

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 AMBOY, ILL., ON APRIL
12, 1926.

May 12, 1926.

To the Commission:

On April 12, 1926, there was a rear-end collision between a freight train and a yard engine on the Illinois Central Railroad at Amboy, Ill., resulting in the death of one employee.

Location and method of operation

This accident occurred on the Amboy District of the Wisconsin Division, extending between Freeport and Clinton, Ill., a distance of 161.8 miles, this is a single-track line over which trains are operated by time-table and train orders, no block-signal system being in use. The accident occurred on the main track, within the yard limits of Amboy, at a point about 1 mile south of the north yard-limit board and approximately 100 feet south of a railroad crossing at grade. Approaching the point of accident from the north the track is tangent for more than 5 miles; the grade for southbound trains is descending for more than 1 mile approaching the point of accident, varying from 0.34 to 0.70 per cent, being at its minimum at the point of accident. A stop board is located 300 feet north of the railroad crossing, while at a point approximately 1 mile north of the crossing, or 400 feet north of the north yard-limit board, there is located a 1-mile crossing sign; all of these warning signs are located on the engineman's side of a southbound engine. The view is unobstructed.

The weather was clear at the time of the accident, which occurred at about 9.50 p.m.

Description

Southbound freight train extra 2916 consisted of 49 cars and a caboose, hauled by engine 2916 and was in charge of Conductor Martin and Engineman Engdahl. It passed Dixon, 11.8 miles north of Amboy, at 9.21 p.m., entered the yard limits at Amboy, passed over the crossing

without stopping, and on reaching a point approximately 100 feet south of the crossing it collided with yard engine 276 while traveling at a speed estimated to have been between 10 and 12 miles an hour.

Yard engine 276 was headed south with eight cars ahead of it, and was in charge of Engine Foreman Bates and Engineman McGee. Switching was being performed just south of the crossing, and on definitely realizing that a collision was imminent, at which time the yard engine had just started to move the cars southward on the main track, an attempt was made to increase the speed which was about 2 miles an hour but before this was accomplished the tender of the yard engine was struck by extra 2916.

The force of the impact derailed the rear tender truck of each engine and also the first two cars in extra 2916, one of these cars being demolished. The yard engine was separated from extra 2916 a distance of 225 feet on finally being brought to a stop. The employee killed was the engineman of the yard engine.

Summary of evidence

Engineman Engdahl, of extra 2916, stated that the air brakes on the original 15 cars in the train were tested and worked properly. At Dunbar, 43.4 miles from Amboy, 35 cars were picked up and the air coupled, but, as was customary, no air-brake test was made. Several stops and slow-downs were made after leaving Dunbar, however, and the air brakes worked properly until descending the grade approaching Amboy yard. Steam was shut off at the usual point, about $1\frac{1}{4}$ miles north of the crossing, at which time the speed was about 25 or 27 miles an hour, and the train permitted to drift down the hill, until a point about 3,000 feet north of the point of accident was reached, at which point a 7 or 8-pound brake-pipe reduction was made which did not seem to have the proper effect. Engineman Engdahl said that after traveling an additional distance of six or seven car-lengths he made another 7 or 8-pound brake-pipe reduction, at which time the speed was about 25 miles an hour, and when he did not obtain the proper effect he placed the brake valve in the emergency position. Realizing that it was not going to be possible to bring the train to a stop before reaching the crossing, and having seen the headlight of the yard engine ahead, he sounded the whistle when about opposite the stop board, and then opened the sanders and reversed the engine. When about four or five car-lengths from the crossing he sounded a succession of short blasts on the whistle, the accident occurring shortly afterwards.

Engineman Engdahl said that the speed of his train had been reduced to about 15 miles an hour before reaching the stop board, and was still being gradually reduced, but in view of the way the air brakes were holding at this time there was not sufficient distance within which to stop in time to avert the collision, at which time the speed was about 10 or 12 miles an hour. Engineman Engdahl did not know why the air brakes did not respond properly while coming down the grade approaching Amboy, and immediately after the accident he made no investigation to ascertain the reason, although subsequently he was informed that an angle cock had been turned on one of the cars.

The statements of Fireman Lier and Head Brakeman Michel practically corroborated those of Engineman Engdahl. Fireman Lier said that at the time the 35 cars were picked up at Dunbar it was taken for granted that the air brakes on those cars were in proper working order. He also said that while at this point he mistook a stop signal given from the rear end of the train for a proceed signal, told Engineman Engdahl that it was all right to proceed, and immediately afterwards the air brakes were applied from the rear. Fireman Lier further stated that while no air-brake test was made before descending the grade north of Amboy yard, as required, yet the air brakes had worked properly en route and there was no concern in this connection. Subsequent to the accident he was informed that a closed angle cock had been found on the tenth car back of the engine. Head Brakeman Michel said it was the custom of crews that he had worked with not to make an airbrake test of cars picked up en route.

