

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED
ON THE PHILADELPHIA & READING RAILWAY
NEAR EMAUS, PA., ON NOVEMBER 11, 1917.

November 30, 1917.

On November 11, 1917, there was a rear-end collision on the Philadelphia & Reading Railway near Emaus, Pa., between a freight train and a light engine, the force of the collision driving the light engine into the rear of another freight train, and resulted in the death of one employee. After investigation the Chief of the Bureau of Safety reports as follows:

The accident occurred on the East Pennsylvania Branch of the Reading Division, about three-fourths of a mile east of the passenger station at Emaus. At this point it is a double-track line, over which train movements are governed by automatic block signals.

Westbound freight train, extra 1524, consisted of 43 cars and 2 cabooses, hauled by locomotive No. 1524, and was in charge of Conductor Schaeffer and Engineman Hilliard. It had stopped at automatic signal No. 50, located about one mile east of Emaus, when its rear end was struck by locomotive No. 1577.

Pusher engine No. 1577, in charge of Engineman Dankle and Fireman Adams, arrived at Emaus at about 10 p. m., and left there eastbound at about 10:05 p. m. on the eastbound track backing up, and came to a stop within about three car lengths of the rear of extra 1524. While standing there it was struck by extra 1548, driven back, and collided with extra 1524.

Eastbound extra 1548, consisted of 25 cars hauled by locomotive 1548, and was in charge of Conductor Gottshall and Engineman Dissinger. This train left Reading at 7 p. m. and arrived at automatic signal No. 52, located 1,500 feet west of the passenger station at Emaus, where it was brought to a stop on account of that signal being in the stop position. It left there and collided with locomotive No. 1577 while running at a speed of about 10 miles an hour.

The force of the collision drove locomotive No. 1577 backward, causing it to collide with the rear of extra 1524, crushing the two cabooses of that train and throwing the wreckage over on to the westbound track where it caught fire. Engineman Dankle of locomotive 1577 was caught under the wreckage and killed. The weather at the time was clear.

Approaching Emaus from the west there is an ascending grade of .5% from signal No. 52 to the passenger station; from the passenger station to point of accident is a de-

ascending grade of .8%. The accident occurred on a 3-degree 30 minute curve to the left.

Engineman Dissinger of extra 1548 stated that his train left Reading at about 7 p. m., and at Chapel Ridge he found the automatic signal at caution, indicating to him that there was a train in the block ahead. When he reached automatic signal No. 57, located west of Emsus, it was in the stop position, and he brought the train to a stop. He then started the train and when he had gotten it over the hill and began to drift down, Engineman Dissinger called to the brakeman to watch out for trains ahead and for automatic signal No. 50, which might be red, to which the brakeman replied "all right." Engineman Dissinger stated he was looking ahead and saw the flagmen, as well as the headlight and one classification light on locomotive 1577 when within about seven car lengths of it, the speed of his train being about 10 miles an hour at the time. He then sounded the whistle, applied the air brakes in emergency, and again sounded the whistle. He said that when he saw automatic signal No. 50 in the stop position he knew there was a train ahead of him and the rules provided that after waiting one minute there he could proceed cautiously, prepared to stop within the range of vision, and felt that he had his train as well under control as he could under the circumstances. Engineman Dissinger stated that in coming down the hill he used the straight air on the locomotive for the purpose of keeping the train bunched, so that it could not get any headway on the grade and that the air brakes on the train were working properly.

Conductor Gottshall of extra 1548 stated that his train passed Emsus at about 10.30 p. m., and the collision occurred at about 10:45 p.m., the speed of his train being 8 or 10 miles an hour at the time. About a minute before the collision occurred his flagman, who was riding in the caboose with him, said: "We are going to hit a hind end, protect yourself."

Head Brakeman Cassella of extra 1544 stated that upon leaving automatic signal No. 52 the engineman told him to watch out for trains ahead. When within about 15 car lengths of locomotive 1577 he saw Flagman Keim about two car lengths from its front and giving stop signals, and called to his engineman who applied the air brakes in emergency. He thought the speed of his train was about 10 miles an hour.

