

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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INVESTIGATION NO. 2728  
THE MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE  
RAILWAY COMPANY  
REPORT IN RE ACCIDENT  
AT VALLEY SIDING, WIS., ON  
SEPTEMBER 18, 1943

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SUMMARY

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Railroad: Minneapolis, St. Paul & Sault  
Ste. Marie

Date: September 18, 1943

Location: Valley Siding, Wis.

Kind of accident: Head-end collision

Trains involved: Freight : Passenger

Train numbers: 25 : 2

Engine numbers: 5000 : 2717

Consist: 70 cars, cabooses : 6 cars

Speed: 20 m. p. h. : Practically stopped

Operation: Timetable and train orders, and  
manual-block system for follow-  
ing movements only

Track: Single; 2°04' curve; 0.50 percent  
ascending grade westward

Weather: Clear

Time: 6:18 p. m.

Casualties: 17 injured

Cause: Lap of authority of two opposing trains

Recommendation: That the Minneapolis, St. Paul &  
Sault Ste. Marie Railway Company  
establish an adequate block system  
on the line on which this accident  
occurred

INTERSTATE COMMERCE COMMISSION

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INVESTIGATION NO. 2728

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

THE MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE  
RAILWAY COMPANY

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October 13, 1943.

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Accident at Valley Siding, Wis., on September 18, 1943,  
caused by lap of authority of two opposing trains.

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REPORT OF THE COMMISSION

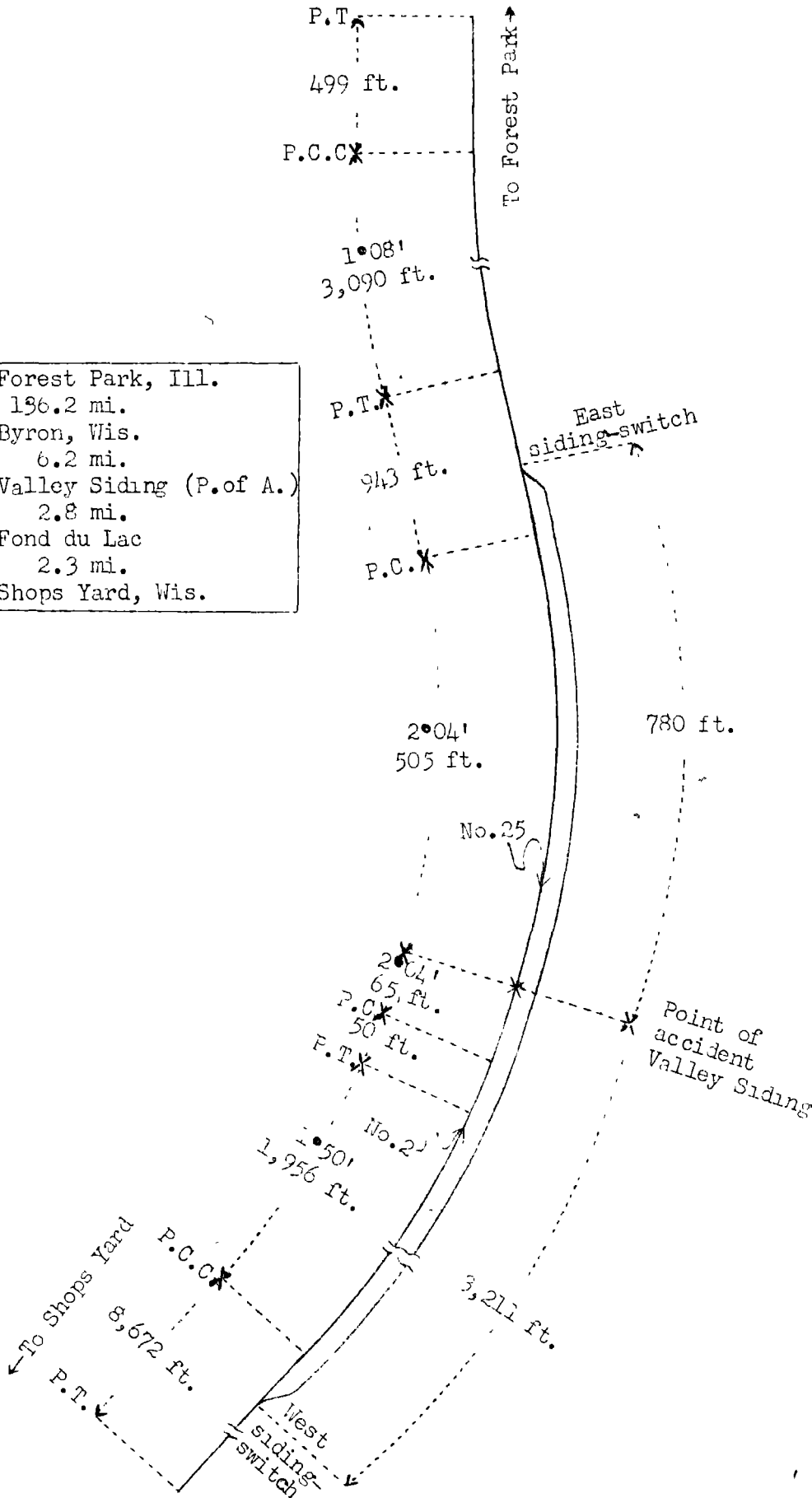
PATTERSON, Commissioner:

