RAILROAD ACCIDENT INVESTIGATION

Report No 3813

CHICAGO, MILWAUKEE, ST PAUL AND PACIFIC RAILROAD COMPANY

ELKHART LAKE, WIS

JULY 5, 1958

INTERSTATE COMMERCE COMMISSION

Washington

SUMMARY

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July 5, 1958 DATE Chicago, Milwaukee, St. Paul and Pacific RAILROAD Elkhart Lake, Wis LOCATION KIND OF ACCIDENT Head-end collision Passenger Freight TRAINS INVOLVED Extra 40A East TRAIN NUMBERS Diesel-electric units 40A, LOCOMOTIVE NUMBERS Diesel-electric unit 2427 40B, 40C, and 40D 75 cars, caboose CONSISTS 8 cars 12 m p h **ESTIMATED SPEEDS** Standing Timetable, train orders, and manual block system **OPERATION** Single, tangent, level **TRACK** Clear WEATHER TIME 10 40 p m **CASUALTIES** 21 injured

Failure to obey meet order

CAUSE

INTERSTATE COMMERCE COMMISSION

REPORT NO 3813

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

November 4, 1958

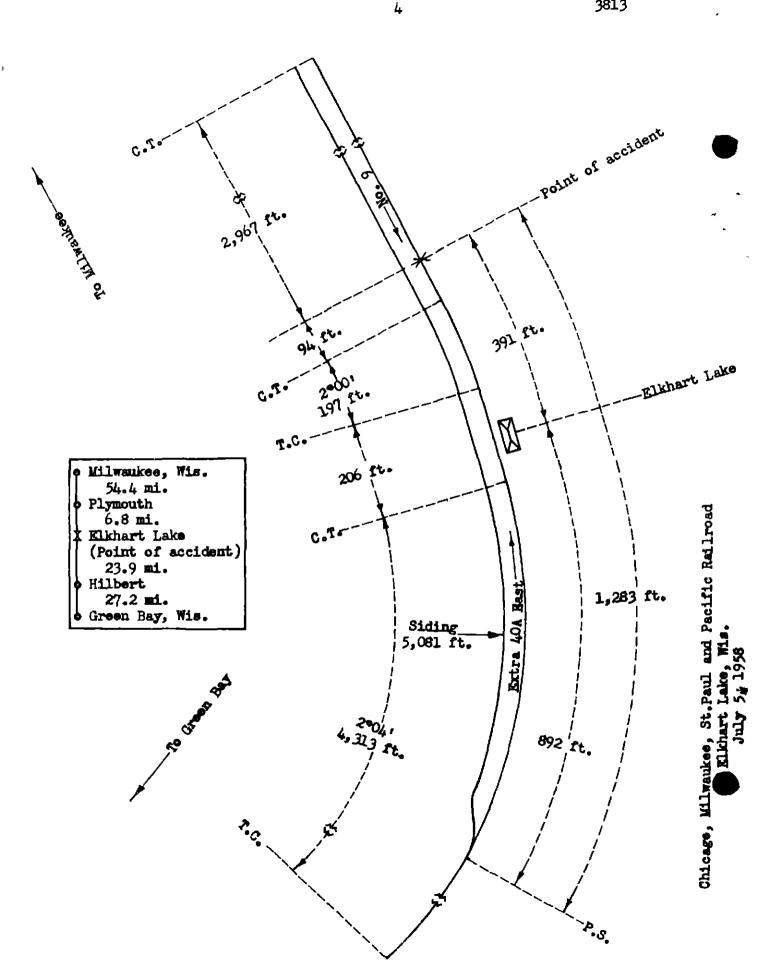
Accident at Elkhart Lake, Wis, on July 5, 1958, caused by failure to obey a meet order

REPORT OF THE COMMISSION

TUGGLE, Commissioner

On July 5, 1958, there was a head-end collision between a passenger train and a freight train on the Chicago, Milwaukee, St. Paul and Pacific Railroad at Elkhart Lake, Wis , which resulted in the injury of 19 passengers and 2 train-service employees

Under authority of section i=2) of the Interm site Commerce $A_i(t)$ the above—utitle i proceeding was terred by the Commit stone of the Committee Fuggle for consideration and a sposition.



