

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 2959
CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC
RAILROAD COMPANY
REPORT IN RE ACCIDENT
AT RED WING, MINN., ON
DECEMBER 17, 1945

SUMMARY

Railroad: Chicago, Milwaukee, St. Paul
and Pacific

Date: December 17, 1945

Location: Red Wing, Minn.

Kind of accident: Side collision

Trains involved: Freight : Freight

Train numbers: Extra 339 West : 67

Engine numbers: 338 : 320

Consist: Engine 335 in tow, : 55 cars, cabooses
53 cars, cabooses

Speed: 3 m. p. h. : 20 m. p. h.

Operation: Timetable, train orders and
automatic block and cab-
signal systems; yard limits

Track: Double; tangent; level

Weather: Clear

Time: 6:35 a. m.

Casualties: 1 killed; 6 injured

Cause: Failure properly to operate both
trains as required by the rules
governing movement within yard
limits

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2959

IN THE MATTER OF MAKING ACCIDENT INVESTIGATION REPORTS
UNDER THE ACCIDENT REPORTS ACT OF MAY 6, 1910.

CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC
RAILROAD COMPANY

February 6, 1946.

Accident at Red Wing, Minn., on December 17, 1945, caused
by failure properly to operate both trains as re-
quired by the rules governing movement within yard
limits.

REPORT OF THE COMMISSION¹

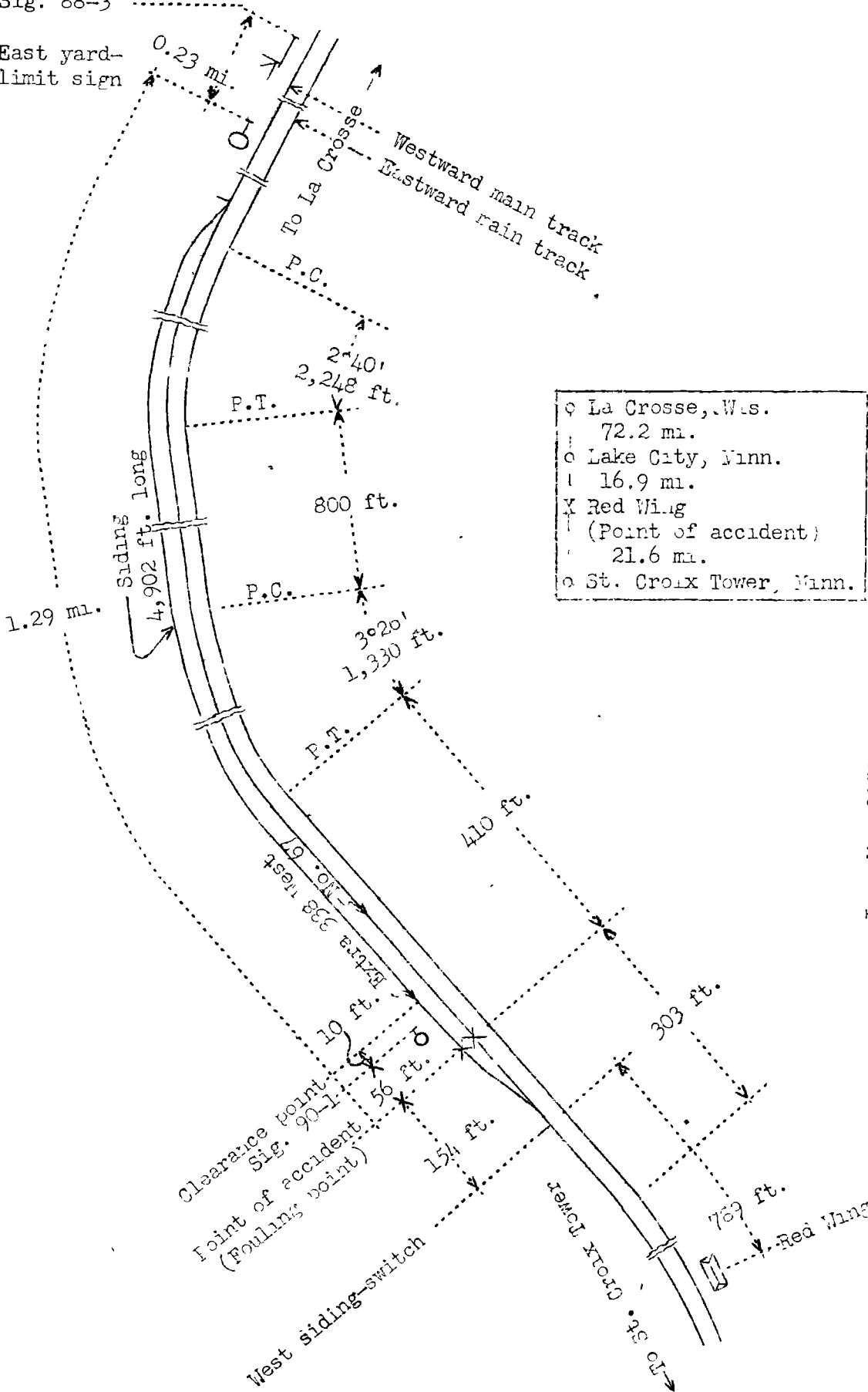
PATTERSON, Commissioner:

On December 17, 1945, there was a side collision be-
tween two freight trains on the Chicago, Milwaukee, St. Paul
and Pacific Railroad at Red Wing, Minn., which resulted in
the death of one employee and the injury of six employees.

