

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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INVESTIGATION NO. 2974  
ILLINOIS CENTRAL RAILROAD COMPANY  
REPORT IN RE ACCIDENT  
AT REMSEN, IOWA, ON  
FEBRUARY 15, 1946

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SUMMARY

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Railroad: Illinois Central  
Date: February 15, 1946  
Location: Remsen, Iowa  
Kind of accident: Rear-end collision  
Trains involved: Passenger : Freight  
Train numbers: 15 : Extra 1225 West  
Engine numbers: 1139 : 1225  
Consist: 5 cars : 10 cars, caboose  
Estimated speed: 1 m. p. h. : 30 m. p. h.  
Operation: Timetable and train orders  
Track: Single; tangent; level  
Weather: Clear  
Time: 4:35 p. m.  
Casualties: 16 injured  
Cause: Failure of the railroad to provide adequate safeguards for the movement of trains involved  
Recommendation: That the Illinois Central Railroad Company install an adequate block system on the line on which this accident occurred

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2974

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

ILLINOIS CENTRAL RAILROAD COMPANY

March 15, 1946.

Accident at Remsen, Iowa, on February 15, 1946, caused  
by failure of the railroad to provide adequate  
safeguards for the movement of the trains involved.

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

PATTERSON, Commissioner:

On February 15, 1946, there was a rear-end collision between a passenger train and a freight train on the Illinois Central Railroad at Remsen, Iowa, which resulted in the injury of 12 passengers, 2 railway-mail clerks and 2 train-service employees. This accident was investigated in conjunction with representatives of the Iowa State Commerce Commission.

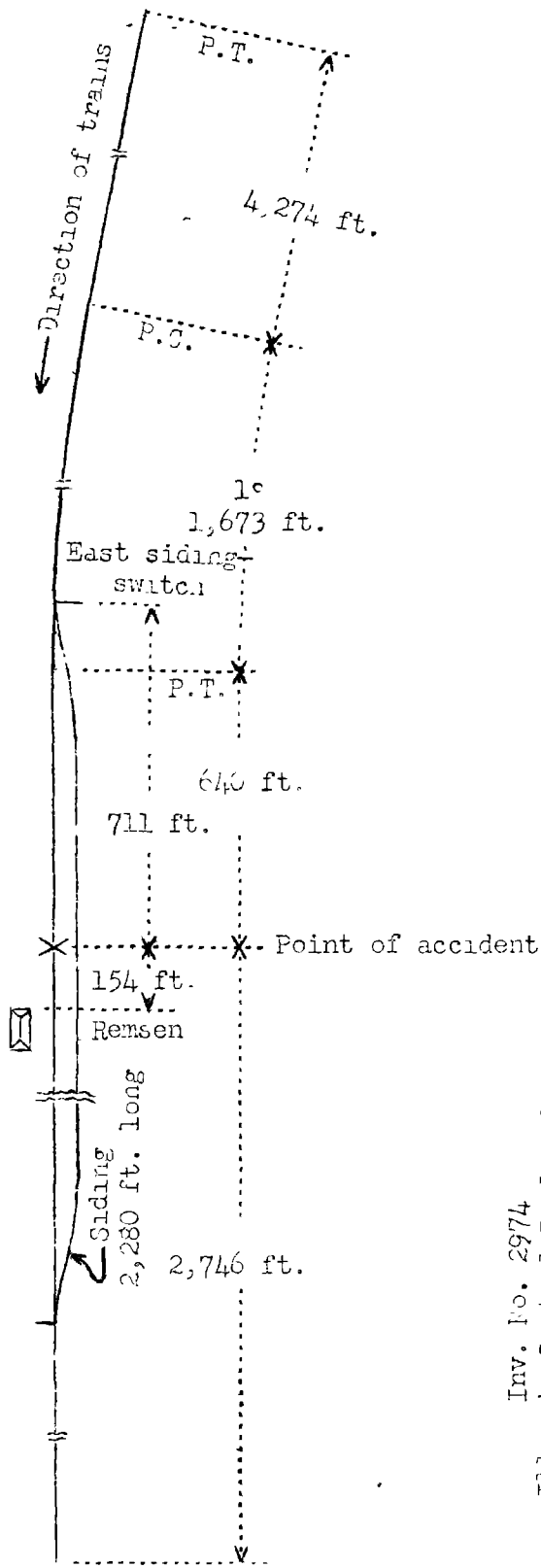
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<sup>1</sup>Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.

