INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT NO. 3518

TEXAS AND NEW ORLEANS RAILROAD COMPANY

IN RE ACCIDENT

NEAR MISSOURI CITY, TEX., ON

MAY 28, 1953

SUMMARY

Date:	May 28, 1953	
Railroad:	Texas and New Orleans	
Location:	Missouri City, Tex.	
Kind of accident:	Collision	
Equipment involved:	Track motor-car F-349	: Passenger train
Train number		: 53
Engine number:		: Diesel-electric units 44, 44A, 44B, and 44C
Consist:		: 11 cars
Speeds:	Standing	: 80 M. P. H.
Operation:	Timetable, train orders, and automatic block-signal system	
Track:	Single; 1° curve; level	
Weather:	Clear	
Time:	8.34 a. m.	
Casualties:	1 killed	
Cause:	Failure to provide adequate protection for movement of track motor-car	
Recommendation:	That the Texas and New Orleans Railroad Company provide adequate protection for movement of track motor-cars on its line	

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3518

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

TEXAS AND NEW ORLEANS RAILROAD COMPANY

July 1, 1953

Accident near Missouri City, Tex., on May 28, 1953, caused by failure to provide adequate protection for the movement of a track motor-car.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On May 28, 1953, there was a collision between a track motor-car and a passenger train on the Texas and New Orleans Railroad near Missouri City, Tex., which resulted in the death of one employee.

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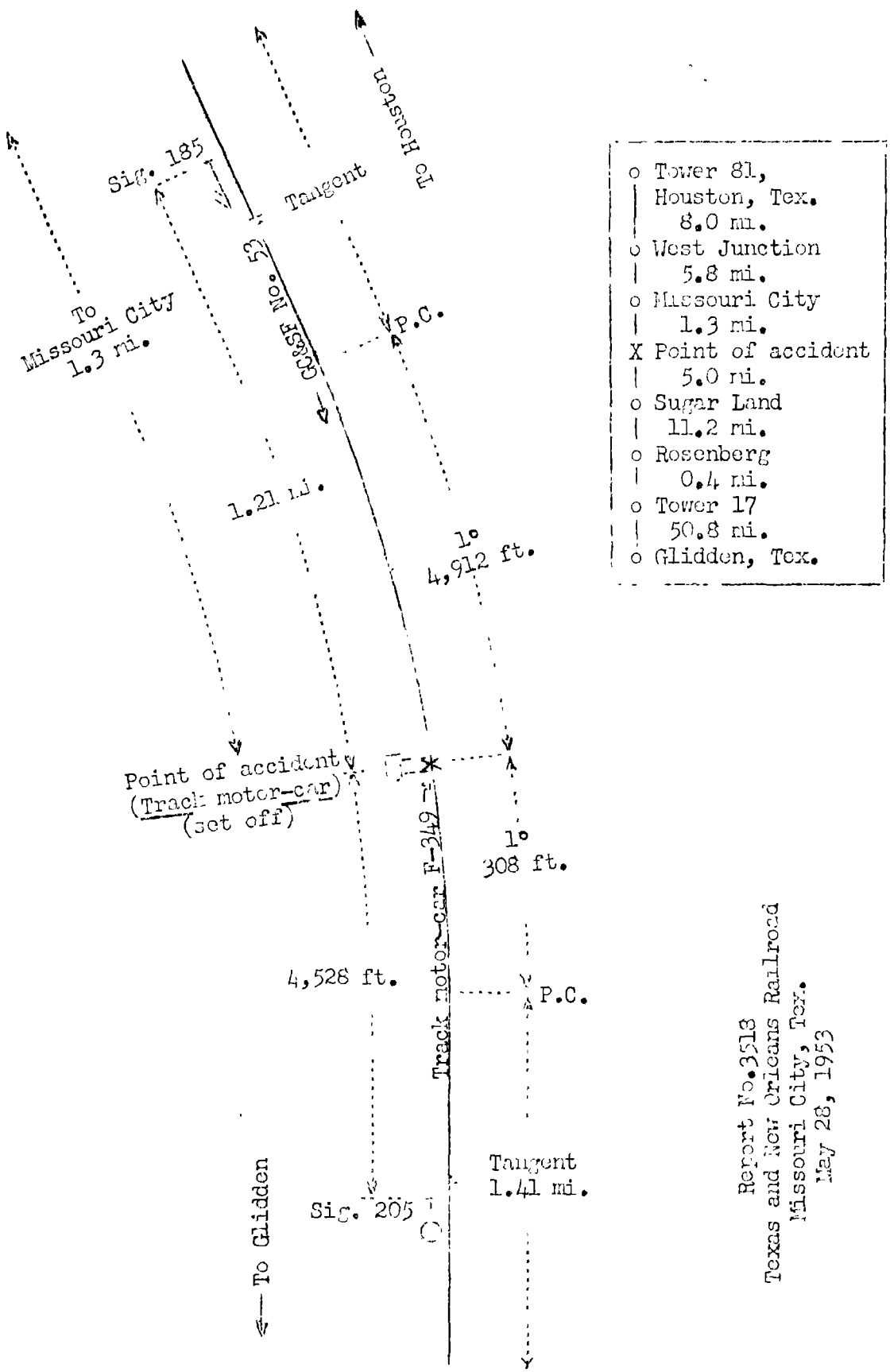
[1] Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.



