

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3571

THE CINCINNATI, NEW ORLEANS & TEXAS PACIFIC
RAILWAY COMPANY
SOUTHERN RAILWAY SYSTEM

IN RE ACCIDENT
NEAR SADIEVILLE, KY., ON

MAY 25, 1954

SUMMARY

Date: May 25, 1954

Railroad: Cincinnati, New Orleans & Texas Pacific, Southern Railway System

Location: Sadieville, Ky.

Kind of accident: Head-end collision

Equipment involved: Track motor-car C-320 Freight train

Train number: Extra 6808 North

Engine number: Diesel-electric units 6808, 6165, and 4263

Consist: 85 cars, caboose

Estimated speeds: Undetermined . 50 m. p. h.

Operation: Signal indications

Track: Single, spiral, 0.48 percent ascending grade southward

Weather: Clear

Time: 8 a. m.

Casualties: 1 killed

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

Recommendation: That the Cincinnati, New Orleans & Texas Pacific Railway Company provide adequate protection for the movement of track motor-cars on its line

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3571

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

THE CINCINNATI, NEW ORLEANS & TEXAS PACIFIC RAILWAY COMPANY
SOUTHERN RAILWAY SYSTEM

June 21, 1954

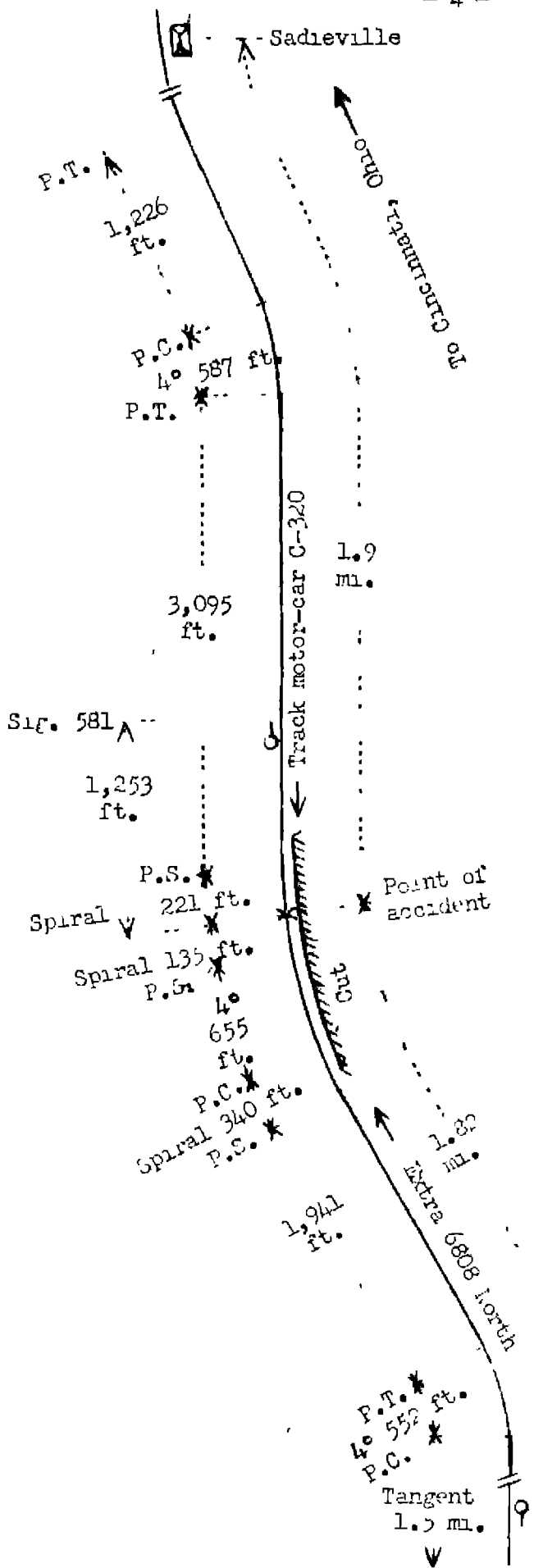
Accident near Sadieville, Ky., on May 25, 1954, caused by
failure to provide adequate protection for the
movement of a track motor-car.

