

## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE  
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE  
MICHIGAN CENTRAL RAILROAD AT GOODISON, MICH., ON  
NOVEMBER 4, 1926.

December 3, 1926.

To the Commission:

On November 4, 1926, there was a head-end collision between a passenger train and a freight train on the Michigan Central Railroad at Goodison, Mich., resulting in the death of 1 employee, and the injury of 20 passengers, 9 employees and 7 other persons.

Location and method of operation

This accident occurred on the Bay City Branch of the Detroit Division, extending between Detroit and Bay City, Mich., a distance of 107.53 miles; in the vicinity of the point of accident this is a single-track line over which trains are operated by time-table, train orders, and a manual block-signal system. The accident occurred just north of the train-order signal at Goodison, approaching this point from the north the track is tangent for more than a mile, followed by a  $2^{\circ}$  curve to the right 2,458.1 feet in length, the accident occurring at the northern end of this curve. Approaching from the south the track is tangent for a considerable distance followed by the curve on which the accident occurred. The grade is generally descending for southbound trains, varying from 0.035 to 1.114 per cent, being at its minimum at the point of accident.

The train-order signal is located on a mast about 30 feet in height, about 20 feet east of the main track and 359.6 feet south of the northern end of the curve. The signal has two blades, governing northbound and southbound movements, the normal position of the blades being horizontal, indicating stop. The passing tracks at Goodison overlap. The southbound passing track is 3,937 feet in length and parallels the main track on the west, the north switch is located 3,790 feet north of the train-order signal and the south switch 147 feet south of the signal. The northbound passing track is 3,915 feet in length and parallels the main track on the east, the north switch is located 95 feet north of the train-order signal. The speed of trains handling sand in the vicinity of the point of accident is restricted to 30 miles an hour.

The weather was clear at the time of the accident, which occurred at about 5.20 p.m.

#### Description

Southbound freight train extra 7827 consisted of 50 cars of sand and a caboose, hauled by engine 7828, and was in charge of Conductor Mangar and Engineman Dorion. Instead of remaining at Orion, the last open office, 5.38 miles north of Goodison, for train No. 205, an opposing superior train, due at Goodison at 5.19 p.m., extra 7827 passed Orion at 5.05 p.m., according to the train sheet, in an endeavor to reach Goodison and clear train No. 205 by the five minutes required by the rules. Extra 7827 ran by the north switch of the southbound passing track, however, and was finally brought to a stop just a short distance north of the train-order signal, being struck by train No. 205 after it had been standing at this point about two minutes.

Northbound passenger train No. 205 consisted of one mail car, one combination car, one coach, and one cafe-parlor car, hauled by engine 8458, and was in charge of Conductor Jones and Engineman Evans. The first and third cars were of all-steel construction, the second car of wooden construction, and the fourth car of steel-underframe construction. This train passed Rochester, the last open office, 4 miles south of Goodison, at 5.12 p.m., according to the train sheet, on time, passed the manual block signal at Goodison, which was displaying a stop indication, and collided with extra 7827 while traveling at a speed estimated to have been about 40 miles an hour.

Both engines had their front ends damaged but remained upright. None of the equipment in train No. 205 was derailed and the cars were only slightly damaged. Engine 7827 was derailed and its tender telescoped by the first car, a steel gondola, which was torn from its trucks. The balance of the freight train remained intact. The employee killed was the fireman of the passenger train.

#### Summary of evidence

Engineman Dorion, of extra 7827, stated that the air brakes were tested at Oxford, 3.3 miles from Orion, where the train originated, but that he had difficulty in stopping the train at Goodison just prior to the accident. He said that he had not overlooked train No. 205 and that he told Fireman Anthony they would go to Goodison for that train, to which the fireman replied that Goodison was the only place they could go for train No. 205, as the siding at Orion would not hold their train and that furthermore they would have just enough

time to make the north switch of the southbound passing track at Goodison, and then protect by flag while getting the train clear of the main track. Engineman Dorion stated that he did not look at his watch when passing Orion but after getting by that point the fireman said it was 5.07 p.m., and that the movement could be made nicely. Between Orion and Goodison the speed was high and he made an air-brake application in order to avoid exceeding the speed limit. On nearing the north switch of the southbound passing track at Goodison he made an air-brake application at the usual location but the speed of the train was not materially reduced and he made another air-brake application, by this time his train was getting close to the switch and when he definitely realized that he was not going to get the train stopped short of the switch he placed the brake valve in the emergency position but he said that the train continued on. Then about 25 car-lengths beyond the switch he noticed by the gauge that the brake-pipe pressure was entirely depleted; he then applied the independent engine brake and released the train brakes, and after reaching the point at which he thought he could stop for the north switch of the northbound passing track, by which time the brake pipe had been recharged to about 55 pounds pressure, he again applied the brakes, also leaving the independent engine brake applied, and the train was finally brought to a stop at a point 115 feet north of the train-order signal, this point being 20 feet north of the north switch of the northbound passing track, which was occupied by an opposing freight train. He then told the head brakeman, an inexperienced employee, that they would have to have the switch opened, and he understood that the fireman gave the head brakeman a fusee and instructed him what to do, while the engineman said that he told the head brakeman to hurry. He did not see the head brakeman again for about two minutes, at which time he saw the headlight of train No. 205 rounding the curve and then saw the head brakeman near the engine talking to the fireman, the accident occurring immediately afterwards. Engineman Dorion admitted that when leaving Orion he did not have time enough to clear train No. 205 at Goodison without exceeding the speed limit, he had calculated, however, that if everything went all right his train could get into clear at Goodison, and had been positive that his train at least could reach the north switch of the southbound passing track in time to flag train No. 205. On this occasion, however, he admitted that he did not begin to apply the air brakes soon enough. The statements of Fireman Anthony, of extra 7827, practically corroborated those of Engineman Dorion.

