to the siding and the offset thus created results in the power poles being in an almost straight line. This condition restricts the view from the motorman's compartment of an eastbound train, which compartment is about 4 feet square and is located on the extreme left side

of the front of the car, a view of one side of an approaching eastbound train can be had from the motorman's compartment of a westbound train for a considerable distance.

Under the rules, scheduled trains in either direction have no superior rights over trains in the opposing direction, but will meet trains as prescribed by the timetable. It is also provided that should the train that is to occupy the main track arrive first it will be the duty of the conductor of such train promptly to set the switch for the siding, so that the train to be met can take the siding with the least possible delay. Instructions in the current time-table further require that westbound limited trains take siding for eastbound limited trains.

The weather was clear at the time of the accident, which occurred at about 5.01 p.m.

Description

Eastbound limited passenger train No. 74 consisted of motor 271, of wooden construction with steel sheathing, equipped with an anti-telescoping device. This train, which was in charge of Conductor C. Cummings and Motorman Craig, departed from Champaign, its initial terminal, 18.3 miles west of Delong Siding, at 4.23 p.m., on time, and instead of waiting at Delong Siding, its scheduled meeting point with train No. 77, it passed that point on time and collided with train No. 77 shortly afterwards while traveling at a speed estimated to have been between 25 and 40 miles per hour.

Westbound limited passenger train No. 77 consisted of motor 259, of wooden construction with steel sheathing, equipped with an anti-telescoping device. This train, which was in charge of Conductor Lochbaum and Motorman C. M. Cummings, departed from Danville, its initial terminal, 15.5 miles east of Delong Siding, at 4.30 p.m., on time, and had reached a point about 750 feet east of Delong Siding when it collided with train No. 74 while traveling at a speed estimated to have been between 15 and 18 miles per hour.

The underframe of car 271 overrode the floor of car 259 a distance of about 25 feet, entirely demolishing the forward portion of car 259 and badly damaging the forward end of car 271. None of the wheels of either car was derailed, although the forward truck of car 271 was shoved back toward the center of the car. The employee killed was the motorman of train No. 74.

Summary of evidence

Conductor C Cummings, of train No. 74, stated that the motorman sounded one long blast on the whistle when 1,800 or 2,000 feet from the east switch of Delong Siding, which signal for the station the conductor acknowledged by ringing the bell once as a stop signal and then Motorman Craig answered with two blasts on the whistle and reduced speed slightly, indicating that a stop would be made for the meeting point. The conductor then went out on the rear platform in order to lower the rear window so that the trolley could be shifted over, as it was customary for the train which was the first to arrive at the meeting point to pull by and back in, regardless of the requirements of the rules. As he reached up to lower the window he noticed that the speed of the train was not being materially reduced, and on looking ahead through the car he saw train No. 77 approaching. He at once ran inside and grabbed the bell rope and also the conductor's emergency brake-valve cord, held them for about two or three seconds, and then ran back to the rear platform, at which time he realized that an accident was inevitable.

Conductor Cummings did not know the exact location of his train when he pulled the emergency cord but said that it had not reached the east switch when he started inside the car to pull the cord, and he did not know how much farther the car traveled before he got hold of the cord and opened the valve, although he thought it was about at the east switch. When he pulled the emergency cord the car gave a jerk, which in his opinion was caused either by the application of the brakes, which had been working properly, or by the action of the motorman in reversing the motor. The last time he talked to Motorman Craig on this trip was at Urbana, at which time he noticed nothing unusual with the motorman, who appeared to be in good mental and physical condition. He also said that signals had been exchanged with the motorman throughout the entire trip and that the last time this was done was at Rumpler Siding, 0.9 mile west of Delong Siding. Conductor Cummings further stated that ever since his promotion to conductor, in December, 1923, it has been customary for the first train reaching a meeting point to take siding, the usual practice apparently being to pull by and back in, although according to the rules, when it is necessary for a train to back into a siding the train must first be fully protected. Conductor Cummings admitted that he made no attempt to bring his train to a stop on the main track to clear the east switch of Delong Siding so that train No. 77 could head in the siding with the least possible delay, owing to the established practice of pulling by and then backing in, which

he thought would be done on this occasion, and said that he had never been censured for handling his train in this manner, he made every effort to avoid the accident as soon as he realized his train was not going to stop.

