

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 2905
THE MICHIGAN CENTRAL RAILROAD COMPANY
REPORT IN RE ACCIDENT
AT EATON RAPIDS, MICH., ON
JUNE 30, 1945

SUMMARY

Railroad: Michigan Central
Date: June 30, 1945
Location: Eaton Rapids, Mich.
Kind of accident: Head-end collision
Trains involved: Passenger : Freight
Train numbers: 101 : Extra 2038 East
Engine numbers: 4707 : 2038
Consist: 8 cars : 48 cars, caboose
Estimated speed: Standing : 40 m. p. h.
Operation: Timetable, train orders and
manual-block system
Track: Single; 2° curve; 0.32 percent
ascending grade eastward
Weather: Clear
Time: 3:30 a. m.
Casualties: 2 killed; 61 injured
Cause: Failure to obey meet order

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2905

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

THE MICHIGAN CENTRAL RAILROAD COMPANY

August 6, 1945.

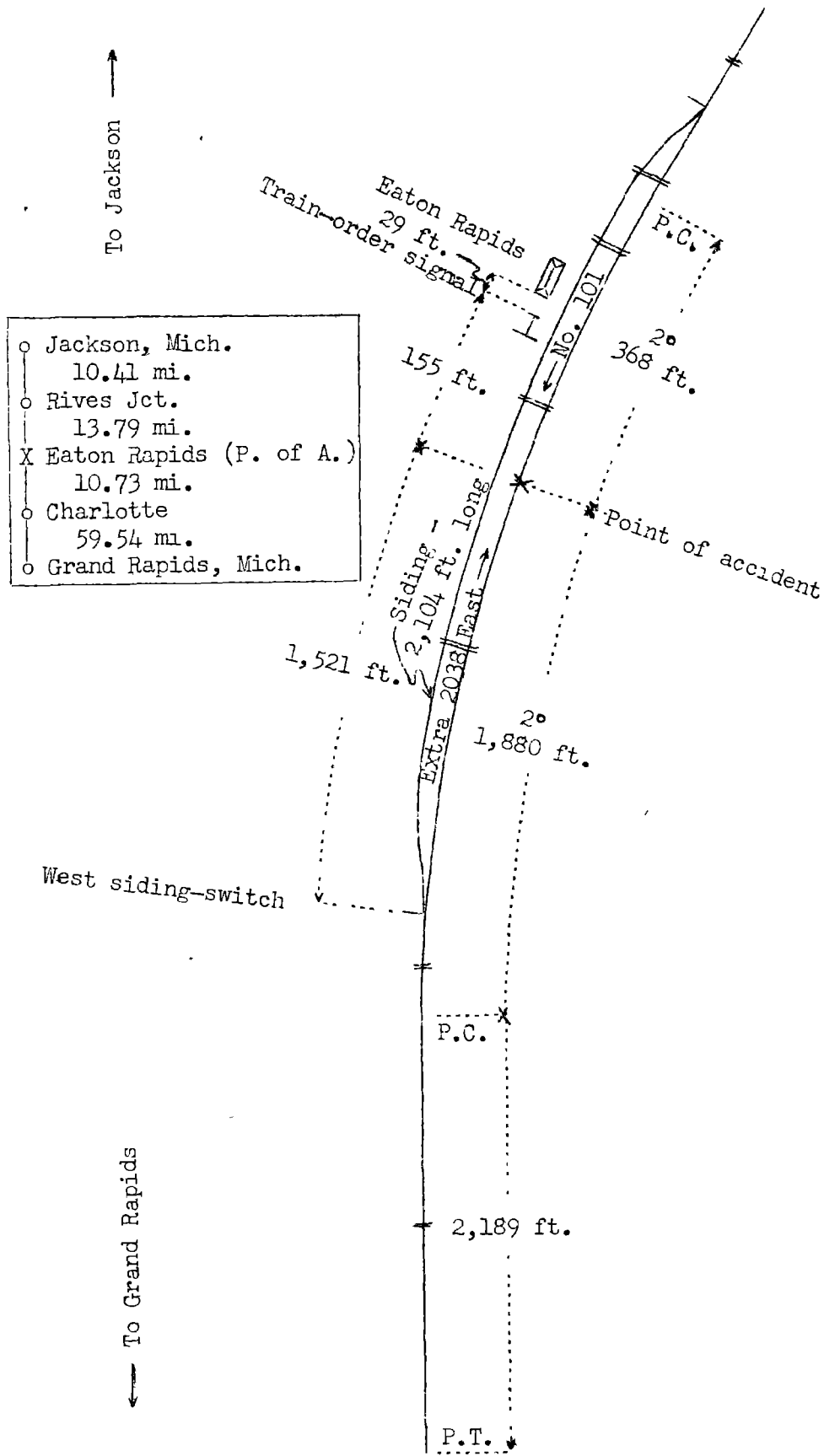
Accident at Eaton Rapids, Mich., on June 30, 1945, caused
by failure to obey a meet order.

