

June 14, 1915
No. 268

IN RE: INVESTIGATION OF A COLLISION WHICH
OCCURRED AT THE INTERSECTION OF THE
TRACKS OF THE ATCHISON, TOPEKA &
SANTA FE RAILWAY AND THE PACIFIC
ELECTRIC RAILWAY AT LOS ANGELES,
CALIF., MAY 7, 1915.

On May 7, 1915, a freight train on the Atchison, Topeka and Santa Fe Railway collided with a trolley car on the Pacific Electric Railway at the intersection of the railways at Aliso Street, Los Angeles, Calif., which resulted in the death of five passengers and injury to forty passengers and one employee. After investigation of this accident the Chief of the Division of Safety submits the following report:

In the vicinity of the accident, the Atchison, Topeka and Santa Fe Railway Company have a single track freight line extending north and south on the west bank of the Los Angeles River. Located 210 feet west and parallel with this freight track, is the main line of that road. Both of these tracks intersect Aliso Street at right angles.

The Pacific Electric Railway Co. operate a double track trolley line which enters Aliso Street about 500 feet east of the east bank of the Los Angeles River. From the point of entrance this line extends westward through the center of Aliso Street, intersecting at grade the tracks of

the San Pedro, Los Angeles and Salt Lake Railroad on the east bank of the river. It then crosses the river on an open bridge 300 feet in length. At the west end of the bridge it intersects at grade the freight branch and farther west the main line of the Atchison, Topeka & Santa Fe Railway. It was at the intersection of the freight branch that this accident occurred.

The view of westbound electric cars and northbound steam trains is unobstructed and each has a view of the other about 400 feet before the crossing is reached. Approaching the point of the accident from the east, on the Electric Railway, the tracks are level; approaching from the north on the Santa Fe track, the track curves slightly to the east, following the course of the river, and has a descending grade of .5%.

Westbound freight Extra consisted of engine 480 backing up, 8 empty cars and a caboose, and was in charge of Conductor McClellan and Engineman Wells. It left Pasadena, Calif., $9\frac{1}{2}$ miles east of Los Angeles, at 12:40 p.m. At the junction of the freight and passenger tracks, south of the point of the accident, it was diverted from the main line to the freight branch in order to clear an eastbound passenger train and was proceeding along this branch when it collided with westbound electric car No. 432, as it was crossing the freight branch at Aliso Street at 1:03 p.m.

Westbound electric car No. 422, in charge of Conductor Carrier and Motorman Baker en route from South Pasadena, Calif. to Los Angeles, Calif., left Echandia Junction, the last station at which time is shown, at one o'clock p.m., on time, and had crossed the Los Angeles River bridge and was passing over the freight branch track of the Santa Fe Railway when it was struck by Extra 480.

The rear of the tender of Engine 480 struck the electric car near the center, pushing it forward about 25 feet and crushing it, at the same time breaking off an electric light pole located near the crossing. The rear tender trucks of engine 480 were derailed. The weather at the time of the accident was clear.

The rules governing the use of this crossing give the Santa Fe trains preference and the cars of the Electric Company are governed by hand signals given with a flag by a flagman, employed by the Electric Company, stationed at the crossing. In the absence of such signals the electric cars are required to come to a stop before reaching the crossing and the conductor must proceed ahead of the car with the flag before allowing it to cross. The speed of trains on the Santa Fe track is restricted by bulletin to 8 miles per hour while the cars of the Electric Company are required to approach grade crossings at a speed that will enable them to stop within half the distance the track is seen to

be clear.

Engineman Wells of Extra 480 stated that approaching Aliso Street crossing his train was running at a speed of about 10 miles per hour and when it was about 200 feet north of the crossing he saw an eastbound electric express car approaching. Fearing that this car would not clear the crossing ahead of his train, he made a service application of the brakes, but released them as soon as the car cleared. About the time he saw the eastbound express car, he noticed a westbound car just entering the bridge at the west end, but he did not pay particular attention to it as his attention was concentrated on the eastbound car just ahead of him, and he did not expect that the westbound car would make any attempt to cross ahead of his train. He again saw the westbound car when it had about reached the middle of the bridge and again when it was about 50 feet from the crossing. At that time he expected the car was going to run up to the crossing as close as it could, and stop, as had been done frequently on previous occasions. When the car got quite close to the crossing its speed seemed to increase. He then realized that it was not going to stop and he made an emergency application of the air brakes. At that time the engine and car were practically together. He estimates the speed of his train to have been about 8 miles per hour, and that of the trolley car about 20 miles per hour at the time of the accident. He stated that approaching the point

of accident he was looking for a flagman at the crossing, but did not see any. The bell on his engine is operated automatically and was ringing at the time of the accident, and had been ringing continuously since the train left Pasadena.

Firman Lefever of Extra 480 stated that approaching Aliso Street he had a clear view of the street for 250 or 300 feet and did not see any flagman at the crossing; however, one may have been hidden from view by a telegraph pole. He did not see the car approaching from the east until just as the accident happened.

Conductor McClellan of Extra 480 stated that approaching Aliso Street he was riding in the cupola of his caboose and his engine was about 2 car lengths north of the crossing when he first saw the trolley car approaching. The car was then about the center of the bridge and was running at a speed of about 18 or 20 miles per hour, while his train was running 8 or 8 miles per hour. He stated that he did not see any flagman at the crossing.

