

March 12, 1914.

In re Investigation of Accident on the Grand Trunk Railway near Fosters, Mich., on February 8, 1914.

On February 6, 1914, there was a head-end collision between a freight train and a work train on the Grand Trunk Railway near Fosters, Mich., resulting in the death of 3 employees and the injury of 3 employees.

After investigation of this accident the Chief Inspector of Safety Appliances reports as follows:

Work extra 2372 consisted of a bridge and building outfit of ten cars and a caboose, hauled by locomotive No. 2373, and was in charge of Conductor Clark and Engineman Corcoran. On the day of the accident this train left Durand, Mich., at 7:15 a. m., northbound, and upon its arrival at Surt, Mich., at 11:04 a. m., the crew in charge received a copy of train order No. 125, reading as follows:

"Engine 2373 work 9:00 a. m. to 6:00 p.m. between Surt and Seginaw, protecting against second class trains, protecting against southbound extras after 2:30 p.m. Order one hundred ten (110) is annulled."

Train order No. 110 gave extra 2373 the right to run as an extra from Durand to Seginaw. After receiving train order No. 125 work extra 2372 proceeded north to Fosters, the first station beyond Surt, and within the working limits defined in the order. Here the pile driver and cars were left on the side track and the locomotive proceeded north to Seginaw for water, a flagman being left at Fosters to hold all northbound freight trains until it returned. On its return from Seginaw the locomotive, coupled to the tool car and pile driver, headed out on to the main track, and backed down the track in a southerly direction, reaching a point about one mile south of Fosters when it collided with northbound extra 2278, while running at a speed of eight or ten miles per hour.

Northbound extra 2278 consisted of four loaded cars, one empty car, and a caboose, hauled by locomotive No. 2279, and was in charge of Conductor Crouch and Engineman McMillan. On the day of the accident this train left Durand at 10:20 a. m. en route to West Bay City, Mich., and at Flushing the crew in charge received a copy of train order No. 125 quoted above. Extra 2278 left Surt, the last telegraph station south of the point of the accident, at 11:27 a. m. and at 11:45 a. m. collided with work extra 2372 at a point about 3.55 miles beyond Surt while running at a speed of about eight miles per hour.

Both locomotives were badly damaged, as well as the pile driver, tool car, and one refrigerator car. The pile driver

was derailed but remained upright on the roadbed. At the time of the accident a heavy snow was falling, accompanied by high winds.

The division upon which this accident occurred is a single-track line, trains being operated by train orders and time-card rights, the manual block system in use affording protection for following movements only. At the point of collision the track is level and is straight in either direction for at least three-quarters of a mile.

Conductor Clark of work extra 2378 stated that inasmuch as train order No. 126 called for protection against southbound extras after 2:00 p. m. he did not consider that he was to protect against northbound extras at all and was only required to protect against southbound extras after 2:00 p. m. He had no conversation with the enginemen as to their rights under the order. He stated that the reason he did not send out a flagman to protect against northbound trains before going south from Fosters was because he did not know in which direction his train was to proceed until after it had left the siding and started toward the bridge south of Fosters, at which the train was to work, and explained his ignorance of the destination of his train by saying that when the bridge foreman said he was ready to go to work he had a short discussion with him as to the advisability of working under the existing weather conditions, and forgot to ask where the bridge was located, there being bridges on either side of Fosters. When his train got out on the main line and started south he did not send out a flagman because he did not hear anything of an approaching train, although he thought he heard some of the bridgemen say they heard a whistle, and as he was riding on the front end of the pile driver he thought he could see an approaching train in time to stop before colliding. After his train had started, however, he could not see ahead more than five or six car lengths on account of the snow. He did not see extra 2278 until within a few car lengths of it. He admitted that had he known they were to work on the bridge south of Fosters it would have been good judgment on his part to have sent a flagman south of the bridge before his train left Fosters for the purpose of protecting against northbound trains, and said that he intended to send out a flagman to protect against northbound trains when they reached the place where they were to work. He left one of his brakemen at Fosters to protect against southbound extras.

Enginemen Corcoran of work extra 3378 stated that his understanding of train order No. 126 was that his train would work within the working limits named in the order, not protecting against northbound extras, protecting against southbound extras after 2:00 p.m., and at all times protecting against second-class trains and all other trains not named herein. He did not see extra 2278 before the collision occurred.

Lead Brakeman Van Hest of work extra 2378, who was left

with the rear end of his train at Fosters while the remainder of the train proceeded to the bridge, stated at the company's investigation on February 7 that he considered that the work extra had a right to work without protecting against northbound extras. At the investigation held by the inspectors of the Commission on February 11 he stated that he wished to correct this statement, saying that his understanding of train order No. 125 was that it gave his train no right to occupy the main track within working limits without protecting against northbound extras and second-class trains at all times and against southbound trains after 2:00 p.m.

