IN RE INVESTIGATION OF ACCIDENT ON THE DE-TROIT UNITED RAILWAY, NEAR DETROIT, WICH. OCTOBER 15, 1911.

On October 16th, 1911, the Detroit United Railway reported by telegraph a rear-end collision which occurred at Volney Smith's Crossing, near Detroit, Mich., on October 15th, 1911, at 7:45 P.M. Inspectors Smith and Coutts were instructed to make an investigation, this being deemed necessary in view of the fact that since July 1, 1911, four serious accidents on the Detroit United Lines, of which the Detroit United Railway is a part, have been reported by telegraph, viz:

On July 3rd, 1911, head-on collision at Mills Switch, Mich.; I caployee killed and 44 passengers injured.

On July 30th, 1911, head-on collision at Dearborn, Mich.; 1 employee killed and 20 passengers in-

On Uctober 7th, 1911, head-on collision at Youngs Curve, near Chon, Mich.; 2 passengers killed and 12 injured.

On October 15th, 1911, rear end collision at Volney Smith's Crossing, Wich.; I passenger killed and 3 impred.

These four accidents resulted in the death of five persons and injuries to 79 others.

On the arrival of the inspectors at the scene of the accident, Mr. Paul Donrman, Assistant General Superintendent of the road, furnished them with copies of statements made and signed by the employees involved in the accident. A summary of the report of the inspectors is given below.

This division of the road is double track, nearly straight, and is practically level. It is operated by elec-

tricity, and runs from Detroit to Dean, Nich., a distance of 18 miles. The track is laid with 70 pound rails, has good ties, and is well ballasted.

Trains are run on a regular schedule and are operated by telephone, orders being received and written out by the conductor and repeated back by the motorman to the dispatcher.

No block signals are used.

Train No. 59 is a local train, south-bound, and on the night of the accident was being operated in three sections. Car No. 7161 was the second section of this train, and left Dean, Mich., at 7145 P.M. for Detroit, in charge of Conductor Fred Stoney and Motorman William Goers. This crew had orders to run as the second section of train No. 59, and to display signals from Dean to limits. This crew was also instructed to change off with Conductor Parish and Motorman Herman Goers, who were in charge of one of the three sections of north-bound train No. 60, running from Detroit to Dean, at such place as they might meet.

On account of running into fog banks, car No. 7161 was not making good time, and the crew, not knowing which section of train No. 60 was in charge of Conductor Parish and Motorman Goers, on meeting each of these sections slowed down and signaled with the headlight so as to have the car they were meeting slow down. Finally the third section of train No. 60 was met and both cars came to a stop in order to change crews. Before the crews had had time to make the change, car No. 7158, the third section of train No. 59, and in charge of Conductor Chas. D. Tunis and Motorman Leroy Paulger, approach-

ed at a high rate of speed and collided with car No. 7161, crushing the front of the vestibule of car No. 7158 and telescoping the rear platform of car No. 7161, resulting in the death of one passenger and injuries to three others.

The point where the accident occurred is at the beginning of a slight curve, where the road crosses from one side of the highway to the other. There is nothing to obstruct the vision and there is a clear view of over two miles in either direction. From the statements of employees and others, it appears that on the night of the accident the weather was forgy at certain points, but clear at the point where the accident occurred.

Car No. 7158 left Dean three or four minutes behind car No. 7161. It did not reduce speed on account of the fog banks and did not know that the crew of car No. 7161 was to change off with one of the crews on one of the three sections. of train No. 60. It further appears from the statements made by the employees that it is the practice on this road, when it is necessary to change crows, to require or permit the change to be made wherever the trains chance to meet, without flagging or giving their train or crown protection whatever.

Rule No. 295 of the Letroit United Lines reads as follows:

Enter slowly all curves, special work, temporary track, subways, and viaducts. Run slowly over them and leave them slowly.

This rule was not complied with, as there was a curve at the place of accident, which was specifically located by a slow-board about 700 feet north of the highway crossing.

Rule No. 358 reads as follows:

When one local train, or section of local train, follows another local train, or section of local train, a distance of at least three thousand feet, or thirty pole lengths, and when one limited train, or section of limited train, follows another limited train, or section of limited train, a distance of at least one mile, or fifty-two pole lengths, must be maintained between them, except when closing up at meeting points, when extreme caution must be exercised to avoid collision.

From the statements of the employees involved, it appears that this rule was not complied with by either of the crews of the third sections of trains Nos. 59 and 60. Rule No. 358, requiring that a distance of 3,000 feet be maintained between cars, is, however, impracticable in its operation on any railroad where there are no available means of indicating to motormen when they are closing up this distance. It is unreasonable to suppose that motormen can determine in dark, foggy weather, such as was the condition the night of this accident, the location of cars they are following definitely enough to comply with this rule.

that the reason he did not see the rear end of car No. 7161 was that he was blinded, for the time being, by the headlight of the second section of train No. 60, running on the north-bound track, which he met almost at the time of the accident. There is some difference in the statements made as to whether or not the headlight on the second section of train No. 60 was turned on at the time, but even so, there is no disputing the fact that the third section of train No. 59 was running at a high rate of speed and that the motorman failed to obey

and be governed by the slow-board located 700 feet north of the place of the accident, plainly visible, and placed there to indicate to approaching trains that slow speed is required at the curve at the highway crossing. Another reason why slow speed is necessary at this point is that a regular stopping place, or station, where intended passengers can stop the car on signal, is located only 700 feet south of the place of the accident.

As the accident happened almost at the instant car No. 7161 came to a stop, the conductor would not have had time to flag the third section, immediately behind him, even if it had been the custom to do so when changing crews.

All of the employees involved in the accident were experienced men; they had had about 12 hours' rest prior to reporting for duty, and had been on duty less than ten hours at the time of the accident.

This accident was caused by the failure of the motorman of car No. 7158 to obey and be governed by the slow-board, and by the rule requiring slow speed when entering curves. A contributing cause was the extremely dangerous practice of requiring crews to change off with crews going in the opposite direction, regardless of where they may meet, and with no protection being afforded in any way, either by block signals or by flagging.

Attention is called to the ineffectiveness of a rule requiring local trains to keep 3,000 feet apart, and limited trains one sile apart, when the motormen have no adequate means of determining the location of the car shead.

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As a preventive of accidents of this character, it is recommended that:

lst. The changing of crews shall not be required or permitted except at regular stopping points, unless in case of emergency, and then only when every possible protection is afforded.

2nd. An adequate block signal system shall be installed.

Respectfully submitted.

Chief Inspector of Safety Appliances.