

**IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE PITTS-
BURGH DIVISION OF THE P. C. C. & ST. L. R. R. NEAR
WALKERS HILL, PA., ON AUGUST 2, 1916.**

Sept. 18, 1918.

On August 2, 1916, there was a rear end collision between two extra freight trains on the Pittsburgh Division of the P. C. C. & St. L. R. R. near Walkers Hill, Pa., which resulted in the death of three employees. After investigation the Chief of the Bureau of Safety reports as follows:

The Pittsburgh division on which this accident occurred extends between Pittsburgh, Pa. and Dennison, O., a distance of 90.6 miles. That portion of the line where the accident occurred is operated by an automatic block signal system, the blocks being carried through interlocking plants, the high signals being controlled by track circuits and operated manually, serving both as interlocking and as block signals. Only freight trains are permitted to follow as closely as the spacing of the automatic signals will permit, but the block for passenger trains is from tower to tower. All signals are of the upper quadrant, 3-position type, using red, yellow and green lights for the night indications. The general direction of the track is east and west.

The collision occurred near the west end of a 6 degree curve to the left, 700 feet in length. Approaching the point of the accident from the west, the track is tangent for a distance of 1977 feet, preceding which is a 2-degree 58 minute curve to the left, 700 feet in length. The grade is slightly descending east-

ward from W A interlocking tower, which is located 300 feet west of the point of collision.

Between WA tower and the point of accident are located automatic signals 12.1, 11.5, and 10.7. Signal 12.1 is 350 feet east of the tower, signal 11.5 is 357 feet east of signal 12.1, and signal 10.7 is 4470 feet east of signal 11.5. The collision occurred 136 feet west of signal 10.7 or 3300 feet east of WA tower.

Eastbound freight train, extra 8368, hauled by engine 8368 and engine 470 coupled, consisted of 37 cars enroute from Dennison, O. to Pitsburg, Pa. It was in charge of conductor Sullivan and engineers Linggoltzer and Crider; left Dennison at 6.15 p.m., August 1, passed WA tower at 3.52 a.m., August 2nd, and stopped just east of Balkara Hill station at 2.55 a.m. on account of two cars in the train having couplers pulled out.

Extra east engine 8357 with cabooses only, in charge of conductor Van Lynn and engineers Aley, enroute from Pitsburg to Carnegie passed WA tower at 4.17 a.m. and stopped behind extra 8368 east at 4.22 a.m. for the purpose of assisting extra 8368 to Carnegie.

Extra east 8368 hauled by engine 8368, consisted of 45 cars and was enroute from Dennison, O., to Pitsburg, Pa., in charge of conductor Rector and engineer Benier. This train passed WA tower at 4.34 a.m. and collided with the rear of extra 8357 about 150 feet east of automatic signal 10.7, at about 4.38 a.m. The force of the collision caused two cars in extra 8368 to fall over to the north against westbound extra 9445, which was passing on the westward main track at the time. This train was moving very

slowly and was stalled by the cars toppling over on it.

The fatalities were caused by the two head cars in extra 8089 going over the engine tender, crushing the engine cab and pinning the engineer, fireman and brakeman in the wreck. All of these men were found in their usual positions in the cab, indicating that they did not see extra 8357 before the collision occurred.

Train Dispatcher Burton who was on duty at the time of the accident stated that Conductor Sullivan, in charge of extra 8389, notified him from OH tower, which is east of the point of accident, that his train was standing just east of Walkers Hill broken in three pieces account of two couplers being pulled out and that it would be necessary to set off the head end order car, after which he would require help to dispose of his train.

He then gave orders to extra 8257 to get behind extra 8389 and assist that train to Carnegie. The next thing he heard concerning these trains was the operator at OH tower ordering the wrecker on account of extra 8357 being struck by extra 8089 and extra 8445 running into the wreckage, blocking both main tracks. Dispatcher Burton said that the only speed restriction for freight trains on the division was 40 miles per hour as shown on the time table. The weather in the vicinity of Walkers Hill at the time of the accident was very foggy.