Flagman Keim, on pusher engine No. 1577, stated that after pushing a freight train up the hill on the westbound

track their engine was cut off from that train and it arrived at Paus at about 10:05 p. m. He then called up the operator at Macungie, located 3.5 miles west of Paus, requesting authority to cross over from the westbound to the eastbound track. After receiving authority to do so they crossed over to the eastbound track and left Paus at about 10:15 p. m. en route to East Penn Junction, and came to a stop two or three car lengths from the rear of extra 1524. He then got off the engine and started back with red and white lights and torpedoes but the red light went out and he had to relight it, and had started back again when he heard extra 1548 approaching, and had gotten back about seven car lengths from locomotive 1577 when extra 1548 passed him at a speed of 12 or 15 miles an hour. He said that locomotive 1577 had been standing there about five minutes when the collision occurred and he had gone back as far as he could in the time he had. He stated that when they returned from pushing the freight train up the hill he saw engines and trains standing on the eastbound track and thought it very likely that locomotive 1577 would have to stop when it reached them and took the necessary steps to protect it. He thought it must have taken 25 minutes or more in which to secure permission to cross over to the eastbound track, make the cross over movement, and move down to where extra 1524 was standing.

Fireman Adams, on pusher engine No. 1577, stated that they left Paus and stopped within two or three car lengths from the rear of extra 1524 about 10:30 p. m. and Fireman Keim got off the engine.

Engineer Hillyard of extra 1524 stated that he stopped his train at automatic signal No. 52 on account of it being in the stop position, then proceeded down the hill and stopped about one car length from the rear of locomotive 611 and had been standing there 15 or 20 minutes when the collision occurred.

Rule No. 511 of the operating rules of the Philadelphia & Reading Railway governing train operation in automatic signal territory provides that:

A train, after having sighted the signal as directed in Rule 504, and signal not clearing, must proceed cautiously, prepared to stop within visible distance, expecting to find a train, open switch, closed derail, a car within fouling distance, a broken rail or some other element of danger, and must not resume speed on coming within sight of next signal,

but must continue to be governed by the last signal until the next one is passed.

This accident was caused by the failure of Enginemen Dissinger of extra 1548 to have his train under control after passing an automatic signal in the stop position, as required by this rule. If he had had his train under control, prepared to stop it within the range of his vision, this accident would not have occurred.

Brakeman Cassella is equally at fault for he was instructed specifically by Enginemen Dissinger to keep a sharp lookout for trains ahead and this investigation disclosed that on account of being on the inside of the curve he could have seen Flagman Keim at a distance of 300 feet had he been watching. According to his own testimony he first saw him when only about 15 car lengths distant, and although he states that he immediately notified the enginemen, the train could not be brought to a stop in time to avert the collision.

Flagman Keim is also at fault for not properly protecting locomotive 1577. From his own statements it appears that he received permission from the operator at Macungie to cross over to the eastbound track at 10:05 p. m. and it took about 25 minutes for them to cross over and reach extra 1524, which would indicate that locomotive 1577 stopped behind extra 1524 about 10:30 p. m. This is corroborated by Fireman Adams. As the collision occurred about 10:45 p. m., he had about 15 minutes after locomotive 1577 came to a stop in which to protect it. He claims to have gone back about seven car lengths from the locomotive while the enginemen and brakeman of extra 1548 claim he was back only two car lengths. In the 15 minutes between the time locomotive 1577 came to a stop and the time the collision occurred, he should have been able to have gotten back a much greater distance. Had he done so and had his stop signals been observed by the enginemen of extra 1548 this accident would not have occurred.

Engineman Dissinger was employed as a fireman on December 23, 1905, resigned January 13, 1909, re-employed as a fireman on October 6, 1912, and promoted to enginemen on October 10, 1916. Brakeman Cassella was employed as such on December 11, 1916. Flagman Keim was employed as a brakeman on June 27, 1917, and as a flagman on September 14, 1917. All of these employees had good records.

At the time of the accident Engineman Dissinger had

been on duty 8 hours and 20 minutes, Brokeman Cassella
7 hours and 50 minutes, and Flynnman Aela 8 hours and 50
minutes.

J. O. T.