

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
PERE MARQUETTE RAILWAY AT NEW BOSTON, MICH., ON
SEPTEMBER 1, 1920.

October 6, 1920.

On September 1, 1920, there was a rear-end collision between a Pere Marquette freight train and a Pennsylvania passenger train on the Pere Marquette Railway at New Boston, Mich., which resulted in the death of 1 employee, and the injury of 4 passengers and 1 employee. After investigation of this accident the Chief of the Bureau of Safety reports as follows:

This accident occurred on that part of Sub-division No. 1 extending between Alexis, Ohio, and Romulus, Mich., a distance of 36.51 miles. This is a double-track line, over which trains are operated by time-table, train orders, and a manual block-signal system. The accident occurred on the southbound track about 1,200 feet south of the station at New Boston, which is 4.09 miles south of Romulus. The track is tangent for several miles in each direction. Approaching from the south there is a .26% descending grade for a distance of about 2,100 feet, followed by about 2,100 feet of .37% ascending grade to the point of accident. The weather at the time of the accident was clear.

Northbound Pere Marquette freight train extra 512 consisted of engine 512, 17 freight cars, a caboose, and a bad order hopper car, in the order named, and was in charge of Conductor Mosher and Engineman Hennessey. On its arrival at New Boston, after taking water on the northbound track, it was backed through the crossover near the station to the southbound track; according to the conductor this was at about 7:09 p.m. At about 8.23 p.m. while standing at this point, it was struck by northbound passenger train No. 45.

Northbound Pennsylvania passenger train No. 117, operated over this part of the Pere Marquette Railway as train No. 45, consisting of engine 9715, 1 baggage car, 2 coaches, 2 parlor cars, and 1 dining car, in the order named, enroute from Mansfield, Ohio, to Detroit, Mich., was in charge of Conductor Hugo and Engineman Planck. It left Toledo at 7.17 p.m., with two run-late orders, Nos. 68 and 69. These orders read as follows:

No. 68. "No. 45 eng. 9715 run twenty five 25 mins. late Alexis to Romulus."

No. 69. "No. 45 eng. 9715 run forty five 45 mins. late Alexis to Romulus."

Train No. 45 left Alexis at 7 30 p.m., 57 minutes late, and at Carleton, 11.32 miles from Romulus and the last open telegraph office south of the point of accident, the crew received train order No. 72, form 31, reading as follows:

"No. 45 has right over opposing trains on southbound track Carleton to Romulus."

This order was made complete at 8.08 p.m. and the train left Carleton on the southbound track at 8.15 p.m., 1 hour and 4 minutes late, and collided with the rear end of extra 512 at New Boston while traveling at a speed estimated to have been about 15 miles an hour.

Six cars on the rear end of extra 512 were derailed, three of them being demolished. The engine and tender of train No. 45 were derailed to the right, but remained upright, none of the other equipment in this train was derailed. The employee killed was the flagman of extra 512.

Approaching New Boston, Engineman Planck, of train No. 45, found that he could not see the switch lights at the crossover, and he shut off steam. Immediately afterwards the headlight of his engine shone upon the bad-order car behind the caboos of extra 512 and he made an emergency application of the air brakes, he estimated that he had reduced the speed of his train from 45 miles an hour to about 15 miles an hour at the time the accident occurred. Engineman Planck did not see any lights on the rear of extra 512 or any signs of a flagman. His statements were corroborated by those of Fireman Hetrick.

None of the members of the crew of extra 512 knew that train No. 45 was being operated against the current of traffic. Conductor Mosher saw it approaching but thought it was running with the current of traffic on the northbound track. Engineman Hennessey was the first to notice that train No. 45 was on the southbound track; Conductor Mosher thought it was about 35 or 40 car-lengths distant when the engineman called his attention to it and he at once began to give stop signals, but by this time the engineman of train No. 45 had shut off steam, and when that train was within a short distance of the rear end of extra 512 both Conductor Mosher and Engineman Hennessey noticed sparks flying from the wheels and knew that an emergency application of the air brakes had been made.

