INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT NO. 3429

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY

IN RE ACCIDENT

NEAR SANTA FE SPRINGS, CALIF., ON

AUGUST 31, 1951

SUMMARY

Date:	August 31, 1951	
Railroad:	Atchison, Topeka and Santa Fe	
Location:	Santa Fe Springs, Calif.	
Kind of accident:	Collision	
Equipment involved:	Freight train	: Motor-truck
Train number:	Extra 419 West	:
Engine number:	Diesel-electric units 419 and 419A	:
Consist:	Caboose	:
Estimated speeds:	36 m. p. h.	: Standing
Operation:	Signal indications	
Tracks:	Double; 1°45'35" curve, 0.54 percent ascending grade westward	
Highway:	Tangent; crosses track at angle of 69°22'; 8.0 percent ascending grade westward	
Weather:	Clear	
Time:	8:23 p. m.	
Casualties:	2 killed; 3 injured	
Cause:	Motor-truck occupying rail-highway grade crossing immediately in front of approaching train	

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3429

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

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY

November 9, 1951

Accident near Santa Fe Springs, Calif., on August 31, 1951, caused by a motor-truck occupying a rail-highway grade crossing immediately in front of an approaching train.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On August 31, 1951, there was a collision between a freight train on the Atchison, Topeka and Santa Fe Railway and a motor-truck at a rail-highway grade crossing near Santa Fe Springs, Calif , which resulted in the death of two train-service employees and the injury of three train-service employees. This accident was investigated in conjunction with a representative of the Public Utilities Commission of California.

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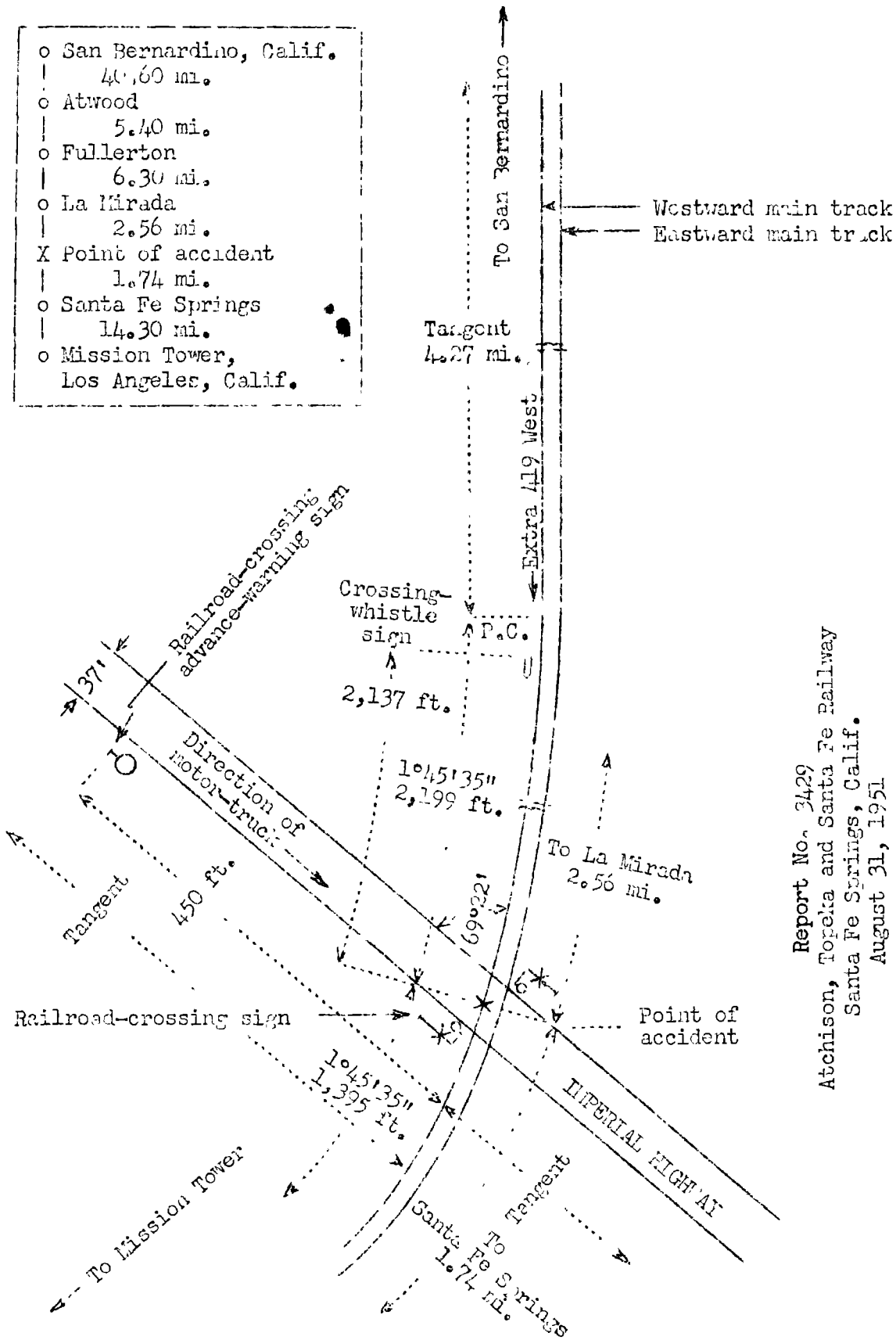
[1] Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.



