IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE CHICAGO & NORTH WESTERN RAILWAY AT WISCONSIN RAPIDS, WIS., ON FEBRUARY 10, 1921.

March 23, 1921.

On February 10, 1921, there was a head-end collision between a Chicago & North Western freight train and a light engine of the Minneapolis, St. Paul & Sault Ste. Marie Railroad on the tracks of the Chicago & North Western Railway at Wisconsin Rapids, Wis., which resulted in the injury of 2 employees. After investigation of this accident the Chief of the Bureau of Safety reports as follows:

Location.

Subdivision No. 4, on which this accident occurred, is a single-track line extending between Fond du Lac and Marshfield, Wis., a distance of 121.9 miles, over which trains are operated by time-table and train orders, no block-signal system being in use. Eastbound trains are superior to westbound trains of the same class. Within the yard limits, and about ½ mile east of the passenger station at Wisconsin Rapids, there is a wye used twice daily by the Soo Line to turn an engine, and under an agreement between the two railroads this engine while being turned on the wye is operated in accordance with Chicago & North Western rules. The main track of the Chicago & North Western forms one leg of the wye. It was on this leg, about 105 feet from the west switch, that the accident occurred. Approaching from the west there is a reverse curve about 1,760feet in length, followed by a tangent 482 feet long and a 5-degree curve to the left 1,670 feet

long extending beyond the east switch of the wye. The collision occurred on this curve about 300 feet from its western end. The track is practically level for some distance in both directions from the point of accident. The weather was foggy.

Description.

After Soo Line passenger train No. 604, hauled by engine 2602, in charge of Conductor Hayes and Engineman Orrick, arrived at Wisconsin Rapids, it proceeded through a connection between the Chicago & North Western and the Soo Line tracks to the west leg of the wye, where the coaches were left standing while the engine, proceeding around the wye, passed over the east leg and was moving westward at a speed of about 7 miles an hour over that part of the Chicago & North Western main line which forms the third leg of the wye when it collided with extra 1744 at about 8.07 a.m.

Eastbound Chicago & North Western freight train extra 1744, in charge of Conductor Rusch and Engineman Fisher, en route from Wisconsin Rapids to Fond du Lac, left Wisconsin Rapids station with about 18 cars, on about eight of which the air brakes were coupled up, intending to pick up the balance of the train from a storage track which parallels the main line between the two wye switches, and stopped for a Chicago, Milwaukee and St. Paul crossing about 1,000 feet west of the point of accident; after two blasts on the whistle were sounded, the train proceeded eastward and collided with engine 2602 while travelling at a low

rate of speed.

Both engines were slightly damaged and two freight cars in extra 1744 were destroyed.

Summary of evidence.

Engineman Orrick, of engine 2605, was on the inside of the curve and saw extra 1744 when it was about 5 car-lengths distant. He said he immediately applied the straight air brakes, opened the sanders, and reversed the engine, at about which time the accident occurred; he thought he had succeeded in reducing the speed from 15 to 7 miles an hour. Brakeman Orr, who was riding on the left side of the pilot, saw extra 1744 about 5 or 6 car-lengths distant; he tried to attract the attention of his own engine crew and then jumped. He estimated the speed of engine 2602 to have been about 10 miles an hour, while the fireman, who was on the deck of the engine and had not seen anything of the approaching extra, estimated the speed to have been from 12 to 15 miles an hour. Engineman Orrick said extra 1744 was moving at a speed of about 15 miles an hour, while Brakeman Orr thought that train had nearly stopped when the accident occurred. Engineman Orrick also said that the impact did not move his engine backward while Brakeman Orr thought the Chicago and North Western engine was moved backward about 3 or 4 feet. Engineman Orrick said he could see 5 car-lengths, and inasmuch as he thought he could have stopped his engine in 4 car-lengths, considerd that he was complying with the requirements of rule 93, which reads as follows:

"Within yard limits the main track may be used, protecting against first class trains.
Second and third class and extra trains must move within yard limits prepared to stop unless the main track is seen or known to be clear "

The investigation developed that it is customary for the conductor of the Soo Line passenger train to telephone to the Chicago & North Western office for the purpose of inquiring about Chicago & North Western trains, and when the conductor came out and gave a proceed signal, as was the custom, Engineman Orrick supposed the conductor meant there were no trains due or overdue. Engineman Orrick made this movement without flag protection, and said the headlight of his engine was not burning, nor was the bell ringing. Conductor Hayes and Flagman Melz remained with the cars of their train and knew nothing about the accident until after its occurrence. Conductor Hayes said he had tried to get the Chicago & North Western operator on the telephone, but was not successful, and that he then gave the engineman a signal to go ahead and turn the engine on the wye. Conductor Hayes did not think the fog was so dense that it was unsafe for an engine to run within yard limits without protection, and thought the movement could have been made safely provided proper speed was maintained by all concerned; but if the speed of his engine was 15 miles an hour he thought flag protection necessary. The estimates of the employees composing the Soo Line crew as to how far they could see varied from 4 to 7 car-lengths.

Engineman Fisher, of extra 1744, who was on the outside of the curve, had warned Fireman Curran to maintain a careful

look-out on account of the fog. The fireman was the first to see engine 2608, moving at a speed estimated by him to have been about 20 miles an hour, and called to Engineman Fisher, who at once applied the air brakes in emergency; the engineman thought he had brought his train almost to a stop when the accident occurred. The speed of his train previous to the application of the brakes had been about 8 miles an hour; the bell was ringing and on account of the fog the low power headlight and the classification lights were burning. All of the employees of this train stated that it stopped at the Chicago, Milwaukee & St. Paul Crossing, and that two blasts of the whistle were sounded at that point. The statements of the other members of the crew were to the effect that extra 1744 had stopped or nearly stopped when the accident occurred.

Conclusions.

This accident was caused by the failure of Engineman Orrick, in charge of engine 2602, to have his engine under proper control within yard limits in a dense fog.

According to his own statement, Engineman Orrick was operating his engine at a speed of 15 miles an hour in a fog so dense that his range of vision was restricted to 5 car-lengths. Regardless of his statement that he thought he could have stopped within 4 car-lengths, and therefore was not violating the rules inasmuch as he could have stopped within his range of vision, the manner in which he was operating his engine, in view of the existing weather conditions, cannot be considered as complying with the provisions of rule 93 to "move within yard limits prepared

to stop unless the main track is seen or known to be clear." Engineman Orrick also disregarded the fact that another engine, moving in the opposite direction, having the same rights, might be running at the same rate of speed, in which event neither engine could be stopped in time to avoid a collision. It is believed that extra 1744 was being operated under proper control.

Attention is called to the fact that no information was obtained by Conductor Hayes about overdue trains on the Chicago & North Western Railway In the absence of such information a proper regard for safety should have prompted Conductor Hayes to arrange for the movement of engine 2602 over the main line of that railway to be protected by flag. Had such protection been furnished, this accident undoubtedly would not have occurred, notwithstanding the failure of Engineman Orrick to have his engine under proper control.

Engineman Orrick was employed as a fireman in 1887 and promoted to engineman in 1896. Conductor Hayes was employed as a brakeman in 1888 and promoted to conductor in 1889. The members of the crews of both trains had been on duty less than 1½ hours, previous to which the crew of extra 1744 had been off duty nearly 11½ hours, while the Soo Line crew had been off duty nearly 12 hours.