

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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INVESTIGATION NO. 2990  
GULF, MOBILE AND OHIO RAILROAD COMPANY  
REPORT IN RE ACCIDENT  
NEAR CARROLL, TENN., ON  
MAY 2, 1946

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SUMMARY

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Railroad: Gulf, Mobile and Ohio  
Date: May 2, 1946  
Location: Carroll, Tenn.  
Kind of accident: Rear-end collision  
Trains involved: Freight : Freight  
Train numbers: Extra 476 South : 33  
Engine numbers: 476 : 478-451  
Consists: 69 cars, caboose : 45 cars, 2  
caboose  
Estimated speeds: 15 m. p. h. : 25 m. p. h.  
Operation: Timetable and train orders  
Track: Single; 2° curve; 0.64 percent  
ascending grade southward  
Weather: Slight fog  
Time: 4:12 a. m.  
Casualties: 4 injured  
Cause: Failure to provide adequate  
protection for preceding train  
Recommendation: That the Gulf, Mobile and Ohio  
Railroad Company install an  
adequate block system

INTERSTATE COMMERCE COMMISSION

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INVESTIGATION NO. 2990

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

GULF, MOBILE AND OHIO RAILROAD COMPANY

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June 14, 1946.

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Accident near Carroll, Tenn., on May 2, 1946, caused by  
failure to provide adequate protection for the pre-  
ceding train.

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

PATTERSON, Commissioner:

On May 2, 1946, there was a rear-end collision between  
two freight trains on the Gulf, Mobile and Ohio Railroad  
near Carroll, Tenn., which resulted in the injury of four  
train-service employees.

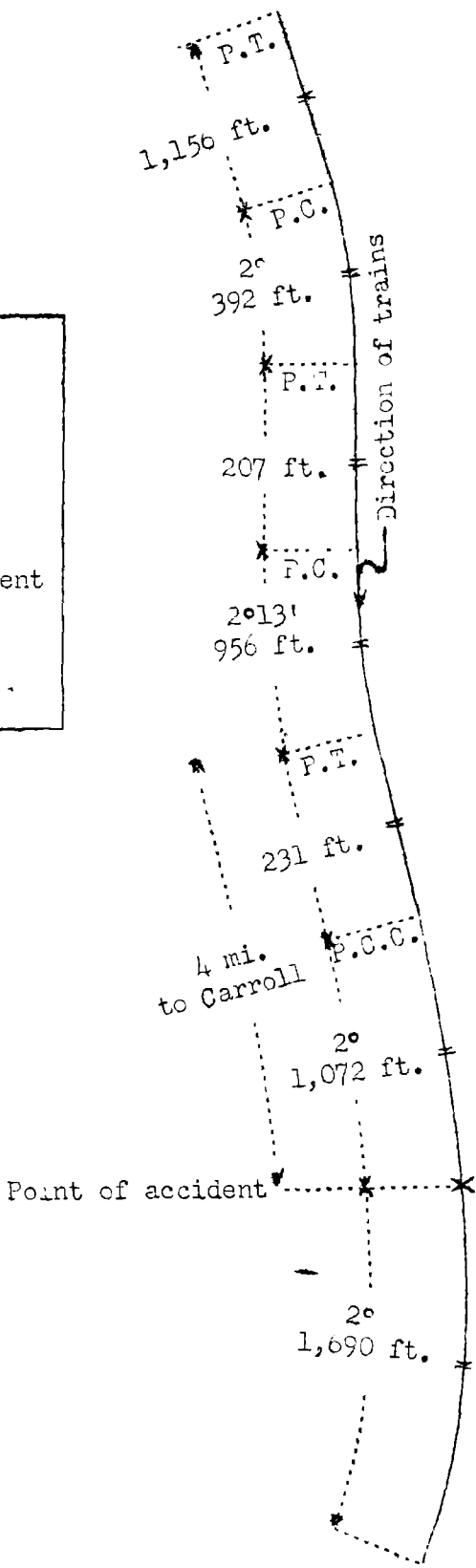
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<sup>1</sup>Under authority of section 17 (2) of the Interstate Com-  
merce Act the above-entitled proceeding was referred by the  
Commission to Commissioner Patterson for consideration and  
disposition.

