# INTERSTATE COMMERCE COMMISSION WASHINGTON

INVESTIGATION NO. 2820

THE CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC RAILROAD COMPANY

REPORT IN RE ACCIDENT
AT TRIPP, S. DAK., ON
AUGUST 27, 1944

#### SUMMARY

Railroad: Chicago, Milwaukee, St. Paul

and Pacific

Date: August 27, 1944

Location: Tripp, S. Dak.

Kind of accident: Rear-end collision

Trains involved: Freight : Passenger

Train numbers: Extra 526 East : 116

Engine numbers: 526 : 173

Consist: 53 cars, caboose : 4 cars

Estimated speed: Standing : 30 m. p. h.

Operation: Timetable and train orders

'Track: Single; tangent; 0.90 percent

ascending grade eastward

Weather: Clear

Time: 9:28 p. m.

Casualties: 1 killed: 3 injured

Cause: Failure to provide adequate

protection for preceding train

Recommendation: That the Cnicago, Milwaukee, St. Paul

and Pacific Railroad Company establish an adequate block system on the line on which this accident occurred

#### INTERSTATE COMMERCE COMMISSION

#### INVESTIGATION NO. 2820

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

THE CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC RAILROAD COMPANY

September 23, 1944.

Accident at Tripp, S. Dak., on August 27, 1944, caused by failure to provide adequate protection for the preceding train.

# REPORT OF THE COMMISSION

# PATTERSON, Chairman:

On August 27, 1944, there was a rear-end collision between a freight train and a passenger train on the Chicago, Milwaukee, St. Paul and Pacific Railroad at Tripp, S. Dak., which resulted in the death of one person carried under contract, and the injury of two passengers and one employee.

<sup>&</sup>lt;sup>1</sup>Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Chairman Patterson for consideration and disposition.

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## Location of Accident and Method of Operation

This accident occurred on that part of the Iowa and Dakota Division designated as the First Subdivision and extending eastward from Mitchell, S. Dak., to West Yard, near Sioux City, Iowa, 130.9 miles. In the vicinity of the point of accident this was a single-track line over which trains were operated by timetable and train orders. There was no block system in use. At Tripo, 34.2 miles east of Mitchell, a siding 3,568 feet long paralleled the main track on the south. The west switch of the siding was 4,501 feet west of the station. The accident occurred on the main track 900 feet east of the west siding-switch. From the west there were, in succession, a tangent 1.29 miles in length, a 2° curve to the right 1,000 feet and a tangent 710 feet to the point of accident and 1,628 feet beyond. The grade for east-bound trains varied between 0.71 percent and 0.90 percent ascending 5,960 feet to the point of accident, and was 0.90 percent ascending at this point.

#### DEFINITIONS.

\* \* \*

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

\* \* \*

Operating rules read in part as follows:

- 11. A train finding a fusee burning red on or near its track must stop and extinguish the fusee. Train may then proceed at restricted speed.
- 15. The explosion of two torpedoes is a signal to proceed at restricted speed. The explosion of one torpedo will indicate the same as two but the use of two is required.

\* \* \*

35. The following signals will be used by flagmen:

\* \* \*

Night signals--A red light,
Torpedoes and Fusees.

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86. \* \* \*

In non-automatic block signal territory, unless otherwise provided, an inferior train must clear a superior train in the same direction not less than five minutes; but must be clear at the time a first class train in the same direction is due to leave the next station in the rear where time is shown; but not less than five minutes.

- 91. Unless some form of block signals is used, trains in the same direction must keep not less than ten minutes apart, except in closing up at stations.
- 99. When a train stops under circumstances in which it may be overtaken by another train, the flagman must go back immediately with flagman's signals a sufficient distance to insure full protection, placing two torpedoes, and when necessary, in addition, displaying lighted fusees. When recalled and safety to the train will permit, he may return.

\* \* \*

FORMS OF TRAIN ORDERS.

\* \* \*

\* \* \*

В.

Directing a Train to Pass or Run Ahead of Another Train.

\* \* \*

(3.) Extra 95 west run anead of No 3 B until overtaken.

The first-named train will run ahead of the second-named train from the designated point until overtaken, and then arrange for the rear train to pass promptly.

\* \* \*

The maximum authorized speed for passenger trains was 60 miles per hour.

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# Description of Accident

Extra 526 East, an east-bound freight train, consisted of engine 526, 53 cars and a caboose. At Mitchell, the crew received copies of train order No. 222 reading as follows:

Extra 526 East run anead of No 116 Mitchell until overtaken

Extra 526 East departed from Mitchell, the last open office, at 7:40 p. m., and stopped on the main track at Tripp at 8:55 p. m., with the rear end standing 900 feet east of the west siding-switch. About 33 minutes later the rear end was struck by No. 116.