REPORT OF THE COMMISSION¹

CLARKE, Commissioner:

On May 25, 1954, there was a head-end collision between
a track motor-car and a freight train on the Cincinnati, New
Orleans & Texas Pacific Railway near Sadieville, Ky., which
resulted in the death of one maintenance-of-way employee.

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



○ Cincinnati, Ohio	3.0 mi.
● Ludlow, Ky.	40.0 mi.
● Mason	5.7 mi.
● Corinth	1.9 mi.
● Rohan	1.2 mi.
● Hinton	4.8 mi.
● Sadieville	1.9 mi.
X Point of accident	3.7 mi.
┌ Rogers Gap	7.6 mi.
● Georgetown	11.9 mi.
● Lexington	11.3 mi.
● Nicholasville	5.1 mi.
● Wolmore	6.9 mi.
● Dix	11.6 mi.
● Danville, Ky.	

Report No. 3571
 Cincinnati, New Orleans & Texas Pacific railway
 Southern Railway System
 Sadieville, Ky.
 May 25, 1954

To Danville, Ky.
 ↓
 Sig. 602

Location of Accident and Method of Operation

This accident occurred on that part of the Cincinnati, New Orleans & Texas Pacific Railway which extends between Cincinnati, Ohio, and Danville, Ky., 116.6 miles. In the vicinity of the point of accident this is a single-track line, over which trains are operated by signal indications, supplemented by an intermittent inductive automatic train-stop system. The accident occurred on the main track at a point 58.5 miles south of Cincinnati and 1.9 miles south of the station at Sadieville. From the north there are, in succession, a tangent 1,226 feet in length, a 4° curve to the right 587 feet, a tangent 3,095 feet, and a spiral to the left 221 feet to the point of accident and 135 feet southward. From the south there are, in succession, a tangent 1.5 miles in length, a 4° curve to the left 552 feet, a tangent 1,941 feet, a spiral 340 feet, a 4° curve to the right 655 feet, and the spiral on which the accident occurred. The grade is 0.48 percent ascending southward at the point of accident.

In the vicinity of the point of accident the track is laid in a cut, the east wall of which rises to a maximum height of 30 feet above the level of the tops of the rails. The north and south ends of the east wall of the cut are located, respectively, 543 feet north and approximately 1,000 feet south of the point of accident.

Automatic signals 581, governing south-bound movements, and 602, governing north-bound movements, are located, respectively, 1,253 feet north and 1.82 miles south of the point of accident. These signals are of the searchlight type and are continuously lighted. They form part of a traffic-control system which extends throughout the territory between Cincinnati and Danville and a considerable distance southward. The control machine is located at Somerset, Ky., 44.3 miles south of Danville.

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

8. The user or operator in charge of track cars must take proper measures for safety before occupying main track. He must obtain line-up in writing from telegraph operators, when available, showing locations of trains in that territory. When necessary to obtain line-ups by telephone, through the nearest open telegraph office or from the dispatcher direct, the line-ups must be written and read back to the telegraph operator or dispatcher. Before occupying the main track or engaging in work thereon, all information included in the line-up must be given to other occupants of the car together with advice of the movement to be made and the work to be performed.

Additional line-ups must be secured from time to time as conditions may require, if facilities are available. * * * Line-ups contain information only and must not be considered final, as operating or emergency conditions may necessitate changes at any time.

* * *

9. When necessary to protect movement of track cars, competent employee must immediately be sent out with flagging signals a sufficient distance to insure full protection, placing two torpedoes, and when necessary, in addition, displaying lighted fusee.

* * *

11. The operator of track cars in automatic block signal territory must observe the indication of block signals and understand the signal operation on his own and adjoining territory to the extent of knowing position of train when the indication changes. An approach or proceed signal indication means that no train is, at the moment, occupying main track between that particular signal and the point where the approaching train changes the indication of the signal. * * *

The maximum authorized speed for track motor-cars of the type involved is 30 miles per hour. The maximum authorized speed for freight trains is 60 miles per hour. It is restricted to 50 miles per hour on the curve on which the accident occurred.

