

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
CHICAGO, MILWAUKEE & ST. PAUL RAILROAD, NEAR
WABASHA, MINN. FEBRUARY 6, 1919.

April 3, 1919

On February 6, 1919, there was a head-on collision between a passenger train and a freight train on the Chicago, Milwaukee & St. Paul railroad, near Wabasha, Minn., which resulted in the death of 1 employee and 1 person carried under contract, and the injury of 5 passengers, 2 employees and 1 person carried under contract. After investigation the Chief of the Bureau of Safety reports as follows:

The La Crosse to St. Paul Subdivision of the River Division extends between La Crosse, Wis., and St. Paul, Minn., a distance of 130.6 miles. Between St. Paul and River Junction, Minn., a distance of 125.1 miles, it is a double track line and trains are operated by time table, train orders, and an automatic block signal system. Midland Junction, 75.4 miles east of St. Paul and 55.4 miles west of La Crosse, is a junction point for trains from the Wabasha-Zumbrota Subdivision, which use the St. Paul to La Crosse Subdivision tracks between Midland Junction and Wabasha, a distance of 5.1 miles. These trains are not scheduled on the St. Paul-La Crosse Subdivision time card, but are run as extras in accordance with the provisions of a special time card rule which reads as follows:

"This timetable conveys no right to track to Wabasha and Zumbrota Subdivision trains between Wabasha and Midland Junction. These trains must obtain train order to use track between these points and be governed by rules of Automatic Block System."

There is no telegraph office at Midland Junction but a telephone booth is maintained there for communicating with the operator at Wabasha. When orders are required for a Wabasha-Zumbrota subdivision train to proceed from Midland Junction to Wabasha the operator at Wabasha is notified by telephone, and he in turn notifies the dispatcher at Minneapolis by telegraph of the movement desired. The dispatcher then wires train orders to the operator at Wabasha, who in turn relays them by telephone to the train crew at Midland Junction. All orders handled at that point are received by the train conductor, and copied by him on a printed form, No. 1021, provided for that purpose. No standard order forms are provided.

Between Midland Junction and Wabasha are three automatic signals governing movements on the westbound track, as follows: Signal 55-5, located just east of the station at Midland Junction, opposite the telephone booth; Signal 57-5, located 9,970 feet west of Signal 55-5, and Signal 59-5, located 9,843 feet west of Signal 57-5 and 5,267 feet east of a crossover at Wabasha.

Approaching the point of accident from the west the track is tangent for 1721 feet, and the grade is slightly descending to the point of accident. Approaching from the east, there is a 2 degree curve to the right 856 feet long; there is then straight track for a distance of 1,286 feet. The grade for this distance varies from level to 30% ascending at the point of collision. There was clear and unobstructed view for 1,776 feet west and for 1,286 feet east from the point of accident.

The trains involved were eastbound freight train extra 5547 and west bound passenger train extra 435. Extra 5547 was en route from Minneapolis to La Crosse, and contained engine 5547, 56 cars and a caboose, in charge of Conductor Upton and Engineman Buhman. It arrived at Wabasha at 8:30 p. m. and was ready to proceed at 9:15 p. m. In order to avoid a delay of about 40 minutes, which would have been occasioned by sending this train forward on the eastbound track, the dispatcher diverted extra 5547 over the westbound track from Wabasha by the issuance of train order No. 37, reading as follows:

"Extra 5547 east has right over opposing trains on westbound track Wabasha to Winona."

This order was made complete at 9:19 p. m. and the train started to move from the eastbound passing track at Wabasha at 9:30 p. m., cleared the crossover from eastbound to westbound tracks at 9:48 p. m., and at 9:55 p. m. collided with westbound passenger train extra 435 at a point about 1:45 miles east of Wabasha station, while moving at a speed estimated at 3 or 4 miles an hour.

Extra 435 was the regular Wabash-Zumbrota Subdivision passenger train No. 604. It consisted of engine 435, 1 combination mail, baggage and express car and 1 coach, both of wooden construction, and was en route to Wabasha, in charge of Conductor Warl and Engineman Heintz. It arrived at Midland Junction at 9:42 p. m., where the conductor called the operator at Wabasha by telephone and was given train order No. 36, reading as follows:

"To C. & E. Extra 435 West.

Engine 435 run extra, Midland Junction to Wabasha, ahead of all trains."

This order was made complete at 9:45 p. m. The conductor of extra 435 did not receive a copy of order No. 37. After crossing to the westbound track, this train left Midland Junction at 9:07 p. m. Previous to this crossover movement, automatic signal No. 55-5 gave a clear indication and when the train passed

signal No. 57-5 the latter was in caution position. When at a point 8,058 feet west of signal No. 57-5, or approximately 3.4² miles west of Midland Junction, extra 435 collided with extra 5547, while running at a speed estimated at from 15 to 20 miles an hour. Engineman Heintz and Mail Clerk Steutzel, of extra 435, were killed. The weather at the time was clear.