On September 18, 1943, there was a head-end collision between a passenger train and a freight train on the Minneapolis, St. Paul & Sault Ste. Marie Railway at Valley Siding, Wis., which resulted in the injury of 8 passengers, 2 railway-mail clerks and 7 employees.

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<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.

- |   |                          |
|---|--------------------------|
| ○ | Forest Park, Ill.        |
|   | 196.2 mi.                |
| ○ | Byron, Wis.              |
|   | 6.2 mi.                  |
| ✕ | Valley Siding (P. of A.) |
|   | 2.8 mi.                  |
| ○ | Fond du Lac              |
|   | 2.3 mi.                  |
| ○ | Shops Yard, Wis.         |



Inv. No. 2728  
 Minneapolis, St. Paul & Sault Ste. Marie Railway  
 Valley Siding, Wis.  
 September 13, 1943

Location of Accident and Method of Operation

This accident occurred on that part of the Stevens Point Division designated as the First Subdivision and extending between Forest Park, Ill., and Snops Yard, Wis., 147.5 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, and a manual-block system for following movements only. At Valley Siding a siding 3,991 feet in length paralleled the main track on the south. The accident occurred on the main track between the switches of this siding. From the east there were, in succession, a tangent 499 feet, a compound curve to the left 3,090 feet, the maximum curvature of which was  $1^{\circ}08'$ , a tangent 943 feet and a  $2^{\circ}04'$  curve to the right 505 feet to the point of accident and 65 feet beyond. From the west there were, in succession, a tangent 8,672 feet, a compound curve to the left 1,956 feet, the maximum curvature of which was  $1^{\circ}50'$ , a tangent 50 feet and the curve on which the accident occurred. At this point the grade for west-bound trains was 0.50 percent ascending.

Operating rules read in part as follows:

72. Trains of the first class are superior to those of the second; trains of the second class are superior to those of the third; and so on.

\* \* \*

202. Each train order must be given in the same words to all employees or trains addressed.

205. Each train order must be written in full in a book provided for the purpose at the office of the chief train dispatcher; and with it recorded the names of those who have signed for the order; the time and the signals which show when and from what offices the order was repeated and the responses transmitted; and the train dispatcher's initials. These records must be made at once and never from memory or memoranda.

206. \* \* \*

When train orders are transmitted by telegraph, the train dispatcher must underscore each word and figure in the body of the order at the time it is repeated. When transmitted by telephone, he must write the order as he transmits it and underscore as prescribed above.

209. Operators receiving train orders must write or typewrite them in manifold during transmission. If the requisite number of copies cannot be made at one writing, they must make others from the original copy and repeat to the train dispatcher from the new copies each time additional copies are made. They must retain a copy of each train order. The time, complete, and the signature of the operator must be in his handwriting.

Each operator receiving the order must check with the other offices to observe if repeated correctly, underscoring each word on his office copy.

210. When a "31" train order has been transmitted, operators must, unless otherwise directed, repeat it at once from the manifold copy in the succession in which the several offices have been addressed, and then write the time of repetition on the order.

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#### FORMS OF TRAIN ORDERS

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#### Superseding an Order or a Part of an Order

This order will be given by adding to prescribed forms the words "instead of \_\_\_\_\_."

(1.) No 2 meet No 1 at C instead of B.

\* \* \*

When a train is directed by train order to take siding for another train, such instructions apply only at the point named in that order, and do not apply to the superseding order unless so specified.

The maximum authorized speed for passenger trains was 65 miles per hour, and for freight trains, 55 miles per hour.

Description of Accident

At Byron, 6.2 miles east of Valley Siding and the last open office, the crew of No. 25, a west-bound third-class freight train, received copies of a clearance card and train order No. 82, Form 19, reading as follows:

No 2 take siding and meet No 25 Eng  
5000 at Valley Siding instead of Byron

No. 25, consisting of engine 5000, 70 cars and a caboose, passed Byron at 6:09 p. m., 2 hours 48 minutes late, and while moving at an estimated speed of 20 miles per hour it collided with No. 2 on the main track 3,211 feet east of the west siding-switch at Valley Siding.