→ To Fort Dodge

← To Sioux City

o	Fort Dodge, Iowa	5.9 mi.
o	Tara	69.9 mi.
o	Cherokee	15.1 mi.
o	Marcus	8.5 mi.
X	Remsen (P. of A.)	10.4 mi.
o	Lenars	25.1 mi.
o	Sioux City, Iowa	



Inv. No. 2974  
 Illinois Central Railroad  
 Remsen, Iowa  
 February 15, 1946

Location of Accident and Method of Operation

This accident occurred on the Cherokee District, which extends between Fort Dodge and Sioux City, Iowa, 134.9 miles, a single-track line in the vicinity of the point of accident, over which trains are operated by timetable and train orders. There is no block system in use. At Remsen, 99.4 miles west of Fort Dodge, a siding 2,230 feet in length parallels the main track on the south. The east switch of this siding is 865 feet east of the station. The accident occurred on the main track at a point 711 feet west of the east siding-switch and 154 feet east of the station. From the east there are, in succession, a tangent 4,274 feet in length, a 1° curve to the left 1,673 feet and a tangent 640 feet to the point of accident and 2,746 feet westward. The grade for west-bound trains varies between 0.333 percent and 1.2 percent descending 1.91 miles, then it is, successively, level 300 feet, 0.2 percent descending 500 feet, 0.4 percent descending 500 feet, level 500 feet, 0.5 percent descending 1,200 feet and level 214 feet to the point of accident and 1,036 feet westward.

Operating rules read in part as follows:

DEFINITIONS.

\* \* \*

Reduced Speed.--Proceed prepared to stop short of train or obstruction.

11. A train or engine finding a fusee burning on or near its track must stop. After stopping, the train or engine may proceed at reduced speed.

14. Engine Whistle Signals.

NOTE.--The signals prescribed are illustrated by "o" for short sounds; "\_\_\_" for long sounds.

\* \* \*

Sound.	Indication.
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\* \* \*

(c) ___ o o o	Flagman protect rear of train.
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\* \* \*

91. Unless some form of block system is used, trains in the same direction must keep not less than ten minutes apart, \* \* \*

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 fuses. When recalled, or relieved by another flagman, and safety to the train will permit, he may return.

\* \* \*

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 protection. By night, or by day when the view is obscured, lighted fuses must be thrown off at proper intervals.

\* \* \*

221 (d). Unless some form of block system is used, operators must display fixed signal at "stop" after the rear of a train has passed 300 feet beyond it and permit no train to follow in less than ten minutes, but this in no way relieves train and enginemen from keeping the required distance apart.

#### FORMS OF TRAIN ORDERS.

\* \* \*

#### S-C.

#### Giving Right Over an Opposing Train.

\* \* \*

(2) Extra 37 east has right over No 3 F to A.

The regular train must not go beyond the point last named until the extra train has arrived, unless directed by train order to do so.

These orders give right to the train first named over the other train between the points named. If the trains meet at either of the designated points, the first-named train must take the siding, unless the order otherwise prescribes.

\* \* \*

The maximum authorized speed for the passenger train was 60 miles per hour and for the freight train, 50 miles per hour.

### Description of Accident

No. 15, a west-bound first-class passenger train, consisted of engine 1139, one baggage-express car, two mail cars, one passenger-baggage car and one coach, in the order named. All cars were of steel construction. This train departed from Marcus, 8.5 miles east of Remsen, at 4:19 p. m., 1 hour 25 minutes late, and stopped at Remsen at 4:31 p. m. About 4 minutes later, after this train had moved about 20 feet westward, it was struck by Extra 1225 West.

At Cherokee, 23.6 miles east of Remsen, the crew of Extra 1225 West, a west-bound freight train, received copies of train order No. 107 reading in part as follows:

\* \* \*

Extra 1225 West has right over  
No 662 Engine 1626 Cherokee to Remsen

No. 662, an east-bound second-class train, was due to leave Remsen at 2:15 p. m. Extra 1225 West, consisting of engine 1225, 10 cars and a caboose, departed from the siding at Marcus about 4:24 p. m., passed the east siding-switch at Remsen, where it was required to enter the siding to clear for No. 662, and while moving at an estimated speed of 30 miles per hour it struck No. 15 at a point 711 feet west of the east siding-switch.

The force of the impact moved No. 15 westward about 350 feet. The rear end of the rear car of No. 15 was telescoped about 15 feet by the engine of Extra 1225 West. The equipment of No. 15 and the engine and the first four cars of Extra 1225 were not derailed. The fifth to seventh cars, inclusive, of Extra 1225 were derailed. The rear car of No. 15 and the engine and the derailed cars of Extra 1225 were badly damaged.

The weather was clear at the time of the accident, which occurred about 4:35 p. m.

The conductor and the front brakeman of Extra 1225 West 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 9.2 trains.

Discussion

No. 15 stopped at the station at Remsen at 4:31 p. m. About 4 minutes later, after this train had started and had moved westward about 20 feet, the rear end was struck by Extra 1225 West.

