

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT OF THE DIRECTOR
BUREAU OF SAFETY

ACCIDENT ON THE
CHICAGO, ST. PAUL, MINNEAPOLIS
& OMAHA RAILWAY

MERRIAM, MINN.

FEBRUARY 17, 1936.

INVESTIGATION NO. 2045

SUMMARY

Railroad: Chicago, St. Paul, Minneapolis & Omaha
Date: February 17, 1936
Location: Merriam, Minn.
Kind of accident: Rear-end collision
Trains involved: Freight : Freight
Train numbers: Extra 436 : No. 24
Engine numbers: 436 : 105 and 348
Consist: 30 cars and caboos : 20 cars and caboos
Speed: 3-5 m.p.h. : 20-25 m.p.h.
Track: Tangent and level
Weather: Clear, 20° below zero
Time: 3:40 a.m.
Casualties: 4 killed and 3 injured
Cause: Failure of conductor and flagman of
extra train to provide proper flag
protection.

April 25, 1936

To the Commission:

On February 17, 1936, there was a rear-end collision between two freight trains on the Chicago, St. Paul, Minneapolis & Omaha Railway near Merriam, Minn., which resulted in the death of 4 employees and the injury of 3 employees.

Location and method of operation

This accident occurred on the Mankato Sub-division of the Western Division extending between St. Paul and St. James, Minn., a distance of 118.7 miles, and is a single-track line over which trains are operated by time table and train orders, no block-signal system being in use. Rule 91 of the operating rules requires that unless some form of block signal is used trains in the same direction must keep not less than 10 minutes apart except in closing up at stations. The accident occurred at a point 1.2 miles west of the west switch of the passing track at Merriam. Approaching this point from the west, there is a 1° curve to the left, 1,350 feet in length, tangent track for 1,825 feet, a 1° curve to the left 1,790 feet in length, followed by tangent track for a distance of 1,160 feet to the point of accident, and for a considerable distance beyond. The grade is slightly undulating, but is level at the point of accident. There is no general speed restriction on this division, nor are there any local speed restrictions covering any part of the track in the vicinity of the point of accident.

With the exception of a cut about 4 feet deep and 200 feet long, located approximately 1,400 feet west of the point of accident, the track is laid on an 8-foot fill, and the view of the point of accident from the left side of an east-bound engine is unobstructed for a distance of approximately 3,600 feet; the view from the right side is restricted to about 1,200 feet.

