

INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT NO. 3277

TEXAS AND NEW ORLEANS RAILROAD COMPANY

IN RE ACCIDENT

AT GARRETT, TEX., ON

SEPTEMBER 16, 1949

SUMMARY

Date: September 16, 1949
Railroad: Texas and New Orleans
Location: Garrett, Tex.
Kind of accident: Derailment
Train involved: Freight
Train number: 74
Engine number: 974
Consist: 39 cars, caboose
Estimated speed: 25 m. p. h.
Operation: Timetable and train orders
Track: Single; 4°04' curve; 0.90 percent ascending grade eastward
Highway: Tangent; level
Weather: Clear
Time: 2:35 p. m.
Casualties: 1 killed; 2 injured
Cause: Obstruction on track

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3277

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

TEXAS AND NEW ORLEANS RAILROAD COMPANY

November 10, 1949

Accident at Garrett, Tex., on September 16, 1949, caused
by an obstruction on the track.

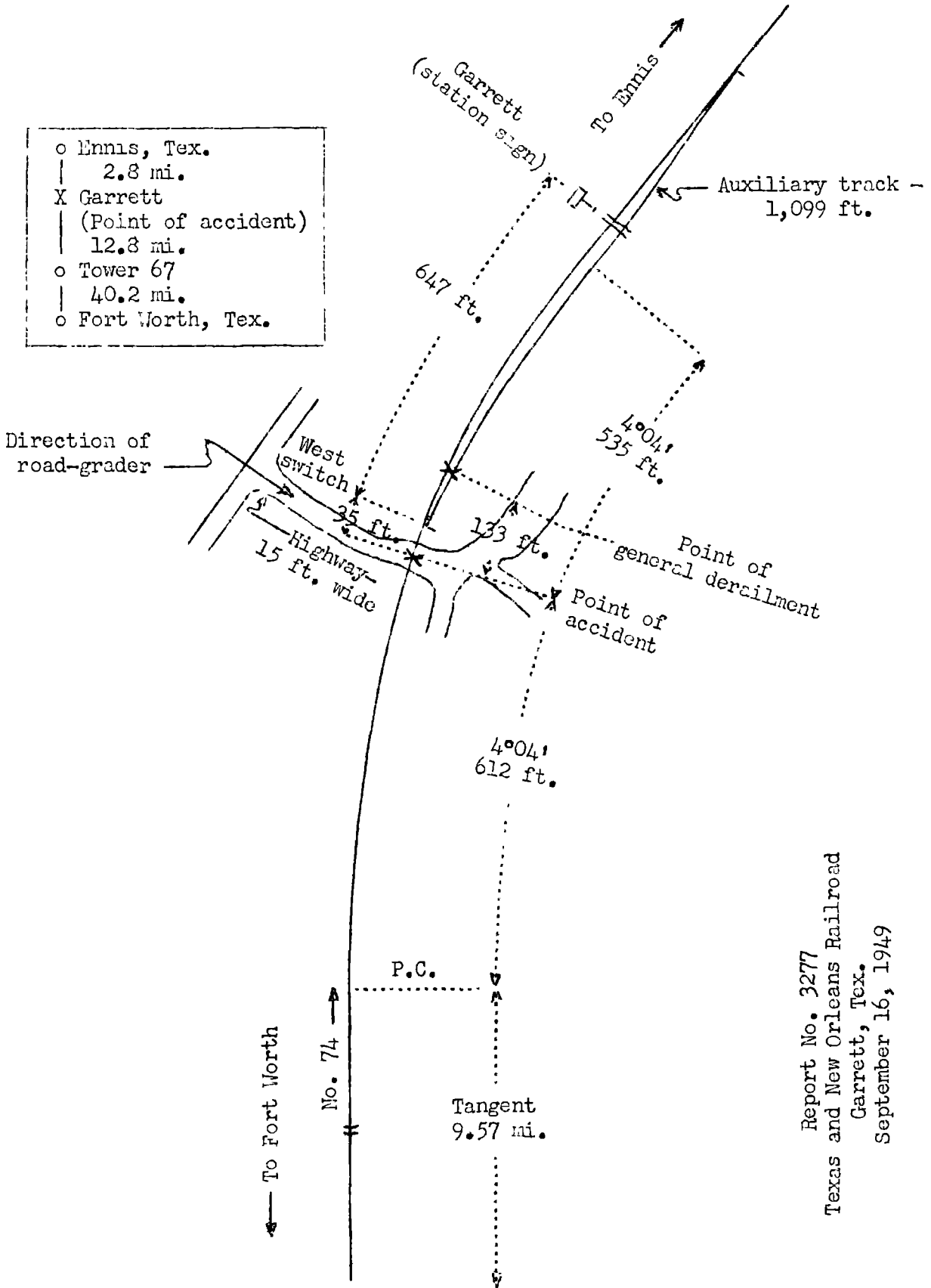
REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On September 16, 1949, there was a derailment of a freight train on the Texas and New Orleans Railroad at Garrett, Tex., which resulted in the death of one employee and the injury of two employees.

