

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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REPORT NO. 3487  
DULUTH, SOUTH SHORE & ATLANTIC  
RAILROAD COMPANY  
IN RE ACCIDENT  
NEAR ONOTA, MICH., ON  
OCTOBER 3, 1952

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SUMMARY

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Date: October 3, 1952

Railroad: Duluth, South Shore & Atlantic

Location: Onota, Mich.

Kind of accident: Head-end collision

Equipment involved: Track motor-car : Locomotive  
and trailer

Train number: : Extra 203 West

Engine number: : Diesel-electric  
unit 203

Estimated speeds: 12 m. p. h. : 15 m. p. h.

Operation: Timetable and train orders

Track: Single; 2°30' curve; 0.50 percent  
ascending grade westward

Weather: Clear

Time: 7:45 a. m.

Casualties: 1 killed; 5 injured

Cause: Failure to provide adequate protection  
for movement of track motor-car

Recommendation: That the Duluth, South Shore &  
Atlantic Railroad Company provide  
adequate protection for movement of  
track motor-cars on its line

INTERSTATE COMMERCE COMMISSION

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REPORT NO. 3487

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

DULUTH, SOUTH SHORE & ATLANTIC RAILROAD COMPANY

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November 19, 1952

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Accident near Onota, Mich., on October 3, 1952, caused  
by failure to provide adequate protection for the  
movement of a track motor-car.

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

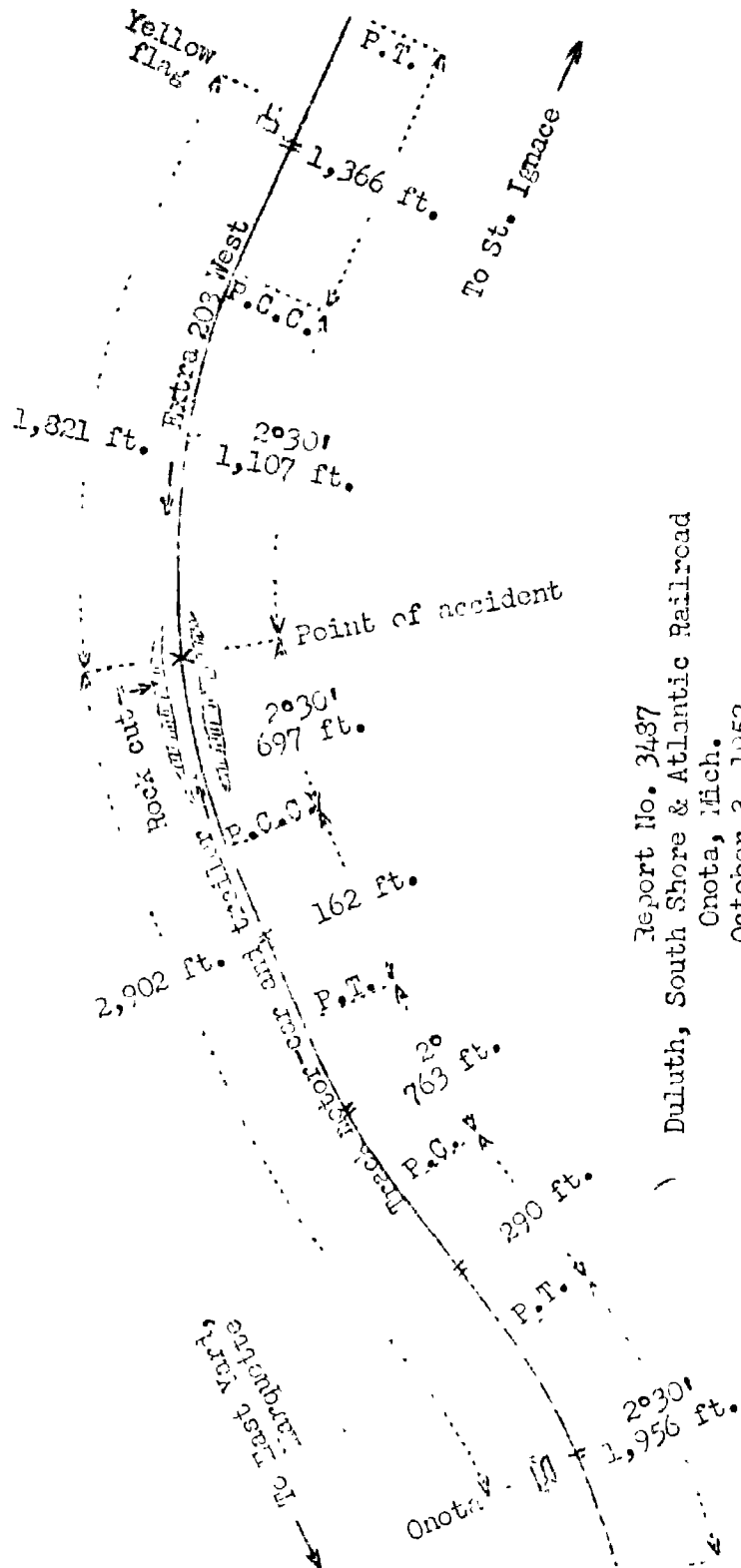
PATTERSON, Commissioner:

