

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT OF THE DIRECTOR
BUREAU OF SAFETY

ACCIDENT ON THE
ST. LOUIS-SAN FRANCISCO RAILWAY

COLUMBUS, KANS.

OCTOBER 10, 1938

INVESTIGATION NO. 2299

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SUMMARY

Inv-2299

Railroad:	St. Louis-San Francisco
Date:	October 10, 1938.
Location:	Columbus, Kans.
Kind of accident:	Collision
Equipment involved:	Passenger train :Tank truck
Train number:	310
Engine number:	186
Consist:	2 cars
Speed:	45-50 m.p.h. : Undetermined
Operation:	Timetable and train orders.
Track:	Single; tangent; 0.5 percent grade ascending eastward
Highway:	Tangent; crosses track at right angles
Weather:	Clear
Time:	8 p.m.
Casualties:	4 killed
Cause:	Truck driven upon railroad crossing in front of approaching train.

November 8, 1938.

To the Commission:

On October 10, 1938, there was a collision between a passenger train and an automobile tank-truck at a highway grade crossing on the St. Louis-San Francisco Railway near Columbus, Kans., which resulted in the death of two occupants of the truck and two railroad employees.

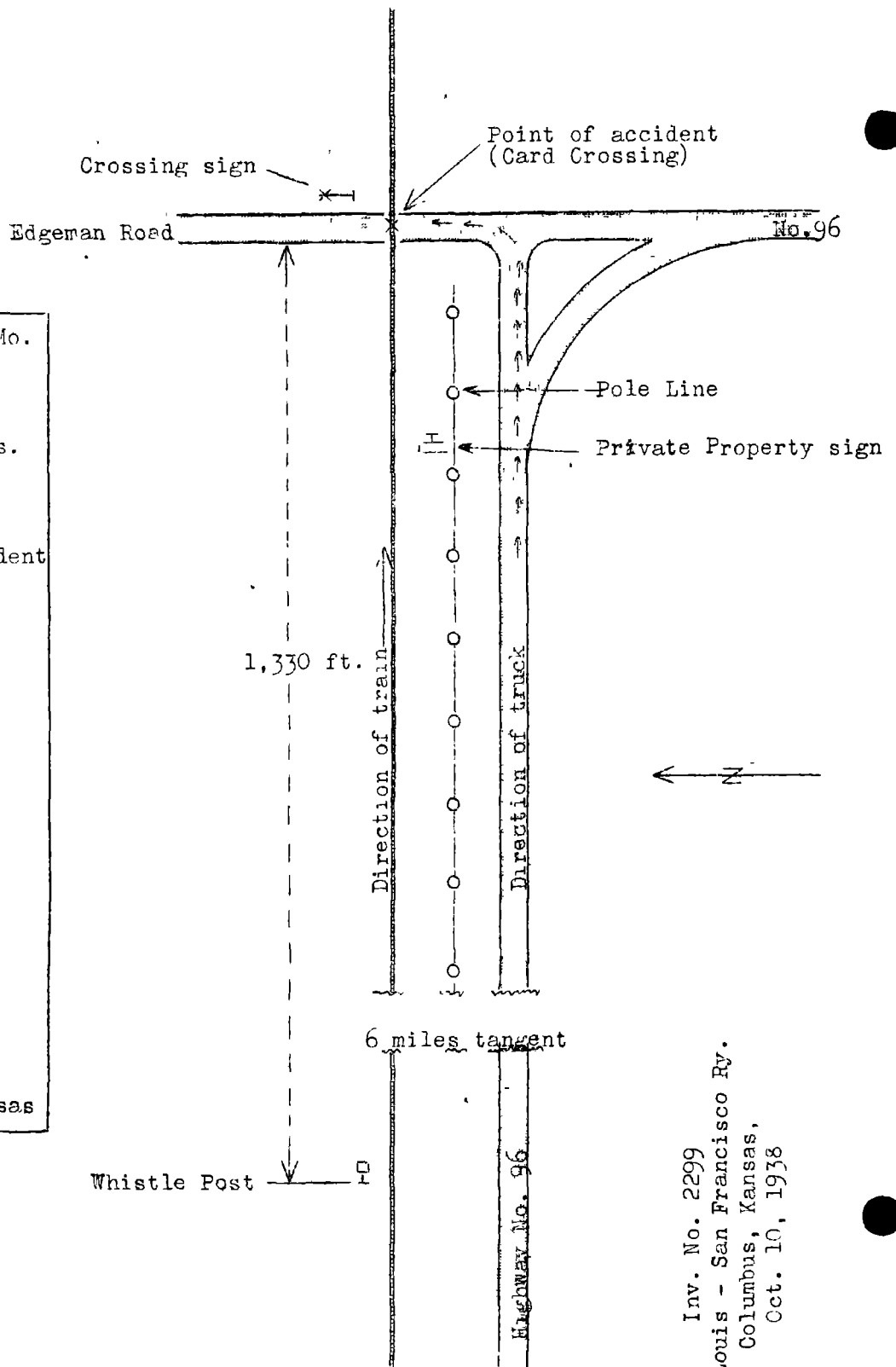
Location and method of operation

This accident occurred on that part of the Northern Division designated as the Carthage Sub-division which extends between Neodesha, Kans., and Pierce City, Mo., a distance of 114.5 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, no block-signal system being in use. The accident occurred about 2 miles west of Columbus where a road, known as Edgeman Cemetery Road, crosses the track at right angles at Card Crossing. Approaching from the west the track is tangent for approximately 6 miles to the crossing, and for a considerable distance beyond. The grade for east-bound trains is 0.5 percent ascending at the crossing. The maximum speed limit for passenger trains in this vicinity is 50 miles per hour.

Kansas Highway #96 parallels the railroad on the south for a distance of about 6 miles, the center line of the highway being 57 feet from the center line of the track; 125 feet west of Edgeman Road it diverges to the south and connects with Edgeman Road at a point 233 feet from Card Crossing. At this point of divergence an extension road continues eastward from Highway #96 and joins Edgeman Road at right angles 58 feet south of Card Crossing. Highway #96 is paved and well maintained; the extension road is an improved gravel and chats road, approximately 24 feet in width, and is fairly well maintained; Edgeman Road, 16 feet in width except at Card Crossing where it is 14 feet wide, is an improved gravel and chats road, with a Tarvia base, and is well maintained. The chats extends to within about 1 inch of the top of the rails at the crossing and there are no planks on either side of the rails. Edgeman Road ascends slightly to the level of the track on each side of the crossing.