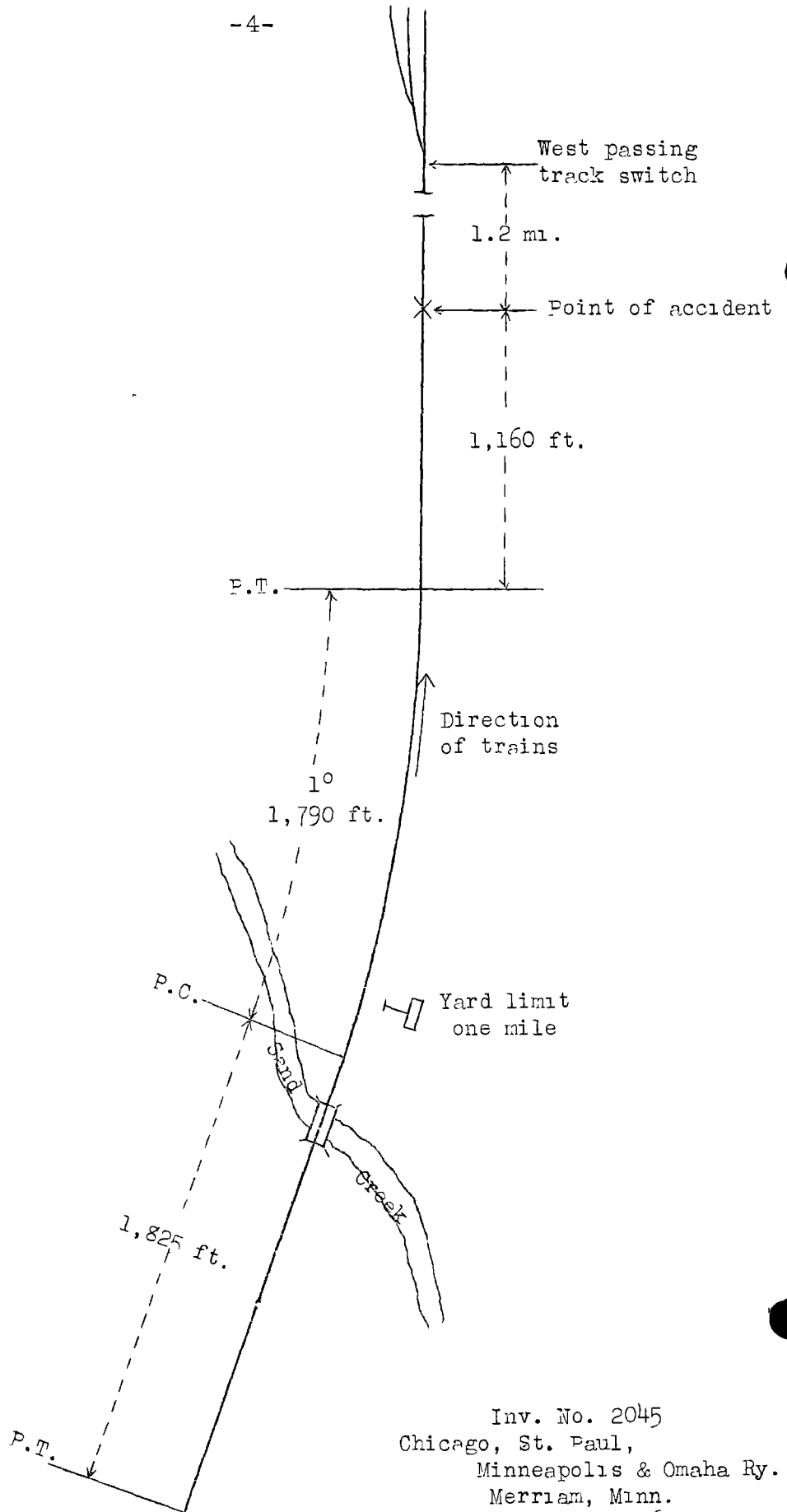
The weather was clear and the temperature about 20° below zero at the time of the accident, which occurred about 3:40 a.m.

Description

Extra 436, an east-bound freight train, consisted of 30 cars and a caboose, hauled by engine 436, and was in charge of Conductor O. Bergstrom and Engineman Wood. This train departed from St. James, its initial terminal, 84.7 miles west of Merriam, at 6:40 p.m., February 16, according to the train sheet, and passed Belle Plaine, 12.5 miles from Merriam, at 2:46 a.m.,



St. Paul, Minn.
34.0 mi.
Merriam
1.2 mi.
*Point of accident
2.3 mi.
Mudbaden
4.2 mi.
Lawrence
4.8 mi.
Belle Plaine
72.2 mi.
St. James, Minn.



Inv. No. 2045
 Chicago, St. Paul,
 Minneapolis & Omaha Ry.
 Merriam, Minn.
 Feb. 17, 1936.

February 17, and was approaching Merriam at an estimated speed of 3 to 5 miles per hour when its rear end was struck by Train No. 24.

Train No. 24, an east-bound second-class freight train, consisted of 19 cars and a caboose, hauled by engines 105 and 348, and was in charge of Conductor E. A. Bergstrom and Engineman Holly and Aurelius. This train departed from St. James at 8:20 p.m., according to the train sheet, 2 hours 50 minutes late, and after picking up 1 car at Lake Crystal, the train consisted of 20 cars and a caboose. It passed Belle Plaine at 3:16 a.m., 4 hours 31 minutes late, and struck the rear end of Extra 436 while traveling at a speed estimated to have been between 20 and 25 miles per hour.

