

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 3069

SOUTHERN PACIFIC COMPANY

REPORT IN RE ACCIDENT

AT KINGSBURG, CALIF., ON

FEBRUARY 4, 1947

SUMMARY

Railroad: Southern Pacific

Date: February 4, 1947

Location: Kingsburg, Calif.

Kind of accident: Collision

Equipment involved: Passenger train : Motor-truck

Train number: 51 :

Engine number: 4350 :

Consist: 14 cars :

Speeds: 43 m. p. h. ; 3 m. p. h.,

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

Track: Single; tangent; 0.075 percent
ascending grade westward

Street: Tangent; crosses track at angle of
68°44'; 4.0 percent ascending
grade toward crossing from both
directions

Weather: Clear

Time: 3:08 p. m.

Casualties: 4 killed; 129 injured

Cause: Motor-truck being driven upon street
grade crossing immediately in front
of approaching train

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3069

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

SOUTHERN PACIFIC COMPANY

March 3, 1947

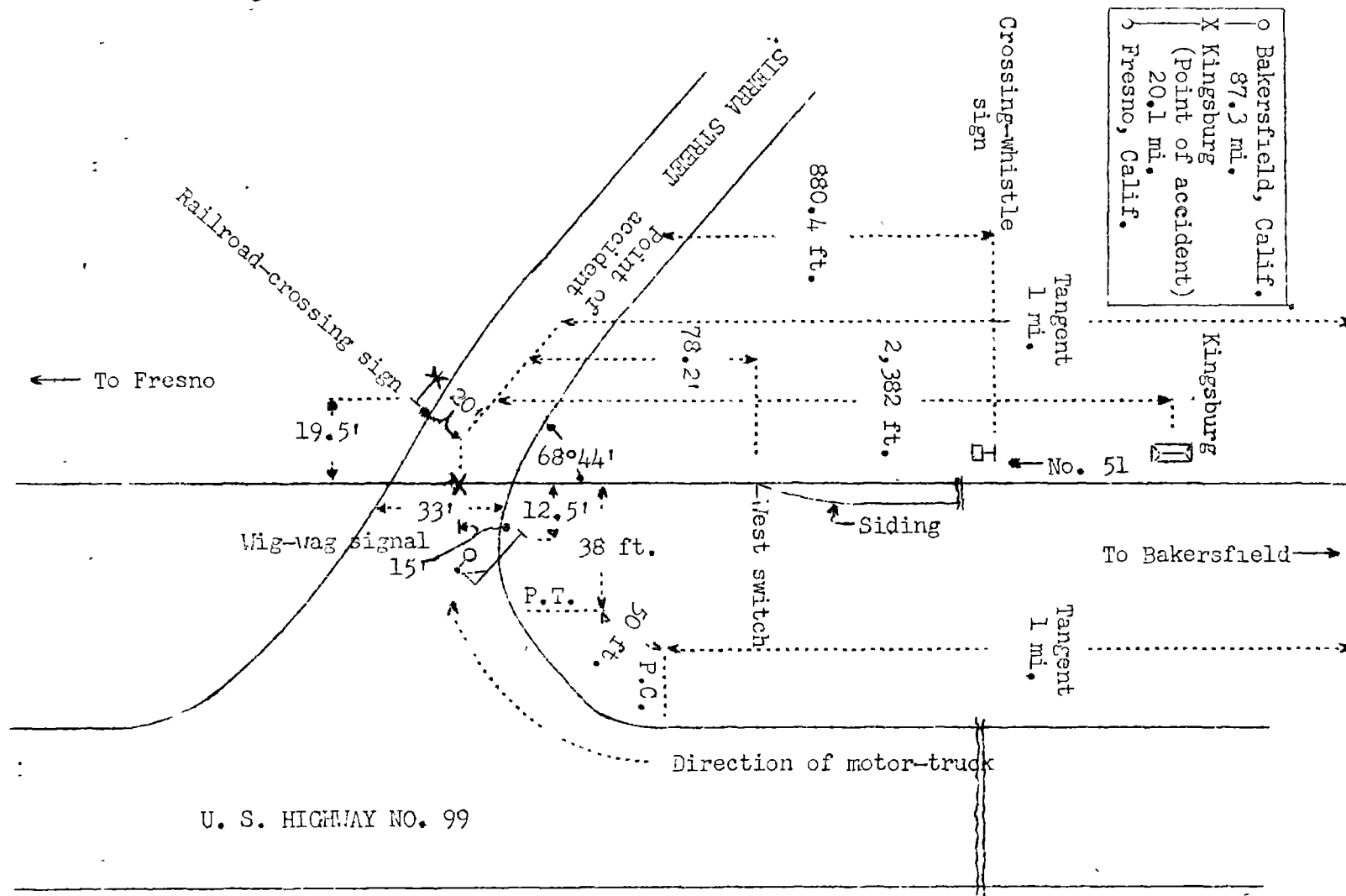
Accident at Kingsburg, Calif., on February 4, 1947, caused
by a motor-truck being driven upon a street grade cross-
ing immediately in front of an approaching train.

REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On February 4, 1947, there was a collision between a passen-
ger train on the line of the Southern Pacific Company and a motor-
truck at a street grade crossing at Kingsburg, Calif., which
resulted in the death of 2 passengers and 2 train-service employ-
ees, and the injury of 115 passengers, 9 dining-car employees, 2
chair-car porters and 3 train-service employees. This accident
was investigated in conjunction with a representative of the
Railroad Commission of California.

¹Under 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.



U. S. HIGHWAY NO. 99

Inv. No. 3069
Southern Pacific Company
Kingsburg, Calif.
February 4, 1947

Location of Accident and Method of Operation

This accident occurred on that part of the San Joaquin Division extending between Bakersfield and Fresno, Calif., 107.4 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 87.3 miles west of Bakersfield, at a point 2,382 feet west of the station at Kingsburg, where the railroad is crossed at grade by Sierra Street. From the east on the railroad there is a tangent extending about 1 mile to the crossing and a considerable distance westward. The grade is 0.075 percent ascending westward.

Sierra Street intersects the main track at an angle of $68^{\circ}44'$. U. S. Highway No. 99 parallels the railroad on the south and intersects Sierra Street at a point 28 feet south of the intersection of the main track and Sierra Street. From the east on U. S. Highway No. 99 thence northward on Sierra Street there are, in succession, a tangent about 1 mile in length, a sharp turn to the right about 50 feet and a tangent 38 feet to the crossing and some distance northward. The grade for north-bound vehicles is, successively, 4.0 percent ascending 50 feet to the crossing, level over the crossing and 4.0 percent descending about 50 feet northward. South of the crossing Sierra Street is surfaced with asphaltum to a width of about 35 feet. The crossing is 33 feet wide and is surfaced with asphaltum. Flangeways about 2-1/2 inches wide are provided.

A standard cross-buck railroad-crossing sign is located to the left of the direction of north-bound traffic, 19.5 feet north of the centerline of the main track and 20 feet west of the centerline of Sierra Street. This sign is mounted on a mast and bears the words "RAILROAD CROSSING" in black letters on a white background. An automatic wig-wag crossing signal is located to the right of the direction of north-bound traffic, 12.5 feet south of the centerline of the main track and 15 feet east of the centerline of Sierra Street. The wig-wag signal is equipped with a red light and a bell. The center of the lens is 13.15 feet above the level of the surface of the street. The light of the wig-wag signal is illuminated and the bell sounds when a west-bound train occupies any portion of the main track throughout a distance of 1,860 feet immediately east of the crossing. A crossing-whistle sign for west-bound trains is located 680.4 feet east 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. * * *

* * *

SOUND	INDICATION
* * *	
(1) — — o —	Approaching public crossings at grade, * * * to be commenced sufficiently in advance to afford ample warning, but not less than one-fourth mile before reaching a crossing, and prolonged or repeated until the engine has passed over the crossing.