On October 3, 1952, there was a head-end collision between a track motor-car and trailer, coupled, and a locomotive on the Duluth, South Shore & Atlantic Railroad near Onota, Mich., which resulted in the death of one maintenance-of-way employee, and the injury of five maintenance-of-way employees. This accident was investigated in conjunction with a representative of the Michigan Public Service 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.

- o St. Ignace, Mich.  
| 100.80 mi.
- o Shingleton  
| (M. & L.S. connection)  
| 12.10 mi.
- o Munising Jct.  
| (L.S. & I. connection)  
| 8.30 mi.
- o Au Train  
| 7.99 mi.
- ^ Point of accident  
| 0.55 mi.
- o Onota  
| 20.96 mi.
- o East Yard  
| (L.S. & I. connection)  
| 0.80 mi.
- o Marquette, Mich.



Report No. 3487  
Duluth, South Shore & Atlantic Railroad  
Onota, Mich.  
October 3, 1952

Location of Accident and Method of Operation

This accident occurred on that part of the railroad extending between St. Ignace and East Yard, Marquette, Mich., 150.7 miles, a single-track line, over which trains are operated by timetable and train orders. There is no block system in use. The accident occurred on the main track at a point 129.19 miles west of St. Ignace and 2,902 feet east of Onota. From the west there are, in succession, a  $2^{\circ}30'$  curve to the left 1,956 feet in length, a tangent 290 feet, a  $2^{\circ}$  curve to the right 763 feet, a tangent 162 feet and a compound curve to the right, having a maximum curvature of  $2^{\circ}30'$ , 697 feet to the point of accident and 1,107 feet eastward. From the east there are, in succession, a tangent 1,366 feet in length and the curve on which the accident occurred. In the immediate vicinity of the point of accident the track is laid in a rock cut. The west and the east ends of this cut are, respectively, 452 feet and 48 feet from the point of accident. The south wall of the cut rises to a maximum height of about 15 feet above the level of the tops of the rails. At the point of accident the grade is 0.50 percent ascending westward.

This carrier's operating rules read in part as follows:

14. ENGINE WHISTLE SIGNALS.

\* \* \*

The signals prescribed are illustrated by "o" for short sounds; "—" for longer sounds. \* \* \*

\* \* \*

Sound.

Indication.

\* \* \*

(1) — — o —

Approaching \* \* \* obscured curves; also as frequently as necessary when moving in \* \* \* obscured places to warn trackmen and others.

\* \* \*

Rules and instructions for maintenance-of-way employees read in part as follows:

108 (M) OPERATION OF MOTOR, HAND, PUSH CARS, AND VELOCIPEDES \* \* \*

Foremen and other track car operators using line-ups, must insist upon receiving the information in writing on Form 530, "Train Location Report." They must read the line-up aloud to the other occupants of the track car in use. \* \* \*

Information on Form 530 should include regular trains, as to whether they are late or on time, including sections, and for extra trains an approximate time at a key station. \* \* \*

Safety rules for maintenance-of-way employees read in part as follows:

126. Employees operating track cars shall, when practicable, obtain information in writing regarding trains, but such information shall not relieve them of the responsibility of protecting the cars. They must see that the cars are clear of the track for trains.

The person receiving the information must repeat it to the one from whom it is received and must read it aloud to all persons on the car.

129. Before track cars are used, an inspection must be made to insure that the running gear, wheels, brakes, etc., are in good operating condition \* \* \* After the car is started, the brakes must be tested to insure that they are in working condition. \* \* \*

137. When running on a curve \* \* \* track cars must be properly protected by flag, unless the section of track is controlled by signals and the operator has agreed to protect your movement, or unless the view of the track is so clear that a train or track car can be seen in time to clear the track.

The maximum authorized speed for the locomotive involved is 35 miles per hour. In the vicinity of the point of accident, it was restricted by train order to 25 miles per hour. The maximum authorized speed for track motor-cars with trailers is 15 miles per hour.