A standard cross-buck sign, with the words "RAILROAD CROSSING" on the sign, and the words "SAFETY FIRST" vertically on the post, is located in the northeast corner of Card Crossing 23 feet from the center of the track and 19 feet east of the center of Edgeman Road; the top of the post is 11 feet 2 inches above the top of the rails. The entire sign had been recently repainted. The country is open and there is nothing except a

o	Pierce City, Mo.
	57.2 mi.
o	Columbus, Kans.
	2.0 mi.
x	Point of accident
	3.6 mi.
o	Sherwin
	2.8 mi.
o	Hallowell
	7.4 mi.
o	Oswego
	27.1 mi.
o	Cherryvale
	14.4 mi.
o	Neodesha, Kansas



Inv. No. 2299
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 Columbus, Kansas,
 Oct. 10, 1938

private property sign and a telephone-telegraph pole line to obstruct the view of the track to be had by the driver of a motor vehicle approaching the railroad. The private property sign, 4 feet wide and 1 foot 5 inches high, the bottom of which is 7 feet 5½ inches above the ground, is located 149 feet west of the crossing and 21 feet south of the track. The telephone-telegraph pole line is located 25 feet south of the track center. From points 75 and 50 feet, respectively, south of the track center, the view of an approaching eastward train is unobstructed, except for the pole line, for approximately 1½ miles.

The motor vehicle laws of Kansas provide in part as follows:

"The driver of any motor vehicle carrying *** explosive substances or flammable liquids as a cargo or part of a cargo, before crossing a 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. *** ."

A whistle post is located 1,330 feet west of the crossing.

The rules of the transportation department of the railway provide that the engine whistle must be sounded at the whistling posts by giving two long, one short and one prolonged blast approaching public crossings at grade, the last prolonged blast to be continued or the whistle signal to be repeated until the engine has passed the crossing.

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

Description

No. 310, an east-bound passenger train, consisted of one combination mail-baggage car and one combination chair-snack car, in the order named, of all-steel construction, hauled by engine 186, an oil burner, and was in charge of Conductor Shipley and Engineman Zentner. This train left Neodesha at 6:25 p.m., according to the train sheet, on time, left Cherryvale, 14.4 miles beyond, at 6:47 p.m., two minutes late, and while approaching Columbus, 42.9 miles east of Cherryvale, it struck an automobile tank-truck at Card Crossing while traveling at a speed estimated to have been between 45 and 50 miles per hour.