No. 116, an east-bound first-class passenger train, consisted of engine 173, one mail-express car, one baggage car, one coach and one sleeping car, in the order named. All cars were of steel-underframe construction. At Mitchell, the crew received copies of train order No. 222. This train departed from Mitchell at 8:38 p. m., 38 minutes late, and while moving at an estimated speed of 30 miles per hour it struck Extra 526 East.

The caboose of Extra 526 East was demolished, and the rear two cars were derailed and badly damaged. The front end of engine 173 was considerably damaged.

It was clear at the time of the accident, which occurred about 9:28 p. m.

The employee injured was the baggageman of No. 116.

During the 30-day period preceding the day of the accident, the average daily movement in the vicinity of the point of accident was 8.9 trains.

### Discussion

The crews of No. 116 and Extra 526 East held copies of a train order authorizing Extra 526 East to run ahead of No. 116, which was an east-bound first-class train, from Mitchell until overtaken, and the crews of these trains and the crew of Extra 555 West, a west-bound freight train, held copies of a train order which established Tripp as the meeting point between the west-bound train and the two east-bound trains. About 33 minutes after Extra 526 East stopped on the main track between the siding switches at Tripp, the rear end was struck by No. 116.

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As No. 116 was approaching Tripp the speed was about 60 miles per nour. The air brakes had functioned properly at all points where used en route. The headlight was lighted brightly, and the enginemen were maintaining a lookout anead. When the engine reached a point about 1,700 feet west of the point where the accident occurred the engineer made a light service brake-pipe reduction. From this point eastward the view of the track anead was materially restricted because of embankments, vegetation adjacent to the track and track curvature. No warning signal was seen or heard until the engine was in the vicinity of the west siding-switch, then the engineer saw stop signals being given with a lighted red fusee about 300 feet distant and the lighted red markers of the preceding train, and he immediately moved the brake valve to emergency position. The speed of No. 116 was about 30 miles per hour when the collision occurred.

The flagman of Extra 526 said that when his train stopped he immediately proceeded westward to provide flag protection and placed two torpedoes on the south rail about 2,800 feet to the rear of the caboose. Then he returned eastward about 1,250 feet, and, when he saw the reflection of the headlight of an approaching train about 1 mile distant, he lighted a red fusee. He was giving stop signals with the lighted fusee when No. 116 passed him. However, the enginemen of No. 116 were positive that no torpedoes were exploded and that no warning signal was visible from their engine until it reached a point about 800 feet west of the point of accident. The flagman thought the flag protection he furnished was sufficient.

In this territory trains were being operated by timetable and train orders only. The only provisions for spacing following trains was by the time-interval method enforced by operators at open stations, and by fusees dropped by flagmen. The rules required that the following train be spaced at least 10 minutes behind the preceding train. The train order which authorized the preceding inferior train to run ahead of the following first-class train modified the provisions of the rule which requires an inferior train to clear the time of a following first-class train not less than 5 minutes, but it did not restrict the movement of the following train. The preceding train departed from Mitchell, 34.2 miles west of Tripp and the last open office, 58 minutes before the following train departed from Mitchell. Unless adequate flag protection was furnished by the crew of the preceding train, there was no provision that prevented the following train from moving at the maximum authorized speed of 60 miles per hour until it reached a point where speed was required to be reduced in order that it could stop short of the clearance point at the east siding-switch at Tripp to meet the west-bound train.

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The book of operating rules of this carrier contains manual-block rules which provide, among other things, that a following train may be permitted to enter a block occupied by a preceding train, other than a passenger train, under train-order and clearance-form authority indicating that the block is occupied. Under this authority a following train is required to proceed in such manner that it can be stopped short of a preceding train. If these rules had been in effect in the territory involved the crew of the following train would have received definite information that the preceding train was occupying the main track within the same block. However, under an adequate manual block system a passenger train would not be permitted to enter an occupied block, and had such a system been in effect this accident would not have occurred.

#### <u>Cause</u>

It is found that this accident was caused by failure to provide adequate protection for the preceding train.

#### Recommendation

It is recommended that the Chicago, Milwaukee, St. Paul and Pacific Railroad Company establish an adequate block system on the line on which this accident occurred.

Dated at Washington, D. C., this twenty-third day of September, 1944.

By the Commission, Chairman Patterson.

(SEAL)

W. P. BARTEL, Secretary.