

## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE  
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE  
GRAND TRUNK WESTERN RAILWAY AT MORRICE, MICH., ON  
AUGUST 18, 1939.

December 3, 1939.

To the Commission:

On August 18, 1939, there was a rear-end collision between two freight trains on the Grand Trunk Western Railway at Morrice, Mich., which resulted in the death of two employees and the injury of one employee.

#### Location and method of operation

This accident occurred on the Flint Sub-division of the Chicago Division, extending between Battle Creek and Port Huron, Mich., a distance of 139.30 miles, in the vicinity of the point of accident this is a double-track 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 2,020 feet west of the station at Morrice, approaching this point in either direction the track is tangent for several miles and the grade is slightly undulating; it is 0.09 per cent ascending for eastbound trains at the point of accident. The eastbound passing track at Morrice parallels the main tracks on the south and is 4,726 feet in length; the east switch of this passing track is located 86 feet west of the station. The maximum speed permitted for freight trains is 40 miles per hour.

A dense fog prevailed at the time of the accident, which occurred about 5.41 a.m.

#### Description

Eastbound freight train symbol 500 consisted of 67 cars and a caboose, hauled by engine 3453, and was in charge of Conductor Rutledge and Engineman Hutchings. This train departed from Nichols Yard, 64.89 miles west of Morrice, at 2.05 a.m., and arrived at Morrice at 5.30 a.m. It was brought to a stop on the eastbound main track a short distance east of the station, and was still standing at that point at the time of the accident.

Eastbound freight train symbol 486 consisted of 28 cars and a caboose, hauled by engine 6311, and was in charge of Conductor Scouten and Engineman Henry. This train left Nichols Yard at 3.20 a.m., passed train second 484 at Bellevue, 11.9 miles beyond, at 3.43 a.m.,

and arrived at Morrice at 5.39 a. m., where it was stopped in the rear of train 500, and shortly afterwards it was struck by train second 484.

Eastbound freight train symbol second 484 consisted of 64 cars and a caboose, hauled by engine 3748, and was in charge of Conductor Marks and Engineman Drew. This train departed from Nichols Yard at 2.50 a. m., and remained at Bellevue until train 486 passed. It departed from this point at 3.53 a. m., and was approaching Morrice when it collided with the rear end of train 486 while traveling at a speed estimated to have been between 35 and 45 miles per hour.

The caboose of train 486 was demolished and the four cars immediately ahead of it were badly damaged. Engine 3748 was derailed and came to rest leaning at an angle of about 45° and headed in a southeasterly direction. The tender was torn from its trucks and rested on the frame of a car across the main tracks. The first car in train second 484 was demolished, the next five cars were badly damaged, and the following two cars were partly derailed. All of the derailed cars except the two last mentioned were piled in a mass of wreckage. The employees killed were the engineman and fireman of train second 484 and the employee injured was the head brakeman of the same train.

#### Summary of evidence

Engineman Hutchings, of train 500, stated that after passing Haslett, 13.15 miles west of Morrice, fog was encountered which increased in density and when he arrived at Morrice he found it very heavy. As his engine passed the station the operator signalled him to pull by and back in at the east switch of the passing track. The train was stopped clear of the switch and after waiting for a period of time which he could not estimate, he received a back-up signal from the head brakeman, who was located alongside the train about five or six car-lengths from the engine; this signal could only be seen dimly due to the fog and he could not see the markers on the rear of the train. After backing a distance of about two car-lengths the train was stopped by the air brakes being applied from the rear end.

Conductor Rutledge, of train 500, stated that upon arrival at Morrice he observed the operator east of the station with a yellow fusee in his hand. He inquired as to what was wanted and the operator informed him that his train was to back into the eastbound passing track to enable train 486 to pass, the operator then continued eastward for the purpose of assisting in relaying signals for this movement. Conductor Rutledge

instructed the flagman to go back and protect and the flagman departed immediately and soon disappeared in the fog. The conductor observed the following train approaching at a distance of about 600 or 700 feet, but waited until it came to a stop before he gave his own crew a back-up signal. The train only moved about three car-lengths when the flagman, who reappeared from the west, lighted a red fusee and gave him a stop signal, on account of the accident having occurred, and he at once applied the air from the caboose. Conductor Rutledge also said that although he was aware two other manifest trains were following him, there were no fusees thrown off while passing through the dense fog, as he did not think it was necessary in view of the fact that his train maintained a speed of between 30 and 35 miles per hour, which he thought was sufficient to keep the other trains from closing up on him.