Mr. B. W. Taintor, a passenger on train No. 74, said that he was riding in the front end of the car and that there was a man sitting on a camp stool between the seats and the motorman's compartment, the door of which was open, and that this man was conversing with the motorman at different times between Urbana and Ogden, the latter point being located 8.8 miles west of Delong Siding, but he did not notice any further conversation between them east of Ogden. Mr. Taintor said that to his knowledge no whistle signal was sounded approaching Delong Siding. He noticed the opposing train approaching when train No. 74 was at the west switch, traveling at a speed of about 45 miles per hour, and as the motorman did not reduce speed at either switch Mr. Taintor became alarmed and said he shouted a warning of danger and then started toward the rear, the accident occurring when he got to about the center of the car. Mr. Taintor further stated that as he started back he felt the air brakes apply.

Mr. O. A. Acuff, a passenger on train No. 74, said that he saw train No. 77 approaching before train No. 74 reached Delong Siding, but that it did not occur to him that train No. 74 would not stop until it was passing the siding. On definitely realizing that it was not going to stop he asked Motorman Craig if that was not the meeting point, but the motorman made no reply, apparently being in deep thought. Mr. Acuff said he then reached in the compartment and tapped the motorman on the arm and said, "My God man, stop this car - look ahead of you." At that time the motorman had the power on fully, and Mr. Acuff said the motorman looked up, shut off the power and applied the brakes, but by this time the car was east of the switch. Mr. Acuff further stated that he did not recall any signals being sounded or exchanged and that when he tried to attract the attention of the motorman to the impending danger the motorman apparently was in deep thought.

Mr. C. H. Redenbaugh, a passenger on train No. 74, stated that he rode on that train practically every day and knew that Delong Siding was the meeting point with train No. 77. When train No. 74 was about at the west switch, traveling at a high rate of speed, he looked ahead to see if train No. 77 was in the siding and when he did not see it there he got over into the middle of the car and then saw train No. 77 approaching. Being of the

opinion that train No. 74 would not get stopped he started for the rear of the car, the accident occurring shortly afterwards. Mr. Redenbaugh did not recall the whistle being sounded approaching Delong Siding and did not feel any brake application made until the conductor pulled the emergency cord, when in the vicinity of the east switch, reducing the speed to about 25 miles per hour at the time of the accident. The brakes applied immediately and just before the accident occurred he felt the motorman reverse the motor. Mr. Redenbaugh also stated that he heard the conductor give the motorman one signal about the time the car was at the west switch.

Motorman C. M. Cummings, of train No. 77, stated that as his train was approaching Delong Siding he saw train No. 74 when it was east of Rumpler Siding, and it then disappeared from his view. Motorman Cummings shut off the power and made a light air-brake application, and then saw train No. 74 come into view around the curve. His own train then was about 1,100 feet east of the east switch and Motorman Cummings thought that train No. 74 was coming to the east switch to back in on the siding. It occurred to him, however, that it passed over the east switch at an exceptionally high rate of speed, and he therefore made a further air-brake application and at about that time he saw fire flying from under the approaching train. Motorman Cummings at once applied the air brakes in emergency on his own car and reversed the motor, reducing the speed of his train to about 15 miles per hour at the time of the accident, at about which time he jumped off. Motorman Cummings said that it was the practice for the train first to reach a meeting point to take siding, and that he had seen train No. 74 back in on various occasions, which practice he thought had the sanction of the officials. The statements of Conductor Lochbaum practically corroborated those of Motorman Cummings.

Master Mechanic Walters said that on reaching the scene of the accident he examined car 271, of train No. 74, and found the master controller in the reverse position, with the reverse underneath the car in a similar position, he also found the conductor's valve to be open, while there were flat spots on each wheel which appeared blue from heat and there was also a bluish mark on the rails for some distance west of the point of accident.

Conclusions

This accident was caused by the failure of train No. 74 to stop at its time-table meeting point with train No. 77.