Location of Accident and Method of Operation

This accident occurred on that part of the Milwaukee Division extending between Milwaukee and Green Bay, Wis , 112.3 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 a manual block system. At Elkhart Lake, 61.2 miles west of Milwaukee, a signing 5,081 feet in length parallels the main track on the north. The west switch of the siding is located 892 feet west of the station. The accident occurred on the main track at a point 1,283 feet east of the west siding switch and 391 feet east of the station. From the west there are, in succession, a $2^{\circ}04'$ curve to the left 4,313 feet in length, a tangent 206 feet, a 2° curve to the left 197 feet, and a tangent 94 feet to point of accident. From the east there is a tangent 2,967 feet in length to the point of accident. The grade from the west is, successively, 0.33 percent ascending for 1,818 feet, and level 81 feet to point of accident and 419 feet eastward

The switch stand at the west switch of the siding is of the horizontal-throw intermediate-stand type. It is located 9 feet north of the centerline of the main track. It is equipped with a 15-inch by 30-inch target with alternate red and white stripes, and with an oil-burning lamp. The centers of the lamp lenses are located 6 feet 6 inches above the top of the rails. When the switch is lined in normal position for povenents on the nain track, the target is parallel to the main track and the lamp displays a green aspect. When the switch is lined for entry to the siding, the target is at right angles to the main track and the lamp displays a red aspect.

This carrier's operating rules read in part as follows

73 Extra trains are inferior to regular trains

S-89 At meeting points, the inferior train must take the siding * * *

The inferior train must pull into the siding when practicable * * *

э-89 (A) * * *

At train order meeting points, the train holding the main track must stop clear of the switch used by the train to be met in going on siding unless the train to be met is clear of the main track and switch is properly lined

FORMS OF TRAIN ORDERS

S-A

FIXING MEETING POINTS FOR OPPOSING TRAINS

(1) ***

No 5 meet Extra 95 east at B

* * *

Trains receiving these orders will run with respect to each other to the designated points and there meet in the manner prescribed by the rules

365 (A) Trains must not go to a closed block station or a siding between two open block stations to meet a train or trains without a train order, and in addition will receive Clearance Form A at the nearest open block station reading, "Block clear except Stop-indication or 19 order indication is displayed for to meet as per order No."

- 854 Trainmen on duty, * * * They will τ * * keep in mind all train orders * * * affecting the movement of trains so as to be prepared to call attention to or take necessary action in the event of any oversight or mistake
- 932 While engine is moving, the fireman must * * * keep in mind all train orders * * * affecting the movement of trains so as to be prepared to call attention to, or take necessary action in the event of any oversight or mistake

The maximum authorized speed in the vicinity of the point of accident for the trains involved was 40 miles per hour

Description of Accident

No 9, a westbound first-class passenger train, consisted of diesel-electric unit 2427, 2 baggage cars, 2 coaches, 1 sleeping car, and 3 refrigerator cars, in the order named. The 1st and and 2nd cars were of conventional all-steel construction. The 3rd to 5th cars, inclusive, were of lightweight construction and were equipped with tightlock couplers. The 6th to 8th cars, inclusive, were of steel-underframe construction. This train departed from Milwaukee at 8.50 p.m., on time, where the crew received copies of train order No 261 which read as follows.

No 9 meet Extra 40A East at Flkhart Lake

The train departed from Plymouth, the last open office, $54.4~\mathrm{m}$ iles west of Milwaukee, at $10.30~\mathrm{p}$ m , $20~\mathrm{m}$ inutes late, where the crew received copies of a Clearance Form A which read as follows

Block clear except Extra 40A Fast 19 order indication is displayed for No. 9 to meet Extra 40A East per order No. 261

This train stopped on the main track at a point 1,283 feet east of the west siding-switch at Elkhart Lake and 391 feet east of the station, and immediately thereafter the locomotive was struck by Extra 40A East. The force of the impact moved No. 9 eastward 40 feet.

Extra 40A East, an eastbound freight train, consisted of diesel-electric units 40A, 40B, 40C, and 40D, coupled in multiple-unit control, 75 cars, and a caboose. This train departed from Green Bay at 9 00 p. m., where the crew received copies of train order No. 261, departed from Hilbert, 27.2 miles east of Green Bay, the last open office, at 10 00 p. m., where the crew received copies of Clearance Form A which read as follows.