The front ends of the two locomotives were locked together but the engines were not derailed, Locomotive 435 was badly damaged, the boiler being driven back into the tender, while the rear end of the tender telescoped the mail end of the combination car for a distance of about 10 feet. The combination car was derailed and badly damaged. Locomotive and coaches remained in an upright position and the day coach was only slightly damaged. Locomotive 5547 was only slightly damaged and was moved to Minneapolis shops under its own steam. Two freight cars in train extra 5547 were slightly damaged. None of the cars in the freight train was derailed, and no damage was done to the track.

Rule No. 508 of the block signal rules of this road reads as follows:

"Block signals for a track apply only to trains moving with the current of traffic on that track."

In this case, therefore, extra 5547 had no automatic block signal protection moving against the current of traffic. Statements given at the investigation indicated that the crossover switches used by extra 5547 at Wabasha were lined up for the crossover movement at 9:30 p.m., 17 minutes prior to the departure of extra 435 from Midland Junction. This placed signal 59-5 in the stop position and signal 57-5 in the caution position. Extra 435 westbound, passing signal 57-5 in the caution position, would be governed by block signal rules, which provide that a train receiving a caution indication should approach the next signal prepared to stop; in this instance the next signal was signal No. 59-5. There was nothing to indicate that the signals failed to operate as intended and the engineman of extra 435 was proceeding under the caution indication of signal No. 57-5 and his train had reached a point 1,776 feet east of signal 59-5 when the collision occurred.

Dispatcher Kenyon stated that at the time he diverted extra 5547 over the westbound track from Wabasha by the issuance of order No. 37, he made no notation of any kind on his train sheet to show that the train was moving against the current of traffic, but depended upon his memory. When he issued order No. 37 there were no open telegraph offices between Wabasha and St. Peter Junction, a distance of 31.² miles, excepting Minnesota City, which office was closed at 10:00 p.m.,

so that, after extra 5547 left Wabasha, it would have been impossible for him to have gotten into communication with it until its arrival at St. Peter Junction. He stated that at the time he issued order No. 37 he did not think of train No. 604, the Wabasha-Zumbrota Subdivision train, nor consider how it was to be handled between Midland Junction and Wabasha, as he had received no report from it prior to its arrival at Midland Junction and its connection on the La Crosse to St. Paul Subdivision train sheet was shown as train No. 604, and not as an extra train. He said that while he was copying order No. 37, a conductor who was then in the office, had been talking to him and his attention was distracted; he was further disconcerted by the fact that while talking to him, the conductor tripped over the crew register board and the dispatcher left his train sheet, stopped to rearrange the board and was so engaged when the operator at Wabasha called him on the wire. He said he issued no orders between the time he issued order No. 37 and order No. 36, but had some conversation with the conductor after he finished order No. 37 and it was about 25 minutes afterwards when the operator at Wabasha called him on the wire, asking for orders for extra 435 and he gave him order No. 36, previously quoted. Due to the fact that at Midland Junction a printed form is issued for orders, they are not repeated by the dispatcher or operator, and in issuing order No. 36 to the operator at Wabasha, he did not repeat the entire order to him, but just gave him the order number. He said it has not been his practice to make any record of the time of arrival or departure of train No. 604 at Midland Junction, but any entry would be made on the train sheet when the train arrived at Wabasha and was reported there by the conductor. He stated that at the time he issued order No. 36 to extra 435 he had not forgotten extra 5547 east, but overlooked the fact that he had authorized the latter train to use the westbound track. The first intimation that he had issued a wrong order came at 10:100 p. m., when the operator at Wabasha called him on the wire and reported trouble on the line at Midland Junction and he then discovered that both trains were on the same track. Dispatcher Kenyon acknowledges responsibility for the accident in allowing opposing extras 5547 and 435 to occupy the same track under authority conferred by orders Nos. 37 and 36, without providing proper meeting point.

Operator Johnson, on duty at Wabasha, stated that he received order No. 37, addressed to extra 5547 east; it was made complete at 9:19 p.m. and he understood that train was to use the westbound track from Wabasha to Winona; the order was delivered to Conductor Upton immediately afterward and the train started within 5 or 6 minutes, the caboose passing his office at about 9:46 p. m. He reported the train to the dispatcher and his train sheet shows the time

of its departure as 9:48, which he said, was the time they were through the switches on the westbound track. He said he was familiar with the method of handling the Wabasha-Zumbrota Subdivision train from Midland Junction to Wabasha, having been instructed by the operator he relieved. At 9:44 p. m., Conductor Wahl called him by telephone from Midland Junction, reporting his engine number and names of crew. He then called the dispatcher at Minneapolis by telephone and asked him for an order for engine 435; the dispatcher gave him an order number and he repeated the order, it being made complete at the time he received it, 9:45 p.m. He then repeated the order to Conductor Wahl at Midland Junction by telephone and after it was completed the conductor asked him if there was any train leaving Wabasha. The operator replied that there was one just leaving, but it did not occur to him then or while transmitting the order that extra 5547 had orders to use the westbound track. He said he did not know the distance between Wabasha and Midland Junction, but knew that there was no siding between these points.