Under the rules the immediate responsibility for the occurrence of this accident rests upon the crew of train No. 74. These rules confer no superiority by direction but require trains to meet as prescribed by the time-table, although westbound limited trains are required to take siding for eastbound limited trains. The rules also provide that if the train which is to hold the main track should arrive at the meeting point prior to the arrival of the opposing train, the conductor of the train first to arrive will open the switch so that the opposing train may enter the siding with a minimum of delay. Under these rules train No. 74 should have proceeded on the main track only as far as the clearance point at the east switch, and it then should have remained at that point while the conductor opened the switch so that train No. 77 could enter the siding upon its arrival. It seems to have been the practice, however, for the train first to reach the meeting point to pull by and back in, and the conductor stated he did not realize that this would not be done in this case until the train was passing the east switch, traveling at a high rate of speed. It was then, however, too late for him to avert the accident, although it is apparent that the speed of his train had been considerably reduced prior to the occurrence of the accident.

The evidence indicated that there was something wrong with the motorman of train No. 74 as his train approached the east switch at Delong Siding; apparently he either was physically incapacitated in some unknown way or else he was so deeply engrossed in his thoughts as not to realize the location of his train or the danger of a collision with the opposing train until warned by one of the passengers. So far as the conductor is concerned, the practice of pulling by and backing in on a siding undoubtedly delayed him in the taking of active measures toward bringing the train to a stop, yet it is probable that a little closer attention to details would have enabled him to apply the brakes sooner than actually was the case, in which event it is possible he might have been able to bring the train to a stop.

While the rules place the immediate responsibility upon the crew of train No. 74, the primary responsibility for this accident rests with the supervising officials for

their failure to enforce the rules. It is sometimes the case that the officials of high-speed interurban lines seem to think that some one or more of the operating rules are in the rule book for no particular purpose, with the result, as in this case, that the employees come to feel that violations of the rules are to be expected. This attitude was illustrated to some extent in the present instance by Superintendent of Transportation Morris in connection with the questioning of Conductor Lochbaum. Rule 47 requires trains to pull in to a siding but if necessary to back in the train must first be protected by flag as per rule 55, while rule 64 requires all trains to approach meeting or passing points under full control, and after the Witness Lochbaum had been questioned in connection with pulling by and backing in without flag protection, Mr. Morris said

> "You spoke about ignoring rule 55 by pulling down and backing in. You understand rule No. 64, that all trains must approach meeting points under full control, and must not attempt to pass until switches and signals are seen to be properly set and the train to be met or passed is clear of the main track. Isn't it a fact that when you ignored those instructions of pulling by to back in, you do so on strength of that rule that all trains must approach meeting points under full control?"

After the conductor had answered "yes", Mr. Morris was asked by one of the Commission's inspectors if rule 47 was inferior to rule 64, to which question Mr. Morris replied in the negative, saying that he only wanted to bring out the connection between the two rules. The violation of one rule, depending on the protection afforded by another rule, is very much like the situation which occasionally exists in the case of a rear-end collision in automatic block-signal territory where an engineman depends on a flagman to provide proper flag protection, while the flagman depends upon the engineman to observe and obey the automatic signals to the fullest extent. When each ignores the rule governing his own particular case, depending on the other man to be 100 per cent perfect, the results are apt to be disastrous for all concerned. The logical presumption is that the operating rules are placed in a rule book for a definite purpose and as long as they appear in the rule book it is the obvious duty of the officials to enforce them at all times. No reasonable excuse appears to explain why the rules mentioned in the first part of these conclusions should not have been ridgidly enforced. Had it been the practice

to enforce these rules, and for the employees to obey them train No. 74 would have had to reduce speed at the west switch, preparatory to stopping short of the clearance point of the east switch. Failing to do this, the conductor of train No. 74 would have had warning that something was wrong much earlier than actually was the case and would have been able to bring his train to a stop before it reached the point at which the accident occurred.

All of the employees involved were experienced men, at the time of the accident the crew of train No. 74 had been on duty less than 9¾ hours and the crew of train No. 77 less than 6¾ hours, prior to which they had been off duty more than 13¾ hours.

Respectfully submitted,

W. P. BORLAND,

Director.