The automobile tank-truck involved was a 1928-model, 6 cylinder, $1\frac{1}{2}$ ton capacity, Reo speed-wagon. The tank was comprised of four compartments, having a total capacity of 582 gallons, and at the time of the accident was reported to have contained 550 gallons of kerosene. The truck chassis was owned and operated by W. R. Barber, of Weir, Kans., and the tank was owned by the Ohio Oil Co., Pittsburg, Kans., but leased to W.R. Barber. A rear-view mirror was mounted on the left door of the truck cab. Apparently the truck was being driven by F. E. Dugger, of Weir, Kans., who was accompanied by W. R. Barber; it left Oswego, approximately 14 miles west of the point of accident, about 7:30 p.m., and evidently proceeded eastward on Highway #96 to the extension road at Card Crossing, made a left turn on Edgeman Road and was moving northward over the crossing when it was struck by No. 310.

The train was not derailed. The truck was demolished and the wreckage strewn along the track and right-of-way for a distance of about 890 feet to the point where the engine stopped. The chassis stopped 20 feet north of the track and 84 feet west of the crossing; the tank was carried on the front of the engine to the stopping point. The engine and first car were sprayed with kerosene which became ignited. The employees killed were the engineman and the fireman who were sprayed by the burning kerosene.

Summary of evidence

Conductor Shipley stated that the air brakes were tested at Neodesha and functioned properly en route. He said that the headlight was burning as the train approached the crossing involved. He was in the rear seat on the south side of the rear car at which time the speed was about 50 miles per hour, and the first knowledge he had of anything wrong was when the brakes were applied in emergency; the collision and explosion occurred almost simultaneously, and the flames enveloped the engine, cars, cross ties and the grass in the immediate vicinity. When the train stopped he went to the engine which was afire, and the tank of the truck was across the pilot. The truck carried 1938, Kansas license No. T 10-342. Conductor Shipley further stated that he could not say whether the engine whistle was sounded or the engine bell rung immediately prior to the accident.

Brakeman Haeflinger, who was in the front end of the rear car approaching the point of accident, stated that the speed was about 50 miles per hour and the first intimation he had of anything wrong was when he felt the brakes being applied in emergency; about 10 seconds later the collision and explosion occurred, at which time the speed had been reduced to about 45 miles per hour.

Baggageman Langford stated that he was in the front end of the baggage car approaching the point of accident. He heard the whistle sounded for some time prior to and at the time of the impact. Immediately after the accident he observed that the headlight was burning.

Train Porter King, who was in the rear end of the rear car approaching the point of accident, corroborated the statement of the baggageman with respect to the sounding of the whistle.

Assistant Superintendent Shannahan, who arrived at the scene of the accident about 9:45 p.m., stated that an inspection of the engine showed the brake valve to be in emergency position, the throttle closed and the sanders open; the headlight was torn loose and had fallen on the pilot beam, but was still attached by means of the electric cable. The truck tank had several holes in it; there was one large hole in the left side which apparently was caused by the coupler on the front end of the locomotive striking the tank about 6 feet ahead of the rear end of the chassis.

Statements of various farm residents of this locality were to the effect that they heard the train approaching, but no one paid any particular attention to it; they could not say whether the engine bell was ringing, but most of them did hear the whistle blown. One person saw the headlight burning as the train approached the crossing, and several heard the explosion caused by the collision and saw the resultant fire. They did not see the tank-truck prior to the collision. They frequently used the crossing and said that it was practically level and in good condition; there was nothing about its construction or the approaches thereto that would cause a truck to stall.

Mrs. Lillie Barber, of Weir, Kans., widow of W. R. Barber, stated that her husband was 69 years of age, operated a filling station at Weir, selling products which he purchased from the Ohio Oil Co. He had owned the truck involved for about two years and occasionally drove it. During the summer of 1938 he employed F. E. Dugger to drive the truck and on the day of the accident the latter left the Barber home about 4:30 p.m., and she assumed that her husband and Dugger left shortly afterwards for Oswego, approximately 14 miles west of the point of accident for a load of kerosene. She thought they were not familiar with the crossing involved as this was only the second occasion of obtaining kerosene at Oswego. She did not know whether her husband had ever cautioned Dugger about stopping for railroad crossings but had heard him remark that Dugger was a careful driver. Her husband wore glasses occasionally.

J. L. Dugger, of Weir, Kans., brother of F. E. Dugger, stated that the latter was 32 years old and had been engaged irregularly in driving trucks and various types of automobiles for the past 15 years, and at times had operated a truck of his own. He did not know whether his brother had ever previously been over the crossing involved. His brother had the reputation of being a good driver, and in his opinion both his brother and Barber had normal hearing.

Willard Andrews, of Weir, Kans., stated that he had been employed about 9 years by W. R. Barber and had stopped working for him about July 23, 1938, and that F. E. Dugger succeeded him. The Reo truck involved in the accident had three forward gears and a reverse; it was equipped with mechanical four-wheel brakes, which were kept in good condition while he was employed, and the truck operated smoothly and without excessive noise. He said that so far as he knew both Barber and Dugger had normal hearing. Andrews had been instructed by Barber to stop at railroad crossings and, during the time he was employed as truck driver, letters instructing them to do so were received from the oil company.

