

INTERSTATE COMMERCE COMMISSION

WASHINGTON

---

INVESTIGATION NO. 2720

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

REPORT IN RE ACCIDENT

AT MERRIAM PARK, MINN., ON

AUGUST 13, 1943

---

SUMMARY

---

Railroad: Chicago, Milwaukee, St. Paul  
and Pacific

Date: August 13, 1943

Location: Merriam Park, Minn.

Kind of accident: Head-end collision

Trains involved: Freight : Passenger

Train numbers: Extra 663 East : 703

Engine numbers: 663 : 186

Consist: 26 cars, caboose : 2 cars

Estimated speed: Practically : 30 m. p. h.  
stopped

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

Track: Double; tangent; 0.565 percent  
descending grade westward

Weather: Clear

Time: About 12:45 p. m.

Casualties: 6 injured

Cause: Failure of Chicago, Milwaukee,  
St. Paul and Pacific Railroad  
Company to enforce operating  
rules applicable to movement  
of the inferior train

INTERSTATE COMMERCE COMMISSION

---

INVESTIGATION NO. 2720

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

---

November 9, 1943.

---

Accident at Merriam Park, Minn., on August 13, 1943, caused  
by failure of the Chicago, Milwaukee, St. Paul and  
Pacific Railroad Company to enforce operating rules  
applicable to movement of the inferior train.

