INTERSTATE COMMERCE COMMISSION.

REPORT OF THE CHIEF OF THE BUFEAU OF SAFETY IN RE INVESTI-GATION OF AN ACCIDENT WHICH OCCURRED ON THE GREAT NORTH-ERN RAILWAY NEAR MONTROSE, MINN., ON FEBRUARY 23, 1922.

March 16, 1922.

To the Commission:

On February 23, 1922, there was a head-end collision between a passenger train and a snow plow extra on the Great Northern Railway near Montrose, Minn., resulting in the death of 5 employees, and the injury of 4 passengers and 5 employees. This accident was investigated in conjunction with representatives of the Minnesota Railroad and Warehouse Commission.

Location and method of operation.

This accident occurred on that part of the Willman Division extending between Willmar and Long Lake, Minn., a distance of 75 05 miles, which in the vicinity of the point of accident is a single-track line over which trains are operated by time-table and train orders, no block-signal system being in use. The accident occurred about 3 miles east of Montrose; approaching this point from the west, beginning at overhead bridge No. 42.6, there are about 2,870 feet of tangent, followed by a 1-degree 59-minute curve to the right 1,663 feet in length, the accident occurring on this curve at a point 1,474 feet from its western end; approaching from the east there is more than 1 mile of tangent, followed by the curve on which the accident occurred. The grade in each direction is slightly descending to within 1,000 feet of the point of accident, from which points it is level. At the point of accident the track is on a fill about 18 feet in height. The view across the inside of the curve was unobstructed. The accident occurred at about 5.05 p.m., at which time the weather was clear.

Description.

Eastbound passenger train first No. 28 consisted of 1 mail car, 1 baggage car, 2 express cars, 1 smoking car, 1 coach, and 2 sleeping cars, in the order named, hauled by engines 1454 and 1468, and was in charge of Conductor Strawn and Enginemen Johnson and R. A. McDonald. The cars were of wooden construction with the exception of the mail car, which was of all-steel construction. This train passed Montrose, the last open telegraph office, at 5.00 p.m., and collided with extra 1517 while traveling at a speed estimated to have been between 40 and 45 miles an hour.

Westbound extra 1517 consisted of a snow plow, engine 1517, I flat car, I dozer, and a caboose, in the order named, and was in charge of Conductor McCabe and Engineman H. G. McDonald. This train arrived at Delano, 6.69 miles east of Montrose, at 4.23 p.m., where the crew received a copy of train order No. 56, form 19, reading as follows:

"Engine 1517 run extra Delano to Willmar. 2nd No. 28, Eng. 1071 and 1409 wait at Montrose until Five Twenty Nine 5:29 P.M. for Ex. 1517 West. At Four Forty 4:40 P.M. all overdue trains due Delano have passed or are annulled except 1st and 2nd 28."

The crew of extra 1517 held no orders giving them any rights against the first section of train No. 28, scheduled to leave Delano at 10 10 a.m. Extra 1517 left Delano about 5.00 p.m., and after having proceeded approximately 3.2 miles was stopped by a brake application made by the conductor, being struck by train first No. 28 almost immediately afterwards.

The snow plow was demolished, while all three engines were derailed to the left, thrown down the embankment, and were quite badly damaged. The first four cars in the passenger train were derailed and slightly damaged, while the two cars and caboose of extra 1517 were driven backwards a distance of about 200 feet. The employees killed were both enginemen and both firemen of train first No. 28 and the engineman of extra 1517.

Summary of evidence.

While extra 1517 was taking water at Delano, Conductor McCabe and Engineman H. G. McDonald went into the telegraph office, and after reading over the orders pertaining to extra 1517, the engineman remarked that all overdue opposing superior trains were annulled except train No. 28; at this time train order No. 56, previously quoted, had not been issued. Engineman H. G. McDonald then returned to the engine and began the work of flanging out the passing tracks in the vicinity of the station, while Conductor McCabe remained in the telegraph office registering and receiving orders, among which was train order No. 56. During the progress of the work the train was brought to a stop opposite the telegraph office, and the conductor got aboard the engine and delivered a set of orders to the engineman, who, after reading train order No. 56 aloud, folded the set and placed them in his Conductor McCabe returned to the telegraph office, intending at this time to remain at Delano for train first No. 28, but after his train had completed its work, he boarded the caboose as the train passed the station, and then gave a proceed signal, having overlooked train first No. 28. After riding on the rear platform a short distance he went in-

side the caboose, where there were three brakemen, and passed his set of orders to Brakeman Barnes, who clipped them together and in turn handed them to Brakeman Larson, who read them aloud, after train order No. 56 had been read, Brakeman Larson inquired of Conductor McCabe as to train first No. 28; this inquiry reminded the conductor that this train had been overlooked, and he immediately applied the brakes by means of the conductor's valve in the caboose. After the train had been brought to a stop, Conductor McCabe immediately started forward, giving the engineman a back-up signal as he went, but before the train was started the collision occurred. Conductor McCabe admitted the train order involved was explicit and that the accident was caused solely by himself and Engineman H. G. McDonald overlooking the first section of train No. 28. The statements of the brakemen corroborated those of Conductor McCabe. Dalien was busy working on the fire after leaving Delano; the first intimation he had of anything wrong was when the air brakes were applied from the rear, and on opening the window he saw the passenger train approaching, shouted to the engineman and jumped. He had not seen any of the train orders. None of the members of the train crew of train first No. 28 was aware of anything wrong until the accident occurred.

Operator Kennedy, on duty at Delano, did not realize that extra 1517 was departing until he noticed the rear end of the train as it rounded the curve about one quarter of a mile distant; he was in communication with the Minneapolis office at this time, but he immediately broke this connection and notified Dispatcher Johnson of the departure of extra 1517, who in turn immediately communicated with the operator at Montrose, only to be informed that train first No. 28 had passed.

Conclusions.

This accident was caused by extra 1517 being operated against an opposing superior train without authority, due to the fact that Conductor McCabe and Engineman H. G. McDonald overlooked the superior train.

Train order No. 56 gave extra 1517 time against the second section of train No. 28, but gave them no rights against the first section of this train; on the contrary it explicitly stated that at 4 40 p.m. these two sections of train No. 28 were the only overdue trains. Under this order extra 1517 should have remained at Delano until train first No. 28 had passed. Conductor McCabe admitted that he forgot train first No. 28, and it is apparent that Engineman H. G. McDonald did the same, although it is possible that in some manner he was under the erroneous impression that the order to wait at Montrose until 5.29 p.m. applied to the first section.

Conductor McCabe and Engineman H. G. McDonald were experienced employees. At the time of the accident they had been on duty less than 4 hours, previous to which they had been off duty 14 hours or more.

Respectfully submitted,

W. P. BORLAND,

Chief, Bureau of Safety.