Flagman Hughes, of train 500, stated that as soon as his train stopped at Morrice he complied with the conductor's instructions by going back to flag. He opened the east passing-track switch as he passed it and then ran westward and had reached a point about 35 or 40 car-lengths from his train when he heard the whistle of the approaching train, he immediately lighted a fusee and gave several stop signals before they were acknowledged. He estimated that the headlight of train 486 came within view at a distance of 65 car-lengths, and when the engine passed him he boarded the steps and informed the engineman as to what was taking place and was still in this position when the collision occurred, which was only a minute or two after train 486 had stopped. In going back and finding the passing track blocked, he ran ahead and stopped the back-up movement of his own train.

Engineman Henry, of train 485, stated that while at Lansing the head brakeman told him that the operator at that point had advised that train 500 had departed only a short time previously. As his train approached the coal dock at East Lansing, where coal was taken, he noticed a yellow fusee ahead, but this fusee burned out before his train departed from the coal dock. Realizing that train 500 was not much over 10 minutes ahead, he did not operate his train at more than 25 miles per hour after leaving that point. Intermittent banks of fog were encountered between Haslett and Shaftsbury, and it became very thick in the vicinity of Morrice, so that he could not see more than three car-lengths ahead. When about 2 miles west of Shaftsbury, which is 6.49 miles from Morrice, he obtained a faint glimpse of the caboose of train 500, about 15 car-lengths ahead, and at once reduced speed to about 10 miles per hour in order to permit a 10-

minute spacing of the trains, he later increased the speed to about 15 miles per hour. Engineman Henry expected train 500 to be either heading in, or already on the passing track at Morrice, but when he did not find that train there he decided that the train-ender board would be against him and therefore made a further reduction in speed to 6 or 8 miles per hour, at which speed his train was traveling when he observed stop signals being given by the flagman of train 500. He did not know the exact time at which his train stopped, but thought it was about 5.40 a. m., and he said he did not whistle out a flag after stopping as he was talking with the flagman of train 500 and forgot to do so.

The statements of Fireman Olney and Head Brakeman DeLacey, of train 483, substantiated those of Engineman Henry. They both stated that their train came to a stop at Morrice at 5.40 a. m., and that not more than one minute elapsed before the occurrence of the accident.

Conductor Scouten, of train 486, stated that shortly after leaving Lansing, fog was encountered which prevailed at intervals. Speed was reduced approaching Shaftsbury and the flagman threw off a yellow fusee. Two more yellow fusees were thrown off at different points after passing Shaftsbury, and a red fusee was thrown off when the train reached a point about three-fourths mile west of where it afterwards was stopped. On account of the density of the fog he could not determine the speed of his train, but was of the opinion that these fusees were properly spaced. The train continued at reduced speed and then was brought to a sudden stop at 5.40 a. m. He was on the rear platform of the caboose and as soon as the train stopped he heard train second 484 approaching, although he could not see it. The flagman ran back immediately with a red fusee but the fog was so dense that he disappeared from view when about one and one-half car-lengths from the caboose. He estimated that his train had been standing about one or one and one-half minutes before it was struck by the following train.

Flagman Given, of train 483, stated that because of the fog he rode on the rear platform of the caboose between Lansing and Morrice, dropping off five yellow fusees en route, and he said he threw off a red fusee upon reaching a point just west of the west switch of the eastbound passing track at Morrice. All of these fusees were burning when they struck the ground, but they soon disappeared in the fog. Immediately after the train stopped at Morrice, he ran back with a lighted red fusee, and he thought he had reached a point about 20 car-lengths from his caboose before he was able to give a stop signal to the crew of the approaching train.

He could not see this train until it was only a car-length from him, but he said he heard a whistle signal sounded, although he did not know whether this was an acknowledgment of his stop signals. He judged the speed of train second 484 at 35 miles per hour when it passed him and at that time he heard the brake shoes grinding against the wheels.

Conductor Marks, of train second 484, stated that his train entered the siding at Bellevue to permit trains No. 16 and 486 to pass and that he rode in the engine cab behind the engineman from Lansing to Morrice. He estimated the speed of his train between these points at 40 miles per hour. The weather was foggy, and it increased in density as the train proceeded, and after passing Shaftsbury he kept a sharp lookout ahead but noticed no burning fuses. He did not see the stop signals being given by the flagman of train 486 until he was only 150 or 200 feet distant, this flagman being about 15 or 20 car-lengths from his own train. The engineman immediately applied the brakes in emergency, but there did not appear to be any reduction in speed, although he thought the speed might have been reduced and that he did not notice it due to his excitement. Conductor Marks further stated that the engineman was also keeping a strict lookout, and he did not know how they could have failed to see burning fuses unless they were on the opposite side of the track, in which event it was possible they could have missed them. The conductor did not suggest to the engineman that speed should be reduced, as he had worked with this engineman on numerous occasions for years, and considered him a careful man.