Conductor Martin, of extra 2916, stated that, as was customary, no air-brake test was made of the 35 cars picked up at Dunbar, but the train started to leave this point before he had received the way bills and Flagman Payne applied the air brakes from the rear of the train, at which time they worked properly. No trouble was experienced with the manner in which the air brakes worked in making stops and slow-downs en route between this point and the top of the grade approaching Amboy, a distance of about 40 miles, while at Haldane, 30.4 miles north of Amboy, he noticed that the brake on the caboose applied properly. The last time he recalled having looked at the air gauge on the caboose was before starting down the grade at North Dixon, 13.2 miles from Amboy, and at that time the gauge registered 70 pounds. There was nothing unusual about the speed of his train to attract his attention when approaching Amboy, he did not notice anything wrong with the air brakes when they were applied at about the time the whole train had started down the grade approaching Amboy, and he did not recall

having heard the engine whistle sounded just prior to the occurrence of the accident. After the accident he instructed Flagman Payne to see if the air was cut in on all the cars in the train, with the exception of two cars that had been cut out at Haldane, on account of the fact that the brakes did not release properly, after this inspection the flagman reported that he did not see any closed angle cocks, and that the pistons on all the cars were out. More than two hours after the accident Conductor Martin was informed that a closed angle cock had been found on the tenth car from the engine, however, the conductor said that he had personally inspected the first 15 cars in the train less than an hour after the accident occurred, examining the tenth car at about 10.40 p.m., and at this time he did not see any closed angle cock. Conductor Martin further stated that he was of the impression that Engineman Engdahl had the train under full control descending the grade approaching Amboy, otherwise he would have applied the air brakes from the rear end of the train, and he was of the opinion that the accident was caused by the failure of Engineman Engdahl to start applying the air brakes soon enough to bring the train to a stop.

The statements of Flagman Payne practically corroborated those of Conductor Martin, Flagman Payne also stated that the two cars which were cut out at Haldane were the 25th and 32nd cars from the caboose, and that Engineman Engdahl was informed accordingly. At the time the train stopped as a result of the collision the flagman bled off the air from the caboose, preparatory to setting it out, and at this time there was considerable pressure in the brake cylinder, indicating that the air brakes worked properly, ^{he} then closed the angle cocks between the caboose and the car ahead of it and broke the hose coupling, a sharp exhaust was received when this was done. On inspecting the train about an hour after the accident he did not notice any closed angle cock.

Fireman Sutterlin, of yard engine 276, stated that the yard engine made a back-up movement, pulling eight cars out of one of the yard tracks. He looked back and saw extra 2916 north of the crossing, the reflection from the headlight on the rear end of the tender showing on it at this time, indicating that it must have been close, and thinking that extra 2916 was not going to stop and being concerned about the rate of speed at which it was approaching, he informed Engineman McGee that extra 2916 was very close, but the engineman said that it would stop for the crossing. Immediately afterwards the yard engine was brought to a stop and began to move the eight cars southward on the main track. Fireman Sutterlin then heard

several short blasts sounded on the whistle of extra 2916, and he said that Engineman McGee at once opened the throttle wide and worked stern, on looking back Fireman Sutterlin saw that a collision was inevitable and jumped. Immediately after the accident Fireman Sutterlin got back on the yard engine, which was pulling the derailed tender and shoving the cars ahead of it at a speed of about 4 miles an hour, and brought it to a stop.

Engine Foreman Bates, of yard engine 276, was standing at a point about 10 car-lengths south of the crossing at the time of the accident, he said that the yard engine had moved the eight cars southward about one car-length when the collision occurred. On his way home, about two hours after the accident, while crossing underneath the coupling at the rear end of the tenth car in extra 2916, he happened to notice that the angle cock on this end of the tenth car was closed. After returning from home, about an hour later, he told Yardmaster Carmichael about the closed angle cock and then went to the car in company with the yardmaster and showed it to him, at the point where the closed angle cock was found there was a public crossing, which was being blocked by this particular car.

A test made of the air brakes on the cars in the train of extra 2916 developed that in addition to the two cars on which the brakes were cut out, as previously mentioned, there were four others on which the brakes did not apply. These six cars were then taken to the repair track and again tested, the brakes on three of them were found to be in good condition, one had a leaky slide valve, one had a defective piston packing, and the other had a piston travel of $2\frac{1}{2}$ inches.

Conclusions

This accident was caused by the failure of Engineman Engdahl, of extra 2916, to have his train under proper control within yard limits.

The rules required Engineman Engdahl to know that his train was under control when approaching the railroad crossing at grade, and he was also required to operate his train within yard limits prepared to stop unless the main track was seen or known to be clear. Instead of complying with these rules his statements indicated that the speed of his train was at least 25 miles an hour when entering the yard limits, the evidence indicated that the brakes were in sufficiently good condition to have controlled the speed of the train, and is thought the accident was due to the engineman's failure to

begin braking soon enough, and that by the time he realized there was danger of an accident he had drawn off sufficient brake-pipe pressure to prevent obtaining an emergency effect when desired. While an angle cock was found in the closed position on the rear end of the tenth car some time after the occurrence of the accident, the indications were that this angle cock was closed subsequent to the accident.

Under rule 12, of the Rules and Regulations Governing Air Brake and Air Signal Equipment, when cars are picked up between terminals the trainmen are to see that the air brakes on those cars are tested. The provisions of this rule were ignored when the crew picked up the 35 cars at Dunbar, and while the evidence did not indicate that the condition of the brakes on those cars contributed to the occurrence of the accident, yet there was evidence to show that failure to comply with this rule was a matter of common practice. Rules are presumed to be in effect for a definite purpose, and as long as they remain in effect they should be rigidly enforced and obeyed by all concerned. In this case, failure to observe the rule resulted in the train being operated in violation of the federal law.

All 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.