

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
PENNSYLVANIA RAILROAD AT DUGRUN, OHIO, ON MARCH 30,
1928.

April 23, 1928.

To the Commission

On March 30, 1928, there was a rear-end collision between two passenger trains on the Pennsylvania Railroad at Dugrun, Ohio, which resulted in the injury of 59 passengers, 2 mail clerks, 13 employees of the railroad and 4 Pullman employees. The investigation of this accident was conducted in conjunction with representatives of the Ohio Commission of Public Utilities.

Location and method of operation

This accident occurred on that part of the Fort Wayne Division extending between Cloake, Ind., near Chicago, Ill., and NW Block Station, near Mansfield, Ohio, a distance of 271.3 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 at a point about 1,300 feet west of the crossover at Dugrun, approaching this point from the west the track is tangent for a distance of approximately 10 miles, while the grade in the immediate vicinity of the point of accident is 0.3 per cent ascending for eastbound trains.

The last automatic signal governing eastbound movements is located about 2,900 feet west of the point of accident. The signal system, however, was out of order, a severe sleet storm accompanied by a high wind having broken down an aggregate of about 40 miles of poles carrying telephone, telegraph and signal feeder wires between Maples, Ind., and Forest, Ohio, a distance of 30.7 miles, within which territory Dugrun is located. Several work trains and repair gangs were sent out to clear the tracks and establish communication, and train orders were put out to all eastbound passenger trains at Fort Wayne, one of which, issued on the night of March 29, stated that line trouble was being experienced between Adams and Dora, points near Maples and Forest, respectively, and directing crews to look out for obstructions on the track. Another order put out at Fort Wayne to all eastbound passenger trains on the morning of March 30 read as follows

"Until dark account for automatic signals are unreliable in either stop or proceed position. Run carefully, looking for trains and obstructions. Make best progress consistent with safety. It is not necessary to stop at each automatic signal between Adams and Dola."

During the afternoon of the accident there were snow flurries mingled with periods of darkness and then short periods of sunshine, it was cloudy at the time of the accident, which occurred at about 5.14 p.m.

Description

Eastbound passenger train No. 28, known as the Broadway Limited, consisted of one mail car, one club car, three sleeping cars, one dining car, three sleeping cars and one observation car, all of steel construction, hauled by engine 5471, and was in charge of Conductor Speidel and Engineman Crawford. This train departed from Fort Wayne at 3.37 p.m., on time, passed Delphos, the last open office, 11 miles from Dugrun, at 4.54 p.m., four minutes late, and was stopped by a work train about a mile just west of the crossover at Dugrun. The train had been standing at this point about 25 minutes when its rear end was struck by train No. 58.

Eastbound passenger train No. 58, known as the Liberty Limited, consisted of one club car, three sleeping cars, one dining car, two sleeping cars and one observation car, all of steel construction, hauled by engine 5356, and was in charge of Conductor Morrison and Engineman Strasser. This train departed from Fort Wayne at 4.07 p.m., four minutes late, passed Delphos at 5.03 p.m., seven minutes late, and collided with the rear end of train No. 28 at Dugrun while traveling at a speed estimated to have been from 15 to 30 miles per hour.

The engine, tender, mail car, dining car and the three rear cars of train No. 28 sustained damage, which was more or less serious in the case of the rear car and the third car from the rear. The engine, tender and club car in train No. 58 were quite seriously damaged.

Summary of evidence

The statements of the crew of the work extra, which consisted of an engine, two cars and a caboose, were to the effect that their train stopped west of the crossover on account of the presence of a freight train ahead and the flagman of the work extra said he went back and flagged train No. 23 from a point 30 car-lengths from his own train, and that he was able to see train No. 23 approaching when it was 2 or 3 miles distant. Enmeran Eaton of the work extra also stated that he saw his flagman giving stop signals to the crew of train No. 23 and that after train No. 23 had stopped he saw a trainman get off on the right side of the train and start back, he did not know, however, how far back this man went or what flagging equipment he took with him.

Engineman Crawford, of train No. 23, said that when his train stopped behind the work extra he did not whistle out a flag for the reason that he saw his flagman start back as soon as the train stopped. Engineman Crawford was sitting on his seat box when the rear of his train was struck by train No. 53 and he stated that at that time the weather and visibility conditions were about the same as when he was flagged by the work extra. He estimated that the fusee of the flagman of the work extra could have been seen a distance of about 1/2 mile and that the flagman himself could have been seen a distance of about 1/2 mile.