Conductor Chrouch of extra 2378 stated that he had no difficulty in understanding train order No. 125. He said the order was in proper form and that it should have been understood. There was a chance, however, of its being misunderstood, and in view of the severe snowstorm, which would increase the chance of running by a flagman, and his lack of confidence in the crew of work extra 2378, he stopped his train at Durt and communicated with Dispatcher Chrouch for the purpose of ascertaining the exact location of the work extra if possible. Dispatcher Chrouch told him to go ahead, that work extra 2378 would be protecting against his train. Nevertheless Conductor Chrouch told Engineer McMillan to proceed cautiously.

Engineer McMillan of extra 2378 stated that he understood train order No. 125 as giving his train rights against work extra 2378, but in view of the severe snowstorm he thought they could have other protection. After Dispatcher Chrouch informed them that the work extra would be protecting against them he thought he was justified in proceeding slowly and cautiously toward Fosters. After leaving Durt he whistled as much as twenty times, besides the number of times required by the various highway crossings. He thought train order No. 125 was a proper order, but one which might confuse trainmen.

Fireman Maddell of extra 2378 stated that there was some discussion on the engine regarding train order No. 125. He did not consider it to be a proper order and at that time said that if he was running the engine he would go into a side track and advise the dispatcher. He said that the engineer finally put the order in his pocket, saying he would go over the matter with the trainmaster when he saw him.

Conductor Jamieson of northbound extra 2308, which left Fosters at 7:40 a.m., running behind work extra 2378, stated that after receiving a copy of train order No. 125 at Fosters he had some discussion with his brakemen, one of them stating that he did not think it was necessary for the work extra to protect against their train. Conductor Jamieson thought it was, but at the same time considered the order to be misleading and instructed one of the brakemen to proceed to Fosters on train no. 37, a northbound passenger train, for the purpose of holding the work extra at that point until the arrival of his train. He said that he did this merely as a matter of extra precaution. The engineer of extra 2308 considered train order No. 125 to be proper

and one which should not have been misleading. He thought the flagman was sent ahead on the passenger train merely as an extra precaution on account of the severe weather conditions prevailing.

In the book containing the operating rules and general regulations of the Grand Trunk Railway there are several examples of the forms of train orders to be used in directing the movement of work extras. Examples Nos. 1, 2, 4, and 5 read in full as follows:

"(1) Eng. 292 work seven 7 A.M. to six 6 P.M. between D and E.

Under this example the work extra must, whether standing or moving, protect itself against extras within the working limits in both directions, as prescribed by rule. The time of regular trains must be cleared."

"This may be modified by adding:

(2) Not protecting against eastbound extras. Under this example the work extra will protect only against westbound extras. The time of regular trains must be cleared."

"When a work extra has been instructed by order to not protect against extra trains, and afterward, it is desired to have it clear the track for (or protect itself against,) a designated extra after a certain hour, an order may be given in the following form:

"(4) Work extra 292 clears (or protects against) extra 76 east between D and E after two-ten 2:10 P.M.

Under this example, extra 76 east must not enter the working limits before 2:10 P.M., and will the run expecting to find the work extra clear of the main track (or protecting itself) as the order may require.

"To enable a work extra to work upon the time of a regular train, the following form will be used:

"(5) Work extra 292 protects against No. 55 (or--class trains) between D and G.

"Under this example, the work extra may work upon the time of the train (or trains) mentioned in the order, and must protect itself against such train (or trains) as prescribed by rule. The regular train (or trains) receiving the order will run expecting to find the work extra protecting itself."

Dispatcher Chrouch stated that in issuing train order No. 125 it was not his intention to have work extra 2378 protect itself against southbound extras until after 2 p.m., but that it was to protect against all other trains at all times. He did not think train order No. 125 should have misled the crew of the work extra and considered that part of the order reading "protecting against southbound extras after 2 p.m." to be a modification of example No. 4, quoted above. He stated that the train order as issued was a combination of examples Nos. 1, 5 and 4, combinations of this character being authorized by that part of rule No. 201 reading as follows:

"The different forms of train orders may be combined in one, providing there is no movement in such combination which does not directly affect the train first named in the order."