#### Description of Accident

A track motor-car, occupied by a section foreman, a track motor-car operator and four sectionmen, departed west-bound from Au Train, 121.2 miles west of St. Ignace, about 7 a. m. Track motor-cars of this carrier are not identified by number. This track motor-car proceeded westward, passed Onota, 3.54 miles west of Au Train, and stopped near a point where a maintenance force was performing service, about 1 mile west of Onota. It was then coupled to a trailer, which had been placed on the track by the maintenance force. Then the motor-car, pulling the trailer, returned to Onota, where the track motor-car was uncoupled, removed from the rails and turned before it was replaced on the rails and recoupled to the trailer. The track motor-car, pulling the trailer, then departed east-bound from Onota. About 7:45 a. m., while moving at an estimated speed of 12 miles per hour, the track motor-car and trailer collided with Extra 203 West at a point about 2,902 feet east of Onota.

Extra 203 West, a west-bound locomotive, consisted of Diesel-electric unit 203, a road-switcher type, without cars. This train departed from Munising Jct., 16.29 miles east of the point of accident, about 7:10 a. m., and while moving at an estimated speed of 15 miles per hour it collided with the track motor-car and trailer.

The track motor-car and trailer were moved westward by the impact, and were derailed. They stopped upright and in line with the track, with the front wheels of the track motor-car elevated and on the foot board of the locomotive. The track motor-car was somewhat damaged and the trailer was slightly damaged. Extra 203 West stopped with the front end of the locomotive 171 feet west of the point of accident. The front of the locomotive was slightly damaged.

The track motor-car operator was killed. The section foreman and four sectionmen were injured.

The weather was clear at the time of the accident, which occurred about 7:45 a. m.

The track motor-car was of the four-wheel type. It was powered with a 13-horsepower gasoline motor and was equipped with four-wheel brakes. It weighed 1,067 pounds and had seating capacity for eight persons. It was equipped with a windshield. The trailer was of the four-wheel type.

During the 30-day period preceding the day of the accident, the average daily movement in the vicinity of the point of accident was 7.5 trains.

### Discussion

The rules of this carrier provide that employees operating track motor-cars shall, when practicable, obtain a line-up in writing of train movements in their territory. The line-up must be read aloud to other occupants of the track motor-car. Track motor-cars are required to clear the track for trains. An inspection must be made of a track motor-car before it is used to insure that it is in good operating condition. When a track motor-car is moving on a curve, flag protection must be provided unless the movement is protected by signals and arrangement has been made with an operator to protect the movement or the track can be seen to be clear a sufficient distance so that the motor-car may clear the track, if conditions require, for a train or another track motor-car.

On the day of the accident the members of the section force at Au Train reported for duty at 7 a. m. Their work assignment for the day included moving four rails from Au Train to a point in the vicinity of Munising Jct., where a washout had occurred. Because it would be necessary to obtain a trailer for this purpose from the maintenance force which was working at a point about 1 mile west of Onota, the track motor-car, occupied by the section foreman, a track motor-car operator and four sectionmen, departed west-bound from Au Train about 7 a. m. The section foreman had communicated by telephone with the train dispatcher and had obtained a line-up about 6:50 a. m. The line-up contained the information that No. 21, a west-bound second-class freight train due to leave Au Train at 5:50 a. m., was annulled and that Extra 203 West would depart from Munising Jct. about 8 a. m. The section foreman had read the line-up aloud to the members of his force who were present when he received it. He said that the track motor-car was not inspected before beginning work on that day, but that the brakes were tested after the departure from Au Train and they functioned properly. The track motor-car proceeded westward, passed Onota and stopped about 1 mile west of that point.

The track motor-car was coupled to a trailer and pulled it to Onota. At Onota the trailer was uncoupled and the track motor-car was removed from the rails and turned so the windshield at the forward end would be in the direction of movement. It was then replaced on the rails and recoupled to the trailer. The section foreman, the track motor-car operator and the four sectionmen again boarded the track motor-car and it departed east-bound from Onota, pulling the trailer. The section foreman said that the motor had been shut off while the track motor-car was being turned and that he had not heard any engine whistle signals sounded during that operation. He said that because the line-up indicated that Extra 203 West would leave Munising Jct. at approximately 8 a. m., there was sufficient time to return to Au Train with the track motor-car and trailer or to reach some point on tangent track where the view was clear a sufficient distance to permit the removal of the equipment, if necessary to clear the track for an approaching train. As the track motor-car was approaching the point where the accident occurred the speed was about 15 miles per hour. Because of track curvature and vegetation in the vicinity of the south wall of the cut the view by the occupants of the track motor-car of the track ahead was restricted to a distance of about 156 feet. The section foreman first observed the approaching locomotive and called a warning. The collision occurred before the track motor-car could be stopped.