Conductor Spedel, of train No. 23, was working on his tickets in a car at the head end of his train when it stopped behind the work extra and he said that after looking out and ascertaining that his flagman was going back to flag and realizing that his train probably would be delayed at this point for some time, he returned to his work and did not pay any more attention to what was going on until his train was struck by train No. 53. He said his train was stopped at 4.52 p.m. and that the accident occurred at 5.14 p.m. Head Brakeman Williams, who was riding with the conductor, said that when the train stopped he got off to ascertain the nature of the trouble and then informed Conductor Spedel concerning the situation. When he last saw the flagman the latter was about 20 car-lengths from the rear of the train and was continuing on his way back to protect the train by flag. At that time the view was good.

Flagman Balliet, of train No. 28, said that when his train stopped he went back to flag but did not take with him any fuses or torpedoes, not supposing to have any in his pockets where he usually carried them. While in the vicinity of a road crossing located about 1,850 feet from the rear of his train he saw train No. 58 passing Llida, a station 3 miles west of Dugan. He said he then walked a few car-lengths farther west and started to flag train No. 58 when it was about 1/4 mile distant from where he was standing, supposing that this would give the engineman sufficient distance in which to reduce speed and pick him up. His stop signals were not acknowledged, however, and as the engine passed him at a speed of 45 miles per hour he threw his flag at the cab. He stated, however, that the cab windows were closed, that the engine was working steam when it passed him, that the entire train passed him without an application of the air brakes having been made and that for this reason he did not think that the engineman had seen him. It further appeared from his statements that there was a westbound freight train passing on the adjoining track and he estimated that the engine of this freight train and the engine of train No. 58 passed each other when about 20 car-lengths west of where he was standing. He did not, however, notice any smoke from the freight engine which would have obscured the view of the engineman of train No. 58.

The freight train which was passing on the adjoining track was extra 6990, consisting of 59 cars. Brake-man Hoopingarner, who was riding on the engine on the fireman's seat box, said that when his train passed the rear end of train No. 28 he could see train No. 58 apparently about 2 1/2 miles distant. He did not think, however, that the engine crew of train No. 58 could see the rear end of train No. 28 at that time owing to the variation in the grade of the track. At this time the flagman of train No. 28 was in the vicinity of the road crossing previously mentioned and was walking westward. Brake-man Hoopingarner stated that his engine passed the engine of train No. 58 at a point estimated by him to have been about 500 feet east of the westbound automatic signal, or about 2,400 feet from the rear end of train No. 28; this signal was in the stop position and, not knowing what orders were in the possession of the crew of train No. 58, the fact that the train passed the stop indication of the signal at a speed of 50 miles per hour caused him to think that there was going to be a collision and he leaned out of the window and gave an emergency stop signal to the engine crew.

Brakeman Hoopingarner further stated that the visibility was good at this time but on looking back after train No. 58 had passed he found that his view was obscured by the smoke from his own engine.

Brakeman Kesterson, of the crew of extra 6999, who was also riding on the engine, made statements similar to those of Brakeman Hoopingarner. He also saw the flagman of train No. 28 giving stop signals, and realizing that the engine crew of train No. 58 had not seen the flagman he yelled to them as the two engines passed each other, but was unable to attract their attention. His statements concerning the general visibility and the obscuring of the view by smoke of his own engine agreed with those of Brakeman Hoopingarner.

Conductor McGinley and Flagman Taylor, of extra 6999, were standing on the rear platform of their caboose as it passed train No. 28. Their first knowledge of anything wrong was when they saw passengers jumping off the cars as their caboose passed the rear end of that train and within a few seconds the engine of train No. 58 passed them at a speed of 25 or 30 miles per hour. Conductor McGinley estimated that at this time his caboose was about a passenger-train length west of the rear end of train No. 28. He was unable to say whether the engine of train No. 58 was working steam but Flagman Taylor said it was not working steam and that the brakes were grinding against the wheels. Both Conductor McGinley and Flagman Taylor located the flagman of train No. 28 as being west of the road crossing or more than 1,850 feet from the point of accident at the time their caboose passed him.

In a brief statement obtained from Engineman Strasser, of train No. 58, who was injured in the accident, he said that smoke from the engine of the freight train obscured his view and that he then placed the throttle in the drifting position and made a 4 or 8 pound brake-pipe reduction. After passing through the smoke he saw the flagman only a short distance from the rear end of train No. 28, although later in his statement he said he could not see the rear end of train No. 28 at the time he saw the flagman, in either event, however, as soon as he saw the flagman at which time the speed of his train was 50 or 55 miles per hour, he applied the air brakes in emergency, reversed the engine and opened the throttle. He was unable to estimate the distance between the flagman

and the rear end of train No. 28 or to estimate the speed of his own train at the time the accident occurred, but said he could have stopped had the flagman been back an additional distance of 100 feet. Engineman Strasser also said that his fireman called a warning to him at the same time that he applied the brakes in emergency.