Conductor Upton of extra 5547 stated that at the time he received order No. 37 at Wabasha, he knew that the Wabasha-Zumbrota Subdivision train, No. 604, was due there at about that time and remarked to Operator Johnson that it must be late, but received no reply. He lined up the switches for their crossover movement 15 or 20 minutes before they started. He said that the speed of their train between Wabasha and the point of accident did not exceed 10 or 12 miles an hour at any time. He was riding in the caboose and said the speed was reduced to about 3 miles an hour just before the collision.

Engineman, Buhman, of extra 5547, stated that it was 15 minutes from the time they started to pull out of the eastbound passing track at Wabasha until the caboose had passed through the crossover; from then on the speed was about 10 or 12 miles an hour. He first saw the headlight of extra 435 in the distance when his train was about 1 mile east of Wabasha and remarked to the head brakeman, who was riding on the engine, that there was a headlight coming, but the brakeman thought it was a signal light; the engineman then said it might be an automobile headlight, then later remarked that the Wabasha Subdivision passenger train was due at Wabasha and that the dispatcher was running them over the eastbound track. On account of the curvature in the track ahead, he was unable to determine which track they were occupying until they came onto straight track. He then immediately shut off steam, applied brakes, sanded the rail and made every effort to bring his train to a stop, jumping from his engine just before the collision occurred; he thought his train ran a distance

of from 8 to 10 car lengths after he applied the air. He said he and his fireman and head brakeman noticed the passenger train at about the same time and all jumped from the train.

Fireman Nelson of extra 5547 stated that Engineman Buhman showed him a copy of order No. 37 received at Wabasha; he estimated their speed after leaving there at 10 or 12 miles an hour. He said there was some discussion among those on the engine concerning the headlight of extra 435, but the view was obscured by the curve and it was not until extra 435 was within a quarter of a mile of them that it was seen to be on the same track. He got off the engine as soon as the engineman shut off steam.

Head Brakeman Brogan of extra 5547 stated that he was riding on the engine out of Wabasha and their speed between there and the point of accident did not exceed 15 miles an hour. After first noticing the headlight, it disappeared from his view when it went around a curve and the engineman said there was a train coming; he replied that it must be an automobile. When it again appeared, the engineman remarked that it must be the Wabasha Division train, but he could not determine just what it was. He watched it until he saw it was on the same track and after saying to the engineman: "They are on this track," the engineman set the brakes, but they did not seem to take hold very quickly. He then got off the engine, being he first to get off.

Conductor Wahl, of extra 435, stated that upon arrival of his train at Midland Junction, at 9:41 p. m., he immediately went to the telephone booth, called the Wabasha office and reported his train at Midland Junction. After waiting about two minutes, the operator called him and said he had a "19" order for him and transmitted order No. 36, previously quoted. He said he was not furnished a supply of Form 19 or 31 order blanks, nor was there a supply maintained at the Midland Junction telephone booth, but it was his understanding that whenever a 19 or 31 order was transmitted to him at Midland Junction, it was to be copied on order card Form 1021, even though the wording of such order was materially different from that printed on the form. The operator sent the order without asking him to report it or without getting signature and gave him the complete as he transmitted the order at 9:45 p. m. He said he did not repeat any part of the order except the number and the time it was made complete; he understood that the operator meant that the order was to be copied on printed form 1021, and he made two copies of it. As an extra precaution while crossing the eastbound track to the westbound track, he then asked the operator at Wabasha if there was any train going out of Wabasha. The operator replied that there was an extra just leaving, but neglected to specify

on which track. He retained one copy of order No. 36 and delivered the other to Engineman Heintz. The conductor said the engineman did not read the order, but simply noted the time it was made complete and repeated the time. After hearing him repeat the time the order was completed, he observed that signal No. 55-5, east of the crossover switch, was in the proceed or clear position, as was also the signal on the eastbound track, just west of Midland Junction. Within 1-1/2 minutes after receiving the order they pulled through the crossover to the westbound track, the switches were closed and they departed from Midland Junction at 9:47 p. m. He said their headlight was burning brightly when they left Midland Junction and estimated their speed after leaving there at 20 miles an hour, but just before the engineman applied the air, it had been slightly reduced. He was in the combination car, working on his reports and noticed a severe jolt when the brakes were applied in emergency before the collision. He said the brakes had been tested at Fairbault and were working properly.

