

## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE  
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE  
PERE MARQUETTE RAILWAY AT EDMORE, MICH., ON  
SEPTEMBER 25, 1931.

December 1, 1931.

To the Commission:

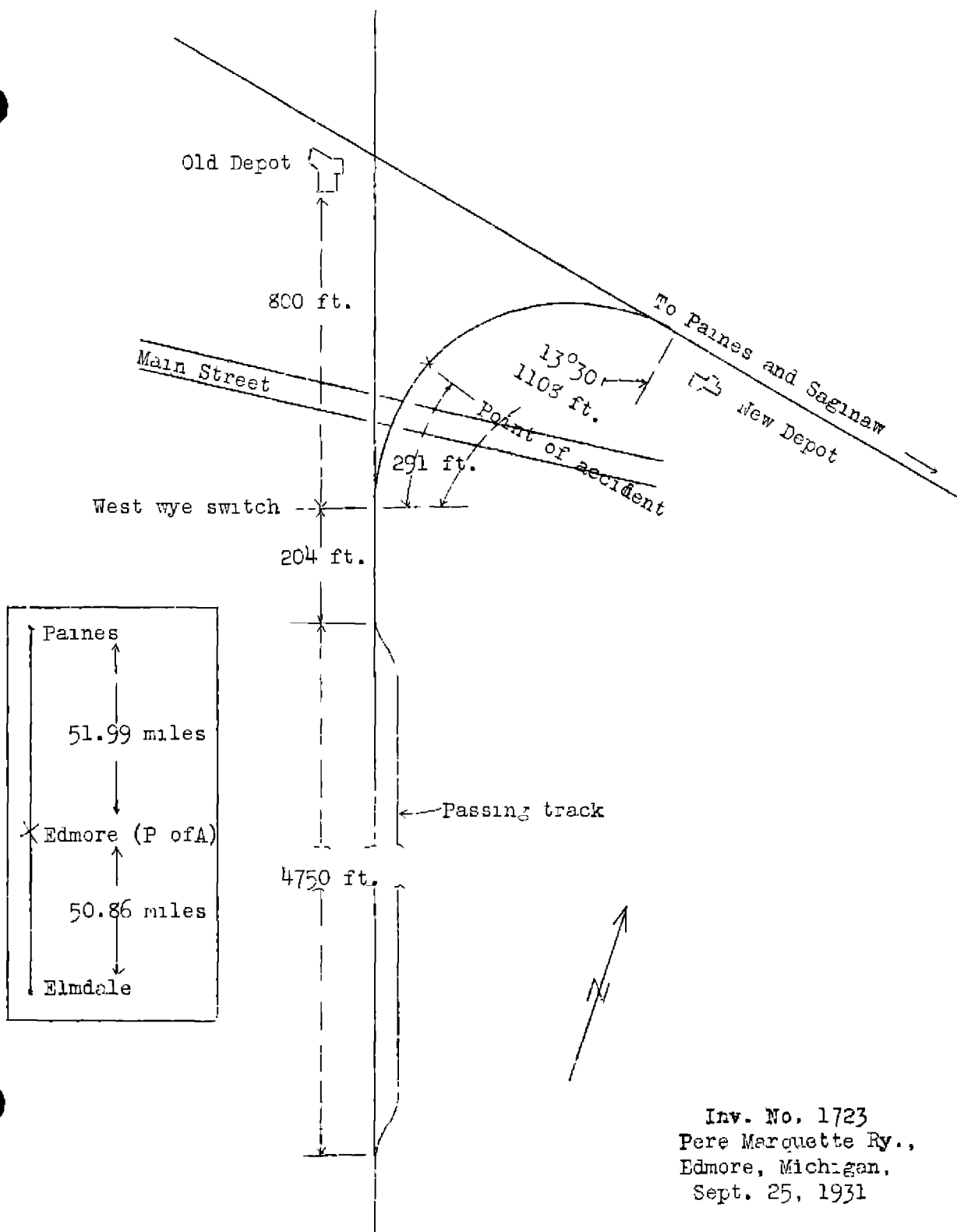
On September 25, 1931, there was a derailment of a mixed train on the Pere Marquette Railway at Edmore, Mich., which resulted in the death of 2 employees, and the injury of 2 passengers, 3 mail clerks, and 1 employee. The investigation of this accident was made in conjunction with a representative of the Michigan Public Utilities Commission.

Location and method of operation

This accident occurred on Sub-Division No. 2 of the Detroit-Grand Rapids Division, extending between Elmdale, Mich., and Paines, near Saginaw, Mich., a distance of 102.85 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. Compass directions are north and south, but the corresponding time-table directions are east and west, respectively, and these latter directions are used in this report.