o	Tamms, Ill.	91.32 mi.
o	Dyer, Tenn.	17.94 mi.
o	Humboldt	9.71 mi.
o	Carroll	4.00 mi.
X	Point of accident	3.44 mi.
o	Jackson	1.80 mi.
o	Iselin, Tenn.	

To Tamms

To Iselin



Inv. No. 2990  
 Gulf, Mobile and Ohio Railroad  
 Carroll, Tenn.  
 May 2, 1946

Location of Accident and Method of Operation

This accident occurred on that part of the Northern Division extending between Tamms, Ill., and Iselin, Tenn., 128.21 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. The accident occurred on the main track 4 miles south of the station at Carroll. From the north there are, in succession, a tangent 1,156 feet in length, a 2° curve to the right 392 feet, a tangent 207 feet, a 2°13' curve to the left 956 feet, a tangent 231 feet, and a compound curve to the right, the maximum curvature of which is 2°, 1,072 feet to the point of accident and 1,690 feet southward. The grade for south-bound trains varies between 0.3362 and 0.6727 percent ascending 1.5 miles to the point of accident, where it is 0.64 percent.

Operating rules read in part as follows:

DEFINITIONS.

\* \* \*

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

11. A fusee burning red on or near the track of an approaching train must be extinguished. The train may then proceed at reduced speed, prepared to stop short of train or obstruction.

19. The following signals will be displayed to the rear of every train, as markers, to indicate the rear of the train:

\* \* \*

\* \* \* by Night \* \* \* Lights \* \* \* as markers, showing \* \* \* red to the rear. \* \* \*

35. The following signals will be used by flagmen:

\* \* \*

Night Signals (A red light,  
(A white light,  
(Torpedoes and  
(Fusees.

85. \* \* \* extra trains may pass or run ahead of second and third class trains and extra trains.  
\* \* \*

\* \* \*

91. Unless some form of block system is used, trains in the same direction must keep not less than ten minutes apart, except in closing up at stations.

99. \* \* \*

\* \* \*

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 fusees must be thrown off at proper intervals, but must not be placed on trestles.

\* \* \*

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

#### Description of Accident

Extra 476 South, a south-bound freight train, consisting of engine 476, 69 cars and a caboose, departed from Humboldt, the last open office, 13.71 miles north of the point of accident, at 3:35 a. m., and while moving at an estimated speed of 15 miles per hour on an ascending grade south of Carroll its rear end was struck by No. 33.

No. 33, a south-bound second-class freight train, consisting of engines 476 and 451, 45 cars and 2 cabooses, departed from Humboldt at 3:48 a. m., 5 hours 21 minutes late, passed a lighted red fusee, and while moving at an estimated speed of 25 miles per hour it collided with the rear end of Extra 476 at a point 1,100 feet south of the fusee.

The caboose of Extra 476 was demolished. The rear two cars were overturned down an embankment to the west, and were badly damaged. The first engine of No. 33 was derailed and stopped in reverse direction, about 125 feet south of the point of collision, west of the track, practically parallel to it, and leaned to the west at an angle of 45 degrees. The tender was torn loose and stopped east of the track and practically opposite its engine. The second engine was derailed but remained practically upright and in line with the roadbed. Both engines were badly damaged.

There was a slight fog at the time of the accident, which occurred about 4:12 a. m.

Both engineers, the fireman of the first engine, and the front brakeman of No. 33 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 16.97 trains.

### Discussion

Extra 476 South was moving at a speed of about 15 miles per hour on an ascending grade, in territory where the maximum authorized speed for freight trains was 40 miles per hour, when its rear end was struck by No. 33, a second-class train, at a point about 4 miles south of Carroll.