Report No. 3429
Atchison, Topeka and Santa Fe Railway
Santa Fe Springs, Calif.
August 31, 1951

Location of Accident and Method of Operation

This accident occurred on that part of the Los Angeles Division extending between San Bernardino and Mission Tower, Los Angeles, Calif., 70.9 miles. In the vicinity of the point of accident this is a double-track line, over which trains moving with the current of traffic are operated by signal indications. The accident occurred on the westward main track at a point 54.86 miles west of San Bernardino and 1.74 miles east of the station at Santa Fe Springs, where the railroad is crossed at grade by Imperial Highway. Timetable directions are used in this report. From the east on the railroad there are, in succession, a tangent 4.27 miles in length and a 1°45'35" curve to the right 2,199 feet to the point of accident and 1,395 feet westward. The grade for west-bound trains varies between 0.08 percent and 0.67 percent ascending throughout a distance of 1 mile immediately east of the point of accident and is 0.54 percent ascending at that point. Imperial Highway intersects the railroad at an angle of 69°22'. This highway is tangent a considerable distance on either side of the crossing. It is 37 feet in width and is surfaced with asphalt to the tops of the rails, with header rails 50 feet long on each track. From a point 300 feet north of the crossing the grade for south-bound vehicles is, in succession, 0.54 percent descending a distance of 100 feet, level 50 feet, 0.30 percent ascending 100 feet, then from 0.30 percent to 8.0 percent ascending to the north rail of the westward main track and 50 feet southward. At the crossing, the outside rail is super-elevated and the highway through the crossing is constructed in the plane of the tops of the rails.

A circular railroad-crossing advance-warning sign is located to the right of the direction of south-bound highway traffic and about 450 feet north of the center-line of the westward main track. This sign is mounted on a mast and consists of a white round disc with black cross lines and the letter "R" in each of the top quadrants. The letters and the lines of this sign are reflectorized. At the same location, white cross lines and the letters "RR" are painted on the west lane of the highway. A standard cross-buck railroad-crossing sign is located to the right of the direction of south-bound traffic, 24.5 feet west of the center-line of the highway and 17.5 feet north of the center-line of the westward main track. This sign is mounted on a mast, 9.7 feet above the level of the highway, and bears the words "RAILROAD CROSSING" in black on a white background. A sign bearing the numeral

"2" over the word "TRACKS", in black on a white background, is mounted on the same mast, and is 5.8 feet above the level of the highway. The letters and numerals of these two signs also are reflectorized. A sign bearing the words "STOP WHEN SWINGING," in white on a black background, is also mounted on this mast, and is 4.9 feet above the level of the highway. These letters are provided with reflector buttons. A warning signal, consisting of a circular white banner, 18 inches in diameter and with two black stripes at right angles to each other, is suspended from a cantilever bracket attached to this mast. The banner is 11.3 feet above the level of the highway. The warning aspect is displayed by the swinging of the banner and by a red light at its center. At approximately the location of the mast, white cross lines are painted on the west lane of the highway. A similar railroad-crossing sign is located to the right of the direction of north-bound highway traffic in the southeast angle of the intersection. The warning signals are arranged for automatic operation when a west-bound train occupies any portion of the westward main track throughout a distance of 3,870 feet immediately east of the crossing. A crossing-whistle sign for west-bound trains is located 2,137 feet east of the crossing.

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, * * * to be prolonged or repeated until crossing is reached.
* * *	

30. The engine bell must be rung * * * while approaching and passing public crossings at grade * * *

The Vehicle Code of the State of California reads in part as follows:

Chapter 12. Special Stops Required

575. Obedience to Signal Indicating Approach of Train. (a) Whenever any person driving a vehicle upon a highway approaches * * * steam railway grade crossing and a clearly visible electric or mechanical signal device gives warning of the immediate approach of a railway train * * * the driver of such vehicle shall stop within 50 feet but not less than 10 feet from the nearest track of such railway but need not remain standing if he can proceed in safety.

