

DATED

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
DETROIT UNITED LINES NEAR OAKWOOD, MICH., ON
FEBRUARY 25, 1919.

March 15, 1919.

On February 25, 1919, there was a head-end collision between a passenger train and a line car on the Detroit United Lines near Oakwood, Mich., which resulted in the death of 4 passengers and the injury of 40 passengers and 4 employees. After investigation of this accident, the Chief of the Bureau of Safety reports as follows:

The Flint Division extends from Detroit, Mich., to Flint, Mich., a distance of 55 miles, and is a single-track line with the exception of a few miles out of Detroit. Trains are operated by time table and train orders, no block signal system being in use. Approaching the scene of the accident from the south, the track is tangent for a distance of about 2 miles to within 150 feet of the point of accident, where there is a curve to the right of 50 minutes. Approaching from the north, the track is on a curve to the left of 50 minutes for a distance of about 1000 feet. On the inside of the curve, there is a line of telegraph poles which obstructs the vision of motormen. The track is practically level. At the time of the accident, a heavy snow was falling.

Northbound train 1st No. 15 consisted of 1 motor car in charge of Conductor Watson and Motorman Althouse. It left Detroit at 9.15 a.m., Orion at 10.50 a.m., 2 minutes ahead of time, Oxford, 3.75 miles from Oakwood, at 10.58 a.m., 2 minutes ahead of time, and at about 11.04 a.m. collided with southbound extra 7781 at a point nearly one-half mile north of Oakwood.

Southbound extra 7761 consisted of a line car in charge of Line Foreman Marshall, Conductor Telfree and Motorman McArthur. It left Goodrich at 10.40 a.m., and Seymour, 9.67 miles from Goodrich, at 10.57 a.m., the intention of the crew being to meet train No. 156 at Oakwood, 8.05 miles distant. The line car collided with train 1st No. 156 when about half a mile from Oakwood, while traveling at a speed estimated to have been about 30 miles an hour.

The body of the line car was higher than the platform of the passenger car and telescoped the body of the passenger car a distance of about 10 feet, that end of the car being demolished, while all of the seats in it were torn loose. Considerable damage was also sustained by the line car. Neither car was derailed.

Motorman Althouse of train 1st 156 stated that he left Oxford at 11.54 a.m., 3 minutes ahead of time, saying that it was customary for the first section of a train to leave a station a minute or so ahead of schedule, and that this practice had never been objected to by anyone. He ran his car at half speed until after passing the siding at Pit, 1.70 miles from Oxford, and then ran it at full speed. He did not look at his watch when passing Oakwood, but from the way he had been operating the car after leaving Oxford, he thought it might have been about 11.04 a.m., and he said he was figuring, on reaching Seymour, 3 miles beyond, at 11.06 a.m. He saw the line car when it was about 60, or 700 feet distant, reversed the power, and jumped. He did not look at his watch after the accident and said that he did not think

it would have been possible for his train to have left Oxford at 10.58 a.m. and have collided with extra 7761 between 11.01 and 11.03 a.m., as claimed by the crew of the extra, as that would have meant an average speed of 85 miles an hour which would have resulted in derailment of the car.

Conductor Watson of train 1st No. 155 stated that he looked at his watch going into Oxford and it was then between 10.54 and 10.55 a.m., his train being due at Oxford at 11.00 a.m. His train was reported at Oxford Substation between 10.57 and 10.58 a.m. After leaving Oxford, he was busy collecting fares in the rear of the car, and the first thing he noticed was an application of the brakes, followed by the collision. He knew the second section was behind his train, and at once went back to flag it without stopping to see what his train had struck. He did not look at his watch after leaving Oxford; neither did he look at it after the accident. He was not positive whether or not his train was ahead of time at Oakwood, but considering the time consumed at Oxford, he did not think it could reach Oakwood, where it was due at 11.05 a.m., ahead of time.

Motorman Franklin of train 2nd 155 stated that he looked at his watch leaving Oxford and it was 11.00 a.m., and it was 11.05 a.m. when passing Oakwood. He was flagged by the conductor of train 1st No. 155 when about 8 or 10, possibly 15, telegraph poles back from the point of collision. In view of the accident occurring about 2000 feet beyond Oakwood and the conductor getting back about 1000 feet after the accident, he thought the first section must have been about 1-1/2 or 2 minutes ahead of his train.