Block clear except No 9 19 order indication is displayed for Extra 40A East to meet No 9 as per order No 261

This train passed the west switch of the siding at Elkhart Lake, passed the station, and while moving on the main track at an estimated speed of 12 miles per hour it struck No 9

The locomotive of Extra 40A East stopped with the front end 40 feet east of the point of collision. The rear truck of the lst diesel-electric unit, all trucks of the 2nd, 3rd, and 4th diesel-

electric units, and the front truck of the 1st car were derailed. The derailed equipment stopped upright on the track structure in line with the main track. None of the equipment of No. 9 was derailed. The locomotive, the 1st, 3rd, and 4th cars of No. 9 were slightly damaged. The dieselelectric units of Extra 40A East were slightly damaged.

The engineer and the conductor of No 9 were injured

The weather was clear at the time of the accident, which occurred at $10~40~\mathrm{p}$ m

Discussion

Train order No 261 established Elkhart Lake as the meeting point for No 9 and Extra 40A East. Under the provisions of this order Extra 40A East, the inferior train, was required to enter the Elkhart Lake siding at the west switch of the siding and clear the main track for No 9. The latter train was authorized to move westward on the main track to a point clear of the fouling point of the west siding-switch at Elkhart Lake, where it was required to remain until Extra 40A East entered the siding and cleared the main track. The crews of both trains had received copies of a Clearance Form A that authorized the trains to enter the block between Hilbert and Plymouth, and to meet at Elkhart Lake as prescribed by train order No. 261

As No 9 was approaching the point where the accident occurred the enginemen were in the control compartment of the locomotive. The fireman, a qualified engineer, was operating the locomotive. The members of the train crew were at various locations in the cars of the train. The brakes had been tested and had functioned properly when used en route. The headlight was lighted brightly. The speed of the train was about 25 miles per hour as it approached Elkhart Lake and the fireman made an application of the brakes in preparation for a stop at the station. When the locomotive was about 500 feet east of the station, the engineer saw the beam of the headlight of Extra 40A East on the curve west of the station. Due to curvature of the track, he could not determine at this time whether the opposing train was moving on the main track or the siding. As Extra 40A East approached on the curve, the engineer saw that it was moving on the main track and called a warning to the firen an, who immediately applied the brakes. No 9 stopped with the front end of the locomotive about 390 feet east of the station and 1,283 feet east of the west siding-switch. The fireman alighted immediately. The engineer then went to the controls of the locomotive and attempted to move the train eastward, but the collision occurred before the reverse movement could be made.

As Extra 40A East was approaching the point where the accident occurred the enginemen and the front brakerian were in the control compartment at the front of the locomotive. The conductor and the flagman were in the caboose. The brakes had been tested and had functioned properly when used en route. The headlight was lighted. When the crew received copies of train order No. 261 at Green Bay, the engineer discussed the requirements of the order with the fireman and the front brakeman. The engineer and the front brakeman said they understood that the order required the train to enter the siding at highest Lake at the west switch of the siding. The enginemen and the front brakeman said that they understood the contents of the copy of Clearance Form A received at Hilbert. The engineer said that the speed of the train was about 35 miles per hour as it approached a point about 1 mile west of the west siding-switch at Elknart Lake, and that the speed was reduced to about 20 or 25 miles per hour as the locomotive passed the west siding-switch and as the train continued to move eastward on the main track. He said that he did not stop the train at the west switch of Elkhart

Lake siding because he had overlooked the fact that train order No 261 required Extra 40A East to take siding for the meet with No 9 The fireman said although he understood Extra 40A East was to meet No 9 at Elkhart Lake, he did not understand that Extra 40A East was required to take siding. The front brakeman said that as the train was approaching the west siding-switch he did not remind the engineer that the train was to take siding because he thought the engineer was preparing to stop short of the switch when he reduced the speed of the train. The members of the crew on the locomotive said that as the locomotive moved eastward from the west switch of the siding and proceeded on the curve west of the point of accident, they first saw the headlight of No 9 at a distance of approximately 550 feet. The engineer said that he immediately made an emergency application of the brakes, and estimated that the speed of the train was reduced to about 12 miles per hour when the The conductor and the flagman said that when the brakes became applied in emergency, they did not know that the locomotive had passed the west switch of the Elkhart Lake siding

Cause

This accident was caused by failure to obey a meet order

Dated at Washington, D. C., this fourth day of November, 1958

By the Commission, Commissioner Tuggle

HAROLD D McCOY,

Secretary

(SEAL)