IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE CHICAGO, MILWAUKEE & ST. PAUL RAILROAD AT FARMINGTON, MINN., MARCH 4, 1920.

April 28, 1920

On March 4, 1920, there was a rear-end collision between two freight trains on the Chicago, Milwaukee & St. Paul Railroad at Farmington, Minn., which resulted in the death of one person carried under contract. After investigation of this accident the Chief of the Bureau of Safety reports as follows:

The Iowa and Minnesota Division is a single track line extending between Austin, Minn., and St. Paul, Minn., a distance of 100 miles. Trains are operated by time-table, train orders and a manual block signal system. Between Comus and Rosemount, 27 miles, within which territory this accident occurred, the track is used jointly with the Chicago, Rock Island & Pacific Railroad.

The point of accident was 350 feet east of the semaphore signal at the station, or nearly 4,700 feet inside the yard limits. The track is tangent for about 8,000 feet, with a descending grade of .18% throughout this distance. A severe snowstorm was raging at the time of the accident.

Westbound freight train extra 4129, of the Chicago, Milwaukee & St. Paul Railroad, consisted of 22 cars and 2 cabooses, hauled by engine 4129; several of the cars were immigrant cars, containing passengers. This train was en route from Austin to St Paul, and was in charge of Conductor Bartley and Engineman Anderson. It departed from Austin at 1.30 p.m., passed Castle Rock, the last open telegraph station, 6.8 miles east of Farmington, at 10.44 p.m., and then stalled in the snow. The first 12 cars were taken to Farmington and placed on the storage track, after which a helper engine was secured and the crew returned for the remainder of the train. Upon arriving at Farmington this portion of the train was brought to a stop on the main line at about 1.20 a.m. After a short delay the train started to move ahead, preparatory to backing into a passing track, but stalled in the snow with the rear of the caboose about 350 feet east of the semaphore. While standing at this point the train was struck by extra 1656

Westbound freight train extra 1656, of the Chicago, Rock Island & Pacific Railroad, consisted of 28 cars, 6 of which were immigrant cars, and a caboose, hauled by engine 1656. It was en route from Manly, Ia., to Invergrove, Minn., and was in charge of Conductor Fields and Engineman Foaman. On account of the storm all of the cars except the 6 immigrant cars and

the caboose were set out at an intermediate station. Extra 1656 arrived at Castle Rock at about 12.25 a.m., where it was held on account of extra 4129 being stalled in the block. Before departing from Castle Rock at about 1.35 a.m., two train orders were delivered to the crew, together with a clearance card stating that the block was clear. At about 1.50 a.m., this train collided with the rear end of extra 4129 at Farmington while running at a speed estimated to have been between 20 and 30 miles an hour.

The two cabooses of extra 4129 were practically demolished and the three rear cars badly damaged, while slight damage was sustained by engine 1656. The man killed had returned to the caboose for the purpose of getting his overcoat.

There were 16 men riding on extra 4129, in charge of several immigrant cars, six of whom were riding with the train crew in the second caboose while others were asleep in cars in the forward part of the train. When the rear portion of the train arrived at Farmington it was stopped on the main line near the station and the conductor said that they would get out and get something to eat. All of the men in the caboose had gotten off for this purpose and the caboose was locked; Conductor Bartley considered that he had discharged his passengers and therefore that he was not governed by the provisions of rule 93-A. This rule reads as follows:

> Within yard limits, trains carrying passengers must be protected at all times as prescribed by Rule 99; other trains and yard engines must, during foggy or stormy weather or where the view is obscure, be protected in the same manner. Yard limits will be designated by yard limit signs or by special instructions on the time-table.
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> At stations where yards are not defined by yard limit signs or special instructions, all trains using main track must be protected as prescribed by Rule 99

The conductor asserted that he could see switch lights which were more than 4,000 feet distant, and therefore that he was not required to protect his train on account of the weather conditions After the men had left the caboose he went into the yard office and received instructions to tie up his train. Just after starting to put the train away on a siding he saw extra 1656 approaching when it was more than one mile distant, gave a signal to proceed slowly, and when he realized that it was running at a comparatively high rate of speed gave emergency stop signals, but no attention was paid to them. Among the special rules in the timetable applicable to this subdivision is a rule which states that block signal rule 319-A applies to several

stations, one of which is Farmington. Rule 319-A reads as follows:

> When a train other than a passenger train is inside the outer switches at certain block stations, indicated by time table, it may be reported as arrived, provided the operator has seen the markers or has been notified by the conductor that all of his train is inside the switches. Following trains may be given a clear signal, except that if a passenger train is to enter the block it must have a Permissive Card (Form C).

Conductor Bartley thought that this rule covered the situation fully.