Line Foreman Marshall, in charge of the line car, stated that the motorman and conductor, who were his assistants, had passed the required examination, had both been working with the line car for a year or more, and that even when he was on the car he did not feel that he was responsible, provided the conductor and motorman had orders. After having completed some work along the road, he boarded the line car at Goodrich. The motorman and conductor had already received orders to run extra from Goodrich to Oliver, which is the yard at Oxford. He did not talk with them about meeting train No. 155 and did not hear them say anything about it. As soon as northbound local train No. 25 arrived, the line car started south, but he did not look at his watch to see what time it was. When the line car reached Seymour, he heard the conductor tell the motorman that they had enough time to go to Oakwood, but again he did not look at his watch although his train was then running between two limited trains, No. 155 and southbound train No. 154, which was due out of Goodrich at 10.54 a.m. He said that when running the car himself, he would look at his watch, but when the conductor and motorman were running it, he did not pay any attention, and he said that in this case he saw both of them look at their watches. Train No. 155 was about 500 feet distant when he first saw it, and he said that the motorman did everything he could to stop the car, which was traveling at full speed. After the collision, he picked himself up, went into the car twice to see if any of the men were there, and after coming out the last time looked at his watch and it was then 2-1/2 minutes after eleven. He did not think the collision occurred later than 11.01.

Motorman McArthur of extra 7761 stated that his train left Goodrich after the arrival of train No. 25. He did not look at his watch to see what time it was, but Conductor Tolfree said it was about 10.43 a.m. or a few seconds thereafter. He looked at his watch several times between Goodrich and Seymour to see if the limited following his train, No. 154, was gaining. He did not have a copy of the time schedule with him, and although there were several inside of the vestibule he did not look at them, and when passing Seymour at 10.57 a.m., he did not know how much his train was ahead of train No. 154. He was under the impression that train No. 155 was due out of Oakwood at 11.07 a.m. and accordingly figured on reaching that point at 11.04 a.m., which would give him the 3 minutes necessary to clear the time of train No. 155 as required by rule. When he saw train No. 155 approaching, he applied the air brakes in emergency and opened the sanders, reducing the speed to 12 or 15 miles an hour at the time of the collision. He did not know what the speed had been, but said that it was as fast as the car would travel. As soon as he got out of the car, he looked at his watch and it was then 11.02.35. Motorman McArthur further stated that it was an everyday occurrence for trains to run ahead of schedule, but that if he had known that train No. 155 was scheduled to pass Oakwood at 11.05 he would not have left Seymour. Although against the rules, he considered it would have been safe to plan on being into clear at Oakwood at 11.04 a.m., even if train No. 155 was scheduled to leave at 11.05 a.m., because the other train should not leave ahead of time.

Conductor Tolfree of extra 7761 stated that train No. 25, although due to leave Goodrich at 10.48 a.m., arrived at 10.43 a.m., and that his car departed immediately. At Seymour, he looked at his watch; it was then a few seconds after 10.57 a.m., and he said that they had time enough to go to Oakwood. On rounding the curve, train No. 156 was seen approaching, and the motorman did all he could to stop the car. After the accident, he looked at his watch, and it was then 11.01.30. Conductor Tolfree's estimates as to how far train No. 156 was from his car when he first saw it varied so greatly as to be useless. His last statement was that his car traveled about 400 or 500 feet between the time train No. 156 was seen and the time of collision, at which time he thought the speed of his train was about 30 miles an hour. He further stated that he compared time with the dispatcher on the morning of the accident and his watch was correct.

Train Dispatcher Hutchins stated that the agents at Orion and Oxford were supposed to report the time of trains at those stations. He did not know that train No. 156 had left those stations ahead of time, saying that the time he received from the agents might be either the time of arrival or the time of departure.

Rule No. 232 of the rules governing the operation of cars and trains on the interurban lines of this system reads as follows:

"Agents or operators when so directed will promptly record and report to the train dispatcher the time of

departure of all trains and the direction of extra trains. Agents and operators in such cases must have the proper appliances for signaling for immediate use, if required."

R. W. Loughran, Supervisor of Dispatching, stated that this rule was in the rule book for the benefit of those who elected to use it. The time of trains at certain stations was reported by the agents merely to let the dispatcher know that they were maintaining schedule. The time shown might be either the arriving or the leaving time. He also said that had the agent at Orion, for example, been required to report the time of departure and had shown train let No. 155 as leaving 3 minutes ahead of time, then the dispatcher would have been able to get in touch with the crew at Oxford and prevent them leaving that point ahead of time.

Conductor Benson of local train No. 25 stated that his train reached Goodrich at 10.44 a.m., leaving on time at 10.46 a.m. The line car was on the siding and started toward the south switch as soon as his train arrived. His watch was correct when compared earlier in the day.