Conductor Mosher, of extra 512, said that while water was being taken on the northbound track he went into the telephone booth and attempted to get in communication with the dispatcher, but was unable to do so as the telephone appeared to be out of order, although it was used by the conductor of train

No. 45 immediately after the accident and it was then in working order. After water had been taken, the markers changed, and the red light on the rear of the bad-order car removed, extra 512 was backed through the crossover to the southbound track; Conductor Mosher thought this was done at 7.09 p m. The conductor said he then walked to the rear of the train with Flagman Danz for the purpose of making sure that the markers on the caboose were showing distinctly, after which he told the flagman that he was going to ride on the head end of the train to Remulus and to "watch the game". Conductor Mosher then began checking the numbers of some cars which were to be switched; he said he knew that the head end of the train was being protected, but did not send out a flagman to protect the rear end.

After extra 512 stopped on the southbound track, Head Brakeman Hilton, according to his statement, assisted in some station work and also assisted the flagman in fixing a hot box, and about 5 minutes after words went to the engine. Later he went forward to protect the head end of the train, remaining there until after the accident occurred.

Engineer Hennessy stated that he knew the head end of the train was protected but did not know what protection was being given to the rear end. He saw train No. 35 approaching slowly on the northbound track, and thinking that there was a red lantern on the rear of the bad-order car behind the caboose and that this was the reason for the slow approach of train No. 35, he sent Middle Brakeman Castle back with instructions to take down the red lantern until after trains Nos. 35 and 45 had passed. Later on Engineer Hennessy saw the conductor checking the cars and asked him if the flagman was back, and on receiving an affirmative reply assumed that the flagman was attending to his duties.

According to Middle Brakeman Castle, he assisted in some station work after the train reached the southbound track and then went to the rear end to see the markers and found the marker nearest the northbound track showing green to the rear while the other showed red to the rear, there was no light on the bad-order car. At this time the flagman was in the caboose eating and he did not say anything to the flagman about protecting the train, but returned to the engine and told the engineer that the markers were all right, he did not tell the engineer or anyone else that the flagman was not protecting the train.

In the book of rules, under the forms of train orders, D-Form R, providing for a movement against the current of traffic, there is a paragraph which reads as follows:

"An inferior train between the points named moving with the current of traffic in the same direction as the designated train must receive a

copy of the order, and may then proceed on its schedule, or right."

This rule was not complied with in this instance, as the crew of extra 512 did not receive a copy of train order No. 72 and did not know anything about train No. 45 having been diverted to the southbound track. Train No. 35, if it had maintained its scheduled running time between Carleton and Romulus, should have arrived at Romulus at 7.51 p.m. Dispatcher Chappell said that train No. 35 was being delayed on account of the engine not steaming well and when it had not been reported at Romulus by the time train No. 45 reached Carleton, at 8.07 p.m., he issued the order for train No. 45 to run against the current of traffic between the two points. He said he also instructed the operator at Carleton to tell the conductor of train No. 45 to look out for a train at New Boston, as at that time he did not know the location of train No. 35, or whether extra 512 was at New Boston or had headed in at Romulus. These instructions for the conductor of train No. 45, according to the operator at Carleton, were not heard by him, as he hung up the receiver as soon as the train order had been made complete. Shortly afterwards the operator at Romulus reported to the dispatcher the arrival of train No. 35 and Dispatcher Chappell attempted to reach train No. 45 at Carleton but the operator reported that the train was just leaving the station. The dispatcher said that as there was no siding at New Boston and as extra 512 therefore would have to occupy the southbound track in order to allow train No. 35 to pass it at that point, it would have been advisable to issue positive instructions to the crew of train No. 45 to look out for extra 512 at New Boston. The dispatcher also said that when providing for a movement against the current of traffic it is customary to issue a copy of the order to an inferior train, as provided for in that part of the rule quoted above, when that inferior train can be reached.

This accident was caused by the failure of extra 512 to be properly protected by flag, in accordance with the requirements of operating rule D-152, for which Conductor Mosher and Flagman Dens are responsible. A contributing cause was the failure of Dispatcher Chappell to obey the rules governing the issuance of train orders.

Operating rule D-152 reads as follows:

"When a train crosses over to, or obstructs the other track, unless otherwise provided, it must first be protected as prescribed by rule 99, in both directions, on that track."

