

RAILROAD ACCIDENT INVESTIGATION

REPORT NO 4096

SOUTHERN PACIFIC COMPANY

CLOTHO, CALIF

AUGUST 27, 1966

INTERSTATE COMMERCE COMMISSION

WASHINGTON

SUMMARY

DATE	August 27, 1966		
RAILROAD	Southern Pacific		
LOCATION	Clotho, Calif		
KIND OF ACCIDENT	Collision and derailment		
EQUIPMENT INVOLVED	Freight train	Motortruck	
TRAIN NUMBER	Extra 4006 East		
LOCOMOTIVE NUMBER	Diesel-electric unit 4006		
CONSISTS	17 cars, caboose	Tractor,	semi- trailer,
ESTIMATED SPEEDS	45 m p h	43 m p h	
OPERATION	Timetable, train orders		
TRACK	Single, tangent, 0 40 percent ascending grade eastward		
HIGHWAY	Tangent, level, crosses track at angle of 90 ^o		
WEATHER	Clear		
TIME	8.52 a m		
CASUALTIES	2 killed, 4 injured		
CAUSE	Truck driver's failure to control the speed of his motor vehicle as required by State		

law and to stop short of a train moving over the rail-highway grade crossing

RECOMMENDATION

That the Southern Pacific Company, and/or California State or local authorities, immediately take such action as is necessary to provide adequate protection for rail and highway movements over the Clotho rail-highway grade crossing

INTERSTATE COMMERCE COMMISSION
RAILROAD SAFETY AND SERVICE BOARD

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SYNOPSIS

On August 27, 1966, a motortruck struck a Southern Pacific Company freight train moving over a rail-highway grade crossing at Clotho, Calif. The driver and one truck passenger were killed. Four train-service employees were injured.

The accident was caused by the truck driver's failure to control the speed of his motor vehicle as required by State law and to stop short of a train moving over the rail-highway grade crossing.

LOCATION AND METHOD OF OPERATION

The accident occurred on that part of the San Joaquin Division extending between Fresno and Famosa, Calif., a distance of 104.3 miles. In the accident area this is a single-track line over which trains operate by timetable and train orders. There is no block-signal system in use. In the accident area, a siding and a spur track parallel the main track on the south as shown in the sketch appended to this report.

The collision occurred on the main track, 10.5 miles east of Fresno and 756 feet east of the Clotho station sign, where the railroad is crossed at grade by a public highway designated as McCall Avenue.

As a northbound vehicle on McCall Avenue approaches the crossing, the driver's view of the main track westward is obstructed by fruit packing sheds along the south side of the siding.

and spur track and by trees in the southwest quadrant of the crossing. However, as the vehicle approaches the crossing within 36 feet, the driver has an unrestricted view of the main track westward for a distance of about 700 feet.

Details concerning the main track, McCall Avenue and crossing, crossing-warning signs, railroad carrier's operating rules, California State Vehicle Code, motor vehicle and driver, damages, and other factors are set forth in the appendix.

DESCRIPTION AND DISCUSSION

Extra 4006 East, an eastbound freight train consisting of diesel-electric unit 4006, 17 cars and a caboose, left Locans, 7.5 miles east of Fresno, at 8:43 a. m. The brakes had been tested and had functioned properly. About 8:52 a. m., Extra 4006 East approached the McCall Avenue crossing at Clovis at 45 miles per hour, as estimated by the crew members. The engineer, fireman, and front brakeman were in the control compartment near the front of the locomotive, which was of the road-switcher type. The conductor and flagman were in the caboose. The engineer and fireman said the headlight was lighted and the bell was ringing.