Block operator Evans on duty at VA tower at the time of the accident, stated that he had no orders or instructions for any of the trains involved in the accident, and that none of the three eastward trains stopped at his tower. He said that at the time

extra 8089 passed his tower the weather was foggy and he could distinguish a train only about 3 or 4 car lengths; the signals in the vicinity of WA tower were operating properly and there had been no trouble with the signals during the time that he had been employed there.

Engineman Lingafelter of extra 8089 stated that from the time his train left Dennison until it stopped just east of Walkers Hill, there had been no trouble with the air brakes. The stop east of Walkers Hill was caused by slowing down for a caution signal, and when he undertook to release the brakes, two drawbars were pulled out. He said he did not whistle out a flagman to protect the rear of his train, although he knew the rules required it. He did, however, send the fireman out to protect against trains on the westbound track. All the signals after passing WA tower were clear for his train except the signal east of Walkers Hill, which indicated caution.

Fireman Peters of engine 8269 stated that there had been no trouble with the train so far as air brakes were concerned, on this trip previous to the stop at Walkers Hill, and that there had been no trouble experienced in maintaining brake pipe pressure. At WA tower and at each succeeding block all the signals were clear until they reached the one just east of Walkers Hill, which indicated caution. When the train stopped he took his red light and white light and went ahead to protect trains on the westward track.

Conductor Sullivan of extra 8269 stated that before leaving Dennison he had personally made an inspection and test of the air brakes, but that he did not know the number of operative air

brakes in the train. He said there has been no trouble in handling the train so far as the brakes were concerned, and the trip was an ordinary one until the train broke-in-two east of Walkers Mill. He stated that he could see all the signals working properly between W A tower and Walkers Mill. When his train came to a stop he was on the rear end of the caboose, which stopped ten car lengths east of the first automatic signal east of Walkers Mill. His flagman then started back and he went toward the front of his train to locate the trouble. Upon examining the train he found two drawbars pulled out. He immediately notified the dispatcher that it would be necessary to have help to dispose of his train, and during the time he was getting off the head defective car the accident occurred. The weather at the time was foggy.

Bradenberry of extra 8288 stated that after leaving W A tower he rode on engine 8288 on the engineman's side and noticed that all the signals were clear except the one just east of Walkers Mill, which was at caution. At the time of the accident he was engaged in setting out a bad order car, and the weather was foggy.

Flagman Steele of extra 8289 stated that he was riding on the rear of the train and observed that all the signals were red as he passed them. The weather was very foggy. His train stopped just east of Walkers Mill and he immediately went back to flag, taking with him a red light and a white light, torpedoes and fuses. He went back almost to Walkers Mill, where he flagged engine 8287, which was backing up. He then walked back to engine 8287.

Engineer Aley of extra 8257 stated that he was running east with the engine backing up hauling a caboose only. He received a message at Sturgeon, reading: "Engine 8259 has draw head out near Fort Pitt; about outlaid. Please assist them to Carnegie." He said there were three automatic signals between NA tower and the rear of extra 8259; the first one was clear, the second at caution, and the third at stop, as he approached them. He was flagged east of Walkers Hill by the flagman of extra 8259. He said he saw the flagman about the same time that he saw the red signal at the rear of extra 8259. He was running slowly at the time and the weather was foggy. The flagman was just west of the block and the caboose of extra 8259 was 6 or 8 car lengths east of the block. He stopped a minute or two and talked with the flagman who was on the fireman's side of the engine, and while he was standing there he saw his flagman get off the caboose and proceed west to protect his train. He then pulled up to within a short distance of the rear of extra 8259 where he had been standing approximately 15 minutes, when he was struck by extra 8259. At the time of the accident both he and fireman Critchlow were on their respective seat boxes, and they did not hear extra 8259 east approaching. After the collision they climbed out over the tender of their engine and got down on the ground.