* * *

Section 576 of Chapter 12 of the Vehicle Code State of California reads in part as follows:

576. Certain Vehicles Must Stop at All Railway Grade Crossings. (a) The driver * * * of any motor truck carrying * * * inflammable liquids as a cargo or part of a cargo, before crossing at grade any track or tracks of a steam railway * * * shall stop such vehicle not less than 10 nor more than 50 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, * * * or * * * other vehicle using such rails before traversing such crossing, * * *

* * *

The maximum authorized speed for passenger trains moving in the vicinity of the crossing involved is 45 miles per hour.

Description of Accident

No. 51, a west-bound first-class passenger train, consisted of engine 4350, one baggage-mail car, one passenger-baggage car, one parlor car, one tavern car, four coaches, one dining car, one cafe car and four coaches, in the order named. All cars were of steel construction. This train passed the station at

Kingsburg at 3:07 p. m., 16 minutes late, and while moving at a speed of 43 miles per hour it struck a motor-truck on a street grade crossing 2,382 feet west of the station at Kingsburg.

The vehicle involved was a motor-truck and a trailer, owned by M. Friis-Hanson & Co., Fresno, Calif. The motor-truck was a 1942, White 6-6-6 model, and bore California license No. BEFF7813. It weighed 21,290 pounds, and was equipped with two axles at the rear end, dual wheels on each rear axle, an enclosed steel cab, and a steel tank. The truck was hauling a trailer, equipped with a steel tank and three axles. Each axle had two wheels, and each wheel had one tire. The trailer weighed 10,850 pounds, and bore California license No. BE25139. The overall length of the two units was approximately 60 feet. At the time of the accident the cargo of the truck and trailer consisted of 7,100 gallons of gasoline. This vehicle moved westward on U. S. Highway No. 99, turned sharply to the right on Sierra Street and while moving northward at an estimated speed of 3 miles per hour it entered upon the crossing where the trailer was struck by No. 51.

The trailer became separated from the motor-truck. The motor-truck was not damaged. The trailer was demolished, the tank was punctured and escaping gasoline became ignited. No. 51 was not derailed, and it stopped with the front of the engine 872.7 feet west of the crossing. The front end of the engine was damaged in the collision, and the engine and the first 10 cars were badly damaged by fire.

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

The weather was clear at the time of the accident, which occurred about 3:08 p. m.

During the 30-day period preceding the day of the accident, the average daily movement of trains over the crossing was 34. During the 5-hour period beginning at 10:30 a. m., February 7, 1947, 388 automobiles and 168 trucks passed over the crossing.

Discussion

No. 51 was approaching the crossing at a speed of 43 miles per hour, according to the tape of the speed recorder with which the engine was equipped, in territory where the maximum authorized speed was 45 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. Several persons in the vicinity of the crossing

heard the engine-whistle signal sounded for the crossing. The last blast of the whistle was being sounded as the engine entered upon 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. Examination of the engine after the accident disclosed that the automatic brake valve was in emergency position.

The crossing was protected by 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 about 30 seconds before the accident occurred. In tests immediately 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. When the collision occurred, an east-bound freight train was standing on a siding, which parallels the main track on the south. The west switch of the siding is 78.2 feet east of the centerline of the crossing. The rear end of the train on the siding was 844 feet east of the crossing. Although the train on the siding may have prevented the driver of the motor-truck from seeing the approaching train until the front of the motor-truck was within a short distance south of the south rail of the main track, from a point immediately south of the crossing the driver could have seen the approaching train throughout a considerable distance immediately east of the crossing. The laws of California require motor-trucks carrying inflammable liquids to stop not less than 10 feet and not more than 50 feet from the nearest rail of a railroad grade crossing. None of the witnesses interrogated in the investigation continuously observed the movement of the motor-truck as it approached the crossing. It could not be determined why the driver permitted the motor-truck to proceed upon the crossing immediately in front of the approaching train, as he was not available for questioning during the investigation.

Cause

It is found that this accident was caused by a motor-truck being driven upon a street grade crossing immediately in front of an approaching train.

Dated at Washington, D. C., this third
day of March, 1947.

By the Commission, Commissioner Patterson.

W. P. BARTEL,

Secretary.

(SEAL)