IN PE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE CHICAGO, ST. PAUL, MINNEAPOLIS & OMAHA RAILROAD AT EAU CLAIRE, WIS. ON FEBRUARY 26. 1920.

April 22, 1920.

On February 26, 1920, there was a rear-end collision between two passenger trains on the Chicago, St. Faul, Minneapolis & Oraha Railroad at Eau Claire. Wis., which resulted in the injury of 12 passengers and 2 employees. After investigation of this accident, the Chief of the Bureau of Safety reports as follows:

The saccident occurred on the Eastern Division, a double-track line extending between Minneapolis Minn., and Wyeville, Wis., a distance of 192 miles. Trains are operated by timetable, train orders and an automatic block signal system. Between Altoona, Wis., and Eau Clairs, a distance of 3.3 miles, all tracks are within yard limits.

The point of accident was 1,830 feat east of Eau Claire station and 1,220 feet west of a C M. ST P. R. R. crossing. Approaching from the east beaunning 450 feet east of this crossing, there is a tangent of 1,227 feet, followed by a 4-degree curve to the right 447 feet in length, and about 100 feet of tangent extending to the point of collision. The grade is slightly descending as iar as the crossing, and then .5 percent ascending to the point of collision. The view is restricted by a 20-foot embankment on the inside of the curve. The weather was clear.

Train movements over the crossing are governed by interlocking signals controlled from a tower. About 545 feet east of the crossing there is a signal governing westbound movements, the top arm is a nome interlocking signal known as signal 27, on the same mast there is a calling-on arm known as signal 28. At a point 5,400 feet east of this signal is another westbound signal operated from an interlocking plant located at the Lau Claire River bridge. The top arm of this signal also is a home interlocking signal and the bottom arm is a calling-on signal, known as signal 1. This signal provides a distant indication for signal 27, near the crossing. Under block signal rule 613-A dwarf signals, which are interpreted by a bulletin order to include calling-on arms, "may be used to give a proceed signal for a low-speed main track novement "while under operating rule 98-A-1, a train receiving a proceed indication at a dwarf signal "may proceed at a speed not to exceed 10 miles an hour."

Vestbound passenger train No. 3 consisted of engine 386, I mail car, I baggage car, I smoking car, I parlor car, and I Pullman sleeping car, in the order named, all of wooden construction except the mail car. This train was en route from Merrillan to Minneapolis, and was in charge of Conductor Lyons and Engineman Jungok. It left Altoona at 8.05 a.m., I hour and 37 minutes late, and arrived at Eau Claire yard at 8.12 a.m. It was stopped just east of a switch located 1,310 feet east of

Eau Claire depot, on account of a yard engine using the switch. While standing at this point the rear end was struck by train No. 21 at about 8.25 a.m.

Westbound passenger train No. 21 consisted of engine 389 and eight steel cars, en route from Wyeville to Minneapolis, and was in charge of Conductor Quinn and Engineman Robinson. It left Altoona at 8.16 a.m., 40 minutes late, and collided with train No. 3 while running at a speed of approximately 6 miles an hour.

The engine crushed the vestibule of the sleeping car of train No. 3, while slight darage was sustained by the chair car immediately ahead of it. The second and third cars in train No. 21 were slightly damaged. None of the equipment in either train was derailed

Fragman Shomshak, of train No. 3, stated that when his train stopped at the switch at Eau Claire, Conductor Lyons told him to go back and flag train No. 21. About two minutes elapsed before he got off, and 1 1,2 minutes additional before he started back to flag. He went back to the corve, and stood there until he saw the smoke of the engine. He then walked farther back, saw train No. 21 approaching when it was about at the C.M.St.P. crossing, he started towards it waving his red flag, being at that time about 600 feet from the rear of his train. As train No. 21 passed him the enginemen sounded two short blasts of the whistle. Inasmuch as his train was within yard limits, and as the engineman of train No. 21 received a caution signal indication, he believed he was back far enough properly to protect his train.