Because of a washout which had occurred at a point 0.7 mile east of Munising Jct. 16 days previously, east-bound traffic on the D.S.S. & A., between East Yard, Marquette, and St. Ignace, was detoured in part over the lines of adjacent connecting carriers. Helper territory for east-bound trains of the D.S.S. & A. line extends between East Yard, Marquette, and Shingleton, a distance of 49.9 miles. While repairs were being made at the point where the washout occurred, east-bound trains which consisted of more than 55 cars were detoured over the Lake Superior and Ishpeming Railroad between East Yard, Marquette, and Doty, 54.16 miles, and over the Manistique and Lake Superior Railroad between Doty and Shingleton. On the day of the accident, Diesel-electric locomotive 203, assigned to helper service, assisted an east-bound extra freight train from East Yard to Doty over the L.S. & I. line. Before departing from East Yard, members of the crew received instructions to assist the east-bound train to Doty and to return via the L.S. & I. to the D.S.S. & A. line at Munising Jct. In addition, they received train order authority for engine 203 to run extra Munising Jct. to East Yard. The east-bound extra train departed from East Yard at 1:40 a. m. On arrival of the train at Doty, the helper locomotive was detached and it proceeded, without cars, to

Munising Jct. The conductor said that because train order authority for the return movement to East Yard had been issued, it was not necessary to communicate with the train dispatcher. The helper locomotive departed from Munising Jct. as Extra 203 West about 7:10 a. m.

As Extra 203 West was approaching the point where the accident occurred the enginemen and the conductor were maintaining a lookout ahead. Two L.S. & I. employees, deadheading home after piloting the movement over that line, were seated in the rear of the cab. The headlight was lighted. The brakes of this locomotive had been tested and had functioned properly when used en route. The crew had received no information that the track motor-car was occupying the main track. In the vicinity of a yellow flag displayed on the north side of the track, 1,821 feet east of the point of accident, the engineer sounded two short blasts on the pneumatic horn of the locomotive. He said that he previously had closed the throttle and that the speed was reduced to about 20 miles per hour. Before the locomotive entered the curve on which the accident occurred he sounded the prescribed warning signal on the pneumatic horn. The fireman and the conductor said that they called a warning when they observed the track motor-car approaching. The engineer immediately made an emergency application of the brakes but the collision occurred before the locomotive could be stopped. Because of track curvature and the hood of the locomotive, the engineer was unable to see the track motor-car before the accident occurred. Members of the crew estimated that the speed was reduced to about 15 miles per hour at the point of collision.

The train dispatcher said that soon after he went on duty on the day of the accident he had issued train orders and instructions which were delivered to the crew of helper locomotive 203 at East Yard. He said that at the time these were issued he was engaged in various duties of his regular work and the additional duties imposed by the detour movements. Because it was the usual practice for helper locomotives to assist east-bound trains from East Yard to Shingleton, he later thought that such instructions had been issued to the crew of helper locomotive 203. When the section foreman at Au Train requested a line-up the train dispatcher overlooked the fact that instructions had been issued to the crew of helper locomotive 203 to proceed only to Doty and that train order authority authorized its movement westward from Munising Jct. He estimated the approximate leaving time as though the helper locomotive had proceeded through to Shingleton and informed the section foreman that

Extra 203 West would depart from Munising Jet. at approximately 8 a. m. There is no train-order office at Munising Jet., and he was not aware until after the accident occurred that Extra 203 West departed from that station about 7:10 a. m.

According to the rules of this carrier, a line-up does not relieve a track motor-car operator of the responsibility of protecting the car and of providing flag protection when a track motor-car is moving on curves. Trains are not restricted by the issuance of a line-up, and train crews and the operators of other track motor-cars are not informed when a track motor-car is occupying the main track. In the instant case an erroneous departing time for the train was given in the line-up issued to the section foreman. Since the train was not restricted, it departed 50 minutes in advance of the time given in the line-up.

Since January 1, 1944, the Commission has investigated 40 collisions, including the present case, which were caused by failure to provide adequate protection for the movement of track motor-cars. These accidents resulted in the death of 71 persons and the injury of 126 persons. In the reports covering the investigations of these accidents, the Commission repeatedly has recommended that the carrier involved should take measures to provide adequate protection for the movement of track motor-cars on its line.

#### Cause

It is found that this accident was caused by failure to provide adequate protection for the movement of a track motor-car.

#### Recommendation

It is recommended that the Duluth, South Shore & Atlantic Railroad Company provide adequate protection for the movement of track motor-cars on its line.

Dated at Washington, D. C., this nineteenth day of November, 1952.

By the Commission, Commissioner Patterson.

(SEAL)

GEORGE W. LAILD

Acting Secretary.