

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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REPORT NO. 3496  
CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC  
RAILROAD COMPANY  
IN RE ACCIDENT  
NEAR RAMSDELL, IDAHO, ON  
DECEMBER 15, 1952

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SUMMARY

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Date: December 15, 1952

Railroad: Chicago, Milwaukee, St. Paul and Pacific

Location: Ramsdell, Idaho

Kind of accident: Derailment

Train involved: Passenger

Train number: 15

Engine number: Diesel-electric units 104A and 104B

Consist: 12 cars

Speed: 33 m. p. h.

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

Track: Single; spiral; 0.60 percent ascending grade westward

Weather: Clear

Time: 2:02 a. m.

Casualties: 56 injured

Cause: Broken rail

INTERSTATE COMMERCE COMMISSION

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REPORT NO. 3496

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

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January 19, 1953

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Accident near Ramsdell, Idaho, on December 15, 1952, caused  
by a broken rail.

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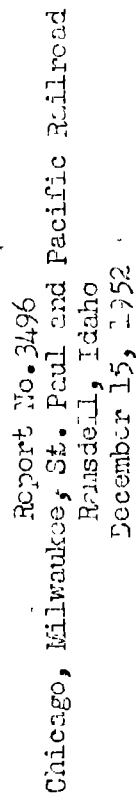
<sup>1</sup>  
REPORT OF THE COMMISSION

PATTERSON, Commissioner:

On December 15, 1952, there was a derailment of a passenger train on the Chicago, Milwaukee, St. Paul and Pacific Railroad near Ramsdell, Idaho, which resulted in the injury of 43 passengers, 7 dining-car employees, 3 lounge-car attendants, 2 coach attendants, and 1 person carried under contract.

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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.



### Location of Accident and Method of Operation

This accident occurred on that part of the Idaho Division extending between Avery, Idaho, and Malden, Wash., 108.8 miles. In the vicinity of the point of accident this is a single-track line, over which trains are operated by timetable, train orders and an automatic block-signal system. The accident occurred on the main track at a point 53.19 miles west of Avery and 1.89 miles west of Ramsdell. From the east there are, in succession, a 10° curve to the right 577 feet in length, a tangent 363 feet, a spiral 200 feet, a 10° curve to the left 446 feet, and a spiral 69 feet to the point of accident and 131 feet westward. The grade is 0.60 percent ascending westward at the point of accident.

In the vicinity of the point of accident the track is laid on a hillside with alternate cuts and fills. At the point of accident the hillside and embankment north of the track descend northward on a slope of about 1-1/2 to 1. The track structure consists of 100-pound rail, 39 feet in length, laid new in 1927 on an average of 24 treated hardwood ties to the rail length. It is fully tieplated with single-shoulder tie-plates, and each rail is single-spiked on the inside and double-spiked on the outside. It is provided with 4-hole 24-inch joint bars and an average of 24 rail anchors per rail. It is ballasted with gravel to a depth of 18 inches below the bottoms of the ties.

Automatic signal 53.9, governing west-bound movements, is located 498 feet east of the point of accident.

The maximum authorized speed for passenger trains in the vicinity of the point of accident is 30 miles per hour.

### Description of Accident

No. 15, a west-bound first-class passenger train, consisted of Diesel-electric units 104A and 104B, coupled in multiple-unit control, two mail cars, one baggage car, three coaches, one lounge car, one dining car, and four sleeping cars, in the order named. The first two cars were of conventional all-steel construction, and the other cars were of lightweight steel construction. The third to the twelfth cars, inclusive, were equipped with tightlock couplers. This train departed from Avery at 12:25 a. m., 1 hour 50 minutes late, passed St. Maries, 7.79 miles east of the point of accident and the last open

office, at 1:45 a. m., 1 hour 47 minutes late, and while moving at a speed of 33 miles per hour the first seven cars and the front truck of the eighth car were derailed at a point 1.89 miles west of Ramsdell.

The locomotive and the first two cars stopped with the front of the locomotive 665 feet west of the point of derailment. The first two cars stopped approximately in line with the track. Each of them leaned to the north at an angle of about 45 degrees. The coupler shanks at the rear of the second car and at the rear of the fifth car were twisted off, and separations occurred between the second and third cars and between the fifth and sixth cars. The third, fourth, and fifth cars stopped on their right sides. The front end of the third car was 60 feet north of the track and opposite the rear end of the second car, and the rear end of the fifth car was 86.5 feet north of the track. The sixth car stopped upright, with the front end near the rear end of the fifth car and the rear end several feet north of the track. The seventh and eighth cars stopped upright and approximately in line with the track. The first, second, and seventh cars were somewhat damaged, the third and sixth cars were considerably damaged, and the fourth and fifth cars were badly damaged.

The weather was clear at the time of the accident, which occurred about 2:02 a. m.

#### Discussion

As No. 15 was approaching the point where the accident occurred the speed was 33 miles per hour, as indicated by the tape of the speed recording device. The headlight was lighted brightly. The enginemen were maintaining a lookout from the control compartment at the front of the first Diesel-electric unit. The members of the train crew were in various locations throughout the cars of the train. Signal 53.9 indicated Proceed. The members of the crew said that before the derailment occurred the locomotive and the cars were riding smoothly and there was no indication of defective track or equipment nor of an obstruction having been on the track. The enginemen noticed nothing unusual when the locomotive passed the point at which the cars were derailed. They were not aware that anything was wrong until the brakes became applied in emergency as a result of the derailment. At the same time, the fireman observed sparks flying from underneath the train.

Examination of the locomotive and the cars after the accident occurred disclosed no condition which could have caused or contributed to the cause of the derailment.

After the accident occurred a broken rail was found in the north side of the track. This rail was manufactured by the Inland Steel Company in December, 1926. It bore heat number 18-19593B. Examination of the rail disclosed that prior to the time of the accident a fracture had existed through the base and web at a point 25.2 feet west of the receiving end of the rail. The appearance of the metal indicated that the fracture was of recent origin. The head of the rail was split throughout a distance of 7 feet immediately west of this point. This fracture had existed prior to the time of the accident. However, it did not reach the top surface of the head. There was a new break through the head directly above the fracture through the base and web. Throughout a distance of 6.1 feet west of this point the rail was broken into many pieces. With the exception of the fracture through the base and web and the vertical split through the head, all of the breaks appeared to be new. The east end of the piece of rail west of the most easterly break was battered. Apparently the first break through the head occurred at this point. After the rail was broken the wheels of the locomotive of No. 15 evidently struck the broken end with sufficient force to cause a second break, and a broken piece of rail then was dislodged either by the rear wheels of the locomotive or by the wheels of the first car.

A rail-defect detector car was last operated over this territory on September 25, 1952. No defective condition of the rail was indicated. The track in this vicinity was inspected by a patrolman on a track motor-car on the day before the accident occurred. No defective condition was observed. The fractures which existed prior to the time that the rail was broken through the head would not ordinarily be detected by visual inspection from a track motor-car.

#### Cause

It is found that this accident was caused by a broken rail.

Dated at Washington, D. C., this nineteenth day of January, 1953.

By the Commission, Commissioner Patterson.

(SEAL)

GEORGE W. LAIRD,

Acting Secretary.