

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE  
PENNSYLVANIA RAILROAD AT BURLINGTON, N.J., ON MAY 29, 1921.

June 17, 1921.

On May 29, 1921, there was a rear-end collision between two passenger trains on the Pennsylvania Railroad at Burlington, N.J., which resulted in the death of 2 employees, and the injury of 30 passengers and 2 employees. After investigation of this accident the Chief of the Bureau of Safety reports as follows:

Location and method of operation.

The branch of the Trenton Division on which this accident occurred extends between Camden and Trenton, N.J., a distance of 20.9 miles. With the exception of a section of single track 0.6 mile in length between Burlington and East Burlington, on which this accident occurred, this branch is a double-track line. Train movements on the single-track portion are governed by a controlled-manual block system which provides an absolute block for all trains. The accident occurred 44 feet east of the west end of single track, and about 100 feet west of BU Tower, which is at the west end of the station at Burlington. Approaching from the west the track is practically straight for about 2 miles. The grade is slightly ascending for eastbound trains until within about 400 feet of the point of accident, from that point it is approximately 0.45 per cent descending

Located close together, and approximately 1,900 feet west

of the point of accident, at what is known as West Burlington, are a whistling board, a permanent slow-board at which a yellow light is displayed at night, and a yard-limit board. About 1,600 feet east of these boards, at the point where the eastbound track begins to converge into the westbound track, is located interlocking signal 6, governing the entrance to the single track and the block section between Burlington and East Burlington. This is a two-arm semaphore signal, the top arm is fixed and displays a stop indication at all times, while the bottom arm is a two-position upper-quadrant signal, its indications being stop and caution. Dwarf signal 5, governing reverse movements from the westbound track to the single track, is located between the two main tracks, 4 feet west of interlocking signal 6, this signal displays two indications, stop and caution. A line of poles on the south side of the eastbound track obscures to some extent the view of signal 6 from a train approaching on the eastbound track. The weather was cloudy and rain had fallen a short time previous to the accident, which occurred at about 8.29 p.m.

Description.

Eastbound passenger train No. 2714, in charge of Conductor Fox and Engineman Elliott, consisted of 1 combination passenger and baggage car, and 4 coaches, all of wooden construction, hauled by engine 184. It left Camden at 7.23 p.m., on time, and at Morris Junction received train order No. 8 to run on the westbound track to Burlington with right over opposing trains. It left Morris Junction at 7.52 p.m., 14

minutes late, passed Edgewater Park, 2.3 miles west of Burlington, at 8.22 p.m., 18 minutes late, and at 8.26 p.m. arrived at dwarf signal 5 at the west end of single track at Burlington. After sounding the whistle for signals and receiving a green hand signal from BU tower to proceed, the train proceeded to the station and stopped with its rear end fouling the switch at the end of double track. After discharging passengers, the train began to proceed and had moved a distance estimated to have been not more than a car-length when extra 77 collided with its rear end.

Eastbound passenger train extra 77, in charge of Conductor Yates and Engineman Cook, consisted of 11 steel coaches, hauled by engine 77. It left Atlantic City at 7 p.m., passed Edgewater Park at 8.26 p.m., passed the slow board and the yard-limit board at West Burlington while traveling at a speed of approximately 50 miles an hour, passed signal 6 in the stop position, and collided with the rear end of train No. 2714.

The force of the collision caused the rear coach of train No. 2714 to telescope the coach next ahead for three-fourths of its length, practically destroying both cars, engine 77 was only slightly damaged. The employees killed were riding as passengers in the rear coach of train No. 2714.

#### Summary of evidence.

Engineman Cook, of extra 77, stated that previous to arriving at Edgewater Park his vision was obscured by the fire-box door being open, he closed the door and thought it was at this time that he missed the signals at that point and he said he was not aware that he had passed Edgewater Park. He then

noticed the red and yellow markers of train No. 2714 on the westbound track, and thinking that it might stop at Edgewater Park to discharge passengers he was watching its markers with a view to controlling the speed of his own train so as not to injure any passengers discharged from train No. 2714. While watching the markers he passed the whistle board, the yard-limit board and the slow board, without seeing them, and said he approached Burlington at a speed of approximately 50 miles an hour, still thinking he was in the vicinity of Edgewater Park. He did not see signal 6 until within about a train-length of it, it was displaying a stop indication and he immediately applied the brakes in emergency, passing the signal at a speed of about 25 or 30 miles an hour. Fireman Green also did not realize the location of his train, and did not see the signal until about the time the engineman applied the brakes. Fireman Green said he had made only one previous trip on this division, and his statements indicated that he was not familiar with the territory or the signal locations, he also said he had never been examined on the rules, although he had been in service as a fireman since February, 1920.

Flagman Van Marter, of train No. 2714, said he had just changed the indication of the markers on his train when he became aware of the approach of the extra, he could not estimate its speed and did not know whether or not it was working steam. He thought at first that it would stop for the signal, but when he realized that it was not going to stop he called out a warning and jumped.

Conclusion.

This accident was caused by the failure of Engineman Cook of extra 77, to observe and be governed by signal indications.

Engineman Cook said he could not see as well as usual on account of rain on the cab windows, and that having been temporarily blinded by the glare from the open firebox, he missed the signals at Edgewater Park, he then became confused as to his location, and while watching the markers on train No. 2714 on the westbound track failed to observe the yellow light on the slow board at West Burlington, approaching signal 6 at such a high rate of speed that when he finally observed its indication it was too late to avert the accident.

Engineman Cook was employed as a fireman in August, 1910, and was promoted to engineman in March, 1918.

At the time of the accident the members of the two crews involved had been on duty periods varying from 7 hours to about 11 hours, after off-duty periods of from about 8 hours to more than 18 hours.