

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3300
ST. LOUIS-SAN FRANCISCO RAILWAY COMPANY
IN RE ACCIDENT
NEAR PRESTON, OKLA., ON
DECEMBER 2, 1949

SUMMARY

Date: December 2, 1949

Railroad: St. Louis-San Francisco

Location: Preston, Okla.

Kind of accident: Head-end collision

Equipment involved: Track motor-car : Freight train
RC-2168

Train number: : 541

Engine number: : 1238

Consist: : 18 cars, caboose

Estimated speeds: Standing : 35 m. p. h.

Operation: Timetable, train orders and
automatic block-signal system

Track: Single; 2°21 curve; vertical curve

Weather: Clear

Time: 1:26 p. m.

Casualties: 1 killed

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

Recommendation: That the St. Louis-San Francisco
Railway Company provide adequate
protection for movement of track
motor-cars on its line

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3300

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

ST. LOUIS-SAN FRANCISCO RAILWAY COMPANY

January 19, 1950

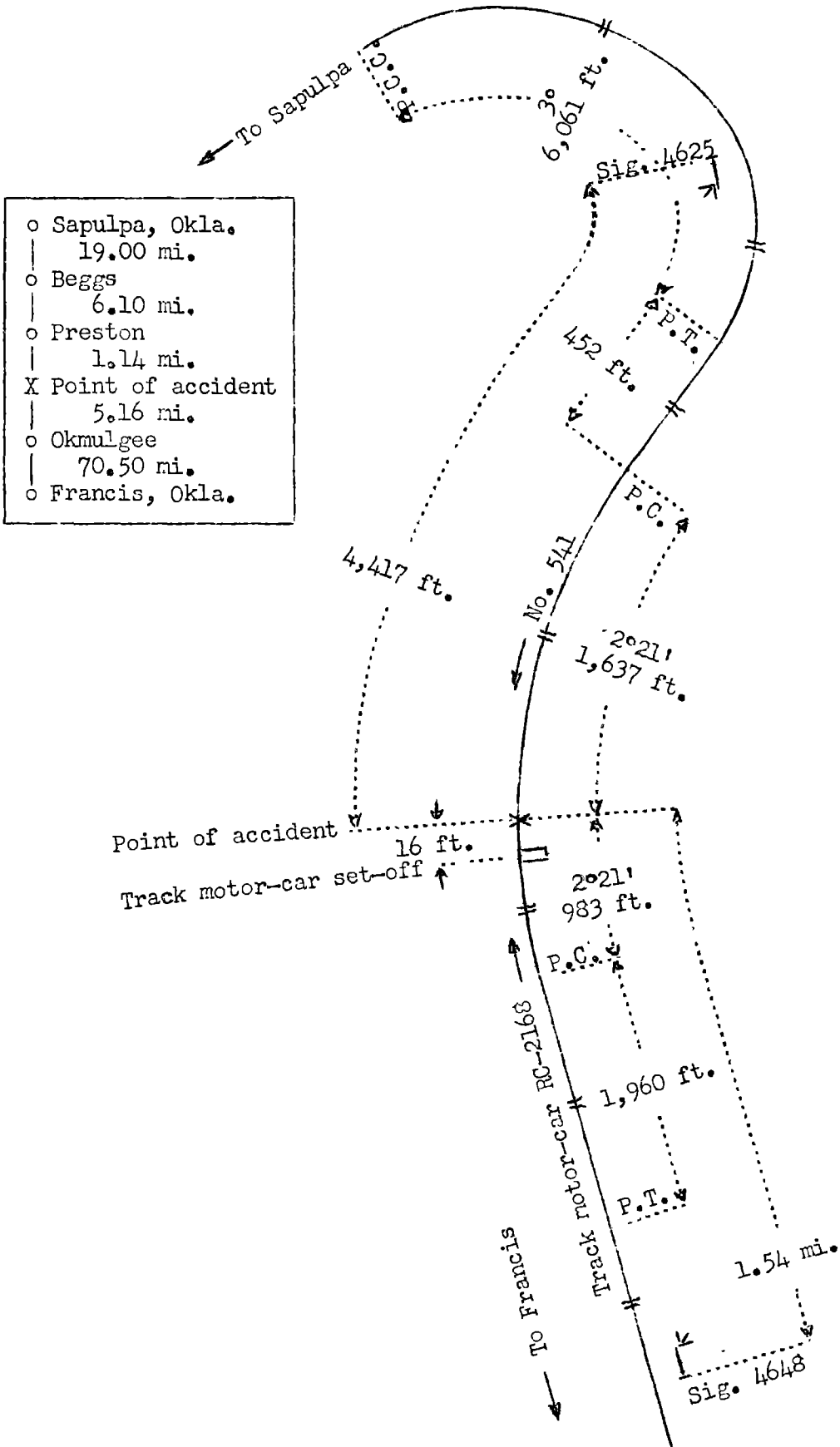
Accident near Preston, Okla., on December 2, 1949, caused
by failure to provide adequate protection for the
movement of a track motor-car.

REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On December 2, 1949, there was a head-end collision
between a track motor-car and a freight train on the
St. Louis-San Francisco Railway near Preston, Okla., 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 Patterson for consideration and
disposition.



Report No. 3300
 St. Louis-San Francisco Railway
 Preston, Okla.
 December 2, 1949

Location of Accident and Method of Operation

This accident occurred on that part of the Southwestern Division extending between Francis and Sapulpa, Okla., 101.9 miles, a single-track line, over which trains are operated by timetable, train orders, and an automatic block-signal system. The accident occurred on the main track 5.16 miles north of the station at Okmulgee and 1.14 miles south of the station at Preston. From the south there are, in succession, a tangent 1,960 feet in length, and a 2°21' curve to the right 983 feet to the point of accident and 1,637 feet northward. From the north there are, in succession, a compound curve to the right, having a maximum curvature of 3°, 6,061 feet in length, a tangent 452 feet and then the curve on which the accident occurred. The grade for north-bound movements is 0.93 percent descending 800 feet, and then there is a vertical curve 200 feet to the point of accident. The grade for south-bound movements varies between 0.91 and 1 percent descending 4,600 feet and then there is a vertical curve 700 feet to the point of accident.

Automatic signals 4648, governing north-bound movements, and 4625, governing south-bound movements, are located, respectively, 1.54 miles south and 4,417 feet north of the point of accident. These signals are of the one-arm, upper-quadrant, semaphore type and display three aspects. They are approach lighted. The involved day aspects and corresponding indications and names are as follows:

<u>Signal</u>	<u>Day aspect</u>	<u>Indication</u>	<u>Name</u>
4648	45 degrees above horizontal	PROCEED AT A SPEED REDUCED TO NOT EXCEED- ING ONE-HALF THE MAXIMUM AT POINT INVOLVED PREPARED TO STOP AT NEXT SIGNAL.	APPROACH
4625	Vertical	PROCEED	CLEAR

The controlling circuits of these signals are arranged on the overlap principle. Signal 4648 indicates Approach when a train occupies any track circuit between points 5.33 miles and 2.33 miles north of it.

A track motor-car set-off is located 16 feet south of the point of accident.

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

14 Engine Whistle Signals

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

Sound	Indication
* * *	
(1) — — o — —	Approaching public crossings at grade * * *
* * *	
(p) Succession of short sounds	Alarm for persons or livestock on the track.
* * *	

GENERAL REGULATIONS

963. Enginemen must, and firemen when practicable will, keep a constant and vigilant lookout, * * * also watch for obstructions * * *

GENERAL ORDER NO. 64

ALL CONCERNED:

Following is added to Rules of the Transportation Department:

31(b). Between sunrise and sunset enginemen must frequently sound whistle as prescribed by Rule 14(1) when view is restricted by weather, obscure curves, or other unusual conditions, to warn trackmen and others.

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

OPERATION OF TRACK CARS

229. Operation. Employes operating track cars must provide themselves with current time-table covering the territory over which they are moving, familiarize themselves with time of regular trains, and will be required to exercise sufficient caution to avoid being struck by a train, flagging curves and other obscure places when necessary, taking every precaution to avoid accidents of any kind.

* * *

230. Train Information. * * * linemen, bridge men, * * * or others authorized to operate track cars, * * * will when practicable, be given a "line-up" on the movement of trains if the foreman or person in charge thinks conditions require it, but this does not relieve the operator of car of any responsibility insofar as the safe operation of car is concerned. The same precautionary measures, such as flagging curves, must be taken with a "line-up" as without it, and close lookout must be kept for extra trains not shown, which may be run out of terminals as fast as power and crews are available, or may be turned back from any point.

* * *

248(a). There should be an understanding, as to each man's duty, when taking car off track account of approaching train.

The maximum authorized speed of the train involved was 50 miles per hour.

Description of Accident

About 1:15 p. m. track motor-car RC-2168, occupied by a bridge and building inspector and a division lineman, departed from the north end of Okmulgee Yard, about 0.7 mile north of Okmulgee. It passed two signals governing north-bound movements, each of which indicated Proceed, passed signal 4648, which indicated Approach, and was stopped at a point 1.54 miles north of signal 4648. While the occupants were attempting to remove the track motor-car from the track, it was struck by No. 541.

