

## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE  
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE  
OKLAHOMA RAILWAY NEAR SHELL CREEK, OKLA., ON JULY  
19, 1927.

August 15, 1927

To the Commission

On July 19, 1927, there was a head-end collision between two interurban electric trains on the Oklahoma Railway near Shell Creek, Okla., resulting in the death of 1 employee and the injury of 20 passengers, 1 employee on duty and 2 employees off duty.

Location and method of operation

This accident occurred on the El Reno Division, which extends between Oklahoma City and El Reno, a distance of 29 miles, in the vicinity of the point of accident this is a single-track electric line over which trains are operated by time-table and train orders, no block-signal system being in use. The accident occurred at a point 3,325 feet west of the switch leading to the siding at Shell Creek, this is a stub-end spur, 334 feet in length, and parallels the main track on the south. The switch is a facing-point switch for westbound trains. Approaching the point of accident from the east, beginning at the switch at Shell Creek, the track is tangent for 3,150 feet, followed by a 2° curve to the left 1,200 feet in length, the accident occurring on this curve at a point 375 feet from its eastern end, the track is laid on a side cut around the curve at the base of a hill. Approaching from the west the track is tangent for more than 4,000 feet, followed by the curve on which the accident occurred. The grade at the point of collision is 0.3 per cent ascending for westbound trains.

All scheduled trains of the same class have equal rights to scheduled meeting points.

Owing to trolley poles and the embarkment on the inside of the curve, south of the track, the view of the point of accident from the motorman's compartment of each car was materially restricted. The weather was clear and the sun was shining at the time of the accident, which occurred at about 6.24 p.m.

### Description

Westbound passenger train No. 25 consisted of motor 219 and was in charge of Conductor Mitchell and Motorman Gray. This train departed from Oklahoma City, its initial terminal 18.7 miles east of Shell Creek, at 5.30 p.m., on time, left Yukon, 2.7 miles east of Shell Creek, at 6.17 p.m., according to the train sheet, three minutes ahead of its scheduled leaving time, and instead of heading in at the switch and waiting on the siding at Shell Creek, its scheduled meeting point with eastbound train No. 26, it passed that point about four minutes ahead of its scheduled leaving time and shortly afterwards collided with train No. 26 while traveling at a speed estimated to have been between 12 and 15 miles per hour.

Eastbound passenger train No. 26 consisted of motor 201 and was in charge of Conductor Smith and Motorman Ayers. This train departed from El Reno, its initial terminal 10.3 miles west of Shell Creek, at 6 p.m., on time, left Barrer, 3.1 miles west of Shell Creek, at 6.19 p.m., according to the train sheet, two minutes ahead of its scheduled leaving time, and on reaching a point 0.67 miles west of the switch leading to the siding at Shell Creek collided with westbound train No. 25 while traveling at a speed estimated to have been between 12 and 15 miles per hour.

The forward ends of both cars were badly damaged and the underframe of car 219 overrode the underframe of car 201. The No. 2 pair of wheels of car 201 was derailed. The motorman of train No. 26 was killed.

### Summary of evidence

Motorman Gray, of train No. 25, stated that he is thoroughly familiar with the territory between Oklahoma City and El Reno. He said that he is an extra man on the interurban division and prior to the day of the accident he had been on the El Reno Division for about 10 days. On Sundays the crews go on duty an hour later than on other week days, and the crew that leaves Oklahoma City on train No. 25 at 5.30 p.m. on secular days of the week