Head Brakeman Gordon, of extra 7827, who had been in train service only about three months, stated that when his train left Orion he was aware it was intended to make Goodison for train No. 205. When approaching Goodison, something was said about cutting off the engine in order to flag train No. 205 and Head Brakeman Gordon said he was on the step of the engine, ready to get off, when the engineman called him back on the engine, about 15 car-lengths south of the north switch of the southbound passing track, and informed him that they were going down to the northbound passing track. When approaching the north switch of the northbound passing track the engineman said nothing to him about flagging but told him to run to the north switch of the northbound passing track and open it, and he thought the engineman would tell him what to do after he had opened the switch, but it was then too late.

Conductor Mangan, of extra 7827, stated that when his train passed Orion, between 5 and 5.05 p.m., he thought there was time enough to make Goodison for train No. 205, although the trip would have to be made hurriedly. The statements of Conductor Mangan indicated that his train was passing the north switch of the southbound passing track, at about 5.15 p.m. and on the time of train No. 205, before the brakes were applied and there was then nothing that he could do toward stopping the train. He also said that his train should have been clear of the main track at Goodison at 5.14 p.m., and that the engine should have been cut off in order to send a flagman ahead. The statements of Flagman Everson practically corroborated those of Conductor Mangan.

Engineman Evans, of train No. 205, said that while rounding the curve approaching Goodison he inquired of the fireman, who was on the inside of the curve, as to the indication of the train-order signal and when about 600 feet from the signal the fireman informed him that it was in the clear position. Engineman Evans said that he did not see the signal personally until it was only two car-lengths distant, and he found it in the stop position. The speed of his train at this time was about 40 miles an hour and he immediately applied the air brakes in emergency. Engineman Evans also stated that he did not see the headlight of extra 7827 until after he had applied the air brakes in emergency, and he could not account for the failure of the fireman to observe the train-order signal correctly.

Operator Farrell, stationed at Goodison, stated that extra 7827 arrived at Goodison at 5.18 p.m., and that train No. 205 passed the block signal at 5.20 p.m.

At this time the northbound passing track was occupied by an extra train, waiting to follow train No. 205. He said that the signal which is also used as a block signal, was displaying a stop indication for both northbound and southbound trains and he did not realize there was anything wrong until he saw No. 205 pass the signal, at which time he was talking with the dispatcher.

Vision tests conducted the day after the accident with an engine similar to engine 8458, of train No. 205, disclosed that the signal at Goodison was visible from the fireman's side of the cab of a northbound engine for a distance of 1,224 feet and from the engineer's side of the cab for a distance of 424 feet.

#### Conclusions

This accident was caused primarily by the crew of extra 7827 attempting to clear for an opposing superior train at Goodison without sufficient time, and by the failure of the engineer to apply the brakes in time to stop and head in at the north switch of the southbound passing track at Goodison. The conductor's statements indicate that the engineer did not apply the brakes in time to stop and head in on the southbound passing track. The engineer said this was not the case, but nevertheless the evidence indicates that the engineer did not begin braking soon enough to stop at the switch in question. Both the conductor and engineer are at fault for passing Orion without sufficient time in which to go to Goodison and clear the time of train No. 205. That train was due at Goodison at 5.19 p.m. and under the rules extra 7827 was required to be into clear not later than 5.14 p.m. In view of the fact that the train sheet record shows that extra 7827 did not pass Orion until 5.05 p.m. it appears that the crew had only nine minutes in which to reach Goodison, a distance of 5.38 miles. This would have necessitated an average speed of 36 miles an hour, as against a prescribed minimum of 30 miles an hour, and would not have allowed for the time lost in bringing the train to a stop and heading in on the passing track.

Under the circumstances it was the duty of Conductor Mangan to ride the engine from Orion to Goodison, so as to insure that his train was properly protected while getting into clear; this duty was especially incumbent upon him in view of the inexperience of the head brakeman. Had Conductor Mangan been at his proper post of duty it is probable that his train might have been stopped in time to head in at the north switch, in any event he could have sent a flag out, and lighted

a fusee, after his train stopped, so as to warn the engineman of train 205, and it is possible that in that event the accident would have been prevented, or at least been less serious than it was.

The engineman of train No. 205 said his fireman, who was killed in the accident, called the indication of the train-order signal as clear and that he did not observe its indication personally until it was only two car-lengths distant.

Had an adequate automatic train control device been in use on this line this accident would not have occurred.

With the exception of the head brakeman of extra 7827, all the employees involved were experienced men, and 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.