Fireman Critchlow of extra 8257 stated that he did not know anything about the signals, that he did not see the flagman on extra 8259, and that he did not hear extra 8259 approach and knew nothing about them until the collision occurred. The force of the collision knocked him down in the gangway, after which he

got up and crawled out over the tender.

Conductor Van Lynn of extra 8357 stated that he was running light with the caboose only when he received a message at Sturgeon to proceed to Fort Pitt and bel; extra 8369 east to Carnegie. He rode on the block side in the cow car of the caboose watching signals and stated that after passing SA tower the first signal was green, the second yellow, and the third, which is just east of Walkers Hill, red, and that his train was flagged just about the time they reached the red signal. He stated that flagman Dinnon dropped off the caboose immediately after his train stopped and put two torpedoes on the rail, after which he got on the caboose again and rode to the point where they stopped near the rear of extra 8369, where he got off the caboose with a red light, a white light and a fussee and started back to flag. He watched the flagman until he was out of sight in the fog about five or six car lengths away, and then walked ahead 15 car lengths from the rear of extra 8369 to where the train was parted, then returned to the rear end, coupled his engine to the train, cut in the air, went ahead to the disabled car, and turned the angle cock to take over the air line going through the cars and during this time he said that he heard a train roll and figured that it was an eastbound train coming behind them. He stood there a short time expecting to hear a red arrow whistle or an answer to flagman Dinnon's signal, and had just started for the rear end when the collision occurred. This was about 15 minutes after he stopped at the rear end of extra 8369. After the accident flagman Dinnon told him that extra 8369 passed him at a speed of about 30 miles per hour. On the following day when they were going west Dinnon pointed to a

pile of ties located where he flagged extra 8089, which was about 10 or 11 car lengths west of the automatic signal 1C.7.

Flagman Dinnen of extra 8237 stated that Conductor Van Lynn told him at Sturgeon of the instructions to proceed to Fort Pitt and help extra 8239 to Carnegie; he was riding in the caboose and did not pay any attention to signals between Sturgeon and Walkers Mill. He said that his train was flagged about two car lengths west of the automatic signal near Walkers Mill, and they stopped and picked up the flagman. He saw him at the engine talk to engineman Aley and fireman Critchlow while his train was standing. The weather was foggy and the automatic signal at that point was red. He dropped off the caboose, placed two torpedoes on the rail, got back on the caboose, took his lamps and walked back slowly, stopping to remove the torpedoes, taking them with him as they would do no good at that point. As nearly as he could judge he went back about 10 car lengths from the rear end of his train. He did not put down any torpedoes and did not hear extra 8089 coming on account of the noise made by a westward train on the parallel track, and extra 8089 was within 5 or 6 car lengths before he saw it. He said he flagged extra 8089 with a red light and white light only, and did not use a fusee. The engineer of extra 8089 failed to answer his lantern signals and he whistled to attract the engineer's attention just as the cab went by at a speed of from 30 to 35 miles per hour. He did not see anyone in the engine cab as it passed him and could not say whether his signals were seen or not. He could not tell whether or not the brakes on extra 8089 were applied at the time the engine passed.

Conductor Rector of extra 8088 stated that he had been riding in the cupola of his caboose and noted the position of all signals between Sturgeon and the point of accident, and that they were all working properly. He last saw his engine crew at MN tower 28 miles west of Walkers Mill. At that time they were attending to their duties, as they had been during the entire trip, and he did not notice anything out of the ordinary with them. He stated that before leaving Dennison a terminal test of the air brakes was made by the car inspector; no report was made to him as to the condition of the brakes or the number of operative brakes in the train. His caboose was not equipped with an air gauge, so he did not know anything about the air pressure, but no trouble was experienced with the brakes at any time during the trip. At the time of the accident the weather was foggy and the train was drifting at a speed of from 30 to 35 miles per hour. The first intimation he had of trouble ahead was when an emergency application of air brakes was made. In his judgment the brakes were applied from the engine about 5 or 6 car lengths from the rear of extra 8257, so the train ran about that distance before receiving the second shock, which stopped the train.