leaves that point on train No. 27 at 6.30 p.m. on Sundays. He said that shortly after leaving Yukon, 2.7 miles east of Shell Creek, on this trip Conductor Mitchell came out in the vestibule and said something, what, he did not know, to one of two men who were sitting on the motorman's seat in back of the motorman. Then the conductor went back into the car and came out in the vestibule again somewhere in the vicinity of Shell Creek. Motorman Gray said that while in the vestibule the conductor asked him where he was going and he told the conductor that he was going to El Reno. The motorman said that he took the question the conductor asked to be in jest and that he replied to him in a friendly way. The first time he noticed the conductor after passing Shell Creek was at the crossing, located 508 feet west of the switch leading to the siding, he looked at his watch and it was almost 6.24 p.m. He shut off the power, intending to proceed to Shartel, 3.8 miles west of Shell Creek, he was confused and thought for the time that he was operating train No. 27 and had in mind the Sunday trip meet of train No. 27 with train No. 28 at Shartel, at 7.37 p.m., instead of the meet of train No. 25 with train No. 26 at Shell Creek, at 6.27 p.m. The first he realized that there was anything wrong was on about reaching the curve, at which time he saw train No. 26 rounding the curve about 400 or 500 feet away. He immediately applied the air brakes in emergency, and jumped just before the accident occurred. Motorman Gray further stated that at the time Conductor Mitchell asked him where he was going it did not suggest to him that the conductor had in mind the meet with train No. 26. He said that the conductor did not sound any bell signal calling attention to the fact that the meeting point had been passed before he came out into the vestibule, that he was side awake and operating the car standing up, with one hand on the controller and the other on the brake valve handle, that he had not been in conversation with the two men who were riding in the vestibule and that they had not been talking to him, and that there was nothing about the car to obstruct vision or any condition to distract his attention, except that there was an unusual noise being made by the trolley wheel. The air brakes worked properly. Motorman Gray was of the opinion that an additional safeguard would have been afforded had

the rules required that the conductor give some signal in regard to the meeting point.

Conductor Mitchell, of train No. 25, stated that he was busy taking up tickets and did not realize his location until his train was passing stop 54, located about 365 feet west of the switch leading to the siding at Shell Creek, at the west end of the spur track, at about 6.23 p.m., then he attempted to ring the bell and that he pulled the cord but got no response. He said he then ran to the front vestibule and asked the motorman where he was going. By that time his train had about reached the curve, traveling at a speed of about 40 or 45 miles per hour, then he saw the opposing train and immediately afterwards the air brakes were applied in emergency following which the accident occurred. Conductor Mitchell said that he could have gone from the smoking compartment to the rear of the car and applied the air brakes in emergency by means of the conductor's emergency valve, when he definitely realized that the meeting point had been passed, however, the first thought that entered his mind was to run to the motorman's vestibule. He said that he shouted to the motorman but that the motorman did not make any attempt to stop the car at the time, and he appeared as though he was not aware of the fact that the meeting point had been passed. Conductor Mitchell further stated that prior to starting on this trip Motorman Gray appeared normal in every respect. He said that no train orders were received, he had not overlooked the meet with train No. 26 at Shell Creek but his train was running fast and was farther down the road than he thought it was, he was busy in the car and heard no whistle signal sounded. When he looked at his watch and saw that it was 6.30 p.m., knowing that his train should be at Shell Creek at 6.24 p.m., he glanced out to ascertain his location and it was then that he saw that the switch had been passed. He also stated that the rules make no distinction between the sounding of a meeting point whistle signal and a station whistle signal, one long blast being sounded in each instance, however, he said that he is supposed to know his location and whether or not the signal

is sounded for a station or a meeting point.

Car Carpenter Whilhort and Substation Operator Wells, who were riding in the vestibule of train No. 25 with Motorman Gray prior to the accident, stated that they did not hear Conductor Mitchell ring the bell for the motorman to stop the train. They said that they had no conversation with the motorman and that just prior to the accident, the conductor came in and asked the motorman where he was going and the motorman replied to El Reno.

Conductor Smith, of train No. 26, stated that approaching Shell Creek he was riding in the vestibule with Motorman Ayers and the first intimation he had of anything wrong was on seeing train No. 25 a short distance away, about eight pole lengths, while rounding the curve at a speed of about 30 or 35 miles per hour. He said that Motorman Ayers immediately applied the air brakes and sounded two blasts on the whistle, after which he reversed the motor. The air brakes worked properly and the speed was reduced considerably before the accident occurred, being about 12 or 15 miles per hour at that time.

