

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
PHILADELPHIA & READING RAILROAD NEAR MILTON TOWER,
PA., ON MARCH 2, 1920.

April 26, 1920.

On March 2, 1920, there was a rear-end collision between two freight trains on the Philadelphia & Reading Railroad near Milton Tower, Pa., which resulted in the death of 1 employee and the injury of 1 employee. After investigation of this accident the Chief of the Bureau of Safety reports as follows:

The Catawissa Branch of the Shamokin Division, on which this accident occurred, extends between West Milton, Pa., and East Manoy Junction, Pa., a distance of 67.2 miles. This branch is for the most part a single track line, but there are two double track sections, one of which extends between Milton Tower and Pottsgrove, Pa., a distance of 3.7 miles, and on which the collision occurred. Trains on this branch are operated by time table, train orders transmitted by telegraph, and a manual block signal system. The block signals are of the three-position type, the indications being red, green and white for stop, caution and proceed, respectively.

The accident occurred at a point about 1.7 miles south of Milton Tower. Approaching the point of accident from the north there is a tangent 5,092 feet in length, a four-degree curve to the left 1,033 feet long, and then tangent to the point of accident, a distance of 160 feet. The grade for this distance is unulating and is not heavy at any point, it is .56 per cent ascending at the point of accident. The weather at the time was cloudy.

Southbound freight train extra 1041, in charge of Conductor Ranch and Enginemen Hile and Braun, consisted of engines 1041 and 1053, 58 cars and a caboose. It left Dougala Yard, just south of Milton Tower, at 7.21 a.m., and was proceeding towards Pottsgrove at a speed estimated to have been about 5 or 6 miles an hour when, at about 7.40 a.m., the rear end of the train was struck by train No. 60.

Fourth class freight train No. 60, consisting of five cars and a caboose, hauled by engine 1029, was in charge of Conductor Wallis and Engineman Rnubright. It left West Milton at 7.32 a.m., passed Milton Tower at 7.37 a.m., 52 minutes late, and while running at a speed estimated to have been 20 or 25 miles an hour collided with the rear end of extra 1041.

Engine 1029 was derailed and its front end slightly damaged. The caboose and one car of extra 1041 were totally

destroyed, and three other cars of that train were damaged. The employee killed was Brakeman Halinan, of extra 1041, who was riding in the caboose.

Extra 1041 was made up on the northbound main track, and when it started through the crossover to the southbound main track at Milton Tower, the flagman put down two torpedoes on that track opposite the caboose. The rear end of the train cleared the crossover, according to the towerman at Milton Tower, at 7.21 a.m., 36 minutes after train No. 60 was due to pass the tower. An interval of 19 minutes elapsed between the time the train cleared the crossover and the time of the collision, which was stated by the conductor of extra 1041 to have been 7.40 a.m., this time being verified by the engine crew. As the distance from the crossover to the point of collision is about 6,700 feet, the average speed of the train was about four miles an hour. The flagman did not know whether train No. 60 had passed while his train was being made up, and did not put down any torpedoes after it had departed as he was doubtful whether it was going slowly enough to enable him to put torpedoes on the rail and then overtake it. He stated that on previous occasions when followed by first or third class trains he had dropped off and put down torpedoes, but in this case he did not attempt to use torpedoes after leaving Milton Tower. At the time of the collision he was inside the caboose; he heard train No. 60 approaching, but thought it was a train on the northbound track.

The block signal at Milton Tower was in the caution position at the time train No. 60 entered the block, which according to the towerman was 7.37 a.m. Train No. 60 proceeded at a speed of about 20 miles an hour, but according to the engineer did not strike any torpedoes. On account of the curve, the engineer saw the caboose of extra 1041 when it was only about three car lengths distant and he immediately applied the air brakes in emergency. The conductor was the only member of the crew of train No. 60 who looked at his watch, and he said it was 7.45 a.m. when he got out of the caboose after the collision. At the time of the collision there was no one riding on the left side of the engine; the head brakeman was sorting freight in the car immediately behind the engine, while the fireman was putting in a fire. On this engine the boiler extends to the rear of the cab, and the engineer's statements were conflicting as to whether he knew there was no one riding on the left side of the engine. The view of the point of accident from the left side of the engine was about 1,000 feet, while the engineer's view, on account of being on the outside of the curve, was restricted to about 265 feet.

Under special instructions in the time table, extra trains may run on double track with the current of traffic under

the authority of trainmasters, yardmasters and operators, and may occupy the main track, under proper protection, until fourth class trains or other extras arrive. It is further provided that fourth class trains and extras will be governed accordingly. The timetable specifies the minimum amount of time to be consumed by fourth class and extra trains between stations. Ten minutes is allowed for the run from Milton Tower to Pottsgrove; this provides for a maximum average speed of about 22 miles an hour.

Under the manual block signal rules, a signal displaying a caution indication means that the block is not clear, and a train receiving such indication is required to proceed with caution. Whenever switch engines are using the crossover at Dougal Yard, protection against southbound movements is afforded by displaying a caution indication at Milton Tower, and according to the crew of train No. 60 the signal at that point nearly always is in caution position although no train may be found in the block, which extends to the end of double track at Pottsgrove. The towerman stated that during his period of eight hours on duty the signal is in caution position a total of from four to six hours, and trains usually enter the block under a caution indication at the same rate of speed as when a clear indication is displayed.

This accident was caused by the failure of Engineman Raubright, of train No. 60, to operate his train under proper control in an occupied block. A contributing cause was the failure of Flagman Moore, of extra 1041, properly to protect his train.

While the evidence indicates that the signal at Milton Tower is frequently found displaying caution, Engineman Raubright was not justified in assuming either that it had been displayed for the protection of a switching movement or that the train ahead would be properly protected; a caution indication meant that the block was not clear, and with this information, and in view of the special instructions in the time table relating to the manner in which trains may be operated on double track, he should have proceeded expecting to find the block occupied and have operated his train under control so as to be able to stop short of any obstruction.

Rule 99 requires that when a train stops or is delayed under circumstances in which it may be overtaken by a following train the flagman must go back immediately a sufficient distance to insure full protection. In this case extra 1041 was being delayed under circumstances in which it was liable to be overtaken, and Flagman Moore evidently realized this as he said that if he had known train No. 60 was behind his train he would have gotten off, put down torpedoes, and

awaited its arrival; knowing that it was running at a low rate of speed he was negligent in failing to provide proper protection.

Engineman Raubright entered the service as a brakeman in 1886, was made a fireman in 1891 and promoted to engineman in 1896; in 1916 he was suspended for 30 days for running against an opposing train without orders. Flagman Moore was employed as a brakeman in 1910 and promoted to flagman in 1917, his record was good.

The crew of train No. 60 had been on duty less than an hour, after more than eight hours off duty, Flagman Moore had been on duty nearly three hours, after more than fourteen hours off duty.