

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3508
PACIFIC ELECTRIC RAILWAY COMPANY
IN RE ACCIDENT
AT LOS ANGELES, CALIF., ON
JANUARY 26, 1953

SUMMARY

Date: January 26, 1953

Railroad: Pacific Electric

Location: Los Angeles, Calif.

Kind of accident: Rear-end collision

Trains involved: Passenger : Passenger

Train numbers: 468 : 614

Consists: 2 multiple- : 3 multiple-
unit cars unit cars

Estimated speeds: Standing : 7 m. p. h.

Operation: Timetable and operating rules

Tracks: Four; tangent; 0.46 percent
ascending grade northward

Weather: Dense fog

Time: 7:40 a. m.

Casualties: 26 injured

Cause: Failure properly to control speed
of following train in compliance
with instructions for operation
under fog conditions and failure of
the carrier to provide adequate
means of protection for the movement
of trains under heavy traffic and
adverse weather conditions

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3508

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

PACIFIC ELECTRIC RAILWAY COMPANY

April 8, 1953

Accident at Los Angeles, Calif., on January 26, 1953, caused by failure properly to control the speed of the following train in compliance with instructions for operation under fog conditions, and by failure of the carrier to provide adequate means of protection for the movement of trains under heavy traffic and adverse weather conditions.

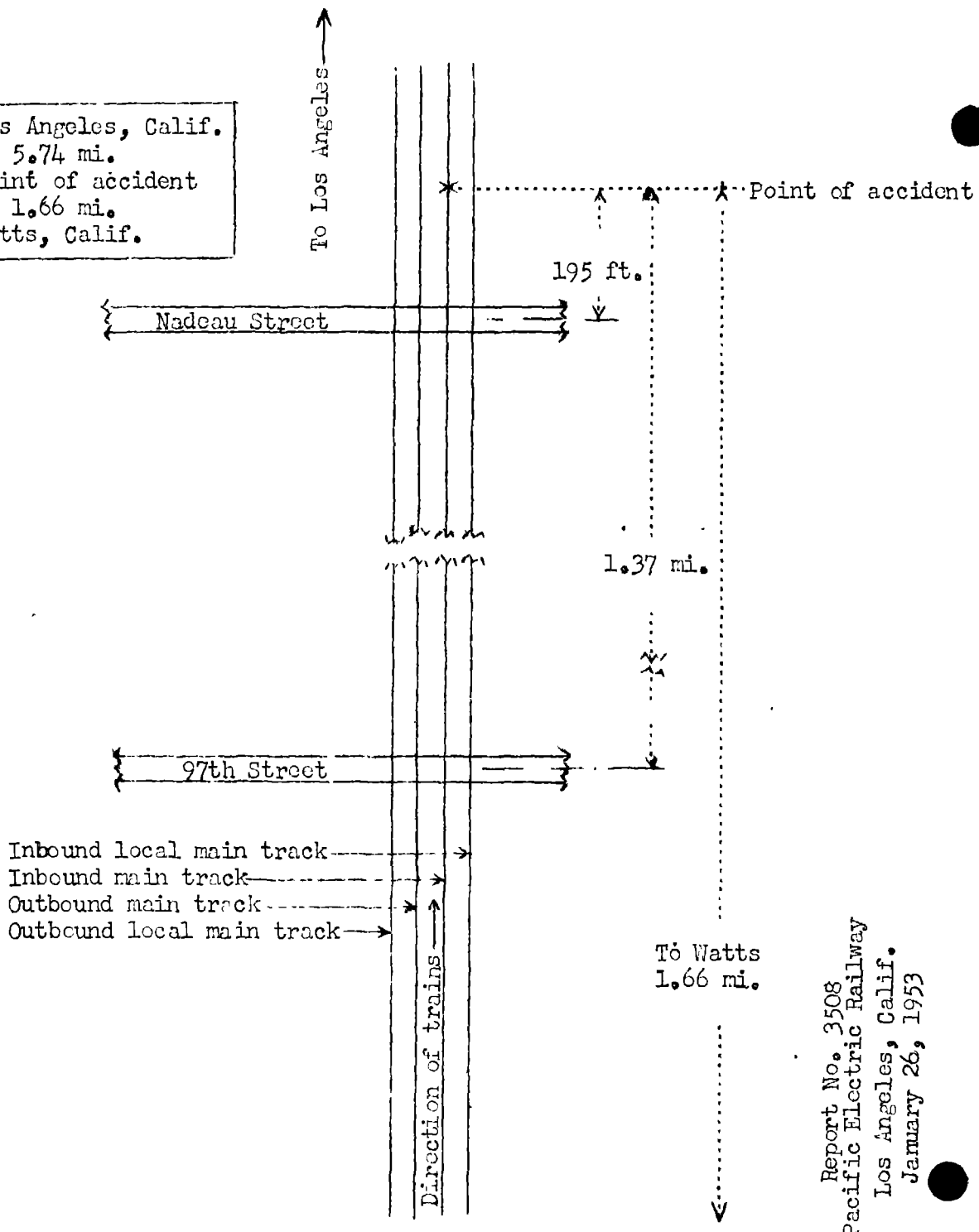
REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On January 26, 1953, there was a rear-end collision between two passenger trains on the Pacific Electric Railway at Los Angeles, Calif., which resulted in the injury of 24 passengers and 2 employees. This accident was investigated in conjunction with a representative of the Railroad Commission of the State of California.

