

INTERSTATE ~~COMMERCE~~ COMMISSIONREPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN  
RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED  
ON THE ELGIN, JOLIET & EASTERN RAILWAY NEAR  
MATTESON, ILL., ON JANUARY 1, 1929.

March 23, 1929.

To the Commission:

On January 1, 1929, there was a rear-end collision between two freight trains on the Elgin, Joliet & Eastern Railway near Matteson, Ill., resulting in the death of one 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 part of the Eastern Subdivision of the Joliet Division extending between East Joliet, Ill., and Porter, Ind., a distance of 56.70 miles, this is a double-track line serving as a connection between various eastern and western trunk lines that pass through the Chicago District, deliveries being handled between these trunk lines in order to avoid delay and congestion that would be occasioned were the interchanges made in Chicago. Freight trains only are operated over this railway, their movements being governed by timetable, train orders and an automatic block-signal system which affords protection at various points designated in the time-table. The accident occurred on the eastbound main track about 1 mile west of Matteson, at a point approximately 30 feet west of the west crossover switch, this switch establishing the west yard limit under the rules of this railway. Approaching the point of accident from the west the track is tangent for a considerable distance, followed by a 2° curve to the left 1,123.5 feet in length and then 1,993.1 feet of tangent, the accident occurring on this tangent at a point about 50 feet from its western end. The grade for eastbound trains is slightly descending.

The automatic signal involved, signal 944, is of the three-position, approach-lighting, semaphore type, it is located 1,270 feet west of the point of accident. Under the rules when a train is stopped by a stop-and-proceed signal it may proceed in double-track territory at once at slow speed, expecting to find a train in the block, broken rail, obstruction or switch not properly set. The rules further provide that unless otherwise provided, block signals do not supersede the superiority of trains nor dispense with the use or the observance

of other signals whenever and wherever they may be required. There is also a provision that during fog or storms all trains and engines will run with caution and a time-table rule that extras may pass and run ahead of second and third class trains and extras.

Owing to a snow storm at the time of the accident, which occurred at about 6 a.m., the view was considerably restricted.

#### Description

Eastbound freight train extra 574 consisted of 60 cars and a caboose, hauled by engine 574, and was in charge of Conductor Brown and Engineman Hahney. This train was brought to a stop at Matteson at about 5.30 a.m. with the caboose about 10 or 12 car-lengths west of the west crossover switch. After consuming about 25 or 30 minutes in setting out some cars the train proceeded and its rear end had reached a point approximately 30 feet west of the west crossover switch, moving at a low rate of speed, when it was struck by train No. 40.

Eastbound second-class freight train No. 40 consisted of 74 cars and a caboose, hauled by engine 708, and was in charge of Conductor McKean and Engineman Berglund. This train left Frankfort, 7.53 miles west of Matteson, at 5.40 a.m., 50 minutes late, passed signal 944, which was displaying a stop indication, and collided with the rear end of extra 574 while traveling at a speed variously estimated by the witnesses to have been between 1 and 20 miles per hour.

The caboose of extra 574 was telescoped about half its length by the car ahead of it and its rear end climbed the pilot of engine 708, the first two cars ahead of the caboose were derailed. Engine 708 was only slightly damaged. The employee killed was the conductor of extra 574.

#### Summary of evidence.

Engineman Hahney, Fireman Johnson, Head Brakeman Shreffler and Flagman Cooper, of extra 574, all of whom were riding on the engine at the time of the accident, were unaware of anything wrong until the air brakes applied in emergency from the rear, at which time they estimated the speed of their train to have been between 3 and 5 miles per hour. Engineman Hahney said he did not whistle out a flag when his train was brought to a stop at Matteson, before setting out the cars, as he thought the rear end of the caboose was inside of the yard limits. Flagman Cooper stated that he was in the caboose when his train was brought to a stop at Matteson, and that the caboose was about 10 or 12 car-lengths west of the west crossover switch, just outside of yard limits. According to the statements of the flagman, Conductor Brown said that either he or the flagman would have to go ahead, as

is customary in order to assist with the work at Chicago Heights, and he told the conductor to stay in the caboose and that he would go, to the best of his recollection no conversation was had between himself and the conductor about the fact that the caboose was outside of yard limits and that it was necessary to afford flag protection. Flagman Cooper did not see the conductor leave the caboose prior to the time he started ahead.

Engineman Berglund, of train No. 40, stated that helper engine 718 assisted his train from East Joliet to Frankfort, the helper engine was ahead of his own engine and nothing unusual occurred. At Frankfort the helper engine was cut off and after the train departed from this point a speed of about 25 miles per hour was attained, although subsequently the speed was reduced somewhat on account of the snow storm which restricted his view. When about five car-lengths from signal 944 Engineman Berglund observed that a stop indication was displayed and moved the brake-valve handle around with the intention of bringing the train to a stop by means of a service air-brake application but on receiving a warning of the caboose ahead, shouted from the fireman's side of the cab, he moved the brake-valve handle to the emergency position, and he said that at the time he thought he would be able to bring the train safely to a stop. Engineman Berglund estimated the speed of his train to have been about 15 miles per hour when he passed the signal and about 1 mile per hour when the caboose was struck. He had not encountered any fusees or torpedoes. It further appeared from the statements of Engineman Berglund that his engine was equipped with a clear vision window and wind shield and that there was a curtain or awning over the window; he had moved the wind shield around, as the snow was sticking to the glass and blowing in his face, and then he had moved ahead on his seat box and opened the inside window so that the frame would protect his eyes and better enable him to see ahead. Engineman Berglund gave as his reason for not having the train under full control, so that he could have brought it to a stop at signal 944, the fact that it was snowing hard, preventing him from seeing ahead but a very short distance, and the further fact that he misjudged the location of the signal to a certain extent, although he said he was familiar with the territory and fully aware of the location of the signal. Fireman Mitchell stated that he was putting in a fire when the engineman called the stop indication displayed by signal 944 and that he answered the engineman without having seen the indication displayed. Head Brakeman Hartnett said he was riding on the left side of the engine watching for the indication of signal 944 but it was snowing so hard that it cut his face to look out, he did not see the indication displayed by the signal but he did see the markers on the caboose ahead when it was about 10 or 12 car-lengths distant and at once called a warning to the