The caboose and rear car of Extra 436 were demolished, and three other cars in this train were damaged. Engine 105 was derailed to the left, headed down the fill and slightly toward the west. Engine 348 stopped on its right side, in reverse position just west of engine 105, with the rear end of the boiler resting on the tender of engine 105; the superstructure of the tender of engine 348 rested on the right side of the fill. The first two cars in Train No. 24 were destroyed and the third and fourth cars were derailed but remained upright in line with the track; the twelfth and thirteenth cars in this train were also damaged. The wreckage was scattered over a distance of 150 feet. The enginemen and firemen of both engines of Train No. 24 were killed; the injured were the head brakeman and the flagman of Train No. 24 and the conductor of Extra 436.

Summary of evidence

Engineman Wood, of Extra 436, stated that out of St. James his engine had not been steaming freely but it had not given much trouble until after passing Mankato, 34.5 miles beyond. His train consisted of approximately half tonnage for an engine of that type. Steam was blown up at Kasota, 41.7 miles south of Merriam, where a delay of 1 hour 10 minutes was encountered waiting to meet several trains. Later the water became low in the glass and the steam pressure dropped to 125 pounds, making it necessary to stop for steam at Lawrence, 7.7 miles south of Merriam; this consumed about 10 or 13 minutes, it being necessary to wait 3 or 4 minutes after recalling the flagman. On leaving there the water glass was about half full and the steam pressure 175 pounds, and Engineman Wood thought they would be able to reach Merriam. In a very short time, however, the steam pressure started to drop again and after passing Mudbaden, 3.5 miles from Merriam, the air pump slowed down to the extent that the brakes began to stick, and the train would eventually have stopped before reaching Merriam, although it was still moving when its rear end was struck by Train No. 24. Engineman Wood stated that in passing

Mudbaden the speed of his train was about 25 miles per hour, and it may have been 18 or 20 miles per hour when rounding the curves west of the point of accident, but this was below normal speed. He knew Train No. 24 was following his train, having received the train order directing his train to meet No. 17 at LeSueur, 28.2 miles west of Merriam, and also directing No. 17 to meet No. 24 at Kasota, 13.5 miles west of LeSueur.

The first intimation Conductor Bergstrom, of Extra 436, had of anything wrong with the engine was when the stop was made at Lawrence. At that point the flagman went back with his flagging equipment and Conductor Bergstrom walked toward the head end, having inspected about 15 cars when the flagman was recalled. His train was traveling at a speed of about 25 miles per hour when he noticed a reduction in speed after passing Sand Creek, approximately 3,200 feet south of the point of accident. He thought the train was reducing speed for Merriam and as he looked back he saw Train No. 24 approaching west of Mudbaden. Flagman Vroonan had already started toward the rear of the caboose with his flagging equipment; he lit a fusee and then got off, the speed at that time being about 10 miles per hour. Conductor Bergstrom followed the flagman to the platform of the caboose, but did not get off until he saw that the approaching train did not acknowledge the flagman's signals, at which time his train was traveling at a speed of about 3 miles per hour. He thought the flagman was between 15 and 20 car lengths from his caboose when Train No. 24 passed him. Conductor Bergstrom gave stop signals with his white lantern and as he ran to get out of the way he heard one blast of the whistle and thought he heard the air brakes applied. He estimated the speed of Train No. 24 to have been reduced from 40 miles per hour to between 15 and 20 miles per hour at the time of the accident, and while he knew Train No. 24 was following, at no time did he think the speed of his train low enough to require the use of fusees.