The accident occurred within yard limits, on the southeast leg of the wye, at a point 291 feet east of the west wye switch; approaching this point from the west, the track is tangent for a distance of 3,229 feet, followed by the wye track, which is on a  $13^{\circ} 30'$  curve to the right, 1,108 feet in length. Within these limits the grade is descending, varying from 0.24 to 0.71 per cent, being 0.42 per cent at the point of derailment. This leg of the wye has a No. 10 turn-out and is laid with 90-pound rails, averaging 38 feet 6 inches in length, double-spiked, fully tie-plated, with tie-rods spaced about 5 feet apart, and is ballasted with washed gravel to a depth of about 10 inches; it is well maintained. The wye is used as a portion of the main line, and special instructions in the time-table provide that the normal position of the switches is for movements over the wye and restrict the speed of all trains to 8 miles per hour while making this movement.

The wind was blowing and it was raining hard at the time of the accident, which occurred at 9.30 a.m.



### Description

Eastbound first-class mixed train No. 32 consisted of 1 combination mail and baggage car, 5 loaded box cars, 1 combination baggage and express car, and 1 coach in the order named. All cars were of steel underframe construction with the exception of the last two cars, which were of wooden construction. This train was hauled by engine 708 and was in charge of Conductor Latham and Engineman Bloomquist. It left McBrides, 3.99 miles west of Edmore, the last stopping point, at 9.24 a.m., 24 minutes late, and was derailed on the wye at Edmore while traveling at a speed variously estimated to have been between 15 and 60 miles per hour.

Engine 708, with tender coupled, came to rest on its left side parallel with the track, with the rear of the tender 363 feet east of the west wye switch, the combination mail and baggage car, the first two box cars, and about half of the third box car passed on by the derailed engine and came to rest in an upright position with the head end of the first car 165 feet east of the front end of the engine. The front truck of the mail car was demolished and the left side of the car was torn off almost entirely by contact with the derailed engine; the box car behind the mail car was slightly damaged and had the front pair of wheels of its rear truck derailed, but none of the remaining equipment was derailed or damaged. The employees killed were the engineman and the fireman and the employee injured was the brakeman-baggage man.

### Summary of evidence

Conductor Latham stated that approaching Edmore he was riding in the coach, and that the train was traveling at a speed of about 15 miles per hour when the air brakes were applied in what he assumed was the emergency, and the train was derailed. It had occurred to him that the train was traveling at a higher rate of speed than usual approaching the wye, but as he had not observed any excessive speed prior to that time, and as the engineman had slowed the train down approximately to 25 miles per hour, when about one-half mile west of the wye switch, he had assumed that he would observe the speed limitation on the wye. He stated that he had been conductor on trains Nos. 31 and 32 for about seven years, and that Fireman Gomer had been on the run about a month; it was the first time <sup>he</sup> had Engineman Bloomquist on the run, and he had a conversation with him before leaving the terminal that morning, but did not ask him anything regarding his familiarity with the division as he knew that he had made a trip over it before. He further stated that he heard the whistle sounded for the station and also for Main Street crossing, which is located just beyond the wye switch.

Brakeman-Baggage-man Morrison stated that he was riding in the baggage end of the mail car with the doors closed, and for that reason he was unable to estimate the speed of the train approaching the wye. He had noticed two applications of the air brakes, the first one a service application in the vicinity of the passing track, and the second one an emergency application just before the mail car reached the wye switch. It was not possible for him to state, however, whether this latter application was made by the engine-man or was due to the breaking of the train line. He did not notice that the speed was excessive prior to their arrival at Edmore, but did observe a higher rate of speed than usual when entering the wye.

Brakeman Swikert stated that he was riding in the coach approaching Edmore and noticed that the speed of the train was reduced from approximately 40 miles per hour to about 15 miles per hour between the passing track switches. The next application of the air brakes that he observed was an emergency application about the time the coach reached Main Street crossing. He knew that the engine-man was new on the run, but did not inquire of him as to his familiarity with the division, although Engineman Bloomquist had requested him to call his attention to anything he did that was not right. In this connection he stated that while he was riding on the engine going down the hill at Lowell, a station 44.56 miles from Edmore, the train attained a rate of speed that caused the engine to rock; he looked over at Engineman Bloomquist and shook his head and the engine-man applied the air brakes and steadied the train. The brakeman did not notice that the speed of the train was excessive at any other point between there and Edmore. He also stated that he heard the whistle blown for Main Street crossing.

Section Foreman Tracey stated that on the morning of the accident he was at the tool house, located 836 feet west of the wye switch. He heard train No. 32 coming, and when the train passed him it was running at a high rate of speed, while the engine-man was blowing one long blast on the whistle. He had patrolled the wye track at 7.15 a.m. that day and found both the track and the west wye switch in good condition. After the accident he examined the track west of the derailed equipment and stated that the first mark of derailment was on the ends of the ties, on the outside of the curve, 52 feet east of Main Street crossing. He then continued on back and inspected the track and the wye switch, but found nothing wrong, and there was nothing to indicate that any portion of the equipment had been dragging.