Under the rules, extra trains may run ahead of second-class trains. 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. During the night, lighted fuses must be thrown off at proper intervals. A fusee burning red on the main track or near it requires a train to stop, and the fusee must be extinguished. Then the train may proceed but it must be so operated that it can be stopped short of a preceding train or an construction.

As No. 33 was approaching the point of accident the speed was about 40 miles per hour, the headlight of the first engine was lighted brightly, and the enginemen of both engines were maintaining a lookout ahead. The throttle of the first engine was in drifting position and the throttle of the second engine was about one-half open. The brakes were in the charge of the engineer of the first engine, and had functioned properly at all points where used en route. No train order restricting the authority of this train to proceed at maximum authorized speed had been received. Because of numerous curves, hillside cuts and a slight fog, the view ahead was materially restricted. The first that the employees of this train were aware of anything being wrong was when the firemen of the first engine warned the engineer that a lighted fusee was on the track about 1,000 feet ahead of the engine. At that time the engineer closed the throttle, placed the brake valve in service position and sounded the engine-whistle signal for the engineer of the second engine to close the throttle. When the engine passed over the lighted fusee the engineer saw, simultaneously, the lighted markers of Extra 476 and a lighted fusee which was being displayed from the rear of the caboose, about 600 feet distant, and moved the brake valve to emergency position in an attempt to avert the accident. The speed of No. 33 was about 25 miles per hour at the time of collision.

The weight of the train of Extra 476 was 89 percent of the maximum tonnage for one engine of the class which was hauling Extra 476, and the weight of the train of No. 33 was 96 percent of the maximum tonnage for one engine of the class of the two engines which were hauling No. 33. Because of the ascending grade, the speed of Extra 476 was reduced to about 15 miles per hour. Since two engines were hauling No. 33 the speed of that train was not reduced on the ascending grade below the maximum authorized speed of 40 miles per hour. Under these conditions, Extra 476 was proceeding under circumstances in which it might be overtaken by another train. This train had moved at less than normal speed throughout a distance of several miles immediately north of the point of accident, and flag protection was required. The conductor and the flagman of Extra 476 said that

when their train stopped at Dyer, 31.65 miles north of the point of accident, No. 33 stopped at the rear of their train. However, after Extra 476 departed from Dyer, these employees did not see No. 33 until a short interval before the accident. As Extra 476 was approaching the point of accident, the flagman was in the cupola maintaining a lookout and the conductor was engaged in clerical duties in the body of the caboose. The flagman said that he dropped a lighted 10-minute fusee about 1,100 feet north of the point where the accident occurred, and at that point there was no indication of a following train. Soon afterward he saw the lighted headlight of No. 33 as it rapidly approached at a short distance to the rear of his train. He gave stop signals from the rear of the caboose with a lighted fusee, but the distance was too short to avert the accident. The conductor and the flagman jumped from the caboose just prior to the collision. The engineer of the first engine of No. 33 said that the lighted fusee which was burning on the track about 1,100 feet north of the point of accident did not provide a sufficient distance in which to stop his train.

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 flagman's signals or by burning fusees dropped by flagmen. Extra 476 departed from Humboldt, the last open office, 13 minutes before No. 33 departed from that station. The rules require that a following train must be spaced at least 10 minutes behind a preceding train. However, the time-spacing method in use does not provide means for spacing trains except at open offices, and the collision occurred before the trains reached Jackson, the next open office, 3.44 miles south of the point of accident. If an adequate block system had been in use, the crew of the following train would have received definite information that the preceding train was occupying the main track in the same block and would have been required to operate in accordance with such block authority.

#### Cause

It is found that this accident was caused by failure to provide adequate protection for the preceding train.

#### Recommendation

It is recommended that the Gulf, Mobile and Ohio Railroad Company install an adequate block system.

Dated at Washington, D. C., this fourteenth day of June, 1946.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,  
Secretary.