In view of the conflicting statements as to time, a number of tests were made. Line car 7763, the same type as car 7761, was run from Goodrich to the point of accident at maximum speed except at necessary slow-down points, and at those points the speed attained exceeded the limits prescribed by the rules and also by village ordinances. It was found that it took 18 minutes and 30 seconds to go from Goodrich to the point of the accident. If the line car involved in the accident had left

Goodrich at a few seconds after 10.43 a.m., as claimed by its crew, then according to this test it could have reached the point of collision at about 11.03 a.m., or if the statement of the conductor of train No. 25 is correct, that his train did not reach Goodrich until 10.44 a.m., the line car could then have reached the point of accident at 11.03 a.m. It was also found that with a train run as stated by Motorman Althouse of train let No. 155, leaving Oxford at 10.58 a.m., half speed to Pit, and then full speed from there on, it would pass Oakwood about 35 seconds ahead of time and would reach the point of collision in a total elapsed time of 5 minutes and 57 seconds, or at about 11.05 a.m. If running at maximum speed the entire distance from Oxford to Oakwood, it would have passed Oakwood about 1-1/2 minutes ahead of time and would have reached the point of collision in a total elapsed time of 5 minutes and 55 seconds, or about 11.04 a.m. A check was also made of all the limited trains run during one day, and it was found that the average time of these trains between Oxford and Oakwood was 5 minutes and 54 seconds, with an additional half minute being consumed between Oakwood and the point of collision.

It seems apparent from the evidence that train let No. 155 left Oxford at 10.58 a.m., 2 minutes ahead of time, and in view of the check made as to the average amount of time required to go from Oxford to the point of collision, it is probable that it was nearly 11.04 a.m. when train No. 155 passed Oakwood and about half a minute after 11.04 a.m. when the collision occurred. No evidence was brought out to show that the

watches of any of the employees involved were not correct.

This accident was caused by extra 7761 occupying the main track on the time of a superior train, for which Line Foreman Marshall, Conductor Telfree and Motorman McArthur are responsible. Line Foreman Marshall was in charge of the line car, and under Rule No. 387 was responsible for the proper use and running of the line car. Under the requirements of Rule No. 162, the line car should have been in the clear at Oakwood 3 minutes before train let No. 155 was scheduled to pass that point, which was 11.06 a.m.

A contributing cause was the running of train let No. 155 ahead of its schedule time, for which Conductor Watson and Motorman McArthur are responsible. Under Rule No. 164, trains are not allowed to leave in advance of their schedule leaving time.

Line Foreman Marshall was employed as a lineman in 1906. Conductor Telfree was employed as a lineman in 1913 and had been in service with the line car as conductor and lineman for several years. Motorman McArthur was employed as a lineman in May, 1915, having been out of the employ of the company for about a year. Previous to this he had worked on a section for 3 years. Conductor Watson was employed as conductor in October, 1918. The records of all of these employees were good. Motorman Althouse was employed as a motorman in 1902. In 1905, he was discharged on account of a collision, but was reinstated about 5 weeks afterward. Otherwise, his record was good.

None of the employees involved had been on duty in excess of any of the provisions of the hours of service law.

Investigation indicated that violations of the rules were an everyday occurrence. Rule No. 164 is supposed to prevent trains from leaving a station ahead of schedule time, yet the statements of the employees indicate that it was a common practice, and it is difficult to see how proper attention to duty on the part of those officials entrusted with the safe operation of this road could have failed to detect it. There is also the case of Rule 222, requiring agents or operators "when so directed" to record and report to the dispatcher the time of departure of all trains. Such reports were made from Orion and from Oxford, yet in spite of the requirement of the rule that the time of departure be shown, the dispatcher stated that he had no way of knowing whether the time shown was the time of arrival or the time of departure. On practically every railroad in the country, wherever only one time is shown it means the time of departure; Rule No. 73 of this system, referring to the time tables, states that where one time is given, it is, unless otherwise indicated, the leaving time, and the time required to be reported by Rule No. 222 is also the time of departure. In view of those facts, no doubt could exist in the mind of the dispatcher as to what is indicated when a time report is received from the agents or operators at the various stations. Had it been definitely understood that the time reported was the time of departure, the dispatcher would have known that train 1st No. 130 was leaving stations ahead of time, and, according to his own statement, would have been able to get in touch with the train crew and call their attention to

their violation of the rules. Had this been done, this accident would have been prevented.

This is the sixth serious collision on the lines of the Detroit United System which has been investigated by the Commission. In these investigations there were found to be involved inadequate and unsafe rules, as well as gross violations of rules on the part of those concerned. Several years ago, for example, attention was called to the impracticability of a rule spacing trains running in the same direction a distance of 3000 feet apart, or 1 mile in the case of limited trains, when no means for that purpose were provided and in stormy or foggy weather, it is often impossible to see but 50 or 100 feet. That rule is still in force. The accident covered by this report as well as every other accident investigated on this line ^{might} have been prevented by an adequate block signal system; attention has been called in previous reports to the need of adopting some such form of protection. Those responsible for the operation of this road should take immediate steps toward eliminating rules which are unsafe or impossible to obey, or which are in the rule book for the benefit of those who elect to use them, and devote more attention to the enforcement of those rules and requirements which are absolutely essential to the safety of the traveling public. It is also urged that serious consideration be given to the adoption of some form of block signal protection on all the lines of this company where high-speed passenger trains are operated.