The engineer said that when the train reached the crossing-whistle sign located 1,916 feet west of the crossing, he began to sound the prescribed signal on the locomotive horn and continued sounding the horn while approaching the crossing. When the locomotive was about 500 feet west of the crossing, a space between two fruit packing sheds on the south side of the track structure offered the engineer a brief view of McCall Avenue south of the crossing. At this time, he saw a northbound motortruck, transporting a cargo of almonds, approaching the crossing at a high rate of speed. When the locomotive was about 50 feet west of the crossing, he again saw the motortruck as it neared the crossing at a speed which he estimated to be about 50 miles per hour. The engineer immediately realized it was moving too fast to stop short of the crossing and called a warning to the other crew members on the locomotive. He also applied the train brakes in emergency. Immediately thereafter, before its speed was reduced, the train entered the crossing and the locomotive was struck on the south side, at the front end, by the motortruck. The impact caused the locomotive to derail on the crossing, and the first eleven cars derailed immediately thereafter.

The driver and a passenger on the motortruck were killed. The engineer, fireman, front brakeman, and conductor of Extra 4006 East were injured.

The motortruck, which consisted of a tractor, semitrailer and trailer, was not subject to the Commission's Motor Carrier Safety Regulations. Stylus marks on a speed-recording disc removed from the tractor after the accident indicate that the motortruck was moving at 40 to 43 miles per hour when it passed a railroad-crossing advance-warning sign and a 15 miles per hour speed-limit sign located 609 feet south of the crossing, and that it struck the locomotive of Extra 4006 East while moving at 43 miles per hour.

Several witnesses saw the train and motortruck approach the crossing. The preponderance of their statements indicates that the locomotive horn was sounding as the train approached and entered the crossing, and that the motortruck approached the crossing at high speed.

Records of the Public Utilities Commission of California indicate that, including this case, seven persons have been killed and six have been injured in five accidents at the Clotho crossing in the past four years.

FINDINGS

As the motortruck approached the crossing during the last 100 feet, the driver's view of the main track westward was restricted by fruit packing sheds to less than 400 feet until his vehicle reached a point about 36 feet from the main track. Under these circumstances, a provision of the California State Vehicle Code restricted the motortruck from traversing the crossing at a speed in excess of 15 miles per hour. In addition, the highway speed-limit sign posted 609 feet south of the crossing restricted the motortruck to a speed not exceeding 15 miles per hour as it neared the crossing. It is apparent that the driver did not reduce speed as required while approaching the crossing and that the motortruck was moving at 43 miles per hour, considerably faster than its maximum authorized speed, when it entered the crossing and struck the train. Had the driver exercised due caution and properly controlled the speed of his vehicle while nearing the track, he could have seen or heard Extra 4006 East approaching in sufficient time to stop short of the crossing and the accident probably would have been averted.

Because of poor visibility conditions and lack of any automatic railroad-crossing signal device for warning motor vehicles of the immediate approach of a train, the Clotho rail-highway crossing involved is unusually dangerous to both rail and highway traffic, as evidenced by the number of accidents occurring there within the past four years. Hence, it appears that collisions between trains and highway vehicles will continue to occur at this crossing at relatively frequent intervals unless action is taken by the railroad carrier, or State or local authorities, to provide added protection for both rail and highway movements at the crossing.

CAUSE

This accident was caused by the truck driver's failure to control the speed of his motor vehicle as required by State law and to stop short of a train moving over the rail-highway grade crossing.

RECOMMENDATION

It is recommended that the Southern Pacific Company, and/or California State or local authorities, immediately take such action as is necessary to provide adequate protection for rail and highway movements over the Clotho rail-highway grade crossing.

*Dated at Washington, D C this 25th
day of November 1966
By the Commission, Railroad Safety
and Service Board*

(SEAL)

H NEIL GARSON,
Secretary

APPENDIX

Track

The main track is tangent a considerable distance east and west of the accident point. The grade in this area is 0.40 percent ascending eastward.

McCall Avenue and Crossing

McCall Avenue is tangent and practically level a considerable distance south of the crossing. It is surfaced with bituminous material to a width of 26 feet and crosses the railroad at an angle of 90°. The crossing is 40 feet wide with guard rails laid along the gage side of each rail. The remaining crossing area is surfaced with bituminous material to the level of the rail tops.

