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IN THE INVESTIGATION OF AN ACCIDENT WHICH
OCCURRED ON THE DETROIT UNITED RAILWAY
NEAR ORTONVILLE, MICH., ON SEPT. 24, 1920.

October 20, 1920.

On September 24, 1920, there was a rear-end collision between two work trains on the Detroit United Railway near Ortonville, Mich., which resulted in the death of 4 employees and the injury of 12 employees. After investigation of this accident the Chief of the Bureau of Safety reports as follows:

This accident occurred on the Flint Division, which extends between Detroit, Mich., and Flint, Mich., a distance of 67.66 miles, and in the vicinity of the point of accident is a double-track line over which trains are operated by time-table and train orders transmitted by telephone, no block-signal system being in use. The accident occurred on what is known as "Wolf Curve" about $1\frac{1}{2}$ miles south of Ortonville, where there is a section of double track about 2,450 feet in length, the point of accident being about 600 feet south of the switch at the north end of double track. Approaching the point of accident from the south there is a tangent nearly 1,900 feet long, followed by a 3-degree curve to the right about 970 feet in length; the track is then tangent to the point of accident, a distance of 165 feet. The grade is about 2 per cent descending for northbound trains for a distance of approximately 3,500 feet. The curve is in a cut, which restricts the view to about 600 feet. The weather at the time of the accident was clear.

Northbound work extra 1976 consisted of motor 1976, 4 gravel cars and two flat cars, in the order named, all of steel-underframe construction, and was in charge of Conductor Maitrott

and Motorman Bowman. After working during the night of September 23 at points between Woodlawn, near Detroit, and Oliver, 27.39 miles south of Flint, the crew of extra 1976 received train order No. 29, which directed their train to run extra from Oliver to Atlas, 10.36 miles from Flint. Extra 1976 left Oliver at about 5.55 a.m., met train No. 32 at Oakwood at about 6.35 a.m., made a stop at a point part way down the descending grade approaching the point of accident for the purpose of testing the brakes, and was traveling at a speed believed to have been about 10 miles an hour when its rear end was struck by extra 1853.

Northbound work extra 1853 consisted only of motor 1853, in charge of Conductor Winterstein and Motorman Aiken. At Oliver the crew received a copy of train order No. 33, which reads as follows:

"Run extra Oliver to Orago extra 1976 ahead."

Orago is 2.45 miles south of Flint. Extra 1853 left Oliver at 6.41 a.m. and at about 6.54 a.m. collided with the rear end of extra 1976 while traveling at a speed estimated by the crew to have been 30 or 40 miles an hour.

The ^{rear} two cars of extra 1976 were derailed and slightly damaged, but remained upright on the road way. Motor 1853 was not derailed, but its front end was considerably damaged. The employees killed were trackmen riding on motor 1853.

According to Motorman Bowman, of extra 1976, he had intended going to Ortonville to meet southbound train No. 149, which

is due at that point at 7.00 a.m., and when he saw that he would not have time enough to reach Ortonville he operated his train slowly down the grade and started around Wolf Curve at a speed of about 4 miles an hour, intending to stop short of the switch at the north end of double track to allow train No. 148 to pass. When about opposite a bridge located 675 feet south of the end of double track, the conductor told him to speed up, as there was another train coming behind them. Motorman Bowman said he then began to use power and had increased the speed to about 8 miles an hour when the accident occurred.

Conductor Maitrott's statements were so conflicting that it is impossible to say exactly when he saw extra 1853 or what he did after that time. At one point he said his train had practically stopped at the south end of double track, that he heard a whistle, and that on seeing extra 1853 approaching, about one-quarter of a mile distant, told the motorman to proceed and rode with him as far as the curve, which begins about 700 feet north of the south end of double track, before getting off. At another point in his statement he said he had not seen extra 1853 until his train entered the curve, and that he did not get off immediately because he was looking out for the extra ahead of his train; that it was his duty to protect the preceding extra, and in the same way it was the duty of the extra following him to protect the rear end of his train. He did not think he had to protect the rear of his train until it came to a stop. Conductor Maitrott estimated the speed of his train at the time of the accident at about 15 miles an hour. Both the conductor and

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motorman said that their train had not been brought to a stop when they heard extra 1853 approaching.

Trolleyman Simms, of extra 1976, said the train stopped about half way between the ends of the double-track section, and remained there about 5 minutes while the conductor and motorman were talking about what they should do. It was decided to remain on the double track for train No. 148, and the train was then moved ahead toward the north switch. He said that when they heard the whistle of extra 1853, Conductor Maitrott told Motorman Bowman to go ahead, at the same time jumping off and starting back to flag.