Flagman Vroonan, of Extra 436, stated that when his train stopped at Lawrence he went back a out 25 car lengths and when recalled he left two torpedoes and a lighted fusee. Although the train did not make as good progress as it should have made, it was traveling about 30 or 35 miles per hour passing Mudbaden and after leaving that point he noticed a reduction in speed, it appearing as though the throttle had been eased off. He immediately went back to the platform with his flagging equipment and lit a fusee; he saw Train No. 24 approaching and it appeared to be just east of Mudbaden. His own caboose was east of Sand Creek Bridge, at the time, and as it was moving at a speed of about 25 miles per hour he did not get off until the speed had been reduced to about

5 miles per hour, at which time Train No. 24 was about three-fourths mile distant. He thought his train traveled a distance of one-fourth mile from the time he first saw the approaching train to the time he got off the caboose. He was about 15 car lengths from his own train when Train No. 24 passed him at a speed of 20 or 25 miles per hour and as the engines passed he heard a blast of the whistle, a warning to apply the brakes, although he did not know from which engine it was sounded, but the second engine was working steam. Flagman Vrooman stated that he thought his train was traveling at a rate of speed great enough to make the use of fuses unnecessary.

Head Brakeman Bland, of Train No. 24, stated that his train was traveling at a speed of about 40 miles per hour passing Mudbaden. He was sitting on the left seatbox of the lead engine with the fireman behind him, and he opened the side window while passing around curves. On opening the window for the curve just east of Sand Creek bridge, he saw the markers of the caboose ahead and immediately cautioned Engineman Holly who made a heavy brake-pipe reduction. On again looking out of the window he saw a lighted fusee, and he estimated the flagman was not more than 5 or 6 car lengths behind the caboose. On entering the tangent track and seeing how close they were to the train ahead, he called to the engineman to stop and the engineman placed the brake valve in emergency position. The last thing Brakeman Bland remembered was a heavy exhaust of the air as he left the engine just before the collision occurred. He estimated the speed of his train at that time to have been about 20 miles per hour. He could not hear the second engine working steam, nor did he remember hearing the flagman's signal answered, but he did hear a blast on the whistle.

Conductor Bergstrom, of Train No. 24, stated that his train was not operated at excessive speed at any time; passing Mudbaden the speed was about 30 miles per hour and when the caboose was about at Sand Creek bridge he felt the air brakes apply; he looked at the gauge and it dropped about 12 pounds, and he heard one blast of the whistle. Flagman Gurney stated that on nearing Sand Creek bridge he noticed a brake-pipe reduction of about 10 pounds, but he noticed no further reduction prior to the accident. He said the speed of his train was about the same as usual and he did not think that it was excessive at any time.

Discussion

Rule 86 of the operating rules permits extra trains to pass and run ahead of second and third class trains and extra trains.

Rule 99 provides that when a train is moving under circumstances in which it may be overtaken by another train, the flagman must take such action as may be necessary to insure full protec-

tion. By night, or by day when the view is obscured, lighted fusees must be thrown off at proper intervals. Flagman Vrooman stated that on noticing a reduction in speed in the vicinity of Sand Creek bridge he went to the rear platform and lit a fusee, at which time he could see Train No. 24 approaching, but as his train was running at a speed of about 25 miles per hour he did not get off until the speed had been reduced to about 5 miles per hour, stating that at that time the train was about three-fourths mile distant. If that had been the case, a fusee thrown off when he first saw the approaching train no doubt could have been seen in time to have prevented the accident. As Conductor Bergstrom stated that he followed the flagman to the platform of the caboose, and saw the approaching train, he should have seen to it that a fusee was thrown off immediately.

While the engineman of the lead engine of Train No. 24 made a heavy brake-pipe reduction immediately on being warned by the head brakeman, his own view being obscured by the curve, it is believed that had the engineman been given the proper warning when the markers on the caboose were first seen and his engine was approximately 3,000 feet from the point of accident, there would have been sufficient distance in which to have stopped the train before striking the caboose. Due to the service reduction having previously been made, the full benefit of the emergency application was not obtained.

Conclusion

This accident was caused by the failure of Conductor Bergstrom and Flagman Vrooman, of Extra 436, to provide proper flag protection.

Respectfully submitted,

W. J. PATTERSON,

Director.