Motorman Baker of trolley car 422 stated that entering the east end of the Los Angeles River bridge his car was running at a speed of about 8 miles per hour. As he entered the bridge he looked across the river to the north and saw an engine which he thought was standing still on the Santa Fe track, about 200 feet north of the crossing. He then looked for the flagman at the freight branch crossing.

at the west end of the bridge, and gave one clang of his gong, the call for signals. The flagman was sitting at his shanty, located west of the freight branch on the north side of the trolley track, and gave him an "all right" signal with a green flag. This signal he answered with two clangs of the gong. He stated that he did not again notice the engine until his car had almost reached the crossing. He then saw that a collision was likely to occur and threw his motor into full speed. At that time the engine was about 10 feet away from him. He stated that his car was on time at the time of the accident.

Crossing Flagman Ostrow stated that he had been employed as flagman at the crossing where the accident occurred about four years. Just prior to the accident, he was sitting at his shelter where he had an unobstructed view of both tracks. He had been talking to Flagman House, of the main line crossing, when he noticed an approaching eastbound express car coming across the Santa Fe main line track. He gave it a proceed signal with a green flag. About $1\frac{1}{2}$ or 2 minutes later he saw engine 480, and a few moments later car 422 approaching. At that time the engine was about 60 feet north of the crossing and the trolley car was on the west end of the bridge about 20 feet east of the crossing. He stated that at the time of the accident Engine 480 was running at a speed of about 15 miles per hour, and the electric car was running 12 or 14 miles per hour. He did not hear the engine bell or the gong of the westbound trolley -

car. He further stated that it is customary to give signals to cars while sitting in front of his shelter.

Motorman Walters of the eastbound express car stated that approaching Aliso Street crossing he sounded the call for signals with his gong. The flagman who was sitting in front of his shelter, looked in each direction and then gave him a proceed signal with a green flag. When his car was about 60 feet west of the freight branch track, he saw an engine about a block north of the crossing, but could not tell whether it was standing still or moving slowly. He stated that the westbound car passed him about the middle of the bridge and it was running at a speed of 5 or 6 miles per hour. He was just bringing his car to a stop at the east end of the bridge when the accident to the westbound car occurred.

Mr. W. H. Rice, an experienced railroad man who happened to be in the vicinity stated that at the time of the accident he was standing on the freight branch track just north of Aliso Street. He heard the gong on the car sounded once, followed by two sounds. He saw the flagman sitting in front of his shelter and saw him give a signal with a green flag but was unable to tell whether it was for the east bound or westbound car. He stated that the eastbound car passed over the crossing about one-half minute before the westbound car. He estimated the speed of the steam train and the trolley car to have been 8 or 10 miles per hour.

This accident was caused by a proceed signal being given to an eastbound trolley car in such a manner that it

was misinterpreted and acted upon by a car moving in the opposite direction. For this Flagman Ostrow is responsible.

Flagman Ostrow was placed at this crossing by the Pacific Electric Railway for the express purpose of protecting the crossing, as far as trolley cars and steam trains were concerned, and to avoid having to stop each car and have a member of its crew flag across. Flagman Ostrow had no other duties to perform, his vision was unobstructed and yet he did not see the steam train or the electric car until they were practically on the crossing. There is no excuse for such dereliction of duty, as was exhibited in this instance.

A contributing cause to this accident was the failure of Motorman Baker properly to control the speed of his car approaching the freight branch crossing.

Rule No. 163, of Rules and Regulations of the Pacific Electric Railway Company, is as follows:

"Trains must approach all trailing and facing point switches, end of double track, junctions, railroad crossings at grade, drawbridges, meeting points and passing points, obscure highway crossings, and sharp or obscure curves, under control, prepared to stop as defined in Rule 64."

Rule 64 reads:

"UNDER CONTROL

64. To be able to stop with an ordinary application of brakes within half the distance track is seen to be clear, and in no case exceeding a speed of fifteen miles per hour."

Had Motorman Baker controlled the speed of his car in accord-

ance with this rule, the accident probably would have been prevented.

The means employed to prevent collisions between trains at this crossing are inadequate and do not provide proper protection. Traffic over this crossing is exceptionally heavy; on the trolley line there are over 1,000 cars daily, and on the freight branch there are numerous freight and switching movements. A proper regard for the safety of the public would seem to require that where traffic of such density exists the crossing should be protected either by a separation of grades, an interlocking plant, derails or crossing gates, which would furnish protection against a misunderstanding of signals as is apparent in this case.

Flagman Ostrow entered the service of the Pacific Electric Railway as conductor in February, 1910. In October of the same year he met with an accident resulting in the loss of both legs. He was assigned as flagman at Aliso Street crossing May 17, 1911, and has been employed continuously in that capacity up to the time of the accident. The loss of both legs would necessarily result in Flagman Ostrow experiencing more or less difficulty in walking about, and the volume of traffic at this crossing would appear to demand that a flagman charged with such heavy responsibilities should be agile, active and free from difficulties that would tend to lessen his efficiency.

All of the employees involved in this accident were experienced men. At the time of the accident Flagman Ostrow had been on duty 7 hours and 18 minutes; Motorman Baker, 8 hours; and Enginemen Wells, 6 hours.