¹Under authority of section 17 (2) of the Interstate Com-
merce Act the above-entitled proceeding was referred by the
Commission to Commissioner Patterson for consideration and
disposition.

Sig. 88-3

East yard-limit sign



Div. No. 2959
 Chicago, Milwaukee, St. Paul and Pacific Railroad
 Red Wing, Minn.
 December 17, 1945

Location of Accident and Method of Operation

This accident occurred on that part of the La Crosse and River Division extending between La Crosse, Wis., and St. Croix Tower, Minn., 110.7 miles, a double-track line in the vicinity of the point of accident, over which trains moving with the current of traffic are operated by timetable, train orders and automatic block and cab-signal systems. Within yard limits at Red Wing, 89.1 miles west of La Crosse, a siding 4,902 feet in length parallels the westward main track on the north. The west switch of this siding is a spring switch and is 789 feet east of the station. The clearance point at the west end of the siding is 220 feet east of the west switch. The accident occurred 1.29 miles west of the east yard-limit sign at the fouling point of the westward main track and the turnout of the west siding-switch, 66 feet west of the clearance point and 154 feet east of the switch. From the east on the westward main track there are, in succession, a 2°40' curve to the left 2,248 feet in length, a tangent 800 feet, a 3°26' curve to the left 1,330 feet and a tangent 410 feet to the point of accident and 303 feet westward. The grade for west-bound trains varies between 0.20 percent and 0.30 percent descending about 3.3 miles, then it is level 278 feet to the point of accident and 1,022 feet westward.

Automatic signal 88-3, governing west-bound movements on the westward main track, and automatic signal 90-1, governing movements from the siding to the westward main track at the west switch, are, respectively, 1.52 miles and 56 feet east of the point of accident. Signal 88-3 is of the one-arm, three-position, upper-quadrant semaphore type, and is continuously lighted. Signal 90-1 is a dwarf signal of the two-indication, color-light type, and is continuously lighted. The involved aspects and corresponding indications and names of these signals were as follows:

<u>Signal</u>	<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
88-3	Green, vertical	Proceed.	Clear signal.
90-1	Red, without number plate	Stop.	Stop signal.

The track circuit of the fouling section of the turnout of the west siding-switch extends 195 feet east of the switch. The controlling circuits of the automatic signals are so arranged that when a train is occupying any portion of the westward main track within a distance of 0.24 mile immediately west and 5.5 miles immediately east of signal 90-1, this signal displays stop.

Operating rules read in part as follows:

DEFINITIONS.

* * *

Restricted Speed.--Proceed prepared to stop short of train, obstruction, or anything that may require the speed of a train to be reduced.

93. Within yard limits the main track may be used, clearing first class trains when due to leave the last station where time is shown.
* * *

Within yard limits the main track may be used without protecting against second and inferior class, extra trains and engines.

Within yard limits second and inferior class, extra trains and engines must move at restricted speed.

* * *

Note.--Approach or proceed automatic block signal indications do not supersede the provisions of Rule 93.

509 (B). When a train is stopped by a Stop and proceed indication, it may proceed:

* * *

On any track signalled for traffic in one direction, at once at restricted speed through the entire block.

522. When a train or engine moving in either direction is stopped by a signal governing movements over a spring switch, the switch must be examined to make certain it is properly lined, locked or secured and that points fit.

523. When a train or engine is stopped by a signal governing a trailing point movement through a spring switch, and no conflicting train movement is evident, the switch must be operated by hand for the route. * * *

525. Unless otherwise provided, in automatic block signal territory when a train or engine has been stopped by a signal governing movement through or over a spring switch, and signal continues to display Stop-indication, after complying with Rules 522 and 523, movement must be made as provided by Rule 509(B), * * *

Time-table special instructions read in part as follows:

X14 * * *

* * *

(f) * * * If the failure is such as to cause serious delay to the train, the cab signals may be cut out under the following conditions: * * * After ascertaining that it is safe for the train to continue, the train dispatcher may authorize the crew to cut out the cab signals, proceed at normal speed and be governed by Automatic wayside block signal indication. * * *

* * *

Description of Accident

Extra 338 West, a west-bound freight train, consisting of engine 338, engine 335 in tow, 53 cars and a caboose, stopped into clear on the siding at Red Wing about 6:15 a. m. About 6:35 a. m., while this train was proceeding from the siding to the westward main track it passed signal 90-1, which displayed stop, and was moving at an estimated speed of 3 miles per hour when the engine was struck by No. 67.

