MEMORANDUM TO COMMISSIONER MCCEORD:

Relative to accident on the Chicago, Milwaukee & St. Paul Ry., Docember 9, 1911.

Draft submitted by the Chief Inspector of Safety Appliances as a basis for the report of the Commission.

January 19, 1912.

On December 9, 1911, a head-on collision occurred on the Chicago, Milwaukee & St. Paul Bailway at Corliss. Wis. No telegraphic report of this accident was received by the Commission. Investigation developed the fact that a telegram was written by the railway empany, but in some sanger failed to be delivered to the telegraph company for transmission. Inspector Merrill was in the vicinity at the time and made an investigation. A sympects of his report is given below.

Engine No. 849 left Beloit, Wis., at 8 a. m., December 9, hauling Racine & Southwestern Division train No. 96, in charge of Conductor Yerrick and Engineenan Forbush. On its arrival at Corlise, engine No. 849 set out its train and received orders to run as an extra from Corlise to Stowell, a station near Milwaukee on the Chicago and Milwaukee Division, Corlise being the junction of the two divisions. Extra No. 849 left the yard fith a caboose and proceeded to ards the wye leading to the east-bound track of the C. & M. Division. It was then intended to cross over to the west-bound track and proceed to Stowell. After taking water at the water tank, located beside the eye, extra No. 849 proceeded toward the eastbound track, on reaching which it sollided with east-bound passenger train No. 12.

Train No. 12 was in charge of Conductor Sweeney and Engineeran Baddock, and consisted of 2 baggage cars, I smoking car, I coach, I dining car and I parlor car, hauled by engine No. 946. This train left Milwaukee about 5:45 p. m., four misutes late, and was due at Corliss at 5:21 p. m. When it reached the switch at the junction I the wye with the cast-bound track, at about 8:23 p. m., it collides with extra No. 849.

This collision cause the deat of the engineers and injuries to the firmen of extra No. 849, as well as injuries to the engine men, conductor, baggager n, one brokemen and one weiter of train No. 12, and three passengers. Noth engines ere devailed and quite badly demaged, engine No. 946 being thrown down a 10-foot emparkment. The care of train No. 12 were only elightly demaged. The speed of train No. 12 at the time of the collision was about 20 miles perhour, while the speed of extra No. 849 was about 4 miles per hour.

The Chicago and Milwaukee Division of the C. M. & St. P. Ry. is a touble track line, erossing the tracks of the Racine & South-

western Division to the east-bound track of the Chicago & Milwaukee Division. After reaching this east-bound track, trains can cross over to the sest-bound track and then proceed towards Milwaukee. The junction of the wys with the east-bound track is protected by a home signal, which is located about 2,550 feet west of the switch. About a mile west of this home signal is located a distant signal. When the switch is open it automatically sets the bome signal at danger and the distant signal at eaution, thus warning approaching trains that the wye switch is in use. At the switch is located a switch indicator, which is so connected electrically that when an a preaching east-bound train reaches a point about 2,000 feet west of the distant signal, the indicator will show stop. If this switch indicator shows clear, it indicates that no train is nearer than 2,000 feet set of the distant signal.

Fireman Biber, of extra No. 840, stated that after taking water and receiving orders, Engineers Forbush started his train toward the east-bound track of the C. & M. Division. Siber's attention was first attracted to the approach of No. 12 her he heard a long whistle; he was not sure what train it was, but on looking out to set the headlight of train No. 12 and called to Engineers Forbush to jump, at the same time jumping from the engineers eide of the engine. Prior to this time, Fireman Siber stated that le did not know of the location of train No. 12, and sup osed that the men in charge of his train knew what they were doing. He further stated that then making this movement the custom has been to use the block signals as the only protection, although he knew that the rules provided that cross-over movements should be protected by flagging.