Report No. 3513
Texas and New Orleans Railroad
Missouri City, Tex.
May 28, 1953

Location of Accident and Method of Operation

This accident occurred on that part of the San Antonio Division extending between Glidden and Tower 81, Houston, Tex., 82.5 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. Passenger trains of the Gulf, Colorado and Santa Fe Railway regularly are operated over the portion of this line extending between Tower 17, 50.8 miles east of Glidden, and Tower 81. The accident occurred on the main track at a point 67.4 miles east of Glidden and 1.3 miles west of Missouri City. From the west there are, in succession, a tangent 1.41 miles in length, and a 1° curve to the left 308 feet to the point of accident and 4,912 feet eastward. From the east there is a tangent several miles in length, followed by the curve on which the accident occurred. The grade is level at the point of accident.

Automatic signals 195 and 205, governing west-bound movements, are located, respectively, 1.21 miles east and 4,528 feet west of the point of accident. Signal 195 is of the lower-quadrant semaphore type. Signal 205 is of the searchlight type and is approach lighted.

This carrier's rules for the operation of track motor-cars read in part as follows:

> 1104. Track cars shall not be used unless accompanied by sufficient men to remove them from the track and, whenever possible, a line-up of trains should be obtained before starting on a run, and approximately each two hours thereafter. * * *
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> 1119. * * *
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> (4) * * * when * * * visibility is obscured, or restricted to a short distance, speed must be reduced and cars operated only at a speed consistent with safe operation under the prevailing conditions. A constant and vigilant lookout must be maintained. * * * Before moving around sharp curves, * * *, flagman must be sent ahead for protection, if it cannot otherwise be positively determined that the way is clear.
>
> 1120. Although block signals and indicators for track cars may indicate that a block is not occupied by a train, operators of track cars must bear in mind that an approaching train may immediately thereafter enter the block, or that another track car may at any time be encountered; and further, that line-ups obtained from train dispatcher cannot always be depended upon by reason of conditions unexpectedly changing in the meantime.
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> * * *

The maximum authorized speeds are 79 miles per hour for passenger trains and 25 miles per hour for track motor-cars.

Description of Accident

Track motor-car F-349, occupied by a signalman and a signal helper, departed east-bound from Sugar Land, 62.4 miles east of Glidden, about 8.15 a. m. It was stopped on the main track at a point 5 miles east of Sugar Land and 1.3 miles west of Missouri City, and was struck by No. 53 before it could be removed from the track.

No. 53, a west-bound first-class Gulf, Colorado and Santa Fe passenger train, consisted of Diesel-electric units 44, 44A, 44B and 44C, coupled in multiple-unit control, one mail car, one baggage car, four chair cars, one dining car, one lounge car, and three sleeping cars, in the order named. All cars were of lightweight steel construction. This train passed Tower 81 at 8.14 a. m., 1 minute late, passed West Junction, 7.1 miles east of the point of accident and the last open office, at 8.27 a. m., 2 minutes late, passed signal 185, which indicated Proceed, and while moving at a speed of 80 miles per hour it struck track motor-car F-349.

The track motor-car was demolished, and parts were scattered along the south side of the track throughout a considerable distance. No. 53 stopped with the front of the locomotive approximately 3,100 feet west of the point of accident. The front of the locomotive was slightly damaged.

The signalman who was on the track motor-car was killed.

The weather was clear at the time of the accident, which occurred at 8.34 a. m.

Track motor-car F-349 was of the belt-drive type. It was powered by a one-cylinder five to eight-horsepower gasoline engine and was equipped with four-wheel brakes. It weighed 605 pounds and had seating capacity for two persons. It was insulated to prevent the shunting of track circuits.

During the 30-day period preceding the day of the accident the average daily movement in the vicinity of the point of accident was 23.4 trains.