Dispatcher Crouch stated, however, that it would have been better had he issued the order with the last clause reading, "Not protecting against southbound extras until after 2 p.m." He further stated that this clause, however, would not have been strictly correct according to the examples given in the book of rules, and in order to follow the book of rules exactly it would have been necessary to issue two orders, the first order allowing the work extra to work between Burt and Saginaw "not protecting against southbound extras" which would have been a combination of examples Nos. 1 and 2, while the second order would have followed example No. 4 and would have read "work extra 2373 protects against southbound extras between Burt and Saginaw after 2 p.m." Dispatcher Crouch explained that he combined examples Nos. 1, 2 and 4 not only in order that the work extra might go to Saginaw for water until 2 p. m. without protecting against southbound extras, but also to decrease the time consumed in issuing the orders, thus resulting in less delay to the work extra as well as enabling him to dispose of the matter more quickly, as he was very busy with other work at that particular time. Dispatcher Crouch further said that under example No. 1 the crew of the work extra could be relieved from protecting against extra trains from either direction only when such trains were specifically mentioned in the train order and in view of the fact that nothing was said in train order No. 125 about northbound extras he claimed that the crew of work extra 2373 was not relieved of the duty of protecting that train against northbound extras.

The statements of the employees involved in this accident as to what occurred do not conflict, the responsibility for the accident being determined largely by the interpretation to be placed upon train order No. 125. That the order was not worded exactly according to the method outlined in the book of rules is evidenced from the statements of the dispatcher, the improper part of the order being the last clause relating to protecting against southbound extras after 2 p. m. It is, of course, true that no southbound extra was involved in this accident and it might be claimed therefore that even though this part of the order was improper it had no direct bearing on the accident. Under the order as issued, however, Conductor Clark understood that as the only mention of extras was the clause "protecting against southbound extras after 2 p.m.", therefore he would not have to protect against southbound extras before 2 p.m. and would not have to protect at all against northbound ~~extra~~ extras. As a matter of fact, however, on account of

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the improper form of the order, work extra 2378 was not relieved of the duty of protecting against all trains at all times regardless of class or direction, because under the rules a work extra cannot be relieved of the duty of protecting against any particular train or class of trains unless a train order is received stating this fact specifically; train order No. 125 did not furnish such relief, except in a manner not permissible under the rules.

That the order as issued by the dispatcher was not thoroughly understood is plainly evidenced by the statements of many of the employees of the two trains involved, as well as the statements of the conductor of extra 2378. On the other hand, however, it is to be noted that Conductor Clark stated that the reason he was not protecting against southbound extras at the time of the collision was the fact that he did not know in which direction the work extra was to proceed when it headed out of the siding at Posters; also that he intended to send out a flagman to protect against northbound extras after reaching the place where the work was to be done. In explaining why he left a flagman at Posters to protect against northbound trains while the locomotive went to Saginaw for water, he stated that he would have had no way of telling whether any train came inside of his working limits, and he therefore left the flagman to make it safe. These statements of Conductor Clark's make it seem apparent that he had some vague idea that he had not been entirely relieved of the necessity of protecting his train against northbound extras.

This accident was caused by the failure of Conductor Clark and Engineman Corcoran properly to protect their train. Their failure to perform their duties was due in part to their misunderstanding of train order No. 125, which was improperly worded. These employees should not have accepted a train order improperly worded but should have communicated with the dispatcher instead.

Dispatcher Shroth is also at fault for issuing a train order improperly worded. While the particular clause which was improper did not relate to northbound extras, it was undoubtedly responsible for the misunderstanding on the part of the crew of the work extra.

Conductor Clark entered the service of the Grand Trunk Railway as a brakeman in August, 1911, and in December, 1911, was made a conductor. Previous to his employment by the Grand Trunk Railway he had had nine years' experience with the Pere Marquette Railroad, six years as a brakeman and three as an extra conductor.

Engineman Corcoran was employed as a fireman in January, 1913, and in November, 1913, was made an engineman. This was Engineman Corcoran's first trip as an engineman in work train service and one of his first trips over this part of the road.

he having made only two trips learning the division and two trips in charge of a train, his experience as a fireman having been on other divisions. His record was practically clear.

Dispatcher Grouch entered the service as a telegraph operator in September, 1890, and was made a train dispatcher in 1898. His record was clear.

None of these employees had been on duty in violation of any of the provisions of the hours of service law.

The testimony of many of the employees involved clearly developed the fact that they were not thoroughly posted as to the proper forms of train orders to be used. Some of them considered train order No. 125 to be in proper form, while others did not correctly interpret its meaning, considering that it was not necessary to protect against southbound trains before 2 p.m. Such a condition should not exist on any railroad where proper attention is given to the instruction and supervision of employees. The book of operating rules and general regulations of the Grand Trunk Railway provides definite rules and instructions for the government of employees. Until steps are taken by the officials of this railway to insure a thorough understanding by their employees of these rules and of train orders governing the operation of trains, and to prevent the issuance and acceptance of train orders improperly worded, accidents of this character are likely to occur.