No. 152

In re Investigation of accident on the Lehigh Valley Railroad, near Slatington, Pa., on July 27, 1913.

September 2, 1913.

On July 27, 1913, there was a rear-end collision between two freight trains, and a passenger train ran into the wreckage, on the Lehigh Valley Railroad, near Slatington, Pa., resulting in the death of 1 employee and the injury of 27 passengers and 4 employees.

After investigation of this accident the Chief Inspector of safety appliances submits the following report:

Where this accident occurred the Lehigh Valley Railroad is a double track road, operated under the automatic block signal system, disk signals being used. At the point where the accident occurred there is a slight descending grade toward the east, and the track is on a thirty-foot fill. Approaching from the west, signal No. 1072 can be seen for a distance of nearly a mile before it is reached. Proceeding eastward from this signal, there is a five-degree curve, 1400 feet in length, which is followed by a tangent of 1032 feet, and then there is a four-degree curve 750 feet in length, extending to signal No. 1062. The collision occurred about 100 feet east of this signal. At the time of the accident there was a light mist rising from the river near by, but signal lights could be seen plainly.

Eastbound freight train Extra 1351, consisting of an engine, 46 cars and a caboose, with Conductor Koeppel and Engineman Miller in charge, left Mahoning yard at 11:15 p.m., July 26, on route to Easton, Pa. When this train approached signal No. 1062, about ten miles east of Mahoning yard, that signal was in the stop position and the train came to a stop as required by the rules. Extra 1351 then moved forward and again came to a stop at 12:15 a.m., July 27, the caboose standing about 100 feet east of signal No. 1062. While standing at that point it was struck by extra 1684.

Eastbound freight train extra 1684, consisting of an engine, 50 cars and a caboose, with Conductor Witterline and Engineman Malek in charge, left Mahoning yard at 11:59 p.m., July 26, en route for Jersey City, N. J. When this train approached signal No. 1072, that signal was in the caution position, indicating that the block ahead was occupied. Extra 1684 passed that signal, ran over two torpedoes, passed the flagman of extra 1351, and signal No. 1062 which was in the danger position, and collided with the rear end of extra 1351 at about 12:22 a.m., July 27, while running at a speed of approximately 10 miles per hour. Conductor Koeppel who was in the caboose of extra 1351 at the time of the collision was killed.

A refrigerator car and the caboose fouled the westbound track, and westbound passenger train No. 5 collided with the wreckage of these cars, not being warned of the danger in time to permit of a

material reduction of its speed. The passenger train consisted of an engine, 1 smoking car, 1 coach, 1 club car, 3 sleeping cars and 3 coaches. This train was running at a speed of about 45 miles per hour when it collided with the wreckage, at about 12:24 a.m. The engine was derailed and the tender, smoking car and first coach were thrown down the embankment.

Engineman Miller of Extra 1381 stated that he brought his train to a stop just west of signal No. 1062, which was in the stop position, and then started it ahead slowly, bringing it up nearly to a preceding train. Extra 1381 stood there about five minutes; just as he was ready to start the train, the air gauge showed that the pressure was falling; he thought a hose had bursted and he told the head brakeman to examine the hose. Just after the head brakeman started back, train No. 5 went past.

Flagman Eddinger of extra 1381 stated that when his train stopped for signal No. 1062 he placed one torpedo on the rail about one rail-length behind the caboose, and when the train started again he put down another torpedo two rail lengths from the first one. The train moved up beyond signal 1062, the rear end being about three car lengths from that signal when it stopped the second time, and the flagman started to walk back as soon as the train stopped. He thought he had gone back about 20 car lengths when extra 1684 came up. He stated that the engineman did not acknowledge his signal until about the time the engine struck the torpedoes; he thought that steam had been shut off soon and when the engine passed him fire was flying from the driving wheels, as if the brakes were set. The speed of the train at that time was about ten miles per hour. He saw the brakeman jump off from the engine, the brakeman told him to go flag No. 5 and he started immediately, but had gone only a short distance beyond the wreck when No. 5 passed him.