1
REPORT OF THE COMMISSION

PATTERSON, Commissioner:

On June 30, 1945, there was a head-end collision between a passenger train and a freight train on the Michigan Central Railroad at Eaton Rapids, Mich., which resulted in the death of 2 train-service employees, and the injury of 54 passengers, 4 railway-mail clerks and 3 train-service employees. This accident was investigated in conjunction with a representative of the Michigan Public Service Commission.

¹Under 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.



- | | | |
|---|-------------------------|-----------|
| o | Jackson, Mich. | 10.41 mi. |
| o | Rives Jct. | 13.79 mi. |
| X | Eaton Rapids (P. of A.) | 10.73 mi. |
| o | Charlotte | 59.54 mi. |
| o | Grand Rapids, Mich. | |

Inv. No. 2905
 Michigan Central Railroad
 Eaton Rapids, Mich.
 June 30, 1945

Location of Accident and Method of Operation

This accident occurred on that part of the Michigan Division extending westward from Jackson to Grand Rapids, Mich., 94.47 miles, a single-track line in the vicinity of the point of accident over which trains are operated by timetable, train orders and a manual-block system. At Eaton Rapids, 24.2 miles west of Jackson, a siding 2,104 feet long parallels the main track on the north. The west switch of this siding is 1,705 feet west of the station. The accident occurred on the main track 1,521 feet east of the west siding-switch. From the west there is a tangent 2,189 feet in length, which is followed by a 2° curve to the right 1,880 feet to the point of accident and 368 feet eastward. The grade for east-bound trains is, successively, 0.22 percent descending 400 feet, 0.02 percent ascending 1,000 feet, 0.02 percent descending 700 feet, 0.34 percent ascending 1,500 feet and 0.32 percent ascending 657 feet to the point of accident and 343 feet eastward.

The manual block involved extended between Eaton Rapids and Charlotte, 10.73 miles west of Eaton Rapids. The fixed signal at Eaton Rapids, which is used both as a train-order and a manual-block signal, is of the semaphore type, and is electrically lighted. It is mounted on a mast located on the north side of the track 29 feet west of the west end of the station. The involved night aspect and corresponding indication of this signal are as follows:

<u>Aspect</u>	<u>Indication</u>
Red	Stop

Operating rules read in part as follows:

14. Engine Whistle Signals.

Note.--The signals prescribed are illustrated by "o" for short sounds; "___" for longer sounds.
* * *

Sound.	Indication.
* * *	
S(n) ___ ___ o	Approaching meeting or waiting points. See Rule S-90.
* * *	

73. Extra trains are inferior to regular trains.

S-89. At meeting points * * * the inferior train must take the siding * * *, and must pull into the siding when practicable. * * *

S-90. * * *

The engineman of each train will give signal 14S (n) at least one mile before reaching a meeting or waiting point. If the engineman fails to sound such whistle signal, the fireman must communicate with him at once and if necessary stop the train.

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.

Clearance Form A reads in part as follows:

CLEARANCE FORM A

.....M.19.....

To Conductor and Engineman..at.....

* * *

Block.....

.....Operator.

* * *

MANUAL BLOCK SYSTEM RULES

317-B. * * *

A train must not be admitted to a block which is occupied by an opposing train or by a passenger train, * * *

* * *

362. Trains must not pass a Stop-indication without receiving Clearance Form A, * * * or a train order authorizing them to do so, except that:

(a) When making a station stop, the head end of a passenger train may pass signal * * * not more than 300 feet if track is seen or known to be clear and the engine will not foul switch to be used by opposing trains.

* * *

The maximum authorized speed for the freight train involved was 40 miles per hour.