The crew of extra 1656 received a clearance card at Castle Rock which stated that the block was clear. After departing from that point the enginemen was unable to see anything on account of the storm, as well as snow thrown up by the engine when encountering drifts. On account of snow blowing into the cab and turning into steam when striking the boiler it was found impracticable to have the windows open and the engineman was unable to tell the location of his train, the windows being covered with snow and ice. At one point, thinking that he was approaching Farmington, he shut off steam and opened a window; he was about to apply the air brakes when the engine struck another drift and he then concluded that the train was still some distance from Farmington and shut the window. When he thought the train had about reached the station mile board he again shut off steam and had just applied the brakes with the intention of stopping on finding out the exact location of his train when the collision occurred. None of the three men on the engine had noticed the engine pass over the switches at the entrance to the yard, or two street crossings, neither had the engineman noticed cars on the passing track paralleling the main track. Although the engineman thought the clearance card meant that the track was clear from the block signal at Castle Rock to the block signal at Farmington, he was not expecting to encounter a flagman in case the track was occupied, and said that he fully understood that he should have had his train under control and should not have exceeded the timetable speed restriction of eight miles an hour through Farmington.

This accident was caused by the failure of Engineman Foxman, of extra 1656, to operate his train under proper control in accordance with the requirements of rules 93 and 925, and by the failure of Conductor Bartley, of extra 4129, to protect his train in accordance with the provisions of rule 93-A.

Under rule 93 extra trains are required to move within yard limits prepared to stop unless the main track is seen or

known to be clear, while under rule 925 all trains must approach stations, yards, etc., in foggy or stormy weather under control, proceeding only as the way is known to be clear. These rules, as well as the timetable speed restriction of eight miles an hour, were not observed by Engineman Fenman on account of the fact that he became lost in the storm. When his train departed from Castle Rock he knew that there was a train ahead of him, and also that there was a yard at Farmington which he was required to approach under full control. Under these circumstances, and in view of the weather conditions existing, it was particularly necessary that he should exercise unusual care in the operation of his train. The two sections of extra 4129 had been hauled into Farmington and handled properly notwithstanding the adverse weather conditions, and had Engineman Fenman exercised proper care in handling his train this accident would not have occurred.

There was a wide difference of opinion as to the range of vision under the weather conditions prevailing at the time of the accident, the estimates varying from 40 feet to one mile. The rear brakeman of extra 4129 stated that at times he could see a train length and at other times he could not see the length of his caboose. According to the records of the weather bureau at St. Paul, 25.7 miles from Farmington, it began to snow early in the morning of March 3, and stopped at about 3.15 a.m., March 4, the snow being light and drifting and the fall being 6.9 inches. This snow was accompanied by a wind which increased in velocity until at 1.37 a.m., March 4, it was 32 miles an hour, with the temperature about zero. The investigation also disclosed that on account of the storm extra 4129 had to have the assistance of another engine in handling the sections of its train at Farmington; extra 1656 was encountering drifts through following extra 4129 within a short space of time, extra 1656 had received orders to assist train No. 63 in [illegible] of the snow at Rosemount, 7.2 miles beyond Farmington, and train No. 64, due to leave Farmington at 1.50 a.m., had not been enrolled. It is therefore clearly apparent that stormy weather was prevailing within the meaning of rule 93-A, and that extra 4129, regardless of whether it still carried passengers, should have been protected while occupying the main track at Farmington. Conductor Bartley's view that his train had ceased to be a train carrying passengers is not borne out by the facts, as some of the men in charge of immigrant cars were sleeping in the forward portion of the train. Had this train been properly protected by flag as required by the rules, the accident might have been averted.

Engineman Fenman entered the service of the C R.I. & P R R as an engineman in 1910. Conductor Fields was employed by the C M & St.P R.R. as a brakeman in 1907, and promoted

to conductor in 1912. At the time of the accident the records of both of these employees were clear

The crew of extra 1656 had been on duty about 9 hours, after periods off duty ranging from 8-1/2 hours to about 45 hours Conductor Bartley had been on duty about 12-1/2 hours, after having been off duty for several days.

The manual block system is in use on this railroad between South Minneapolis and Ramsey, 98.8 miles Under manual block rule 319-A a clear signal or a clearance card stating that the block is clear can be issued to any train except a passenger train when the preceding train has been reported as inside the outer switches of certain stations designated in the timetable. Including South Minneapolis and Ramsey, there are 20 stations named in the timetable, to only 5 of which rule 319-A applies. In accordance with this rule the crew of extra 1656 was given a clearance card which stated that the block was clear, when as a matter of fact the block at that time was occupied by extra 4129. When a clearance card is issued which states specifically that the block is clear, it should be susceptible of but one interpretation. No condition should exist wherein a crew can receive a clearance card governing a certain block and know that it means the block is clear, and at the entrance to the next block receive a similar clearance card and not know whether that block is clear or occupied by a preceding train Permissive movements being allowed, the dangers arising from a rule of this kind are apparent, steps should be taken immediately to insure that a clearance card stating a block is clear shall not be issued unless the block referred to is actually clear of all trains, regardless of class or direction