No protection was accorded to the rear of extra 512 when it was

being backed through the crossover, and according to the statements of the various employees all that was done after that time was to see that the flagman was at the rear of the train and that the markers were displaying the proper indications. Conductor Mosher said that Brakeman Wilton went out to protect against the current of traffic before extra 512 crossed over, but this is contradicted by Brakeman Wilton, whose statement indicates that he was at the head end of his train when it backed through the crossover and that a considerable period of time elapsed before he went out to protect the head end of the train. Conductor Mosher said he had been unable to get into communication with the dispatcher before backing through the crossover to the southbound track and he therefore knew his train was entering the block limits on the southbound track without the knowledge either of the dispatcher or of the operators at either end of the block. Although he had never been examined for promotion to conductor, he said he was fully acquainted with the requirements of the rule and that he also knew Flagman Danz was a man of limited experience. Under these circumstances he should have exercised particular care to see that full protection was afforded in both directions on the southbound track, as required by rule D-152, before the movement was executed. A short time before the accident occurred Flagman Danz was known to have been in the caboose, and the fact that his body was found in the wreckage is conclusive that he was not properly performing his duty of protecting his train from the rear.

Dispatcher Chappell is at fault for his failure to comply with all of the provisions of the rule governing the issuance of a train order providing for a movement against the current of traffic. Being unable to get into communication with the crew of extra 512 for the purpose of giving to them a copy of train order No. 72, this order should not have been issued, as there is nothing in the rule which authorizes a dispatcher to issue an order of this kind when the inferior train cannot be reached. Dispatcher Chappell's failure to comply with the rule contributed to the occurrence of an accident which the provisions of the rule were intended to prevent.

In previous reports attention has been called to instances of dispatchers and other officials not fully understanding or complying with rules governing the issuance of train orders. A recent example, which is similar in that the dispatcher thought a portion of the rule could be disregarded, was developed in connection with the investigation of the accident which occurred on the Chicago & North Western Railroad near Lambert, Minn., on April 29, 1920. The rule in that case provided that a meeting point could not be changed until (1) the signature of the conductor of the train made superior by train order had been obtained, or until (2) the new order had

been sent to a station reached by the superior train in advance of the new meeting point, and also to the operator at the new meeting point; the dispatcher made the error of assuming that he could issue the order in accordance with the second method provided in the rule, even though the new meeting point was at a station where there was no operator on duty.

In the case of the accident here under investigation, the superintendent, in a letter to the chief dispatcher written on the day following this accident, stated that in future when the inferior train can not be reached the order to the designated train will provide that it will protect against the inferior train. The requirements of the rule as it appears in the rule book, however, are plain; the inferior train "must receive a copy of the order" from the superintendent, therefore, has authorized a departure from the practice prescribed by the rule without changing the rule as it appears in the rule book.

Certain prescribed methods of issuing train orders are provided, together with instructions setting forth the circumstances under which they are to be issued. It is a matter of the utmost importance that these instructions be followed at all times, and that those entrusted with the issuance of train orders fully understand the rules governing their use. In this case, however, the letter from the superintendent, referred to above, authorizes a practice not in conformity with the rule, nonobservance of which contributed to this accident. It is essential to safety that rules governing the issuance of train orders should be thoroughly understood and rigidly adhered to. If it is the purpose to modify the requirements of a rule, provision should be made for publishing such modification in proper form, in order that all persons affected may have full knowledge and understanding thereof.

In connection with this failure to observe the rules governing the issuance of train orders, attention is called to the fact that the crew of train No. 45 were in possession of two run-late orders, one of which directed their train to run 25 minutes late from Alexis to Romulus, while the other directed it to run 45 minutes late between the same points. Both of these orders were issued at the same station, made complete at the same time, and neither annulled or superseded the other.

Conductor Mosher was employed as a brakeman in August, 1917; he had not been promoted to the position of conductor, had never been examined for that position, and was used for the first time as a conductor on August 23, 1920. Flagman Danz was employed as a brakeman in May, 1920. The

records of both of these employees were clear. Dispatcher Chappell was first employed in 1903 and was discharged in 1906. He was reemployed in August, 1908, resigned in September of the same year, was reemployed 12 days afterwards as an extra operator, and in May, 1919, was transferred to another division as a dispatcher.