Fireman Woodward of extra 435 stated that their train was at Midland Junction 2 or 3 minutes; he did not look at his watch when leaving, but Engineman Heintz remarked they were on time. He did not see the train order received there, but heard Engineman Heintz remark that it was O. K. at 9:45 p. m. He noticed that signal 55-5 indicated proceed and, as he remembers, signal 57-5 was in the caution position, but it did not occur to him that it might indicate the approach of an opposing train. Engineman Heintz called his attention to the position of signal 57-5 and he checked it with him. He first saw the headlight of extra 5547 shortly after they passed this signal, then the light disappeared and their first knowledge that the opposing train was on the westbound track was when his train was about 10 car lengths from the point of collision, he and his engineman discovering the fact about the same time. He estimated their speed at from 15 to 18 miles an hour. The engineman immediately closed the throttle, applied the brakes in emergency and reversed. The fireman jumped from the engine when the trains were about 2 car lengths apart.

The primary cause of this accident was an error on the part of the train dispatcher in issuing train orders; a contributing cause was failure of an operator, who delivered both of the orders involved, to detect the error of the dispatcher and either to call attention to the error or to take measures to forestall the conflicting movement of the trains involved. The management of this railroad is responsible for the existence and continuance of the lax methods and practices which rendered possible the occurrence of an accident under the circumstances described.

The investigation of this accident disclosed that under orders 37 and 36 issued by Dispatcher Kenyon, both of the opposing trains involved were given unrestrained right to the

westbound track between Midland Junction and Wabasha, no meeting point was provided, and neither train was furnished copy of the order held by the crew of the opposing train. According to Dispatcher Kenyon's own statement, when he issued the order for the extra 435, while he had not forgotten extra 5547, he entirely overlooked the fact that he had authorized the eastbound train to run against the current of traffic on the westbound track. He had not made any note on the train sheet to show that this train was running against the current of traffic, but depended upon his memory, which in this critical instance failed him. The investigation also disclosed that order No. 37 was issued prior to the issuance of order No. 36, and an examination of the train-order record revealed an error in the order number, the order delivered to extra 5547 at Wabasha being numbered 37, while the office record indicates that this was order No. 35. It is apparent from the evidence that at least temporarily a state of confusion existed in the dispatcher's office, but this does not in any measure form an excuse for the errors of the dispatcher or relieve him of responsibility for failure to provide proper safeguards for the movement of the trains involved in this accident.

Operator Johnson delivered both of the orders involved and, as he was in possession of full information regarding the movement authorized for both trains, had he been on the alert he should have discovered that the orders were conflicting. He was particularly negligent in this respect for his failure to inform the conductor of extra 435, when asked if there was any train out of Wabasha, that extra 5547 east was using the westbound track. This inquiry should have aroused him to a realization of the dangerous condition impending. Furthermore, the conductor of extra 5547 stated he made some remark to Operator Johnson about the Wabasha-Zumbrota Subdivision train, but received no reply. Had he been alive to the situation, Operator Johnson could easily have averted the accident.

No doubt Form 1021 issued to the Wabasha-Zumbrota Subdivision train at Midland Junction was intended merely to provide running orders over the main line from Midland Junction to Wabasha, and the automatic block signal system was depended upon to provide necessary protection for this movement. But it is apparent from the investigation of this accident that in case a train is diverted against the current of traffic at this point the form of order furnished the Wabasha-Zumbrota train is utterly inadequate to furnish proper protection; not only is the protection normally afforded by the signal system entirely lost, but even the ordinary safeguards furnished by the standard forms of train orders and the rules governing their use are not provided. The indiscriminate diversion of trains against the current of traffic should not be permitted, and in

cases where such movement are necessary extraordinary precautions should be taken on account of losing the protection of the automatic block signal system. The lax and unsafe methods employed in handling train orders, as disclosed by this investigation, should be corrected immediately.

Dispatcher Kenyon entered the service on the River Division of this road in March, 1906, as an operator and was promoted to Dispatcher in November, 1913. His record as a dispatcher was clear.

Operator Johnson was 19 years of age, was employed in July, 1917, and was transferred to the River Division in September, 1918. He had a clear record. Both these employees had been on duty 5 hours and 55 minutes at the time of the accident, after a period off duty of 16 hours. The train crew of extra 5547 had been on duty 7 hours and 35 minutes, after a period off duty of over 24 hours. The crew of extra 435 had been on duty 11 hours and 40 minutes, after a rest period of 12 hours.

RWL