Road Foreman of Engines Roberts stated that he arrived at the scene of the accident at 1.35 p.m. and made an inspection of the engine; he found the windows on the right side of the cab closed and the front one broken out, the automatic brake-valve handle in service application position, the throttle slightly open, and the reverse lever about four notches from the forward end of the quadrant. The flanges of all wheels were in good condition, the engine trucks, however, were demolished in the accident. He thought that the last trip made over the division by Engineman Bloomquist, prior to the accident, was on September 16, 1931, this being a student trip to familiarize himself with the road. Road Foreman of Engines Roberts further stated that after an engineman had made a student trip over a division he would permit the engineman to take charge of an engine, if in his judgment the engineman was then competent to do so.

Trainmaster Wilson stated that he was in his office, located approximately 800 feet east of the west wye switch, when he heard the whistle of train No. 32. He raised the window to observe the approach of the train and about that time the telephone rang and he was informed that the engine had turned over on the wye. He proceeded there at once and took charge of the situation, and after assisting in the removal of the employees from the cab he made an inspection of the track, switch, and equipment, but was unable to find anything wrong with them; the west wye switch was locked and properly set for the wye. He also stated that when the rear portion of the train was pulled away from the derailed cars it was necessary to bleed off the air before they could be moved.

J. W. Pfeiffer, a citizen of Edmore and the owner of a lumber yard located adjacent to the railway tracks, was an eye witness to the accident, and in a written statement to the railway officials he stated that he was in his office at the yard when he heard train No. 32 approaching and it was making so much more noise than it ordinarily made that it attracted his attention and he went to the door. As it passed he observed that it was traveling at such a high rate of speed that it appeared very doubtful to him whether it would round the curve in safety, and shortly after the engine entered the wye he saw it tip over. Mr. Pfeiffer further stated that he had been driving automobiles ever since they were first manufactured, and was a good judge of speed, and having had some personal experience with speed on curves he was not at all surprised at what happened. He estimated the speed of the train when the engine tipped over to have been between 50 and 60 miles per hour.

The Commission's inspectors examined the track for a distance of 1 mile west of the point of derailment and found it to be in good condition, with no marks to indicate anything that could have contributed to the occurrence of the accident, while only slight damage was sustained by the track at the point of accident.

### Conclusions

This accident was caused by excessive speed on a sharp curve.

The several opinions expressed covering the rate of speed at which train No. 32 was traveling when it entered the wye vary to such an extent that no definite conclusion can be arrived at as to just how fast the train was running when the derailment occurred, but the distance the train traveled beyond the derailed engine, with the air brakes applied, together with the additional resistance caused by the tearing out of the left side of the mail car as it passed by the derailed engine, and the fact that the engine apparently turned over from centrifugal force without first being derailed, indicates that the train was traveling at a much higher rate of speed than was consistent with safety, and it is believed that this excessive speed was responsible for the accident. Engineman Bloomquist was apparently in normal condition and mentally alert approaching Edmore, for he sounded the regular station and crossing whistle signals; this also would indicate that he must have been aware of his approximate location, and under these circumstances no definite reason can be assigned for his failure to have his train under proper control when entering the wye track.

In this connection, however, attention is called to the fact that Engineman Bloomquist was only required to make one student trip over the sub-division prior to the trip on which this accident occurred, after an absence from the territory of at least 10 years. It is quite possible, therefore, that the real reason for the occurrence of this accident may have been the unfamiliarity of the engineman with the sub-division over which he was operating, and this possibility is strengthened by the fact that at one point en route the brakeman riding the engine in effect warned the engineman about the speed at which he was operating his train on a grade. It was stated by the officials that when an engineman had not been over a territory within six months, he was required to make a sufficient number of trips to familiarize himself with the road, the road foreman of engines checking him for the purpose of making sure when he was qualified. This kind of an arrangement would seem to provide a satisfactory rule, but if the present case is to be taken as an example of the practice, then the

question is raised as to why the practice is not in harmony with the rule. Examination of the records back to 1920 showed that Engineman Bloomquist had made one through trip over this sub-division in August, 1921, and a turn-around run from Grand Rapids to Edmore in July of the same year, and there appears to have been no record of any other trip until he made the student trip nine days prior to the date of the accident, although one of the enginemen thought he had made a similar student trip about four years previously; this latter statement, however, was not verified. This can not be considered as qualifying a man for service and the responsible officials of this railway should follow a practice which will more nearly harmonize with the rule and make it impossible for an engineman to be used in a territory with which he is not familiar.

All of 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.