Warren Hardwick, of the Guinn Oil Co., Oswego, Kans., stated that W. R. Barber and a man driving the truck involved came to the oil station about 6:30 or 7 p.m., obtained 550 gallons of kerosene and departed about 7:30 p.m., but he could not say definitely which of the two men was driving the truck when departing. He conversed with both occupants of the truck while they were at the station and they appeared sober and normal in every respect; he understood from their conversation that they intended going direct to Weir from Oswego. This was the second time, to his knowledge, that they had come to this oil station for kerosene, the other time being on September 15. Another attendant at the oil station observed that both headlights of the truck were burning when it departed.

H. G. Shields, Insurance Manager and Claim Representative for the Ohio Oil Co., Tulsa, Okla., stated that his company carried a joint liability insurance policy with W. R. Barber, an intrastate carrier. The truck bore liquid fuel carrier license No. 12665 and truck license T 10-342 Kansas 38. Barber was not employed in any manner by the Ohio Oil Co., and it had no jurisdiction over either him or the truck driver.

J. L. Lemon, bulk agent of the Ohio Oil Co., corroborated the statement of Mrs. Barber with respect to the ownership of the truck and the tank.

According to the State records, W. R. Barber was issued Kansas Motor Vehicle Chauffeur's License No. C-26808, September 18, 1937, and F. E. Dugger was issued Kansas Motor Vehicle

Operator's License No. 719097, January 25, 1938. It was understood that, due to an extension provided by law, these licenses would not expire until July 1, 1939. Records in the Department of Inspections and Registration of the Kansas State Corporation Commission showed that liquid fuel carrier license No. 12665 was issued in the name of the Ohio Oil Company and expired through operation of the law on August 14, 1937. This tank truck showed the name of W. R. Barber as the person to whom liquid fuel carrier license No. 12665 was issued and the truck showed this license on it; there was no record of any such license being issued to W. R. Barber, Weir, Kans. These licenses are good for only one year.

Observations of the Commission's Inspectors

Inspection of the crossing revealed that the chats and gravel surface between the rails of the track was depressed about one inch below the top of the rails but was maintained in good condition. The approaches to the crossing from both the south and the north were maintained in good condition.

At the point the truck left Highway #96 and entered the connecting road the view of the track was unobstructed. From an automobile at any point between 50 and 28 feet south of the south rail the view of the track to the west was limited to approximately 1,500 feet; between 28 and 23 feet the visibility was obscured by the telephone poles, but the headlight of an approaching locomotive was always in view; between 23 and 15½ feet the view was unobstructed, except for the private property sign which was in the line of vision yet high enough that a clear view of the track could be had below the sign; between 15½ feet and the south rail the view was unobstructed for approximately 1.6 miles.

Inspection of the truck chassis revealed conditions to be as previously described; this inspection showed that the truck was apparently in second gear at the time of the accident. The window crank in the left door of the cab appeared to be in half closed position and that in the right door in full open position. There was no radio on the truck. It appeared that the front compartment exploded, as that end of the tank was blown out. The indications were that the truck was first struck immediately ahead of the left rear wheel.

The Edgeman Cemetery Road is used principally by residents in the vicinity, and the traffic is light over this crossing. A traffic check which was started at 8 a.m., October 17, and ended at 8 a.m., October 18, showed that a total of 90 automobiles, 13 trucks and 6 trains passed over this crossing during this period; the peak of traffic was from 9:45 a.m. until 10 a.m. during which period a total of 4 automobiles and 3 trucks passed.

Discussion

So far as could be determined there were no living eye witnesses to the accident as the engineman, the fireman, and both occupants of the truck were killed; therefore, it is not known exactly what transpired immediately prior to the accident. According to the evidence the truck left Oswego, Kans., a distance of approximately 14 miles from the point of accident, about 7:30 p.m., at which time both occupants appeared normal, with a load of 550 gallons of kerosene, and traveled east over Highway #96, made a left turn to Edgeman Cemetery Road and was proceeding northward over the railroad crossing when it was struck by the passenger train. It was not established whether the truck stopped near the crossing before proceeding upon the track but it is apparent that had the truck driver stopped, listened, and looked in both directions for any approaching train, as required by law, he could have seen the train approaching. The crossing was well maintained, it was provided with a standard crossing warning sign, and the visual conditions were good. The occupants of the truck had previously covered the same route on September 15.

Conclusion

This accident was caused by an automobile tank-truck being driven upon a railroad crossing at grade directly in front of an approaching train.

Respectfully submitted,

W. J. PATTERSON

Director.