Crossing Warning Signs

A circular railroad crossing advance-warning sign, 2 1/2 feet in diameter, is adjacent to the east side of McCall Avenue, 609 feet south of the crossing. It is mounted on a mast 9 feet above the road surface and bears two intersecting diagonal stripes and the letters "RR". The stripes and letters are painted black on a yellow background. A sign reading "4 TRACKS," in 4-inch white letters on a black background, is attached to the mast below the advance-warning sign. Below this sign, the mast bears another sign reading "15 MPH" in black figures and letters. The figures and letters are 10 and 4 inches high, respectively, and are on a yellow background.

A white stripe, 2 feet wide, is painted across the northward lane of McCall Avenue, 517 feet south of the crossing. A similar stripe is painted across this lane 475 feet south of the crossing. Between these stripes, the surface of the northward lane is painted with two intersecting diagonal white stripes, 1 foot wide and 16 feet long. The letters "RR," each 5 inches wide and 54 inches long, are painted in white at the intersection of the diagonal stripes.

Another white stripe, 2 feet wide, is also painted across the northward lane 38 feet south of the crossing.

A standard crossbuck railroad-crossing warning sign, bearing the words "RAILROAD CROSSING" in black letters on a white background, is mounted on a mast adjacent to the east side of McCall Avenue. The mast is 38 feet south of the track centerline. The crossbuck is about 11 feet above ground level.

Railroad Carrier's Operating Rules

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, *** and prolonged or repeated until engine has passed over the crossing

17. The headlight will be displayed to the front of every train by day and night. ***

30. The engine bell must be rung when an engine is about to be moved. *** while approaching public crossings at grade *** and continuing until the engine has passed over the crossing, ***

31. The whistle must be sounded at all places where required by rule
law ***

California State Vehicle Code

CHAPTER 7 SPEED LAWS

Prima Facie Speed Limits

22352 ***

(a) Fifteen miles per hour

(1) When traversing a railway grade crossing, if during the last 100 feet of the approach to the crossing the driver does not have a clear and unobstructed view of the crossing and of any traffic on the railway for a distance of 400 feet in both directions along such railway. ***

Motor Vehicle and Driver

The motortruck was owned and operated by Gene Cuelho Trucking, Burrel, Calif, an intra-state carrier engaged in local transportation operations. The vehicle consisted of a 1961 White Auto Car tractor, a semitrailer and a trailer. Both trailers were of the bottom-dump type and each had a capacity of 500 square feet.

The driver was 23 years old and had been employed by Gene Cuelho Trucking for about one year. He held California Class 1 driver's license No. H 831161. He reported for work at Burrel at about 7 00 a m the day of the accident, then drove the tractor involved to a ranch near Fresno, where the tractor was attached to a semitrailer and trailer loaded with almonds. The accident occurred soon afterward, as the cargo of almonds was being transported to a packing shed for further shipment.

Damages

The train stopped with the locomotive about 230 feet east of the collision point. The locomotive and the first 11 cars were derailed. The locomotive stopped on its right side, in reverse position, on the north side of the track structure. The derailed cars stopped in various positions on or near the track structure. The locomotive was heavily damaged. Of the 11 derailed cars, nine were heavily damaged or destroyed, and two were slightly damaged. A car, which was on an auxiliary track east of the crossing, was struck by derailed equipment and was heavily damaged.

The tractor, semitrailer and trailer became detached from each other and stopped in the southeast quadrant of the crossing. They were destroyed.