Under time-table No. 4 train No. 25 has only two meets to make between terminals, one with train No. 24 at Lone View, 7 miles west of Oklahoma City, at 5.55 p.m., which meet was made, and the other with train No. 26 at Shell Creek, 11.6 miles west of Lone View, at 6.27 p.m., which meeting point was passed by train No. 25 at about 6.23 p.m., four minutes ahead of the scheduled leaving time.

#### Conclusions

This accident was caused by the failure of train No. 25 to take the siding at Shell Creek and meet train No. 26, as required by the schedule, for which Motorman Gray and Conductor Mitchell are responsible.

Conductor Mitchell maintained that he had not overlooked the meet with train No. 26 but he said that his train was running fast on this trip, it was farther down the road than he thought, that he did not hear any meeting point whistle signal

sounded, and he did not ascertain his location until after the switch had been passed. The paramount duty of Conductor Mitchell was to look after the safe operation of his train. Had he been doing this approaching the meeting point, and definitely known the location of his train, the accident could have been averted. Even after he discovered that his train had passed the meeting point, had he promptly taken decisive action he could have stopped his train in time to prevent the accident.

Motorman Gray admitted that he was confused, that he thought for the time he was operating train No. 27 and had in mind to proceed to Shartel, 2.8 miles west of Shell Creek, to meet train No. 28, as is done on the Sunday trip, instead of the fact that he was operating train No. 25 and that it is scheduled to meet train No. 26 at Shell Creek.

Under the rules a train must not leave a station or siding in advance of its scheduled leaving time, nor without proper proceed signal from the conductor. Also, where only one time is given, it is, unless otherwise indicated, the leaving time. Examination of the train sheet disclosed numerous instances of trains leaving stations considerably in advance of their scheduled leaving time, in fact both of the trains involved had done so on this occasion. According to the train sheet train No. 25 left Yukon, 2.7 miles east of Shell Creek at 6.17 p. m., three minutes ahead of its scheduled leaving time, and train No. 26 left Banner, 3.1 miles west of Shell Creek at 6.19 p. m., two minutes ahead of its scheduled leaving time. Had these trains not been running ahead of time the accident probably would not have occurred. Steps should be taken promptly by the proper officials of this railroad to see that this rule is obeyed.

Rule 449, of the book of rules of this railroad, reads as follows:

"Motormen approaching any siding used for meeting point purposes will blow one long blast of the whistle when approaching same, in all respects as required when approaching a regular station stop. The conductor shall

answer such blast with one bell or whistle if a train is to be met at such siding, or if any order is to be taken at such siding, and with two bells or whistles if the train is to proceed."

This rule was amended to read as follows:

"Motorman approaching any siding where a train is to be met, either by order or time-card, will give one long blast of the whistle when approaching same.

Conductor must then ascertain for himself that the opposing train has been met and give two bells to motorman to indicate that he has seen the train to be met; such signal to be answered by motorman by two short blasts of the whistle.

If conductor fails to give two bells, motorman must bring car to a stop and ascertain reason for such failure on the part of the conductor before proceeding further."

Under the amended rule, the conductor is not required immediately to answer the meeting-point signal. The meeting-point signal is identical with the station whistle-signal, which the conductor also is not required to answer, and consequently, in case the motorman has overlooked a meeting point and sounds a station signal he receives no reminder or warning from the conductor that a train is to be met. Neither the original rule nor the amendment, however, requires the conductor to ring the bell until after the motorman has sounded the whistle, and in this instance the conductor maintains that he was busy in the car and heard no whistle signal. It is believed the original rule prescribes a safer practice than the amended rule.

The El Reno Division is only 29 miles in length and there were only two meets to be made by train No. 25 between terminals. The first of these meets was properly made, the second was not made. Had Conductor Mitchell and Motorman Gray been on the alert and properly attending to their duties this accident could have been prevented.

Had an adequate block-signal system been in use on this line, this accident probably would not have occurred; an adequate automatic train stop or train control device would have prevented it.

The employees involved were experienced men. At the time of the accident Conductor Mitchell and Motorman Gray had been on duty approximately four hours, prior to which they had both been off duty approximately fourteen hours.

Respectfully submitted,

W. P. BORLAND

Director.