Description of Accident

No. 101, a west-bound first-class passenger train, consisted of engine 4707, one express car, two mail cars, one baggage car, one passenger-baggage car, one cafe-coach, one coach and one Pullman sleeping car, in the order named. All cars were of steel construction. At Rives Jct., 13.79 miles east of Eaton Rapids and the last open office east of Eaton Rapids, the crew of this train received copies of train order No. 303, reading in part as follows:

No 101 Eng 4707 meet extra 2038
east at Eaton Rapids * * *

No. 101 departed from Rives Jct. at 3:04 a. m., 9 minutes late, and stopped on the main track at Eaton Rapids at 3:22 a. m., with the engine standing 1,521 feet east of the west siding-switch and 155 feet west of the manual-block signal, which displayed stop. About 8 minutes later the engine was struck by Extra 2038 East.

Extra 2038 East, an east-bound freight train, consisted of engine 2038, 48 cars and a caboose. At Charlotte, the last open office west of Eaton Rapids, the crew of this train received copies of train order No. 303, and manual-block authority on Form A that permitted their train to proceed to Eaton Rapids as though a clear block-signal indication was displayed. This train departed from Charlotte at 3:15 a. m., passed the west siding-switch at Eaton Rapids, where it was required to enter the siding to meet No. 101, and while moving at an estimated speed of 40 miles per hour it struck No. 101 at a point 1,521 feet east of the switch.

The force of the impact moved No. 101 eastward about 50 feet. The engine and tender were derailed, but remained upright and in line with the track. The engine of Extra 2038 was derailed and leaned to the left at an angle of about 45 degrees, but remained practically in line with the track. The first seven cars of Extra 2038 were derailed and stopped at various angles at the rear of engine 2038. Both engines and the first seven cars of Extra 2038 were badly damaged.

The weather was clear at the time of the accident, which occurred about 3:30 a. m.

The engineer and the front brakeman of Extra 2038 were killed. The conductor and the fireman of No. 101, and the fireman of Extra 2038 were injured.

Discussion

The crew of each train and the operator at Eaton Rapids held copies of train order No. 303, which established Eaton Rapids as the meeting point between No. 101 and Extra 2038 East. Under the rules, Extra 2038 East was required to enter the siding at Eaton Rapids at the west switch, which was 1,676 feet west of the manual-block signal, and to remain clear of the main track until No. 101 had been met and manual-block authority to re-enter the main track had been received.

The manual-block signal at Eaton Rapids was displaying stop in each direction as the trains involved were approaching that station. The front portion of No. 101 entered the block to the west of Eaton Rapids, and the train stopped with the front of the engine 155 feet west of the signal. This movement was made for the purpose of doing work at the station, and was permissible under the rules of the carrier. Soon after No. 101 stopped, the engineer dimmed the headlight. The first the members of the crew of No. 101 knew that Extra 2038 East had failed to enter the siding was when they saw the reflection of the headlight of that train approaching about 500 feet distant.

As Extra 2038 was approaching Eaton Rapids, the speed was about 45 miles per hour, the headlight was dimmed, the throttle was open and the reverse gear was in position for about 30 percent cut-off in forward motion. The rules required that the meeting-point whistle signal be sounded 1 mile in advance of the meeting point, but the fireman said this signal was not sounded. He took no action to stop the train because he was not fully familiar with the physical characteristics of the territory involved. He said that when the engine was about 1,200 feet west of the west siding-switch he warned the engineer about the meeting point with No. 101, and that the engineer immediately made a brake-pipe reduction and then placed the

brake valve in emergency position. However, Extra 2038 passed the west siding-switch and struck No. 101 about 1,520 feet beyond the switch. The fireman estimated the speed as about 15 miles per hour at the time of the accident. However, the engineer of No. 101 said that Extra 2038 was moving at a speed of about 40 miles per hour and that the engine was working steam when the accident occurred. From the resultant damage, it appears that the speed was considerably higher than 15 miles per hour.

The brakes had been tested and functioned properly en route. The engineer and the front brakeman were killed in the accident, and therefore it could not be determined why they did not take necessary action to comply with the provisions of the meet order, which had been delivered to the crew about 15 minutes before the accident occurred. The fireman said that the order was read aloud by the three members of the crew on the engine, and that they understood their train was to enter the siding at Eaton Rapids to meet No. 101.

The conductor and the flagman of Extra 2038 were in the caboose as their train was approaching Eaton Rapids. They had a proper understanding of the order. They failed to note that the meeting-point signal had not been sounded, because of difficulty in hearing engine-whistle signals. They thought the speed of their train was being properly controlled, and, because of darkness, were not aware the train was proceeding on the main track east of the west siding-switch. After the accident, their caboose was about 600 feet west of the west siding-switch.

Cause

It is found that this accident was caused by failure to obey a meet order.

Dated at Washington, D. C., this sixth day of August, 1945.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.