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.

o Los Angeles, Calif.
 | 5.74 mi.
 X Point of accident
 | 1.66 mi.
 o Watts, Calif.



Report No. 3508
 Pacific Electric Railway
 Los Angeles, Calif.
 January 26, 1953

Location of Accident and Method of Operation

This accident occurred on that part of the Southern District extending between Watts and Los Angeles, Calif., 7.4 miles. In the vicinity of the point of accident this is a 4-track line, over which trains moving with the current of traffic are operated by timetable and operating rules. There is no block system in use. This line is equipped with an overhead trolley system for the electric propulsion of trains. The main tracks from east to west are designated as inbound local, inbound main, outbound main and outbound local. The current of traffic on the inbound tracks is northward. The accident occurred on the inbound main track at a point 1.66 miles north of Watts, and about 195 feet north of the point where the railroad is crossed at grade by Nadeau Street. The main tracks are tangent throughout a considerable distance in either direction from the point of accident. The grade is 0.46 percent ascending northward at the point of accident.

This carrier's operating rules read in part as follows:

DEFINITIONS

Under Control.

29. To run at reduced speed, according to conditions, prepared to stop short of a train, car, misplaced switch, derail or other obstruction or before reaching a stop signal. Where conditions require, a train must be preceded by a flagman.

48. * * *

(c) Day signals must be displayed from sunrise to sunset, but when day signals cannot be plainly seen, night signals must be used in addition.

* * *

50. (a) A burning fusee on or near the track indicates STOP. When an unattended burning fusee is displayed on or near the track train must stop, then may proceed under control for a distance of 3000 feet. * * *

* * *

(d) At night or during foggy or stormy weather when a train is moving at such a reduced speed that it may be overtaken by a following train, * * * a fusee will be dropped from the moving train.

* * *

76. The following signals must be used by flagmen:

Day signals--A red flag,
torpedoes and fuses.

Night signals--A red light,
a white light,
torpedoes and fuses.

91. (a) When the view is obscured by curves, fog, storms or other causes, motormen will reduce speed and operate his train under control as defined in Rule 29. This does not relieve trainmen from responsibility of protecting their train as required by the rules.

When the motorman's range of vision is restricted by curves, fog, storms or other causes, he must take extraordinary precautions. The safety of the train depends entirely on the motorman being able to stop within the distance he can see the track to be clear. Speed must always be sacrificed for safety and every precaution taken to insure the safety of the train.

(b) Unless some form of block signal is used, two trains running in the same direction in high-speed territory will keep not less than twenty-five hundred (2500) feet apart, except in closing up at stations or meeting points. The motorman of the second train must assure himself of this distance except as he has his train under control as defined in Rule 29. This does not relieve trainmen of preceding train from responsibility of protecting their train as required by the rules.