Engineman Walck of extra 1684 stated that on the night of the accident the air brakes [illegible] be working on 27 of the 30 cars of his train; he [illegible] running test of the brakes on leaving Mahoning yard, as [illegible] by the rules, but expected to do so at Treichler, a [illegible] 10 miles from Mahoning. He had no occasion to use the brakes between Mahoning and the point where the collision occurred. The rules required that trains should not exceed a speed of 20 miles per hour at a road crossing at Slatington, the last station east of the [illegible] of the accident. Engineman Walck stated that he shut off steam and let the engine drift at that point at a speed of about 15 miles per hour. He then began to use steam again, shutting off [illegible] first saw the caution signal; when the engine had passed signal 1072 he made a 10 or 12 pound reduction; when the train had proceeded [illegible] 20 car lengths beyond that signal his engine ran over the [illegible] he saw the danger signal, the flagman and the rear end of [illegible] 1381; he made a further reduction of from 12 to 15 pounds, [illegible] when he saw the train was not going to be stopped in time [illegible] the brakes in emergency, without releasing, reversed the engine and used steam. He stated that the brakes did not hold as he expected them to. He estimated the speed of his train when it passed the danger signal at 6 or 8 miles per hour. The sand pipe on his engine was clogged up so that the sander could not be used. He thought that if the brakes and sander

had operated properly the accident might have been averted. He made no examination of the brakes after the collision although the collision did not damage the brake equipment on his train.

Head Brakeman Ditterline of extra 1684 stated that he rode on the left side of the engine cab from Mahoning to the point where the accident occurred. Approaching that point he saw and called the caution signal, and the engineman shut off steam. When the engine ran over the torpedoes which he thought were about midway between the two block signals, he again called to the engineman, who applied the brakes. Soon afterwards he saw the rear end of extra 1361; he called to the engineman again, and as his train approached the standing train he jumped off. After the collision occurred he and the flagman of extra 1361 and told him to go flag No. 5.

Conductor Ditterline of extra 1684 stated that as the train approached the point where the accident occurred he noticed that the engineman shut off steam, the speed at that time being about 30 miles per hour, and soon afterwards the brakes were applied. He did not notice any further application of the brakes. He stated that he did not attempt to ascertain the reason for slowing down as trains ordinarily stopped for water at Rockdale, the next station, and it was not unusual to be delayed at that point. He thought the speed of his train at the time of the collision was 10 or 12 miles per hour.

Fireman Rothstein of extra 1684 stated that just before the collision occurred he jumped off; he had a torch in his hand and he immediately started out to flag train No. 5.

Engineman Krumanacker of train No. 5 stated that as his train approached the scene of the accident he saw a man with a white light and a man with a torch signaling him to stop; he applied the brakes in emergency, but his train almost immediately collided with a car which obstructed the eastbound track. He stated that train No. 5 was running at about 45 miles per hour and that the brakes were in good condition.

Foreman Bittner of the car inspectors at Mahoning yard stated that when the brakes on a train have been examined a card is given to the engineman showing the number of brakes working and the number not working. He stated that brakes are examined to see whether all of them are working and that the piston travel is properly adjusted, and for leaks. His report to the engineman of extra 1684 showed that there were 30 cars in the train; on 27 the brakes were working and on 3 they were not working.

This accident was caused by failure of Engineman Walck to obey signal indications. Had Engineman Walck applied the brakes on his train in time to insure that the train would be under complete control as it approached signal No. 1062, the collision no doubt would have

been averted. Engineman Walck had ample warning in this case, as the caution signal could be seen for nearly a mile and that signal was located more than 3000 feet from the signal which indicated danger.

The rules of this railroad require that a running test of the brakes should be made when this train left Mahoning yard. Had such a test been made the engineman would have been informed regarding the efficiency of the brakes on his train and would have been better prepared to operate the brakes properly at the point where the collision occurred. However, in this case the brakes appear to have been in operating condition; the examination made before this train left Mahoning yard showed that there were 27 brakes in the train which applied and released properly; and after the accident a further examination of the brakes was made and then the train was hauled to its destination without any repairs to the brakes being made. It is believed, therefore, that had the engineman used the brakes properly there could have been no difficulty in controlling the speed of the train and stopping the train before it passed the danger signal. It appears that the sand pipe on the engine was clogged, but the engineman was aware of this fact as he had worked on this sand pipe before leaving Mahoning yard, and he should have been prepared to stop without using sand.

Engineman Walck had been in the employ of this company for seven years as a fireman and for about one year as an engineman. His record was clear.