Fireman Sebasckes said that when approaching Dugrun he saw the freight train in the distance on the westbound track and consequently got down on the deck of the engine and put in a fire so as to be in position to get back on his seat box and look out ahead after the freight train passed. According to his statements he did not return to his seat box until the entire length of the freight train had passed his engine and he then saw the flagman of train No. 28 only three or four car-lengths ahead of his engine. He at once called "flag" to the engineman but the latter apparently did not hear him and he then called the same warning again in a louder voice, by which time the engine had passed the flagman. The engineman then made what the fireman said was a heavy service application of the air brakes, shortly afterwards placing the brake valve in the emergency position when he realized that the train was not going to be brought to a stop in time to avert the accident, which occurred while his train was traveling at a speed of about 15 miles per hour. Fireman Sebasckes did not see the rear end of train No. 28 until this engine had passed the flagman a distance of 10 or 12 car-lengths, his statements indicating that the view was obscured to some extent by smoke and also by snow flurries. It further appeared from Fireman Sebasckes' statements that Engineman Strasser apparently was in normal physical condition, well trained, and attending to his duties properly, and that so far as the fireman knew there was no reason why the engineman should not have seen the flagman of train No. 28 as soon as the fireman saw him. Fireman Sebasckes estimated that the flagman was back a distance of about 1/2 mile, although when asked what he thought caused the accident he indicated in this reply that the flagman did not go back far enough.

Conductor Morrison, of train No. 58, who was riding in the baggage compartment of the club car, said his first knowledge of anything wrong was when he felt a severe application of the air brakes. Upon opening the door on the right side of the car he saw the rear end of train No. 28

and at about this time the accident occurred, while his train was traveling at a speed he estimated to have been 25 or 30 miles per hour. Brakemen Sellers, riding in the fourth car in the train, thought the train ran about its own length between the time the brakes were applied and the time at which the accident occurred. The estimates of these two employees as to the speed of the train prior to the application of the brakes varied between 40 and 50 miles per hour.

Flagman Eichenseher, who was riding in the rear vestibule of the observation car, said the speed of the train was about 55 miles per hour as it approached Dugrun and that his first knowledge of anything wrong was when he felt what appeared to have been a service application of the air brakes, the accident occurring after the train had moved about four or five train lengths. Flagman Eichenseher thought this application of the air brakes was not made until after the engine had passed the flagman of train No. 28. He fixed the location of this flagman as being at a point west of the road crossing and estimated that his own train ran by the flagman a distance of about 35 car-lengths. It also appeared from his statements that the sun was not shining at this time, but that the weather was otherwise favorable for observation.

Conclusions

This accident was caused by the failure of Engineman Strasser, of train No. 58, to maintain a proper lookout, a contributing cause was the failure of Flagman Balliet, of train No. 28, to use the equipment required to provide proper protection for his train.

Engineman Strasser was unable to estimate the distance between the point at which Flagman Balliet was standing and the rear end of train No. 28, at the time he first saw the flagman, but all the other evidence including that of his own fireman indicates that this flagman was back approximately 2,000 feet when passed by the engine of train No. 58. It is of course impossible to say to what extent Engineman Strasser's view was obscured by the smoke from the westbound freight train, but not only should Engineman Strasser have been able to see the flagman before his view was cut off by the smoke, but had he been maintaining a proper lookout and applied the air brakes in emergency

before passing the flagman there is no reason why he should not have been able to stop his train in time to avert the accident. As it is, the statements of most of the witnesses indicate that the air brakes were not applied on train No. 58 until after the flagman had been passed and there is some question as to whether this application was an emergency application or only a service application. While there was nothing to indicate that prior to this time Engineer Strasser had not been attending to his duties properly, yet the statement of the fireman that he called twice to the engineer and that even after being warned a second time the engineer made only a service application of the air brakes, after the flagman had been passed, indicates that the engineer's mind must have been otherwise occupied to such an extent as to prevent him from keeping a proper watch of the track ahead.

Flagman Balliet apparently went back far enough to provide proper flag protection, had he been equipped with the necessary signals. All he had with him was a flag. The rules, however, require the use of both torpedoes and fuses. Had Flagman Balliet provided himself with torpedoes and fuses before going back to flag and used them as required by the rules it is probable that the accident would have been prevented.

All of the employees involved were experienced men, and at the time of the accident none of them had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. BORLAND,

Director.