* * *

99. (a) When a train stops or is delayed under circumstances in which it may be overtaken by another train, the conductor or flagman will go back immediately and quickly, with flagmen's signals a sufficient distance to insure full protection. * * *

(b) Should a train be seen or heard approaching before flagman has reached the required distance, he will at once place one torpedo on the rail, and continuing toward the approaching train, by day under normal conditions display a red flag, and * * * when weather or other conditions obscure day signals, display a fusee in addition to red and white signals.

* * *

(g) When a train is moving under circumstances in which it may be overtaken by another train, the flagman must take such action as may be necessary to insure protection. By night, or by day when the view is obscured, lighted fusees must be thrown off at proper intervals.

* * *

Notice No. J-272, dated December 8, 1952, reads in part as follows:

When LIMITED VISIBILITY is caused by fog or other inclement weather conditions, motormen * * * must not sacrifice safety in order to maintain schedules.

Under such weather conditions, trains * * * must be operated under control at all times so that stop can be made within the distance that the * * * track is known to be clear,
(Train Rules 29 and 91 * * *)

Responsibility for rear-end collisions shall rest with motormen * * * Responsibility for giving full protection to train, as required by Rule No. 99 * * * shall rest with conductors.

* * *

The maximum authorized speed for passenger trains is 55 miles per hour.

Description of Accident

No. 468, a north-bound first-class passenger train, en route from Long Beach to Los Angeles, consisted of two multiple-unit passenger-train cars. These cars were of all-steel construction. This train was being operated from the front control compartment of MU coach 450, the first car of the train. It departed from Watts, 1.66 miles south of the point of accident, a few minutes before the accident occurred and 30 seconds after a preceding train had departed, and was stopped at a point where a lighted fusee was displayed in the

vicinity of 97th Street, about 1.37 miles south of the point of accident. It proceeded immediately, and soon afterward it was stopped in response to the signals of the flagman of the preceding train, with the rear end of the rear car at a point about 195 feet north of the center-line of the crossing at Nadeau Street. A few seconds later the rear end was struck by No. 614.

No. 614, a north-bound first-class passenger train, en route from San Pedro to Los Angeles, consisted of three multiple-unit passenger-train cars. All cars were of all-steel construction. This train was being operated from the front control compartment of MU coach 430, the first unit of the train. No. 614 is due to leave Watts at 7:20 a. m. It arrived at Watts about 7:34 a. m. and departed soon afterward, 30 seconds after the departure of No. 468. It was stopped near 97th Street in the vicinity of the lighted fusee, and then proceeded. While moving at an estimated speed of 7 miles per hour it struck the rear end of No. 468.

No. 468 was moved about 15 feet northward by the impact. None of the equipment of either train was derailed. The rear car of No. 468 and the first car of No. 614 were somewhat damaged.

The motorman and the flagman of No. 614 were injured.

There was a dense fog at the time of the accident, which occurred about 7:40 a. m.

During the 30-day period preceding the day of the accident, the average daily movement in the vicinity of the point of accident on the track on which the accident occurred was 111.43 passenger trains.

The multiple-unit cars involved are provided with AMU type brake equipment.

Discussion

Under the rules of this carrier, when a motorman's view is obscured by fog he is required to operate the train at reduced speed and to be prepared to stop short of a train ahead. When a train stops or is delayed under circumstances in which it may be overtaken by another train the flagman must go back immediately with flagman's signals a sufficient distance to insure full protection. Should a train be seen or heard approaching before the flagman has reached the required distance he will at once place one torpedo on the rail, and continue toward the approaching train. When weather

or other conditions obscure day signals, he must display a fusee in addition to red and white signals. When a train is moving under circumstances in which it may be overtaken by another train, the flagman must take such action as may be necessary to insure protection. When the view is obscured, lighted fuses must be thrown off at proper intervals.

On the day of the accident there was a dense fog in the territory between Watts and Los Angeles. Because of the fog, visibility at Watts was limited to a distance of not more than 100 feet and in the vicinity of Madaou St. it was restricted to a distance of about 75 feet. An assistant trainmaster was stationed at Watts to warn the motormen of all trains of the fog conditions and to instruct each motorman of the time interval between his train and the preceding train. During a period of one minute shortly before the accident occurred, three north-bound first-class passenger trains departed from Watts. The first of these trains preceded No. 468 by an interval of about 30 seconds and No. 468 preceded No. 614 by a similar interval of time. These trains moved eastward on the inbound main track and each stopped and proceeded in the vicinity of 97th Street where an unattended lighted fusee was displayed.