---

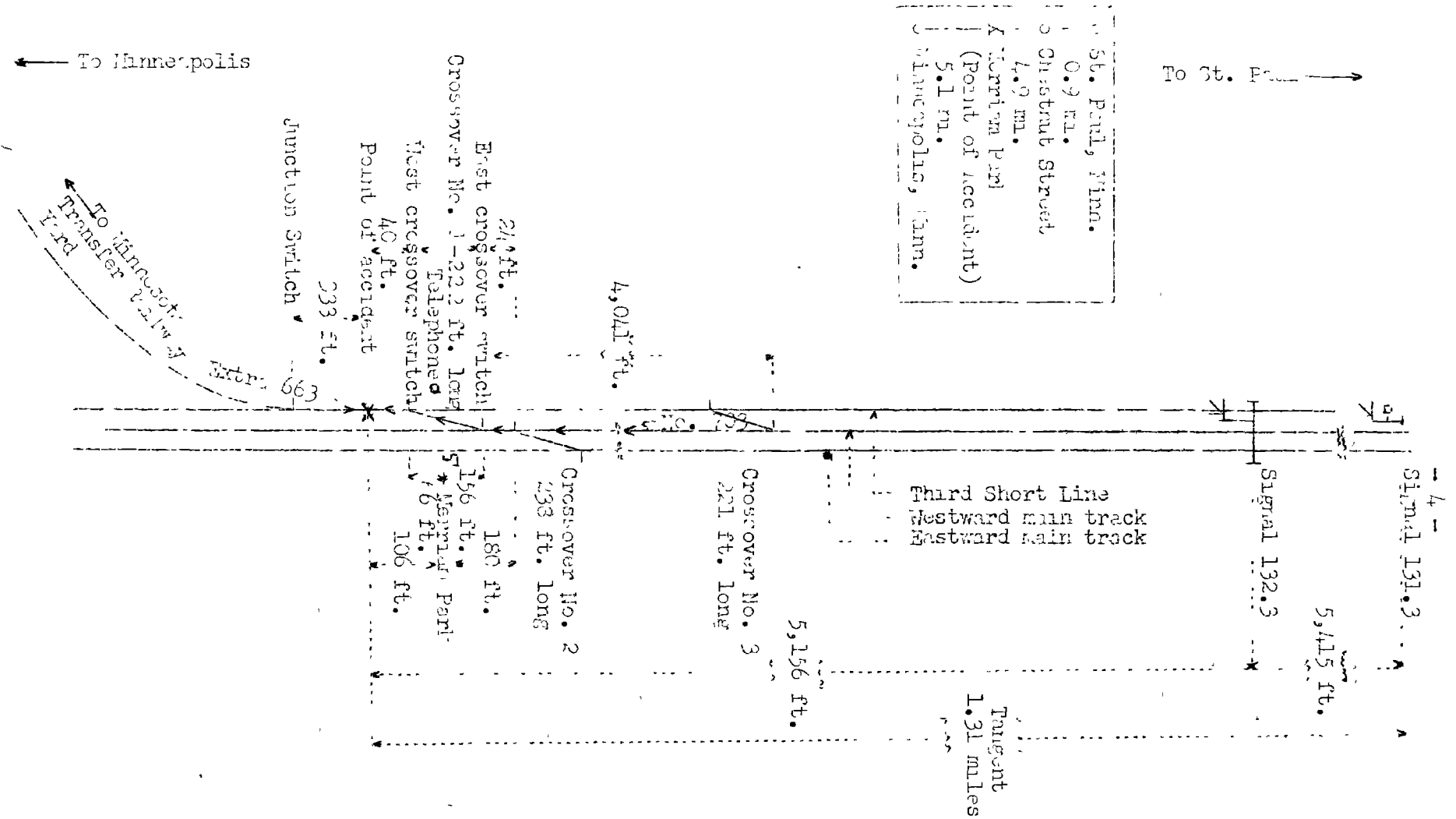
REPORT OF THE COMMISSION<sup>1</sup>

PATTERSON, Commissioner:

On August 13, 1943, there was a head-end collision between a passenger train and a freight train on the Chicago, Milwaukee, St. Paul and Pacific Railroad at Merriam Park, Minn., which resulted in the injury of two passengers, one railway-mail clerk and three train-service employees. This accident was investigated in conjunction with a representative of the Minnesota Railroad and Warehouse Commission.

---

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



Inv-2726  
 Chicago, Milwaukee, St. Paul and Pacific Railroad  
 Merriam Park, Minn.  
 August 13, 1943

Location of Accident and Method of Operation

This accident occurred on that part of the Twin City Terminal Division extending between Chestnut Street, St. Paul, and Minneapolis, Minn., 10 miles. This was a double-track line, within yard limits, over which trains moving with the current of traffic were operated by timetable, train orders and an automatic block-signal system. In the vicinity of Merriam Park, 4.9 miles west of Chestnut Street, an auxiliary track, 2.81 miles long and designated as the Third Short Line, paralleled the westward main track on the north. The accident occurred on the Third Short Line 106 feet west of the station at Merriam Park. The main tracks and the Third Short Line were tangent throughout a distance of 1.31 miles east of Merriam Park and a considerable distance westward. The grade for west-bound trains was 0.565 percent descending 4,586 feet to the point of accident and 1,924 feet beyond.

A line of the Minnesota Transfer Railway extended from the Third Short Line at Merriam Park to Minnesota Transfer. The junction switch was 439 feet west of the station. The east switch of a crossover 222 feet long, hereinafter referred to as crossover No. 1, which connected the westward main track and the Third Short Line, was 156 feet east of the station, and was facing-point for westward movements. The west switch of a trailing-point crossover 238 feet long, hereinafter referred to as crossover No. 2, which connected the eastward and westward main tracks, was 180 feet east of the station. The east switch of a crossover 221 feet long, hereinafter referred to as crossover No. 3, which connected the westward main track and the Third Short Line, was 4,197 feet east of the station and was facing-point for westward movements on the westward main track. The switch stand of the east switch of crossover No. 1 was between the westward main track and the Third Short Line. It was of the hand-throw, low-stand type, and was provided with an oil lamp. When this switch was lined for movement through the crossover a red flared-disk reflector and a red light were displayed. When lined for movement on the westward main track a green light was displayed. The centers of the lenses were 1 foot 3 inches above the ties and 4 feet 3 inches north of the gage side of the north rail of the westward main track. A switch indicator was provided at the west switch of crossover No. 1. There was no train register provided at Merriam Park. A telephone for communication between members of train crews and the operator at Chestnut Street was north of the Third Short Line and opposite the station.

