INTERSTATE COMMERCE COMMISSION

REPORT OF THE CHIEF OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE LEHIGH VALLEY RAILROAD NEAR GLEN ONOKO, PA., ON OCTOBER 19, 1922.

November 20, 1922.

To the Commission.

On October 19, 1922, there was a rear-end collision between a passenger train and a freight train on the Lehigh Valley Railroad near Glen Onoko, Pa., resulting in the death of 1 employee, and the injury of 1 employee.

Location and method of operation.

This accident occurred on that part of the New Jersey and Lehigh Division extending between Hokendauqua and Penn Haven Junction, Pa., a distance of 32.8 miles; in the vicinity of the point of accident this is a double-track line over which trains are operated by time-table, train orders, and an automatic block-signal system. The accident occurred approximately 7,000 feet west of Glen Onoko, according to time-table direction; approaching this point from the east there are several sharp curves and short tangents, followed by a compound curve to the left 1,852 feet in length, the accident occurring on this curve at a point 1,123 feet from its eastern end, where the curvature is 1° 27'. The grade is 0.752 per cent ascending for westbound trains for a considerable distance east and west of the point of accident. In this vicinity the main tracks of the Central Railroad of New Jersey lie between the Lehigh River and the main tracks of the Lehigh Valley Railroad, the tracks of both roads paralleling the river; the eastbound main track of the Central Railroad of New Jersey is immediately adjacent to the westbound main track of the Lehigh Valley Railroad.

The automatic block signals are of the three-position, upper-quadrant type, normally displaying stop indications, the night indications are red, yellow, and green, for stop, caution, and proceed, respectively. Westbound signal 1261 is located 571 feet east of the point of accident, while 6,495 feet farther east is located signal 1251. Under the rules, when an automatic block-signal displays a caution indication, trains must approach the next home signal prepared to stop; they also provide that block signals control the use of the blocks, but, unless otherwise provided, do not supersede the superiority of trains, nor dispense with the use or the observance of other signals whenever and wherever they may be required. Although in the immediate vicinity of the

point of accident there are large cliffs, the tracks passing through the valley, an unobstructed view can be obtained of signal 1261 for a distance of approximately 2,300 feet. The weather was clear at the time of the accident, which occurred at about 11 55 p. m.

Description.

Westbound freight train extra 2147 consisted of 43 cars and a caboose, hauled by engine 2147, and was in charge of Conductor Dunn and Engineman Fisher. This train passed Mauch Chunk, the last open office and 2.3 miles east of Glen Onoko, at 11 03 p. m., and on reaching a point approximately 1.3 miles west of Glen Onoko it was brought to a stop with the rear end of the caboose 571 feet west of signal 1261, on account of the autoratic stoker being out of order; it was standing at this point when struck by train No. 5.

Westbound passenger train No. 5 consisted of 1 mail car, 2 coaches, 1 club car, and 5 Pullman sleeping cars, in the order named, of all-steel construction, hauled by engine 2030, and was in charge of Conductor Mack and Engineman Coyle. This train left Mauch Chunk at 11 48 p. m., on time, passed signal 1251, which was displaying a caution indication, passed signal 1261, which was displaying a stop indication, and while traveling at a speed of about 10 or 12 miles an hour collided with extra 2147.

The caboose was telescoped practically its entire length, the superstructure coming to rest over the boiler of engine 2030; the car ahead of the caboose was derailed. None of the other equipment in either train was derailed or materially damaged. The employee killed was the head brakeman of extra 2147, who was riding in the caboose at the time of the accident.

Summary of evidence.

Immediately after extra 2147 came to a stop west of signal 1261, Flagman Schatzle went back to flag, taking a position opposite signal 1261, while Conductor Dunn endeavored to repair an air leak on the car next to the caboose. Being unable to accomplish his purpose, Conductor Dunn started to bleed the air off this car, and while so doing Engineman Fisher sounded several blasts of the engine whistle. Five blasts is the signal which would have been given to call in Flagman Schatzle, and six blasts is the customary signal when it is desired that the conductor come to the head of the train. Thinking he had been called in, Flagman Schatzle placed two torpedoes on the rail just west of signal 1261, and started walking toward the caboose. When within 4 or 5 car-lengths of it he shouted to Conductor Dunn that he had been called in, having understood the signal given to be five blasts of the

whistle Conductor Dunn was confused as to the signal given, and as the train did not start, the conductor went forward, while the flagman again went back and had reached signal 1261 when he heard train No. 5 approaching, although it was a considerable distance away, he made no attempt to go back any farther, being of the impression this would accomplish nothing, but flagged it from signal 1261. He said no response was received to his flag signals until the train was about an engine-length away, at which time steam was shut off, and the air brakes applied in emergency, the collision occuring immediately after Flagman Schatzle admitted there was ample time at his disposal to have gone back a greater distance than he did on this occasion, and had he done so and then placed torpedoes on the rail, the attention of Engineman Coyle would probably have been attracted in time to have averted the accident. Conductor Dunn had gone forward about half the length of his train when the accident occurred; on reaching the engine he was informed that six blasts of the engine whistle had been sounded. He was aware extra 2147 was occupying the westbound main track close on the time of train No. 5; but although he saw Flagman Schatzle start back the second time, which was just after he had shouted about being called in, he did not know how far back he went, as they started in opposite directions simultaneously and on account of walking forward on the right side of the train the cars standing on the curve to the left soon hid them from each other's view. Conductor Dunn also stated that as Head Brakeman Price had complained of not feeling well, he permitted him to lie down in the caboose.