Conductor Yerrick, of extra No. 849, stated that while his crew was setting out the train in the yard, he went to the station for his orders. After getting the orders he left the station at 6:17 p. m., and ent to there engine No. 849 was standing, at the water tank, delivered orders to the enginemen and talked with him for two or three minutes. The switches were lined up before starting, and the conductor noticed that the first two switches were ready for the cross-over movement; is did not give any instructions to his brakemen as to flagging. He admitted that he satisfactions to his brakemen as to flagging. He admitted that he had forgotten about train No. 12, and stated that hen in the telegrape office he only shocked the register for rest-bound trains. He also stated that he had never been examined on the automatic block signal rules, and when questioned as to the general practice as to flagging at this point when making cross-over movements, stated that he understood that the automatic signals would protect his train.

Head Brakeman Sarver, of extra No. 849, stated that se threw the first two switches, at the same time noticing by the indicator that the block was clear, and that extra No. 840 started should about five minutes after to threw the switch. Brakeman Sarver had been in the service of this reilroad three months and had never been sugglised with a copy of the automatic block signal rules or manual block signal rules in use. He also stated that he had never been furnished with a time card, which contains the general rules.

although on several different occasions he had acked to be furnithed with a copy. As a consciuence he did not even know that train No. 12 was on the schedule. He had had several years experience with the Pennsylvania Railroad, and stated that on that railroad he would not have done any flexing under like circumstances. In this connection, it might be well to state that if a standard code of rules was in use upon all the railroads of the country, the opportunity of mistakes occurring on account of varying rules ould be obviated.

Rear Brakeman Brinkman stated that thile the head brakeman was throwing the fi et two switcher, he went shead and threw the tird switch, not looking at any of the switch indicators, and that extra No. 849 did not move until after the switches were thrown. Seen after to threw the switch he heard one long whistle and saw the headlight of train No. 12. He stated that no flagging precautions were taken, and that he had forgotten about train No. 12 until he saw it coming.

Engineeran Haddock, of train No. 12, atated the when he passed the distant signal it was not at clear. At this time the speed of his train was about 55 miles per hour. Just before reaching the home signal, at which time the speed of his train was about 60 miles per four, he started to apply the air brakes, and show he passed the signal, which was not at danger, he states that he at once made an emergency application of the air brakes, and that he jumped when he can extra No. 849 on the track in front of him. He further stated that on account of the dense fog provailing at the time, he was not able to see the signals until he was sithin a distance of about two car lengths of them.

When Sperator Stakemiller, at Corliss, was questioned, it was found that 'e did not have a carbon copy of the clearance card issues to the conductor of extra No. 849. It ap eared that it was the custom at this station to keep only copies of permissive cards and cards involving meeting points, although the rules of the company re uire that a copy be kept af all clearance cards. He stated that the conductor asked him nothing as to east-bound trains, and he said nothing to the conductor about No. 12, all hough he know that it had just passed the last block station before reaching Corliss.

The weather at the time of the accident was extremely foggy, it being impossible to see a distance of more than two or three ear lengths, and the rails were very slippery. Bulletins calling attention to the thick fog providing had been posted a few Yours, rior to the time of the accident. These bulletins were addressed to all conductors an enginemen, and the conductor of train No. 12 called Engineman Haddock's attention to those bulletin instructions before leaving Milweukee.

This accident was caused by the failure of the crew of extra No. 849 to remember train No. 12 and to pro only protect their train hile making a cross-over lovement. A contributing cause was the failure of the engineers of tr in No. 12 to so regulate the

signals provided for the pur ose of preventing sectionts of this character. This investigation develops the fact that the conductor in charge of the freight train had never been examined on the automatic block signal rules, and from the statements of this train orew it was not the custom for them to protect their trains while making this cross-over movement, although re uired by the rules to do so. It also a pears that one of the brakemen, although in service three menths, had never been furnished with a time earl, although he last made several re us to for it. These time care contain the schedules of trains and the general rules of the occapany.

This accident occurred at a point protected by an automatic block signal system, specially provided to meet the conditions existing at this junction point. Until this company furnishes copies of its rules to its employees, and the officials know that the employees thoroughly understand them, freight trains are liable to attempt cross-over movements under similar circumstances. To insure greater safety, however, it is obvious that some adequate system of truit control must be adopted to prevent engineers from pessing signals set against them.

Respectfully submitted.

Chief Inspector of Safety Appliances.