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.

- o Ennis, Tex.
- | 2.8 mi.
- X Garrett
- | (Point of accident)
- | 12.8 mi.
- o Tower 67
- | 40.2 mi.
- o Fort Worth, Tex.



Report No. 3277
 Texas and New Orleans Railroad
 Garrett, Tex.
 September 16, 1949

Location of Accident and Method of Operation

This accident occurred on that part of the Dallas-Austin Division extending between Fort Worth and Ennis, Tex., 55.8 miles. In the vicinity of the point of accident this is a single-track line, over which trains are operated by timetable and train orders. There is no block system in use. At Garrett, 53 miles east of Fort Worth, an auxiliary track, 1,099 feet in length, parallels the main track on the south. The west switch of this track is facing point for east-bound movements, and is located 647 feet west of the station sign. The accident occurred on the main track 35 feet west of the west switch of the auxiliary track, where the main track is crossed at grade by a gravel highway. From the west there is a tangent 9.57 miles in length, then a $4^{\circ}04'$ curve to the right 612 feet to the point of accident and 535 feet eastward. Throughout a considerable distance west of the point of accident the grade is 0.90 percent ascending for east-bound trains, but at the point of accident it is practically level.

The track structure consists of 90-pound relay rail, 33 feet in length, laid on an average of 18 ties to the rail length. On the curve on which the accident occurred, it is double-spiked, fully tieplated, and is provided with 4-hole 24-inch joint bars. The specified superelevation is 2-1/2 inches. It is ballasted with gravel to a depth of 6 inches under the ties.

The highway is about 15 feet wide, and it intersects the main track at right angles. It is surfaced with gravel. Flangeways are not provided through the crossing. North of the main track the highway is practically level and is about 4 inches higher than the tops of the rails. The surface then slopes throughout a distance of 8 inches to the top of the north rail. The surface of the crossing is 1-1/2 inches lower than the tops of the rails. South of the track the grade is slightly descending throughout a distance of about 60 feet.

The maximum authorized speed for freight trains was 35 miles per hour.

Description of Accident

No. 74, an east-bound third-class freight train, consisted of engine 974, a 2-10-2 type, 39 cars and a caboose. This train departed from Fort Worth at 11:55 a. m., 6 hours 45 minutes late, passed Tower 67, 12.8 miles west of Garrett,

at 1:42 p. m., and while it was moving at an estimated speed of 25 miles per hour the engine-truck wheels were derailed at a highway grade-crossing at Garrett. These wheels continued in line with the track a distance of 133 feet to the frog of the auxiliary track, where the other wheels of the engine, the tender, the first five cars and the front truck of the sixth car were derailed.

The engine stopped on its left side, north of the main track and parallel to it. The front end of the engine was 428 feet east of the crossing and 15.5 feet north of the north rail. The tender remained coupled to the engine, and stopped on its left side and across both tracks. The first five cars stopped on or near the tracks. The engine, the tender and the first three cars were badly damaged. The fourth, fifth and sixth cars were slightly damaged.