Head Brakeman White, of train second 434, stated that he rode on the left side of the engine cab between Lansing and Morrice, looking ahead from the side window, but did not see any fuses between these points, neither did he see anything of train 486 prior to the accident. His first intimation of anything wrong was when the engineman shouted a warning, he immediately left his seatbox and was descending the steps at the gangway when the collision occurred. He estimated the speed of his train at 45 miles per hour as it approached the point of accident and he did not think it had been reduced to any extent, because the engineman did not apply the brakes until just before the collision occurred. It was his opinion that, although the weather was quite foggy, he would have seen burning fuses had the train passed them.

Flagman Clubb, of train second 484, stated that after leaving Lansing he dropped off fuses at 10-minute intervals, due to the fog. The door of his

caboose was open most of the time but he saw no burning fuses other than the ones he threw off. Between Lansing and the point of accident a speed of about 40 miles per hour was maintained, and that upon arrival at Morrice he felt a surge of the train which was followed almost immediately by a sudden stop. He did not know whether the brakes had been applied in emergency and because of the fog he was unable to state the distance his train travelled before coming to a stop.

Dispatcher Campbell, on duty at the time of the accident, stated that on account of trains 486 and second 484 being faster trains than train 500, and in order to save delay, it was his intention to get the latter train out of the way of the other two trains, and it was for this reason that he sent a message to the operator at Lansing, addressed to the conductor of train 500, telling him to keep clear of train 486. That operator later informed him that he had been unable to deliver this message, a passenger train having been between the operator and train 500, so Dispatcher Campbell notified the operator at Morrice to instruct the crew of train 500 to clear the main track at that point for train 486. The rules do not require operators to report weather conditions, but he said he had received reports from four stations east of Morrice that a light fog prevailed. He also said that in extreme cases of inclement weather, and where conditions warrant it, trains are blocked one station apart, but this was not done on the morning of the accident as he had received no weather report from the operator at Morrice.

Operator Racey, on duty at Morrice, stated that he first noticed the fog at about 4.30 a. m., and about six or eight minutes later he reported this condition to the dispatcher. He received a message from the dispatcher to clear train 500 for train 486 and when the former train arrived he signalled the crew to back into the passing track. Due to the flagman going back to protect, and also because of the heavy fog, he proceeded eastward along the train to a point about 25 or 30 car-lengths from the caboose to assist in relaying signals, and was at this location at the time of the accident. He did not know how long train 486 had been standing prior to the collision as he did not hear the crash.

#### Conclusions

This accident was caused primarily by train second 484 being operated at a speed which was excessive in view of the existing weather conditions.

It appears that fog was encountered by all of the trains involved shortly after leaving Lansing, a station 21.25 miles west of Morrice, and that in the vicinity of Morrice it was very dense and materially restricted the range of vision. The conductor and engineman of train second 484 knew that train 486 had passed their train at Bellevue 10 minutes before they departed from that point, yet they operated their train at approximately the maximum speed for freight trains and did not take any action to reduce its speed when the fog was encountered or when approaching the passing track at Morrice, an open office.

According to the statements of the conductor and flagman of train 486, yellow fusees were thrown off at intervals, and finally a red fusee was thrown off in the vicinity of the west switch of the eastbound passing track at Morrice, their train coming to a stop shortly afterwards. On the other hand, Conductor Marks and Brakeman White, both of whom were riding on the engine of the following train, maintained that they did not see any fusees along the track after leaving Lansing. The fusees used by this railway burn for a period of 10 minutes, and if they were thrown off as stated by the crew of train 486, some of them should have been burning at the time train second 484 encountered them.

The automatic block-signal system now in use between Chicago and Battle Creek is being extended to Lansing. The protection afforded by such a system probably would have prevented this accident. As it was, the requirement of rule 91 that freight trains keep 10 minutes apart was the only protection other than that afforded by the vigilance of the crews. These three trains passed Lansing at 3.55 a. m., 4.43 a. m., and 4.58 a. m., according to the train sheet. The coal dock is east of the office, however, and the conductor of the first train said it was 4.40 a. m. when they were out on the main track and ready to leave. The conductor of the second train said they got coal and left at 4.45 a. m., and the conductor of the third train said they left the coal dock at 5.07 a. m. The first train used about 50 minutes in reaching Morrice, the second train about 55 minutes, and the third train, according to the conductor's figures, 33 minutes. These facts illustrate the inadequacy of the system, which resulted in the first two trains not being properly spaced when actually leaving Lansing, and in the third train overtaking the trains ahead because of its operation at a much higher rate of speed. The need for adequate protection against such a situation is obvious, and it is believed that when considered in connection with the average daily train movement, which is about 36 trains, there is justification for a

recommendation that steps be taken toward providing block signal protection east of Lansing.

The employees involved are 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.