Automatic signals 131.3 and 132.3, which governed west-bound movements on the westward main track, were located, respectively, 10,571 feet and 5,156 feet east of the point of accident. Signal 131.3 was mounted on a mast, and was of the one-arm, three-indication, upper-quadrant, semaphore type. It was provided with a permissive marker. Signal 132.3 was mounted on a signal bridge, and was of the one-arm, three-indication, upper-quadrant, semaphore type. The involved day aspects and corresponding indications and names of these signals were as follows:

	<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
Signal <u>131.3</u>	Horizontal over permissive marker.	Proceed at re- stricted speed without stopping.	Permissive signal.
Signal <u>132.3</u>	Horizontal.	Stop, then proceed at restricted speed.	Stop and pro- ceed signal.
	Vertical.	Proceed.	Clear signal.

The controlling track circuit was so arranged that when any switch of crossovers No. 1, No. 2 and No. 3 was lined for movement through a crossover, signal 131.3 would display proceed-at-restricted-speed-without-stopping, and signal 132.3 would display stop-then-proceed-at-restricted-speed.

DEFINITIONS.

\* \* \*

Train Register.--A book or form which may be used at designated stations for registering \* \* \*, the time of arrival and departure of trains \* \* \*.

\* \* \*

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:

D-33. A train must not leave its initial station on any division, or subdivision, or a junction, until it has been ascertained whether all superior trains due have left.

83 (B). Unless otherwise provided, a train must not leave its initial station on any division, or subdivision, without a clearance.

Operators must not issue a clearance to a train at its initial station or starting point on any subdivision without authority from the dispatcher, except in case of failure of means of communication. In case of failure of means of communication, the clearance will be endorsed, wire failure.

\* \* \*

In starting trains from a point where there is no train register, or when the conductor and engineman are to be relieved of the duty of ascertaining what trains have arrived or left, train order Form V will be used.

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, but not less than five minutes. \* \* \*

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

\* \* \*

#### FORMS OF TRAIN ORDERS.

\* \* \*

#### V.

#### Check of Trains.

This form to be used when it is desired to give a train the information as prescribed by Rule 83(B).

All (superior) (first class) etc. trains due at C at or before 6 50 a m (have passed) (have arrived) (have left); as circumstances may require.

This may be modified by adding "except \_\_\_\_\_".

When the term "superior" is used, it includes trains made superior either by train order or time-table.

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

\* \* \*

(b) On any track signaled for traffic in one direction, at once at restricted speed through the entire block.

509 (C). When a train approaches an automatic block signal equipped with a permissive marker and displaying the Stop-indication, it may pass the signal at restricted speed without stopping.

512. Where switch indicators are used, the indications displayed do not relieve enginemen and trainmen from protecting their train as required by the rules.

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

### Description of Accident

Extra 663 East, an east-bound freight train, consisting of engine 663, headed westward, 26 cars and a caboose, entered the Twin City Terminal Division at the junction switch at Merriam Park. It had moved eastward 333 feet on the Third Short Line and had practically stopped when it was struck by No. 703 about 40 feet west of the west switch of crossover No. 1.

No. 703, a west-bound first-class passenger train, consisted of engine 186, one coach and one mail-express car, in the order named. The cars were of steel construction. After a terminal air-brake test was made this train departed from St. Paul, 5.8 miles east of Merriam Park, at 12:32 p. m., 2 hours 12 minutes late, passed Chestnut Street, 4.9 miles east of Merriam Park and the last open office, at 12:35 p. m., 2 hours 12 minutes late, passed signal 131.3, which displayed proceed-at-restricted-speed-without-stopping, and stopped at signal 132.3, which displayed stop-and-proceed. Soon afterward the indication of signal 132.3 changed to proceed, and No. 703 departed. It moved through crossover No. 1, then entered the Third Short Line and while moving at a speed of about 30 miles per hour collided with Extra 663 East.

The tender of engine 663 and the engine cab were demolished. The front end of engine 186 was badly damaged.

It was clear at the time of the accident, which occurred about 12:45 p. m.

The conductor, the engineer and the fireman of No. 703 were injured.

During the 30-day period preceding the day of the accident, the average daily movement in the vicinity of the point of accident was 93.83 trains.