The engineer was killed, and the fireman and the swing brakeman were injured.

The weather was clear at the time of the accident, which occurred at 2:35 p. m.

Discussion

No. 74 was moving at an estimated speed of 25 miles per hour, in territory where the maximum authorized speed was 35 miles per hour, when the engine-truck wheels were derailed at a highway grade-crossing at Garrett. As the engine approached the point where the accident occurred, the throttle was fully open, because of the ascending grade. The engine-men were maintaining a lookout ahead from their respective positions in the cab of the engine. The front brakeman and the swing brakeman were near the brakeman's booth on the rear of the tender, and the conductor and the flagman were in the caboose. The fireman said that before the accident occurred the engine and the tender were riding smoothly and there was no indication of defective equipment. When the engine entered the crossing he felt an unusual movement of the engine and thought there was an obstruction on the track. Before he could call a warning, the engineer closed the throttle and placed the brake valve in emergency position. The brakes of this train had been tested and had functioned properly when used en route.

Examination of the track throughout a considerable distance westward from the point of accident disclosed that the alinement, gage and surface were well maintained for the maximum authorized speed and that there was no indication

of dragging equipment. There was a deposit of about 8 inches of gravel on the north rail throughout a distance of 5 feet near the center of the crossing. The first mark of derailment was a flange mark beginning on the gage side of the north rail near the center of the crossing and extending diagonally across the top of the rail a distance of 4 feet 6 inches to the outside of the rail. At this point flange marks about 1 inch in width appeared on the ties 5 inches outside the north rail. There were companion marks inside the south rail, and they extended eastward a distance of 128 feet 6 inches. Then marks about 4 inches in width appeared on the ties. These marks indicated that the driving wheels were derailed at that point. A joint bar in the north rail, 12 feet 3 inches east of the center-line of the road crossing, was marked, and the heads of two bolts were sheared off. Examination of the equipment of No. 74 after the accident occurred disclosed no condition of the equipment that could have caused or have contributed to the cause of the accident.

The investigation disclosed that about 1 hour before the accident occurred a road-grader had been surfacing the highway adjacent to the track. This road-grader was equipped with a 12-foot blade, hydraulically operated and set at an angle to the highway. This grader was owned by Ellis County, Tex., and was in the charge of an experienced operator. The operator said that he had not been instructed concerning the operation of the grader over highway grade-crossings, but he said he knew that material should not be left on the rails. He said that on the day of the accident he was surfacing the highway in the vicinity of the crossing involved. He stopped the road-grader about 10 feet north of the crossing to look for trains. When he saw that no train was approaching he started the road-grader and raised the blade while the grader was in motion, so as not to leave an excessive amount of gravel where the grader was stopped. After the grader passed over the crossing he said he looked back and did not observe an excessive amount of gravel on the track.

A witness to the accident said he had observed the road-grader working in the vicinity of the crossing about 1 hour before the derailment occurred. When No. 74 entered the crossing he was in the front part of a building located about 200 feet south of the crossing. He heard an unusual noise at the crossing, and observed that the engine-truck wheels of No. 74 were derailed. Immediately thereafter the driving wheels were derailed and the engine turned on

its side. About 10 minutes after the accident occurred he went to the crossing and saw gravel on the north rail and marks where the engine-truck wheels had crossed over the rail. At that time the gravel on the rail was crushed and was compressed to a depth of about 2 inches on the top of the rail. He said that marks on the highway indicated that the gravel had been deposited on the rail by the road-grader.

The section foreman in charge of that section passed over the crossing on a motor-car about 3 hours 30 minutes before the accident occurred. He said that the crossing was in good condition at that time.

Apparently the gravel was of sufficient depth to cause the flanges of the engine-truck wheels to rise above the level of the top of the rails, then, because of track curvature to the right, the left engine-truck wheel crossed over the high rail and dropped outside that rail.

Cause

It is found that this accident was caused by an obstruction on the track.

Dated at Washington, D. C., this tenth day of November, 1949.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.