

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 3099
ST. LOUIS-SAN FRANCISCO RAILWAY COMPANY
REPORT IN RE ACCIDENT
AT FULTON, KANS., ON
APRIL 24, 1947

SUMMARY

Railroad: St. Louis-San Francisco
Date: April 24, 1947
Location: Fulton, Kans.
Kind of accident: Collision
Equipment involved: Passenger train : Motor-truck
Train number: 106 :
Engine number: 4403 :
Consist: 16 cars :
Estimated speeds: 65 m. p. h. : 15 m. p. h.
Operation: Timetable, train orders and
automatic block-signal system
Track: Single; 2°11' curve; 0.39 percent
ascending grade northward
Highway: Tangent; crosses track at angle
of 53°28'; level
Weather: Cloudy
Time: 6:13 a. m.
Casualties: 3 killed
Cause: Failure to operate a motor-truck
approaching railroad crossing at
grade in accordance with require-
ments of law

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3099

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

ST. LOUIS-SAN FRANCISCO RAILWAY COMPANY

May 27, 1947

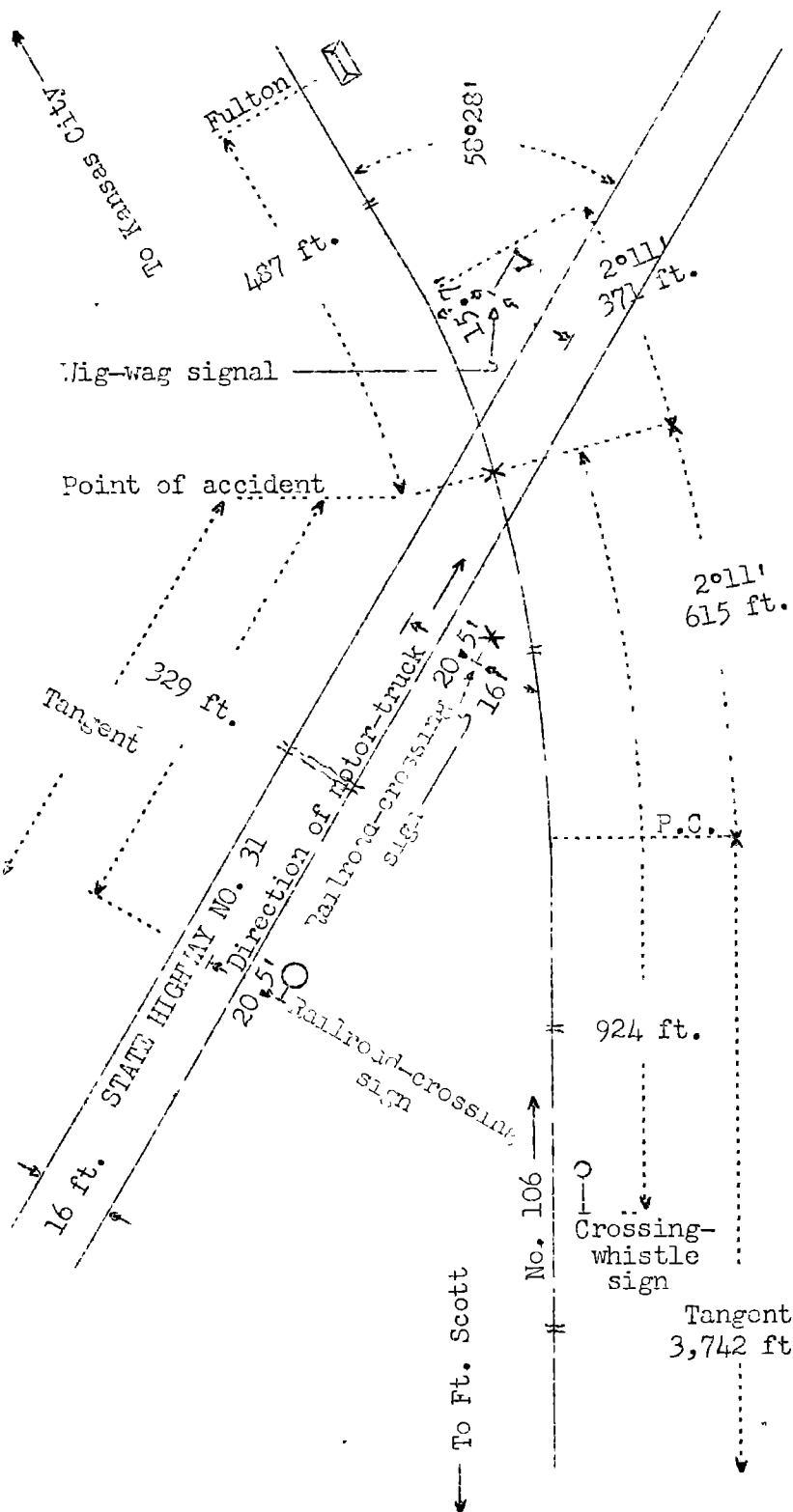
Accident at Fulton, Kans., on April 24, 1947, caused
by failure to operate a motor-truck approaching
a railroad crossing at grade in accordance with
requirements of law.

REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On April 24, 1947, there was a collision between
a passenger train on the St. Louis-San Francisco Railway
and a motor-truck at a grade crossing at Fulton, Kans.,
which resulted in the death of the driver of the motor-
truck and two train-service employees.

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.



- o Kansas City, Mo. 84.4 mi.
- X Fulton, Kans. (Point of accident) 12.6 mi.
- o Ft. Scott, Kans.

Inv. No. 3099
 St. Louis-San Francisco Railway
 Fulton, Kans.
 April 24, 1947

Location of Accident and Method of Operation

This accident occurred on that part of the Northern Division extending between Ft. Scott, Kans., and Kansas City, Mo., 97 miles, a single-track line in the vicinity of the point of accident, over which trains are operated by timetable, train orders and an automatic block-signal system. The accident occurred 12.6 miles north of Ft. Scott, at a point 487 feet south of the station at Fulton, where the railroad is crossed at grade by State Highway No. 31. From the south on the railroad there is a tangent 3,742 feet in length, then a 2°11' curve to the left 615 feet to the crossing and 371 feet northward. The grade is 0.39 percent ascending northward.

State Highway No. 31 intersects the railroad at an angle of 58°28', and is surfaced with asphaltum to a width of 16 feet. The highway is tangent throughout a considerable distance west of the crossing and some distance eastward. The grade for east-bound vehicles is, successively, 2.0 percent descending 50 feet, 3.5 percent descending 25 feet, 7.7 percent descending 25 feet, 4.4 percent descending 25 feet and 1.6 percent ascending 25 feet, then it is level over the crossing. The crossing is 16 feet wide, and is surfaced with brick. Flangeways about 2-1/2 inches wide are provided.

A circular railroad-crossing sign 2 feet in diameter is located to the right of the direction of east-bound traffic, 20.5 feet south of the centerline of the highway and 329 feet west of the centerline of the main track. This sign is mounted on a mast 2.4 feet above the level of the highway, and bears the letters "R.R.", a vertical line and two horizontal lines in black on a yellow background. A standard cross-buck railroad-crossing sign is located to the right of the direction of east-bound traffic, 20.5 feet south of the centerline of the highway and 16 feet west of the centerline of the main track. This sign is mounted on a mast 11 feet above the level of the highway, and bears the words "RAILROAD CROSSINGS" in black letters on a white background. An automatic wig-wag crossing signal is located to the left of the direction of east-bound traffic, 20.5 feet north of the centerline of the highway and 15.7 feet east of the centerline of the main track. The wig-wag signal is equipped with a circular disc and a bell. The disc bears the word "STOP" in black letters on a red background. Immediately below the lettering a red light is attached to the disc. The center of the lens, which is 3.25 inches in diameter, is 11.5 feet above the level of the surface of the

highway. The light of the wig-wag signal is illuminated and the bell sounds when a north-bound train occupies any portion of the main track throughout a distance of 2,540 feet immediately south of the crossing. A crossing-whistle sign for north-bound trains is located 924 feet south of the crossing.

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. * * *

<u>Sound</u>	<u>Indication</u>
* * *	
(1) ___ o _____	Approaching public crossings at grade * * *
* * *	

31. The whistle must be sounded as prescribed by Rule 14(1) at the whistling sign for all public crossings and the last blast of the whistle signal prolonged or the whistle signal repeated until the engine * * * has passed the crossing.