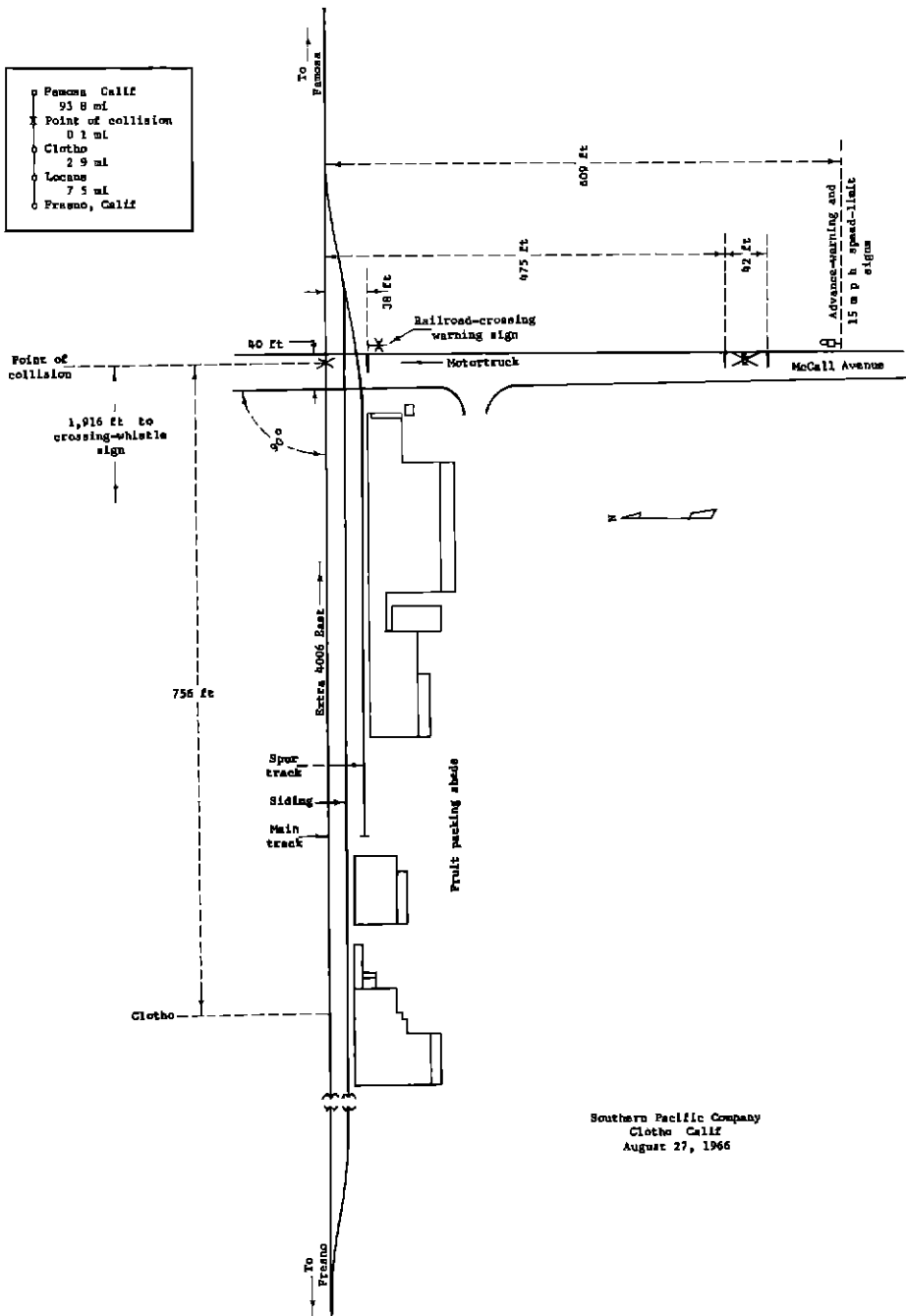
Other Factors

The accident occurred at 8 52 a m, in clear weather.

The maximum authorized speed for freight trains in the accident area is 49 miles per hour.

According to their daily time returns, the crew members of Extra 4006 East, had been on duty 1 hour 22 minutes at the time of the accident. Previous to this trip, the engineer and fireman had been off duty 12 hours, the conductor 14 hours, and the front brakeman and flagman 24 hours.

During the 30-day period beginning July 28, 1966, the average daily railroad movement over the Clotho crossing was 7 9 trains. In the 24-hour period beginning 9 00 am , September 29, 1966, 1,106 highway vehicles moved over the crossing.



Interstate Commerce Commission
Washington, D. C. 20423

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