Discussion

At the time of the accident a signal force engaged in installing a traffic-control system was stationed at Sugar Land. Four members of this force, a leading signalman, a signalman, and two signal helpers, resided at Rosenberg, 11.2 miles west of Sugar Land, and traveled to and from work on a track motor-car. Before leaving Rosenberg on the day of the accident the leading signalman obtained a line-up of train movements No. 53 was not mentioned on the line-up, but the line-up bore the printed notation, "Regular trains not specifically mentioned are ON TIME". The leading signalman and the signalman each read the line-up and remarked that there were no trains which would interfere with their trip to Sugar Land. These employees and the two signal helpers departed from Rosenberg about 7.35 a. m. and arrived at Sugar Land about 8.00 a. m. The leading signalman and one helper remained at Sugar Land. The signalman and one helper were to work at West Junction during the day. These employees departed east-bound from Sugar Land on track motor-car F-349 about 8.15 a. m. The signal helper said that no mention was made of train movements. Two or three minutes before the accident occurred the helper consulted his timetable and reminded the signalman that No. 371, a west-bound freight train was overdue. The signalman replied that they should watch for No. 53 but need not be concerned about No. 371. At this time the track motor-car was approaching a motor-car set-off. The signalman reduced the speed of the car, apparently intending to stop at the set-off. Several seconds later the occupants observed the headlight of No. 53 at a distance of about 1,300 feet. The track motor-car was stopped at the set-off. It was struck by No. 53 before it could be removed from the track The signalman alighted from the car before it was struck, and was killed while attempting to remove the car from the track. The signal helper said that after the car stopped he observed that signal 205 was lighted. He did not know how long it had been lighted prior to that time.

As No. 53 was approaching the point where the accident occurred the enginemen were maintaining a lookout ahead from the control compartment at the front of the locomotive. The members of the train crew were in various locations in the cars of the train. The headlight and the oscillating signal light were lighted. The grade-crossing whistle signal was sounded for a rail-highway grade crossing 617 feet east of the point of accident. Because of curvature of the track, the enginemen were unable to see the track motor-car until the train was approximately 1,200 feet east of the motor-car set-off. When they first observed the track motor-car the signalman and the signal helper were attempting to remove it from the track. The engineer immediately made an emergency

application of the brakes. According to the tape of the speed recording device, the speed was 81½ miles per hour when the brake application became effective and 80 miles per hour when the collision occurred.

The signalman who was killed had operated track motor-cars between Sugar Land and Rosenberg during a period of several months prior to the day of the accident, but he had not made a trip between Sugar Land and West Junction until the day before the accident occurred. On that day he met No. 53 at Sugar Land. The signalman had compared time before departing from Sugar Land and there was a variation of only a few seconds between the time shown by his watch and the correct time. Both occupants of the track motor-car were aware that No. 53 was overdue at Missouri City. The signalman had reduced the speed of the car before No. 53 could be seen from the track motor-car and he apparently intended to stop the car and remove it from the track at the set-off where it was struck. The view of an approaching west-bound train from the track motor-car was materially restricted by a water tank adjacent to the track on the inside of the curve. Before the car was stopped, No. 53 became visible to the track motor-car occupants at a distance of about 1,300 feet. After the car was stopped at the set-off the signal helper by use of the extension handles lifted the rear end of the car over the south or high rail and the signalman alighted from the front end and between the track rails. The track motor-car was at right angles to the track and across the high rail when it was struck by No. 53.

The rules of this carrier require operators of track motor-cars to obtain a line-up of train movements whenever possible before occupying the main track and approximately each two hours thereafter. When visibility is restricted the speed must be reduced to a rate consistent with safety. Before moving around sharp curves, a flagman must be sent ahead for protection if it cannot otherwise be positively determined that the way is clear. Line-ups are issued as information only and confer no authority over trains or other track motor-cars. Train dispatchers and the members of train crews are not informed when a track motor-car is occupying the main track, and track motor-car operators are not informed when another track motor-car is occupying the main track. Track motor-cars operating in automatic block signal territory are insulated to prevent them from shunting track circuits, and automatic block signal systems do not indicate that the track is occupied by a track motor-car. This method of operation does not provide adequate protection for the movement of track motor-cars.

Since January 1, 1944, the Commission has investigated 45 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 81 persons and the injury of 144 persons. In the reports covering the investigations of these accidents, the Commission repeatedly has recommended that the carrier 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 Texas and New Orleans Railroad Company provide adequate protection for the movement of track motor-cars on its line.

Dated at Washington, D. C., this first day of July, 1953.

By the Commission, Commissioner Patterson.

G. W. LAIRD,

Acting Secretary

(SEAL)