Description of Accident

Track motor-car C-320, occupied by a track repairman and a track repairman helper, departed south-bound from Corinth, 48.7 miles south of Cincinnati, about 7:20 a. m. While it was moving southward at an undetermined rate of speed, it collided with Extra 6808 North at a point 1.9 miles south of the station at Sadieville.

Extra 6808 North, a north-bound freight train, consisted of Diesel-electric units 6808, 6165, and 4263, coupled in multiple-unit control, 85 cars, and a caboose. This train departed from Danville at 6:40 a. m., passed Georgetown, 11.3 miles south of the point of accident, at 7:47 a. m., according to the dispatcher's record of the movement of trains, passed signal 602, which indicated Proceed, and while moving at an estimated speed of 50 miles per hour it collided with track motor-car C-320.

The track motor-car was moved northward a distance of approximately 1,900 feet to the point at which the front end of Extra 6808 North stopped. It was demolished. The front end of the first Diesel-electric unit of Extra 6808 North was slightly damaged.

The track repairman helper who was on the track motor-car was killed.

The weather was clear at the time of the accident, which occurred about 8 a. m.

Track motor-car C-320 was of the belt-drive type and was powered by a one-cylinder, five to eight horsepower engine. It weighed 610 pounds and was insulated to prevent the shunting of track circuits. It had seating capacity for four persons and was equipped with a windshield and a metal top.

During the 30-day period preceding the day of the accident the average daily movement in the vicinity of the point of accident was 21.3 trains.

Discussion

At 6 55 a. m. on the day of the accident the train dispatcher, in accordance with the usual weekday practice, issued by telephone a line-up reading as follows

6:55 a. m. line-up First District
No. 28 and No. 2 are in Cincinnati.
No. 54 eng 4121 Mason 6:52 a. m.
Extra 6808 North by Dix 6:54 a. m., CS 56's connection.
No. 62 eng 2068 at Wilmore now.
Extra 6804 South Rohan 6:46 a. m. with autos.
No. 3 eng 3939 reported on time.
Work Extra 4170 Nicholasville now,
limits Lexington and Danville.
Work Extra 4118 called Ludlow 7 a. m.,
limits Ludlow and Lexington.

Ludlow, Mason, Rohan, Lexington, Nicholasville, Wilmore, and Dix are located, respectively, 3.0 miles, 43.0 miles, 50.6 miles, 81.7 miles, 93.0 miles, 98.1 miles, and 105.0 miles south of Cincinnati. Immediately after the line-up was transmitted, a maintenance-of-way foreman at Nicholasville repeated it to the dispatcher as a routine check against errors and to enable other listeners on the line to check their copies for errors. The foreman of an extra maintenance force stationed at Corinth copied the line-up in manifold as it was transmitted by the dispatcher. He said that he listened as the line-up was repeated and observed that his copies were correct. He later delivered the original copy to the track repairman in charge of track motor-car C-320 and retained a carbon copy of the line-up for his own use. He said that because there was only one telephone booth available he made it a practice when receiving the line-up to make an additional copy for the use of the track repairmen stationed at that point. The copies of the line-up which he made on the day of the accident were clear and legible.

The track repairman said that after he received a copy of the line-up from the foreman he returned to the camp car where his helper was assembling tools and read the line-up aloud to him. He said that in reading the line-up he mistook the word "Dix" for the letters "DV" and read the line-up in part: "Extra 6808 North by DV at 6:54 a. m." DV is the designation of an interlocking station located at Danville. Danville and Dix are located,