engineman. In other respects the statements of Fireman Mitchell and Head Brakeman Hartnett corroborated in substance those of Engineman Berglund as to what transpired just prior to the accident. Conductor McKean and Flagman Boyle were riding in the caboose and were unaware of anything wrong until the accident occurred. With the exception of Flagman Boyle, who estimated the speed of the train to have been about 20 miles per hour at the time of the accident, these employees estimated the speed to have been from 15 to 20 miles per hour in the vicinity of signal 944 and from 1 to 5 miles per hour at the time of the accident.

In connection with the condition of the air brakes on train No. 40, Engineman Berglund stated that after the helper engine was cut off at Frankfort nothing was said to him by Head Brakeman Hartnett, nor did he have any conversation with any one, as to the condition of the air brakes, the air was pumped up until the gauge registered 65 pounds pressure and Engineman Berglund deemed this sufficient. As the air brakes were sticking on cars at the rear of the train it was necessary to make four or five attempts before the train was finally started. Head Brakeman Hartnett stated that he rode the helper engine between East Joliet and Frankfort and as the train was being brought to a stop at the latter point he heard Engineman Williams, of helper engine 718, the lead engine, remark about the air not working properly. Head Brakeman Hartnett therefore told Engineman Williams that he would notify Engineman Berglund as to this condition, but on boarding engine 708, instead of notifying Engineman Berglund that the air was not working properly, Head Brakeman Hartnett merely asked the engineman as to how the air was at that time; the air was then being pumped up and he was informed by the engineman that it was all right but that it was pumping up rather slowly. Fireman Mitchell heard no conversation between the engineman and head brakeman at Frankfort relative to the air brakes and noticed nothing wrong with them, although trouble was experienced in getting the train started; he did not pay any attention to the air gauge. Conductor McKean said that he looked at the caboose air gauge on departing from East Joliet and also from Frankfort and that a pressure of 65 pounds was registered. No air-brake test was made at East Joliet, the air merely being pumped up after the helper engine coupled to the train and then brakes were ~~Whistled~~ off, no application having been made before the train departed. Conductor McKean made no inspection between those two points but said that the air brakes took hold well and that the stop at Frankfort was made all right, although it was a little rough. After the helper engine was cut off trouble was experienced in getting the train started, due to the fact that the air brakes were sticking on some of the rear cars. Conductor McKean cut out the air brakes on the third car ahead of the caboose on account of a crack in the pipe, and he said that the air brakes had also been cut out on about the thirty-first car ahead of the caboose, by whom he did not know. Conductor McKean felt no

air brake application made just prior to the accident but did notice that the speed of the train was being reduced. Immediately after the accident he looked at the caboose gauge but there was no air pressure registered, and on his way toward the head end of the train he noticed that the pistons on the cars were out and that there was no air in the train line. Flagman Boyle heard the air brakes apply and said the speed of the train was decreasing prior to the accident, but in his estimation it was not reduced materially. Engineman Williams, of helper engine 718, stated that he brought the train to a stop at Frankfort by means of a service air-brake application, the stop was made in the usual distance and at about the usual place but in making a stop the train would sometimes surge ahead, indicating that something might be wrong, and merely as a matter of precaution he remarked that it might be advisable to look over the air. The pump kept up the air pressure, which registered between 68 and 70 pounds between East Joliet and Frankfort. Air Brake Supervisor Wilson stated that all trains are required to have the air brakes tested and 100% operative on departing from East Joliet or any other terminal, the tests being made by air-brake inspectors with the yard testing plant, and no one has authority to handle any car with defective air-brake equipment, it being required that all cars in the train shall have the air cut in and working properly.

#### Conclusions

This accident was caused by the failure of Engineman Berglund, of train No. 40, properly to observe and obey the stop indication of signal 944, and by the failure of Conductor Brown, of extra 574, properly to protect the rear of his train.

Engineman Berglund did not use the precautions required under the circumstances, but operated his train in a blinding snow storm at a speed which, while probably not excessive under normal conditions was still too high to enable him to obey the rules and signals governing the movement of his train. Had signal 944 been approached under full control, as was necessary in view of the existing weather conditions, Engineman Berglund could have brought his train to a stop in time to avert the accident, even though he might have misjudged the exact location of the signal.

Whether or not Conductor Brown, of extra 574, was depending upon the stop indication displayed by signal 944 for protection is not known, as he was killed in the accident; the rules, however, provide that block signals do not dispense with the use or the observance of other signals whenever and wherever they may be required, and had Conductor Brown properly protected his train by flag this accident could have been prevented.

All of the employees involved were experienced men. At the time of the accident the crews of extra 574 and train No. 40 had been on duty  $3\frac{1}{4}$  and  $2\frac{3}{4}$  hours, or less, respectively, prior to which they had been off duty for periods ranging from 12 hour to 5 days.

Respectfully submitted,

W. P. BORLAND,

Director.