* * *

Section 168 of the Motor Vehicle Laws of Kansas reads in part as follows:

168. * * * (a) The driver * * * of any vehicle carrying * * * flammable liquids as a cargo * * *, before crossing at grade any track or tracks of a railroad, shall stop such vehicle within fifty feet but not less than ten feet from the nearest rail of such railroad, and while so stopped shall listen and look in both directions along such track for any approaching train, and for signals indicating the approach of a train, * * * and shall not proceed until he can do so safely. * * *

The maximum authorized speed for the passenger train was 70 miles per hour.

Description of Accident

No. 106, a north-bound first-class passenger train, consisted of engine 4403, a 4-8-2 type, one baggage car, two express cars, one baggage-mail car, four baggage cars, three coaches, one cafe-lounge car and four sleeping cars, in the order named. The second and sixth cars were of steel-underframe construction, and the remainder of the cars were of all-steel construction. This train departed from Ft. Scott, the last open office, at 5:54 a. m., 4 minutes late, and while moving at an estimated speed of 65 miles per hour it struck a motor-truck on a grade crossing 487 feet south of the station at Fulton.

The vehicle involved was a tractor and semi-trailer, owned by a resident of Fulton, Kans. The driver, who was the sole occupant, held Kansas chauffeur's license No. 99189. The tractor was a 1944, White WA 6-cylinder model, and bore Kansas license No. T17-1001. It was equipped with dual tires on the rear wheels and hydraulic vacuum-power brakes on all wheels, and was provided with an enclosed steel cab. The semi-trailer was equipped with dual tires on its wheels, and a steel tank. At the time of the accident the cargo consisted of 3,092 gallons of gasoline and 497 gallons of kerosene. The cargo was loaded at Eldorado, Kans., and was destined to Fort Scott, Kans. This vehicle was moving eastward on State Highway No. 31 at an estimated speed of 15 miles per hour when it entered upon the crossing and was struck by No. 106.

The tractor and semi-trailer were demolished. The tank was punctured and escaping gasoline and kerosene became ignited. No. 106 was not derailed, and it stopped with the front of the engine 2,038 feet north of the crossing. The front end of the engine was damaged in the collision, and the engine and the cars were damaged by fire.

The engineer and the fireman were killed.

It was cloudy and daylight at the time of the accident, which occurred about 6:13 a. m.

During the 30-day period preceding the day of the accident, the average daily movement of trains over the crossing was 24.76. During the 24-hour period beginning at 12:01 a. m., April 30, 1947, 423 automobiles, 227 trucks and 11 buses passed over the crossing.

Discussion

No. 106 was approaching the crossing at a speed of about 65 miles per hour, in territory where the maximum authorized speed for this train was 70 miles per hour. The brakes of this train had been tested and had functioned properly en route. The members of the train crew were in various locations throughout the cars of the train. The first these employees knew of anything being wrong was when the brakes were applied in emergency immediately prior to the accident. Witnesses who were in the vicinity of the crossing heard the engine-whistle signal sounded for the crossing. The enginemen were killed, therefore, it could not be determined when they first became aware that the motor-truck had entered upon the crossing.

The crossing was protected by an advance railroad-crossing sign, a cross-buck sign and an automatic wig-wag signal. Considering the speed of the train and the length of the controlling circuit of the wig-wag signal, the signal would be actuated for 26 seconds before the accident occurred. In tests after the accident the crossing signal functioned properly, and apparently this signal was displaying warning of the approach of a train before the front of the motor-truck passed the signal.

Several persons who were in the vicinity of the crossing said that the motor-truck was moving at a speed of about 15 miles per hour when it was approaching the crossing. The motor-truck proceeded, without stopping, and entered upon the crossing immediately in front of the train.

The laws of the state of Kansas governing operation of motor vehicles require that a vehicle transporting inflammable liquids must stop not less than 10 feet and not more than 50 feet from the nearest rail of a railroad grade crossing, and the vehicle must not proceed unless it is safe to do so. Visibility was not impaired by weather conditions, and the driver of the vehicle could have seen the approaching train throughout a considerable distance immediately south of the crossing. It could not be determined why the motor-truck entered upon the crossing immediately in front of the approaching train, as the driver was killed in the accident.

Cause

It is found that this accident was caused by failure to operate a motor-truck approaching a railroad crossing ~~at~~ grade in accordance with requirements of law.

Dated at Washington, D. C., this twenty-seventh day of May, 1947.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.