No. 541, a south-bound third-class freight train, consisting of engine 1238, 18 cars and a caboose, departed from Beggs, the last open office, 7.24 miles north of the point of accident, at 1:05 p. m., 4 hours 40 minutes late, passed signal 4625, which indicated Proceed, and while moving at an estimated speed of 35 miles per hour it struck track motor-car RC-2168.

No. 541 stopped with the front end of the engine approximately 1,350 feet south of the point of accident. None of the equipment of this train was derailed or damaged. The track motor-car was slightly damaged. It stopped upright, about 26 feet south of the point of accident, down a fill and about 18 feet west of the center-line of the track.

The maintenance-of-way employee killed was a bridge and building inspector.

The weather was clear at the time of the accident, which occurred at 1:26 p. m.

Track motor-car RC-2168 was of the 4-wheel type, equipped with 4-wheel brakes and was insulated to prevent the shunting of track circuits. It weighed 540 pounds and was powered by a single-cylinder, 5-9 horse-power gasoline motor. It was equipped with a wind shield.

During the 30-day period preceding the day of the accident the average daily movement in the vicinity of the point of accident was 11.3 trains.

Discussion

The investigation disclosed that track motor-car RC-2168 arrived at the north end of Okmulgee Yard about 12:10 p. m. It was delayed at that point because the track was occupied by a north-bound freight train and by other cars. After the freight train departed northward a yard engine moved the other cars, then the track motor-car departed northward at 1:15 p. m. The linemen said that the bridge and building inspector used the telephone at Okmulgee but he did not think a line-up or any other information concerning train movements was obtained at that time. The train dispatcher on duty at the time the track motor-car departed from Okmulgee said that the operator of the track motor-car did not request a line-up of train movements. The lineman said it was not a practice to operate track motor-cars on the main track without information concerning the locations of trains. There was no conversation between the occupants of the track motor-car concerning the locations of trains or other track

motor-cars. When the track motor-car passed signal 4648, located 1.54 miles south of the point where the accident occurred, it indicated Approach. However, the motor-car was not stopped. The lineman said he assumed that the restrictive aspect was caused by the north-bound freight train being in the second block in advance. As the track motor-car was approaching the point where the accident occurred the speed was about 25 miles per hour. The lineman observed smoke from the engine of No. 541, but he did not hear an engine-whistle signal sounded. The brakes were applied, although the train was not visible to him at that time. The car was stopped at a point 16 feet north of a track motor-car set-off. When the car was stopped No. 541 was about 750 feet distant. The occupants were attempting to remove the track motor-car from the track when it was struck by No. 541.

As No. 541 approached the point where the accident occurred the speed was about 45 miles per hour. The engine-men were maintaining a lookout ahead from their respective positions in the cab of the engine, the two brakemen were in the brakeman's booth on the tender and the conductor was in the caboose. The brakes of this train had been tested and had functioned properly when used en route. No train order restricting the movement of No. 541 with respect to track motor-cars had been issued. The members of the crew of this train had not been informed that a track motor-car was occupying the main track. The engineer sounded the rail-highway grade-crossing engine-whistle signal for crossings located 1.21 and 1.1 miles north of the point of accident and again when the engine was about 1,300 feet north of the point where the accident occurred. The view ahead from the cab of the engine was restricted by track curvature and by trees and brush adjacent to the track on the inside of the curve. The fireman saw the track motor-car when it was about 750 feet distant and called a warning to the engineer, who immediately initiated an emergency application of the brakes, but the engine struck the track motor-car at a speed of about 35 miles per hour.

The rules of this carrier provide that an operator of a track motor-car will be given a line-up of train movements if he requests it. However, under any circumstances the information contained in a line-up does not relieve the track motor-car operator of responsibility for collision. A line-up does not confer authority for a track motor-car to occupy the main track. Train dispatchers and 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 are insulated and do not shunt track circuits, and automatic block-signal systems do not indicate to train crews or to the operators of other track motor-cars that the track is occupied by a track motor-car. Track motor-car operators are required to provide the same degree of protection when they have a line-up as when they do not have it.

During the past six years the Commission has investigated twenty-seven collisions, including the instant case, in which track motor-cars were involved. These accidents resulted in the death of 52 persons and the injury of 86 persons, and were caused by failure to provide adequate protection for the movement of track motor-cars.

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 St. Louis-San Francisco Railway Company provide adequate protection for the movement of track motor-cars on its line.

Dated at Washington, D. C., this nineteenth day of January, 1950.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,

Secretary.