According to the statements of Motorman Aiken and Conductor Winterstein, they knew that extra 1976 was ahead of them, but intended going to Ortonville for train No. 148. Motorman Aiken said he did not operate his train approaching Wolf Curve with the caution he should have exercised, and that although supposed to round the curve at a rate of speed which would permit a stop being made within his range of vision, the speed of his train when he saw the rear of extra 1976 was about 45 or 50 miles an hour. This estimate as to the speed was agreed to by Conductor Winterstein, who also said that if he had considered the speed dangerous, it was his duty to notify the motorman; although he thought the motorman was using poor judgment in rounding the curve at such a high rate of speed, he did not say anything to him about it. It further appeared from the statement of the motorman that he was short of time in which to reach Ortonville, and that this was his reason for operating the train at such an excessive rate of speed. The statements of both of

these employees indicated that the rear of extra 1976 was from 300 to 500 feet distant when they first saw it, that they did not see any flagman, and that extra 1976 either had stopped or was moving so slowly that its speed was not perceptible.

The double-track section at Wolf Curve was constructed in 1912, after the occurrence of a head-end collision, with a view to preventing another accident of that character. Superintendent Peters said that after its construction it was not allowed to be used for the purpose of meeting trains, but that since that time longer trains had been hauled, and no objection is now raised to passing trains at this point if the same precaution are used as when slowing down or stopping on single track. This double-track^{section} is not used by dispatchers as a meeting point.

This accident was caused by the failure of Conductor Maitrott properly to protect his train, and by the failure of Motorman Aiken to have his train under such control as to enable him to stop within his range of vision. Conductor Winterstein had the same information as to the presence of an extra ahead of his train as that possessed by Motorman Aiken, and according to his own statement he realized that the motorman was not using proper judgment in the operation of the train. Under these circumstances he is equally responsible for the occurrence of this accident.

General Order No. 2638, dated September 12, 1919, reads as follows:

"Interurban Lines,
Conductors & Motormen, Detroit United Railway:

All trainmen must be thoroughly familiar with the strictly comply with Rule No. 172, page 98 in Rule Book, reading as follows:

'When a train stops or is delayed under circumstances under which it may be overtaken by another train, the CONDUCTOR OR FLAGMAN MUST GO BACK IMMEDIATELY WITH PROPER STOP SIGNALS A SUFFICIENT DISTANCE TO INSURE FULL PROTECTION, NOT LESS THAN ONE THOUSAND (1000) FEET, taking into consideration the condition of the rail, weather, grades, obstructions and curves; he shall immediately place one torpedo on the rail, which is a stop signal, and when recalled to his train shall place a second torpedo at a distance of not more than two hundred (200) feet from the first torpedo as a caution signal. During times when track scrapers and snow plows may be in use and during foggy or stormy weather, torpedoes must not be solely depended upon, but fuseses must be used in addition. (See Rules 97 and 150). The front of a train must be protected in the same way when necessary by the motorman. The duty herein required of the conductor or motorman may be performed by the other when desirable for any reason.'

Conductors are not properly flagging when car comes to a stop for any reason. Trainment must attend to flagging IMMEDIATELY and WITH ALL HASTE, REGARDLESS OF ANYTHING ELSE.

Improper flagging will not be tolerated.

Motormen are not permitted to operate trains around blind curves at a higher rate of speed than that which will enable them to stop before striking vehicles, pedestrians, cars or anything else that may be on or adjacent to the track.

Be governed accordingly."

While it was not definitely determined whether extra 1976 came to a full stop, it was being delayed under circumstances in which it was in danger of being overtaken, and it was therefore incumbent on Conductor Maitrott to see that his train was properly protected in accordance with the requirements of General order No. 2638 and rule 172, quoted therein.

General Rules 163 and 170 read as follows:

163. Trains running in the same direction must keep not less than three thousand (3000) feet, or thirty pole lengths, apart; and LIMITE trains must keep not less than one mile, or fifty-two pole lengths apart, except in closing up at stations or meeting points. When the view is obscured by curves, fog,

storms, or other causes, trains must be kept under such control that they may be stopped within the range of vision of the motorman.

170. Trains must approach the end of double track, junctions, railroad crossings at grade, and all drawbridges, prepared to stop, unless the switches and signals are right and the track is clear. Where required by law, trains must stop.

Under rule 165, and also the last paragraph of General Order No. 2638, and particularly in view of the fact that he knew extra 1976 was ahead of him, Motorman Aiken should have operated his train around Wolf Curve under such control as would have enabled him to bring it to a stop within his range of vision. Although several hundred feet from the north end of double track, it is extremely doubtful if Motorman Aiken would have been able to comply with the provisions of rule 170, considering the rate of speed at which his train was moving. Conductor Winterstein is equally at fault with Motorman Aiken for the violation of the rules and instructions referred to above.

Conductor Maitrett was employed as a conductor in March, 1918. Motorman Aiken was employed as a motorman in 1914. Conductor Winterstein was employed as a conductor in 1916; in October of the same year he was transferred to the position of train dispatcher, and in February, 1920, was transferred to conductor. The records of these employees were good.

The crew of extra 1976 had been on duty about 13 hours, after a period off duty of 9 hours; the crew of extra 1853 had been on duty about 1 hour, after a period off duty of 9 hours.