At Fond du Lac, 2.8 miles west of Valley Siding and the last open office, the crew of No. 2, an east-bound first-class passenger train, received copies of a clearance card and, among others, copies of train order No. 82, Form 31, reading as follows:

No 2 meet No 25 Eng 5000 at Valley  
Siding instead of Byron

No. 2 consisted of engine 2717, three express cars, one mail-express car, one passenger-baggage car and one coach, in the order named. The first three cars were of steel-underframe construction and the remainder were of all-steel construction. This train departed from Fond du Lac at 6:06 p. m., 1 hour 1 minute late, and, because the words, "and take siding," had been omitted from train order No. 82, passed the west siding-switch at Valley Siding, where it would have been required to enter the siding if the order had read correctly, and had practically stopped when it was struck by No. 25.

From an engine moving in either direction in the vicinity of Valley Siding, the view of an engine approaching from the opposite direction was restricted to a distance of about 950 feet, because of vegetation adjacent to the track and track curvature.

The force of the impact moved No. 2 backward about 185 feet. The engine, the rear truck of the tender, and the first car were derailed and stopped upright and in line with the track. The engine and the first car were badly damaged. The second to the sixth cars, inclusive, were slightly damaged. Engine 5000 and its tender, remaining coupled, were derailed and stopped, badly damaged, on their right sides, with the

front end of the engine 173 feet west of the point of collision. The first four cars and the tenth car of No. 25 were derailed and damaged.

It was clear at the time of the accident, which occurred about 6:18 p. m.

The engineers and the firemen of both trains, the baggage-men of No. 2 and the front brakeman of No. 25 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 26.96 trains.

### Discussion

The rules governing operation on this line require that train orders must be sent in the same words to all employees or trains to whom the orders are addressed. When the telephone is used for dispatching trains, at the time of transmittal the train dispatcher is required to write train orders in full in a book provided for the purpose. Operators receiving an order must write it during transmission on the prescribed form, and must then repeat it to the dispatcher. The dispatcher must underscore in his train-order book each word and figure as the order is being repeated. Each operator receiving the order must check to observe whether the other operators repeat correctly, and must underscore on the office copy each word and figure as the order is being repeated. The dispatcher and the operators concerned in this investigation understood these requirements.

Train order No. 82 established Valley Siding, a blind siding, as the meeting point between No. 2, an east-bound first-class train, and No. 25, a west-bound third-class train. No. 2 was superior by class. The crew of No. 2 received the order at Fond du Lac, 2.8 miles west of Valley Siding, and the crew of No. 25 received it at Byron, 6.2 miles east of Valley Siding. The copies of the order held by the crew of No. 25 required No. 2 to take siding at the meeting point, but the copies of the order held by the crew of No. 2 did not include the provision for No. 2 to take siding. The discrepancy in the copies of the order held by the crews of these trains resulted in each train being authorized to occupy the main track between the siding switches at the meeting point. No. 2 departed from Fond du Lac at 6:06 p. m., and No. 25 departed from Byron at 6:09 p. m., and these trains collided on the main track between the siding switches at Valley Siding. Because of vegetation adjacent to the track and track curvature in the vicinity, the members of the crews on the engines of each train were unable to see the other train more than a few hundred feet. Action to stop their respective trains was taken by the engineers, but the distance was not sufficient to avert the collision.



The train dispatcher said that train order No. 82 was sent in the same words simultaneously to the operator at Fond du Lac for delivery to No. 2 and to the operator at Byron for delivery to No. 25, and the instruction for No. 2 to take siding at Valley Siding was sent to both operators and repeated by them. There was no interruption during the time the order was being transmitted, and after it was repeated each operator stated to the dispatcher that the other had repeated the order correctly. The operator at Fond du Lac said that he copied the order when it was being sent by the dispatcher and did not recopy it. He said that to the best of his recollection the instruction for No. 2 to take siding was neither transmitted nor repeated. He did not closely observe the operator at Byron repeat the first line in the body of the order and did not ask him to repeat that part of it. The operator at Byron said that he did not observe whether the operator at Fond du Lac repeated the instruction for No. 2 to take siding. Both operators said they did not inform the dispatcher that they had failed to observe whether the order was correctly repeated. If the operator at Fond du Lac had closely checked the repetition of the operator at Byron, he would have discovered that the instruction for No. 2 to take siding was omitted from his copy of the order, and this accident would have been averted.

The manual-block system used on this line applies to following movements only. There is no provision for the blocking of opposing movements. If an adequate block system had been in use in this territory, these opposing trains would not have been permitted to occupy the same block simultaneously, and the accident would not have occurred.

#### Cause

It is found that this accident was caused by lap of authority of two opposing trains.

#### Recommendation

It is recommended that the Minneapolis, St. Paul & Sault Ste. Marie Railway Company establish an adequate block system on the line on which this accident occurred.

Dated at Washington, D. C., this thirteenth day of October, 1943.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,  
Secretary.