* * *

576. Certain Vehicles Must Stop at All Railway Grade Crossings. (a) The driver * * * of any motor tank truck, tank trailer or tank semitrailer, used in the transportation of inflammable liquids * * * as a cargo or part of a cargo, whether loaded or empty, before crossing at grade any track or tracks of a steam railway * * * shall stop such vehicle not less than ten nor more than fifty feet from the nearest rail of such track and while so stopped shall listen, and look in both directions along such track, for any approaching railway train * * * before traversing such crossing * * *.

* * *

The maximum authorized speed for the train involved was 55 miles per hour, but was restricted to 50 miles per hour in the immediate vicinity of the point of accident.

Description of Accident

Extra 419 West, a west-bound freight train, consisted of Diesel-electric units 419 and 419A, coupled in multiple-unit control, and a caboose. This train departed from Atwood, 14.26 miles east of the point of accident, at 7:10 p. m., departed from Fullerton, the last open office, 8.86 miles east of the point of accident, at 8:08 p. m., and while moving at a speed of about 36 miles per hour it struck a motor-truck on a rail-highway grade crossing 1.74 miles east of the station at Santa Fe Springs.

The vehicle involved was a truck-tanker and trailer owned by Frank Hane of Los Angeles, Calif. The driver was the sole occupant. The truck was a 1950 Peterbilt truck-tanker. It bore California license No. P90 159. The trailer was 22 feet long. It bore California license No. 696379-Serial 245. It was equipped with a single axle and dual tires at the front and rear. It was equipped with a 4,500-gallon capacity tank. At the time of the accident it was loaded with gasoline. This vehicle was stopped on the eastward main track and the trailer portion on the westward main track when it was struck by Extra 419 West.

Extra 419 West was not derailed. It stopped with the front of the first Diesel-electric unit 1,951 feet west of the crossing. One axle of the trailer was carried on the front of the locomotive to this point. All units were badly damaged by fire.

After the collision occurred, the truck rolled backward across the westward main track and stopped on the highway about 35 feet north of the westward main track and at an angle of about 25 degrees to the tracks. The truck was not struck by the train but was damaged by the fire. The trailer was torn from the truck and stopped in a borrow pit about 20 feet south of the tracks and 180 feet west of the crossing. The trailer was destroyed and the cargo was consumed by fire.

The engineer and the fireman were killed. The conductor and the two brakemen were injured.

The weather was clear at the time of the accident, which occurred about 8:23 p. m.

During the 30-day period preceding the day of the accident, the average daily movement over the crossing was 44.6 trains. During the 24-hour period beginning at 12 o'clock noon, September 7, 1951, 5,401 automobiles, 951 trucks and 1 bus passed over this crossing.

Discussion

As Extra 419 West was approaching the point where the accident occurred the engineer and the fireman were in the control compartment of the locomotive and the other members of the crew were in the caboose. The engineer and the fireman were killed, and the other members of the crew were too severely injured to be questioned during this investigation.

After the accident occurred, the brake valve was found in the emergency position, the sander valve was open and the throttle was open. The tape of the speed recording device was destroyed by fire. However, this train departed from Fullerton, 8.86 miles east of the point of accident, at 8:08 p. m. and maintained an average speed of about 36 miles per hour between Fullerton and the point of accident. The engineer who handled this train into Atwood, 14.26 miles east of the point of accident, said that the brakes functioned properly.

The driver of the motor-truck was the sole occupant. He could not be found for questioning after the accident occurred. Apparently the vehicle became stalled on the crossing and was abandoned by the driver as Extra 419 West was approaching the crossing.

From the crossing and from points on the highway 50 feet, 100 feet, 150 feet, and 200 feet north of the crossing, an approaching west-bound train can be seen at distances respectively, of 1,083 feet, 788 feet, 813 feet, 753 feet, and 645 feet. A railroad-crossing advance-warning sign for south-bound vehicular traffic is located 450 feet north of the crossing. An automatic grade-crossing signal, actuated by a west-bound train throughout a distance of 3,870 feet east of the crossing, is located at the crossing. This signal was destroyed as a result of the accident and it could not be tested. However, it had been tested by the signal maintainer on July 23, 1951, August 5, 1951, and August 29, 1951, and on each occasion it functioned properly.

Cause

It is found that this accident was caused by a motor-truck occupying a rail-highway grade crossing immediately in front of an approaching train.

Dated at Washington, D. C., this ninth day of November, 1951.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,

Secretary.