As No. 468 was approaching the point where the accident occurred the speed was about 15 miles per hour. The headlight was lighted brightly. The marker lights at the rear of the train were lighted and displayed red to the rear. The motorman was maintaining a lookout ahead from the control compartment at the front of the first car. The conductor was in the first car and the flagman was in the rear car. The motorman said that he sounded the grade-crossing whistle signal when his train was approaching Madaou Street and then observed that flagging signals were being given with a lighted fusee by the flagman of the preceding train. He applied the brakes, and his train stopped with the control compartment of the first car in the vicinity of the flagman. The motorman immediately sounded the whistle signal for his flagman to protect the rear of the train. A few seconds later the rear end was struck by No. 614. The flagman of No. 468 said that he had thrown off a lighted fusee soon after his train stopped in the vicinity of 97th Street. He said that he had alighted from the rear end of the rear car with a lighted fusee before his train stopped near Madaou Street, because he heard the grade-crossing whistle signal sounded by a following train. He heard the brakes of No. 614 being applied in emergency as the train approached, but his flagging signals were not

acknowledged. The conductor said that from the rear of the first car he observed the flagman slight from the rear car with a lighted fusce. He said that he had re-entered the first car before the accident occurred.

As No. 514 was approaching the point where the accident occurred the speed was about 10 miles per hour. The motorman was maintaining a lookout ahead from the control compartment at the front of the first car. The conductor was at the rear of the first car and the other members of the train crew were at various locations in the other cars of the train. The headlight was lighted brightly. The brakes of this train had been tested and had functioned properly when used en route. The motorman said that he began to sound the grade-crossing whistle signal about 200 feet south of Padcau Street and he closely observed traffic conditions as his train entered the crossing. When he observed the marker lights of the preceding train, at a distance of about 35 feet, he made an emergency application of the brakes and the speed was reduced to about 7 miles per hour when the collision occurred. He said that he did not see the flagman until after he had observed the marker lights of the preceding train. He had not observed a lighted fusce displayed at any point after his train departed northward from the vicinity of 97th Street. The conductor of No. 514 said that when he alighted from the rear end of the first car immediately after the accident occurred the flagman of the preceding train was in the vicinity of the center of that car. He said he observed that there was no lighted fusce in the immediate vicinity of the point of accident and he did not see the flagman's signal equipment.

The investigation disclosed that under normal conditions in the territory where the accident occurred trains are spaced a distance of 2,500 feet apart except in closing up at stations. This distance is estimated by the motorman of following trains. When visibility is restricted because of fog, supervisory employees are stationed at various points to warn motorman of fog conditions and to give information orally as to the time interval since the departure of the preceding train. In the instant case three first-class passenger trains were advanced northward from Watts after an assistant trainmaster warned the motorman of each train of fog conditions and the time interval since the departure of the preceding train. These three trains departed within a period of one minute. Apparently when the speed of the second train was reduced and

the train was stopped in response to the signals of the flagman of the first train, there was insufficient time for the flagman of the second train to provide adequate rear-end protection. The rules require that when visibility is restricted by fog all trains must be operated at reduced speed prepared to stop short of a preceding train, and also require that when a train stops or when it is moving under circumstances in which it may be overtaken by another train the flagman must take such action as may be necessary to insure protection. Because of the density of traffic on this line and the weather conditions as disclosed in the investigation, the carrier should provide more positive means of protection for train movements.

Cause

It is found that this accident was caused by failure properly to control the speed of the following train in compliance with instructions for operation under fog conditions, and by failure of the carrier to provide adequate means of protection for the movement of trains under heavy traffic and adverse weather conditions.

Dated at Washington, D. C., this eighth
day of April, 1953.

By the Commission, Commissioner Patterson.

(SEAL)

GEORGE W. LAIRD,
Acting Secretary.