No. 67, a west-bound second-class freight train, consisted of engine 320, 55 cars and a caboose. The cab-signal equipment on engine 320 was inoperative, and the movement of this train was being governed in accordance with the indications displayed by the automatic block signals. No. 67 passed Lake City, the last open office, 16.9 miles east of Red Wing, at 6:07 a. m., 10 hours 32 minutes late, passed signal 36-3, which displayed proceed, passed the east yard-limit sign at Red Wing, and while moving on the westward main track at an estimated speed of 20 miles per hour it struck Extra 338 West.

The right side of the engine of No. 67 struck the left side of the engine of Extra 338 West at the fouling point of the westward main track and the turnout of the west siding-switch. The engine and the engine in tow of Extra 338 and the engine and the first sixteen cars of No. 67 were derailed and damaged. The engine of Extra 338 stopped on its right side with the front end 6 feet north of the westward main track and 14 feet west of the west siding-switch. The engine of No. 67 stopped practically upright, with the front end 37 feet south of the westward main track and 124 feet west of the west siding-switch.

The weather was clear at the time of the accident, which occurred about 6:35 a. m.

The engineer of Extra 338 was killed. The fireman of Extra 338, an engine watchman who was on engine 335, and the engineer,

the fireman, the front brakeman and the flagman of No. 67 were injured.

Discussion

In compliance with instructions issued by the train dispatcher, Extra 338 West entered the siding at Red Wing about 6:15 a. m. to permit Extra 136 West, a west-bound passenger-equipment train, to pass. Extra 136 West passed Red Wing at 6:28 a. m. About 7 minutes later, after Extra 338 West had moved westward on the siding and had passed signal 90-1, which displayed a red aspect, this train was proceeding from the siding to the westward main track when the engine collided with the engine of No. 67.

Soon after Extra 338 West stopped into clear on the siding, the conductor and the front brakeman went to the train-order office, located 789 feet west of the west siding-switch, to obtain authority for their train to proceed ahead of No. 1, an overdue west-bound first-class train. The engine was standing with the front end about 50 feet east of signal 90-1, which displayed stop. The engineer and the fireman were on the engine, and the flagman was in the caboose. The marker lamps were lighted and displayed green to the rear. After Extra 136 West passed, the train dispatcher informed the operator that Extra 338 West would be authorized to proceed ahead of No. 1. This information was given to the conductor of Extra 338 West and, while he was waiting for the dispatcher to issue train-order authority, he gave proceed signals with a lighted white lantern for his train to enter the main track. The fireman said that signal 90-1 was displaying a red aspect when the conductor gave proceed signals, but the engineer informed the fireman that, since no following train could be seen or heard, it would be all right for their train to proceed without operating the spring switch by hand. Soon after Extra 338 started to move, the fireman saw the reflection of the headlight of a train approaching from the east, and he called a warning to the engineer. The collision occurred before Extra 338 could be stopped. The engineer of Extra 338 was killed. The flagman said that the front portion of No. 67 had passed his caboose before Extra 338 started to move.

As No. 67 was approaching the point where the accident occurred the headlight was lighted brightly, and the enginemen and the front brakeman were maintaining a lookout ahead. The brakes of this train had been tested and had functioned properly en route. When the engine passed signal 88-3, which displayed proceed, and the east yard-limit sign, the speed of the train was about 20 miles per hour. The track curved to the left. Because of an embankment on the inside of the curve, the view had by the employees on the engine of the track ahead was materially restricted. When the engine reached a point about 400 feet east of the west siding-switch the enginemen and the front

brakeman observed steam and smoke at the front end of the train on the siding. They saw an engine on the siding, and there was no indication that the train was moving. However, soon afterward, the front brakeman saw the first engine on the turnout and called a warning. The engineer immediately moved the brake valve to emergency position, but the collision occurred before the train could be stopped.

Extra 338 West and No. 67 were moving within yard limits when the collision occurred. Under the rules, both trains were required to be operated so that they could be stopped short of a train or an obstruction. The two trains approached the west siding-switch simultaneously. If these trains had been operated in accordance with the requirements of the yard-limit rule this accident would not have occurred.

At the time Extra 338 started to move from the siding to the main track, signal 90-1 was displaying a red aspect. Under the rules, the spring switch at the west end of the siding was required to be operated by hand before Extra 338 proceeded west of signal 90-1. Had this been done, the employee who operated the switch probably would have been in position to see that conflicting movements were being made and to give stop signals in time to avert the accident.

Automatic block signal 88-3 is located 1.52 miles east of the point of accident. The speed of No. 67 was about 20 miles per hour, and, therefore, in order for the crew of this train to have received a warning at this signal the switch would have had to be thrown by hand more than 4 minutes before the time of the accident. However, had the automatic cab-signal equipment on the engine of No. 67 been in operation, a restrictive cab-signal indication would have been received at the time the spring switch was operated or when the engine of Extra 338 West entered the track circuit of the turnout of the west siding-switch.

Cause

It is found that this accident was caused by failure to operate both trains as required by the rules governing movement within yard limits.

Dated at Washington, D. C., this sixth day of February, 1946.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.