### Discussion

The rules governing operation on this line provide that a train originating at a station having no train register must not proceed until it has received information by train order concerning overdue superior trains. Within yard limits the main track may be used without protecting against second and inferior class trains, extra trains and engines, but second and inferior class trains, extra trains and engines must clear the time of first-class trains at least 5 minutes.

Extra 663 East entered the Third Short Line at the junction switch at Merriam Park about 12:45 p. m. and had proceeded eastward a distance of 333 feet when it was struck by No. 703, a west-bound first-class train. After No. 703 had passed the last automatic block signal east of the crossover switches, the



switches of crossovers No. 1 and No. 2 were lined for Extra 663 to move from the Third Short Line to the eastward main track. No. 703 was due to pass Merriam Park at 10:35 a. m., but it was 2 hours 10 minutes late on its schedule when the accident occurred, and no train order restricting its authority to proceed had been issued. The first the enginemen of No. 703 knew of anything being wrong was when their engine reached a point about 600 feet east of the east switch of crossover No. 1, when they observed that the switches were lined for movement to the Third Short Line. The engineer immediately moved the brake valve to emergency position but he could not stop the train short of engine 663. The speed of No. 703 was reduced to about 30 miles per hour when the collision occurred.

The conductor of Extra 663 said that he received information at Minnesota Transfer by telephone from the operator at Chestnut Street about 12:20 p. m. that all overdue first-class trains had passed Merriam Park, and that No. 55, a west-bound first-class train, due to pass Merriam Park at 12:41 p. m., was 25 minutes late. At Minnesota Transfer he instructed the members of his crew to arrange for their train to cross over to the eastward main track at Merriam Park after No. 100, an east-bound first-class train due to pass Merriam Park at 12:44 p. m., had passed. The conductor and the flagman were on the caboose when their train arrived at Merriam Park, and their first knowledge of anything being wrong was when the accident occurred. The enginemen and the front brakeman said they thought No. 703 had passed Merriam Park prior to the arrival of their train, because of the instructions they had received from the conductor. The front brakeman observed that the switch indicator at the west switch of crossover No. 1 displayed stop, but he thought the indicator was actuated only by a west-bound freight train which was moving from the westward main track to the Third Short Line at crossover No. 3, and he did not know that No. 703 was approaching. No. 100 passed Merriam Park about 12:44 p. m., and immediately afterward the front brakemen of Extra 663 lined the crossover switches and gave signals for his train to proceed from the Third Short Line to the eastward main track, then he saw No. 703 approaching and the engine of that train passed him and entered the crossover and the Third Short Line before he could take effective action to prevent the accident.

The operator at Chestnut Street said that when the conductor of Extra 663 communicated with him by telephone at Minnesota Transfer he asked only for information regarding No. 55, and that No. 703 was not mentioned.

The investigation disclosed that it had been a long-standing practice for operators in this territory to give information by telephone to members of crews of freight trains

regarding the movement of first-class trains, and this information was considered as authority for inferior trains to enter the main track and to proceed on the time of first-class trains. The book of operating rules of this carrier contains rules that prescribe forms of train orders to be issued by train dispatchers to inform the crews of inferior trains whether overdue superior trains have passed non-train-register stations, and to authorize the use of the main tracks on the time of superior trains. If these rules had been enforced, the conductor of Extra 663 would not have had the misunderstanding about No. 703, and all members would have received definite information by train order that No. 703 had not passed Merriam Park. If it had been intended for Extra 663 to enter the main track at Merriam Park on the time of No. 703, the crew of each train would have received definite information by train order authorizing such movement.

This accident was the direct result of the long-standing practice of permitting oral information to be given to inferior trains relative to the movement of superior trains, instead of issuing train orders as prescribed by the book of operating rules. Operating officials are responsible for such practices. If the rules had been enforced the crew of the inferior train in this case would not have permitted the switches of the cross-overs to be lined for the movement of their train to the main track on the time of the superior train without protection, and the accident would have been averted.

Cause

It is found that this accident was caused by failure of the Chicago, Milwaukee, St. Paul and Pacific Railroad Company to enforce operating rules applicable to movement of the inferior train.

Dated at Washington, D. C., this ninth  
day of November, 1943.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,  
Secretary.