respectively, 67.9 miles and 56.3 miles south of Corinth. The track repairman said that after he read the line-up he handed it to his helper, who read it and returned it to him. He said that the helper apparently did not notice any discrepancy between the written copy of the line-up and the oral reading of it, and when they discussed it later they both were under the erroneous impression that Extra 6808 North had departed from DV at the time the line-up indicated that it had passed Dix. They were to perform work at Rogers Gap, 13.5 miles south of Corinth, and they concluded that there was sufficient time to proceed to that point to clear Extra 6808 North. They departed from Corinth on their track motor-car about 7:20 a. m., stopped at Hinton, 3.1 miles south of Corinth, and departed from that point about 7:35 a. m. The track repairman said that because he was under the impression that there was sufficient time to proceed to Rogers Gap to clear Extra 6808 North it did not occur to him to communicate with the train dispatcher and request an additional line-up. As the track motor-car was approaching the point where the accident occurred the speed was between 25 and 30 miles per hour. The track repairman was operating the car from a position on the right side at the rear, and the helper was seated on the left side near the front. A power rail drill was secured by ropes on the lift handles at the rear of the car, and the track repairman said that he was steadying the drill with his hand and glancing at intervals at the fastenings which secured it. Because of curvature of the track and the east wall of the cut, the view of the track ahead from the track motor-car was restricted to a distance of approximately 650 feet. The track repairman said that he observed the approaching train and the helper called a warning at approximately the same time. He immediately applied the brakes, and both occupants of the car jumped off the car while it was in motion and before the collision occurred. The track repairman helper fell after he alighted and was struck by the train.

As Extra 6808 North was approaching the point where the accident occurred the engineers were maintaining a lookout ahead from the control compartment at the front of the locomotive. The front brakeman was in the rear unit of the locomotive, and the other members of the train crew were in the caboose. The headlight was lighted. The brakes of this train had been tested and had functioned properly when used en route. The members of the crew had no information that the track ahead was occupied by a track motor-car. The engineer said he observed that the

speed was about 50 miles per hour as the locomotive was moving on the curve immediately south of the point of accident. The enginemen said that when the track motor-car became visible to them the engineer immediately made an emergency application of the brakes. The collision occurred before the speed of the train was materially reduced.

The rules of this carrier require that operators of track motor-cars take proper measures for safety before occupying the main track. They must, when practicable, obtain line-ups showing the locations of trains in the territory, and must give other occupants of the track motor-car all information contained in the line-ups. Additional line-ups must be secured as conditions may require. However, line-ups contain information only and do not restrict the movement of trains. The rules do not prescribe the time or the point at which track motor-cars must clear trains shown on a line-up and do not prescribe any method for the protection of the movement of track motor-cars except by flagman. In the instant case the line-up showed the time Extra 6808 North passed a station 56.3 miles south of the point at which the track motor-car originated. The weight of the train was 3,256 tons, approximately one-half the tonnage rating of the locomotive. The operator of the track motor-car misread the line-up and was under the impression that the train had departed from Danville at 6:54 a. m. and that he had sufficient time to proceed to Rogers Gap. However, under the circumstances, it appears doubtful that he could have reached Rogers Gap and cleared the train by a safe margin even though the train had not departed from Danville until 6:54 a. m., 14 minutes later than it actually did. This method of operation, which places on the operators of track motor-cars the responsibility for computing the running times of trains and judging their arriving times at points where no time is shown, does not provide adequate protection for the movement of track motor-cars.

The control circuits of the signals in the vicinity of the point of accident are so arranged that when the route is lined for a train movement all opposing intermediate signals within the route are caused to display their most restrictive aspects. The route was lined for the movement of Extra 6808 North from Rogers Gap to Rohan approximately 20 minutes before the accident occurred, and when track motor-car C-320 passed signal 581 the aspect of the signal should have warned the operator that the train was approaching or that the route had been lined for the movement of

the main. However, it is a more or less common practice to line the route for a train well in advance of its movement. As a result, protective signal aspects are frequently dissipated over considerable periods of time and tend to lose their significance to the operators of track motor cars.

Since January 1, 1944, the Commission has investigated 49 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 85 persons and the injury of 144 persons. In the reports covering the investigations of these accidents, the Commission repeatedly has recommended that the carriers take measures to provide adequate protection for the movement of track motor-cars on their lines.

Cause

This accident was caused by failure to provide adequate protection for the movement of a track motor-car.

Recommendation

It is recommended that the Cincinnati, New Orleans & Texas Pacific Railway Company provide adequate protection for the movement of track motor-cars on its line.

Dated at Washington, D. C., this twenty-first day of June, 1954.

By the Commission, Commissioner Clarke.

(SEAL)

GEORGE W. LAIRD,
Secretary.