Engineman Robinson, of train No. 21, stated that on approaching the Eau Claire Eiver bridge he received a caution indication. Upon arriving at the C.M.& St.P. crossing, signal 27 was displaying a stop indication, while signal 28 indicated caution, which permitted him to proceed under full control. His normal view of the track on the curve was about 12 car lengths, but at the time of the accident a freight train consisting of an engine and five cars was stending on yard track 5, on the inside of the curve, restricting his range of vision to about four passengercar lengths. He had just passed the rear end of the cars on track 5 when he saw the rear end of train No. 3 and about the same time saw the flagran, who was only 90 feet from the rear of that train. He immediately applied the brakes in emergency and had reduced the speed from 15 miles an hour to 5 or 6 miles an hour at the time of collision. He saw signals given him by the engineman of the train standing on track 5, but interpreted them either as proceed signals or simply as a solutation. His interpretation of the term "full control" was "to be able to stop within range of vision." he expected to find the track clear as far as the switch and to be flagged if there was any obstruction short of that point. He acknowledged that in proceeding around the curve at a rate of speed from 15 to 17 miles an hour he was not running prepared to stop within his range of vision under the conditions as they existed, and admitted responsibility for the accident.

Fireman Parks, of train No. 21, verified the engineman's statement as to the indications displayed by the signals at Eau Claire River bridge and the C.M.& St.P. crossing. He estimated the speed at about 20 miles an hour when the engineman applied the brakes in emergency; he then looked over the forward part of the engine and sew the flagman and the rear of train No. 3. He estimated that the flagman was about three passenger-car lengths from his train.

Engineman O'Gara, of extra 110, which was standing on track No. 5, stated that at the time he saw train No. 21 moving over the C.M.& St.P crossing he could not see the rear end of train No. 3, but saw a flagman back from the train an estimated distance of 150 feet. As the engine of train No. 21 passed his engine at a speed of between 18 and 20 miles an hour, he signalled to the engineman that there was a train shead, he thought Engineman Robinson saw his signals before he saw the flagman, and that he acknowledged them. Fire an Woods, of extra 110, also estimated the speed of train No. 21 at 18 or 20 miles an hour.

Brakeman Buchlan, of extra 110, estimated the speed of train No. 21 at 20 or 22 miles an hour and said that Flagman Shomshak was only 30 or 40 feet from the rear of his train. He noticed Engineman O'Gara siving signals, and he himself gave a signal to the engineers of train No. 21 indicating that there were cars ahead, and then a signal to proceed slowly; he did not give a stop signal.

Track Foreman Schoort, who was working near the point of accident, estimated that train No. 3 had been standing about 15 minutes before the accident occurred and that train No. 21 was running at a speed of at least 20 miles an hour when he first saw it. He pointed out the place where the flagman stood when flagging train No. 21, when measured, this point was found to be 245 feet from the point where the rear of train No. 3 stood.

Signal Supervisor Grewe stated that at the time of the accident the signalman had the proper signals displayed. The last inspection of the signal apparatus prior to the accident was made February 20th, while he also made an inspection immediately after the accident. He found the signal apparatus working properly on both occasions.

This accident was caused by the failure of Engineman Robinson, of train No. 21, to operate his train under control as required by the stand indication which he had received, and by the failure of Flancan Shoushak, of train No. 3, properly to protect his train.

With signal 27 displaying a stop indication, Engineran Robinson know positively that the track ahead was occupied or obstructed, and while he may have thought that a preceding train would be at the station, the caution indication of signal 28 only authorized him to pass signal 27 and to operate his train at a rate of speed not in excess of 10 miles an hour, which

according to his own statement he failed to do.

Under rule 99 s flagman is required to go back 3/4 mile when protecting by flag, while under rule 99-D a flagman sent back to stop a first-class train can not be recalled. These rules make no exceptions in case a train is vitnin yard limits or the limits of an interlocking plant, and the rule is so worded that when the following train is a first-class train particular care is to be exercised in seeing that it is stopped. According to the flagman's own statement, he was instructed to flag train No. 21, while estimates as to how far back he went in doing this vary between 30 and 600 feet. Even if his own estimate of 600 feet is accepted, the fact that 13 minutes elapsed between the time his train stopped and the time of the collision makes it evident that he made little attempt to obey the rule, for the time he had at his disposal was sufficient for him to have gone back the specified distance of 3/4 mile.

Engineman Robinson had been employed as an engineman more than 37 years; his record was excellent. Flactan Shomshak was employed as a brakeman in August. 1917 and from June, 1918, to be bruary, 1919, was in military service, his record was clear.

The crew of train No. 3 had been on duty about six hours, after having been off duty about 26 hours, the engine crew of train No. 21 had been on duty about three hours, after having been off duty about 14 hours.