Flagman Caprel of extra 8089 stated that he was riding on the right side of the caboose in the cupola between JO tower and the place of the accident, and noted that the signals were all operating properly. The first warning he had of the accident was an emergency application of the brakes close to the point of accident. When the collision occurred he immediately went back to protect the rear of his train.

Engineman Burner of extra 9445 stated that he was passing westward with a heavy train when the accident occurred. The weather was very foggy, necessitating his standing and leaning out of the cab in order to see the position of the automatic signal, which is directly opposite signal 10.7 on the eastward track. His train was moving very slowly and was stalled, due to one of the cars in the train being derailed on account of wrecked cars in extra 8289 east falling over on his train. He stated that he knew that Ex. 8289 was in trouble, but did not see or hear extra 8089 until the collision occurred.

Fireman T. J. Kerr of extra 9445 stated that he did not see engine 8089 when it passed, but did see the train and knew that they would collide with the rear of extra 8287 east, which was then only 7 or 8 car lengths away. He estimated the speed of extra 8089 to have been about 15 miles per hour. He could not say whether or not the brakes were applied, but said that sparks began to fly just a second before they hit. After the collision occurred, he crawled up on the tender of his engine and saw flagman Dinnen of extra 8089 about 15 car lengths from, and walking toward, the rear of his own train.

Conductor West of extra 9445 stated that he was riding in his caboose at the time of the accident and that the weather was very foggy. His train came to a stop on account of the wreckage being piled upon it, and he went immediately to the scene of the accident and assisted in putting out the fire, and noticed during this time that the automatic signals were working properly.

The primary cause of this accident was the failure of engineer Bender of extra 8089 to observe and obey the indication of automatic signals 11.5 and 10.7, the former indicating caution and the latter stop at the time his engine passed them. The weather was very foggy at the time, and the evidence is that the signals could be seen but a short distance, but as all three persons on engine 8089 were killed in the accident, it is impossible to state the cause of engineer Bender's failure to perform his duty.

Flagman Binnon of extra 8287 is equally responsible with engineer Bender, because of his failure to protect his train as required by the rules. Flagman Binnon made no proper effort to perform his duty. Although his train had been standing at least 15 minutes previous to the accident, he was back only about 30 car lengths, and he made no effort to use either torpedoes or fuses, although both were in his possession, and the condition of the weather was such as to require extra precaution on his part. He evidently relied upon the automatic signals to protect his train, entirely disregarding the duty required of him by the rules. Had he performed his duty, this accident might have been prevented.

Conductor Van Lynn was also derelict in his duty, because of failure to instruct Flagman Binnon and satisfy himself that his train was properly protected. He displayed inexcusable indifference with respect to the movements of his flagman, when the existing weather condition should have warned him to use extra caution.

This investigation disclosed bad practice with respect to observance of the flagging rule on this division of the P.C.O. and St. L. Railroad. Flagman Steele of Extra 8289 also failed

12.

properly to protect his train, evidently relying upon the automatic signal in the danger position only a few car lengths in the rear of his train, as the evidence is that he was but a short distance west of the signal. If the methods of flagging disclosed by this investigation indicate common practice, there is urgent need of immediate reformation in this particular on this division.

Engineer Bender had been employed as an engineer on this division since June 17, 1913, previous to which he had been employed as a fireman on this division continuously since October 12, 1903. His record was good.

Conductor Van Lynn was first employed as freight brakeman August 12, 1913. He left the service twice and was last re-employed August 5, 1915. He was promoted to freight conductor December 2, 1917. On August 5, 1918, he was suspended for sleeping on duty while flagging extra 9041 west. Aside from this his record was good.

Flagman Dinnen was employed as a freight brakeman May 1, 1917, and had a clear record to date.

None of the employees involved in this accident was on duty in violation of the hours of service law. Engineer Bender had been on duty about 9 hours at the time of the collision.

WFB.