As Extra 1225 West was approaching Remsen the enginemen were maintaining a lookout ahead. The members of the train crew were in the caboose. The crew held copies of a train order which gave Extra 1225 right over No. 632, an overdue east-bound second-class train, from Cherokee to Remsen. Under the rules, Extra 1225 was required to enter the siding at Remsen at the east switch to clear for No. 662. The engineer of Extra 1225 West said that when his train was about 1 mile east of the east siding-switch the speed was about 50 miles per hour, and he made a 6-pound brake-pipe reduction. A further reduction of 8 pounds was made about one-fourth mile westward. Soon afterward, the brake-pipe reduction was increased to 22 pounds. When the engine was a short distance east of the east siding-switch the fireman saw the preceding train and called a warning to the engineer. Then the engineer moved the brake valve to emergency position. The speed of Extra 1225 was about 30 miles per hour when the collision occurred. No flagging signal was seen or heard by the members of the crew of Extra 1225 at any point between Marcus and the point of accident. After the accident there was no condition found that would prevent the proper application of the brakes of this train. The engineer understood that his train was required to enter the siding at Remsen at the east switch to clear for No. 662. He said he underestimated the distance required for stopping from the speed at which his train was moving when the first brake-pipe reduction was made. He was qualified to operate trains over the Cherokee District, but prior to the occurrence of the accident he had made only four trips over the district as an engineer. The flagman and the front brakeman said they were aware that the speed of their train was too high for it to be stopped short of the east siding-switch. They saw the preceding train when their train was in the vicinity of the east siding-switch. Then the flagman opened the conductor's valve on the caboose, but this action was not taken soon enough to avert the accident. The conductor was seriously injured in the accident, and it was not possible to obtain a statement from him during the investigation.

The engineer of No. 15 said that he did not sound the engine-whistle signal for the flagman to provide protection at Remsen, because it was not customary to do so at regular station stops. Immediately prior to the collision the enginemen were on the engine, the conductor was in the vicinity of the front end of the train and the flagman was assisting passengers at the front vestibule of the rear car. These employees said they had observed that Extra 1225 West was on the siding at Marcus



when their train departed from that station. However, they expected Extra 1225 to comply with the 10-minute spacing requirement before it departed from Marcus, and flag protection was not furnished against following trains. The conductor and the flagman said that it is not customary to provide flag protection at regular stops. The flagman is required to assist passengers to alight and to board the train. The first the members of the crew of No. 15 were aware of anything being wrong was when they heard alarm signals sounded on the engine whistle of Extra 1225. Then the engineer of No. 15 started the train forward in an attempt to avert the collision. The flagman understood that, under the rules, lighted fusees were required to be dropped at proper intervals when his train was moving under circumstances in which it might be overtaken by another train. However, because he thought a fusee dropped from a moving train would not remain lighted, no fusee was dropped when the speed of his train was being reduced as it approached Remsen.

In the territory involved trains are operated by timetable and train orders only. The only provision for spacing following trains is by the time-interval method enforced by operators at open stations, by flagmen's signals or by burning fusees dropped by flagmen. No. 15 departed from Marcus, 3.5 miles east of Remsen, at 4:19 p. m. At that time Extra 1225 West was on the siding at Marcus, with the engine in the vicinity of the west switch and west of the train-order signal. The train-order signal displayed proceed when Extra 1225 and No. 15 arrived at Marcus. The operator was required to handle mail and baggage for No. 15, and both trains had departed before he returned to the office to place the train-order signal in stop position in compliance with the 10-minute spacing rule. Under the rules, authority from an operator for trains to enter the main track is not required when the train-order signal displays proceed. The members of the crew of Extra 1225 understood that their train was required to wait at Marcus until an interval of 10 minutes had elapsed after the departure of No. 15. However, their train departed from Marcus about 5 minutes after No. 15 departed from that station. These employees said they did not observe the time by their watches when No. 15 departed from Marcus, and were not aware that their train was proceeding from Marcus before the expiration of the required 10-minute interval.

This carrier has an automatic block-signal system in operation between Fort Dodge and Tara, Iowa, 5.9 miles, and between Lemars and Sioux City, Iowa, 25.1 miles. The accident occurred 94.16 miles west of the west end of the first-mentioned territory and 9.77 miles east of the east end of the latter. This accident probably would have been averted if an automatic block-signal system had been in use in the territory involved. Under an adequate manual-block system no train would be permitted to enter a block occupied by a preceding passenger train, as in the

case hereunder investigation, and had such a system been in effect this accident could have been prevented.

Cause

It is found that this accident was caused by failure of the railroad to provide adequate safeguards for the movement of the trains involved.

Recommendation

It is recommended that the Illinois Central Railroad Company install an adequate block system on the line on which this accident occurred.

Dated at Washington, D. C., this fifteenth day of March, 1946.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,  
Secretary.