Engineman Coyle stated at the time train No. 5 passed signal 1251 a caution indication was displayed, at which time he estimated the speed of his train to have been between 40 and 45 miles an hour. As he knew this block was unoccupied and the train could be brought to a stop in a comparatively short distance, owing to the ascending grade which extended the entire length of, and for a considerable distance west of this block section, he did not shut off steam at this time, intending to do so in ample time to stop before reaching signal 1261 in the event it was displaying a stop indication. However, on reaching a point approximately 1,500 feet west of signal 1251, there was a train standing on the eastbound main track of the Central Railroad of New Jersey, with the headlight burning brightly, and owing to the close proximity of the tracks at this point, Engineman Coyle drew his head inside the cab window. At this juncture his attention was diverted to the water glass, and he temporarily forgot he was running under a caution signal. Fireman Blank had been working on the fire during this time, but, when about 200 feet east of signal 1261 he stepped to the left side of the gangway to get a breath of fresh air, at which time he saw signal 1261 was displaying a stop indication, and just as he called its indication, Engineman Coyle also saw it. Engineman Coyle immediately shut off steam, opened the sanders, and

made an emergency application of the air brakes, after which the torpedoes were exploded and he then saw Flagman Schatzle. He stated that Flagman Schatzle was about half way between the rear end of the caboose of extra 2147 and signal 1261, and estimated the speed of his train at the time of the accident to have been about 10 miles an hour.

The air brakes on train No. 5 had been working properly and nothing unusual was noticed in making the various stops en route.

Conclusions.

This accident was caused by the failure of Engineman Coyle, of train No. 5, properly to observe and be governed by automatic block signal indications, and the failure of Flagman Schatzle and Conductor Dunn to provide proper protection for the rear of extra 2147.

Had Engineman Coyle operated his train as required by the rules and maintained a proper lookout when he approached signal 1261 he could have been able to bring his train to a stop in time to avert the accident notwithstanding the lack of adequate flag protection, but according to the evidence his attention was diverted from the track ahead to some part of the engine. Engineman Coyle admitted he should have seen the stop indication of signal 1261 from a much greater distance, and that he should have approached this signal prepared to stop.

Rule 99 of the rules for the government of the operating department, reads in part as follows:

> "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 stop signals and proceed rapidly to a distance sufficient to insure full protection, where he must remain until called in, or if an approaching train is within sight or hearing, until it has stopped."

Although there is some conflict in the testimony as to just how far back Flagman Schatzle actually was when train No. 5 passed him, according to his own statement he was back less than 600 feet, he admitted there was ample time at his disposal to have gone back a much greater distance. He considered, however, that he was back a sufficient distance in view of the range of vision to be had by an approaching engineman. Had he gone back a sufficient distance then placed the torpedoes on the rail, as required by the rules, even though Engineman Coyle temporarily forgot the caution indication displayed at the time train No. 5 passed signal 1261, and was not keeping a proper lookout ahead for the indication

of signal 1281, when the torpedoes were exploded it would undoubtedly have given warning of danger ahead in ample time to have averted the accident. Conductor Dunn was fully aware extra 2147 was occupying the westbound main track close on the time of train No. 5, therefore, he should have ascertained beyond doubt that ample protection was afforded to the rear of his train

This accident again directs attention to the necessity for the use of automatic train control devices which will intervene to stop a train whenever for any reason an engineman fails to see or to heed a stop signal. Had an adequate automatic train control device been in use at this point, this accident would no doubt have been averted.

Engineman Coyle entered the service of this railroad in February, 1881, as a trainman, was promoted to fireman in December, 1895, and engineman in 1896, while Conductor Dunn was employed as a trainman in December, 1893, and promoted to conductor in October, 1895; Flagman Schatzle entered the service as a trainman in 1904, and qualified for the position of conductor in March, 1917. Their records were good. Engineman Coyle had been on duty less than 2½ hours, after having been off duty for approximately 50 hours, while Conductor Dunn and Flagman Schatzle had been on duty about 3 hours, after having been off duty 8½ hours.

Respectfully submitted,

W. P. Borland,

Chief, Bureau of Safety.