

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON
THE NEW YORK CENTRAL RAILROAD NEAR SAVANNAH,
N.Y., ON AUGUST 30, 1924.

October 15, 1924.

To the Commission:

On August 30, 1924, there was a rear-end collision between two passenger trains on the New York Central Railroad near Savannah, N. Y., resulting in the injury of 36 passengers, 5 employees, and 2 Pullman porters. This accident was investigated in conjunction with the Public Service Commission of New York.

Location and method of operation.

This accident occurred on that part of the Syracuse Division extending between Syracuse and Buffalo, N. Y., a distance of 148.82 miles; in the vicinity of the point of accident this is a four-track line over which trains are operated by time-table, train orders, and an automatic block-signal system. From north to south the tracks are numbered 4, 3, 1, and 2, the accident occurring on track 1, the westbound passenger track, at a point nearly 1 mile west of Seneca River. The passenger tracks are equipped with water pans, about 1,800 feet in length, located just west of Seneca River; the west end of these pans is about 2,400 feet east of the point of accident. Approaching the point of accident from the east the track is tangent for about 4 miles, followed by a curve of 1° to the right 2,295 feet in length, the accident occurring on this curve at a point approximately 250 feet from its western end. The grade is practically level.

The automatic block signals involved are of the one arm, three-position, upper-quadrant, normal-danger, semaphore type, located on signal bridges which span the tracks; the light indications are red, yellow and green, for stop, caution and proceed, respectively. Westbound signal 32101 is located 321 feet east of the point of accident, while 6,167 feet farther east is located signal 31932. The view of both signals is unobstructed in clear weather, but there was a fog at the time of the accident, which occurred at about 1 23 a.m.

Description.

Westbound passenger train No. 19 consisted of 1 express car, 1 buffet car, and 10 Pullman sleeping cars, all of steel construction, hauled by engine 3370, and was in charge of Conductor Laass and Engineman Moench. This train left Syracuse, 31.83 miles from Savannah, at 12.42 a.m., 17 minutes late, passed North Port Byron, 7.05 miles from Savannah, at 1.12 a.m., 18 minutes late, and on reaching the west end of the water pan at Seneca River the water scoop nose blew off the engine causing the air brakes to be applied, the train coming to a stop with its rear end 221 feet west of signal 32101. While standing at this point it was struck by train No. 47.

Westbound passenger train No. 47 consisted of one buffet car and nine Pullman sleeping cars, all of steel construction, hauled by engine 3323, and was in charge of Conductor Glover and Engineman Gibbons. This train left Syracuse at 12.48 a.m., eight minutes late, passed North Port Byron at 1.17 a.m., eight minutes late, passed signal 31982, which was displaying a caution indication, passed the flagman of the preceding train, a lighted fusee and the stop indication of signal 32101, and collided with train No. 19 while traveling at a speed estimated to have been between 30 and 45 miles an hour.

Train No. 19 was driven forward a distance of about 60 feet; the vestibule of the rear car was crushed and the rear end was raised about 2 feet. Engine 3323 was badly damaged; its tender and the first car in train No. 47 stretched across track 3 and fouled track 4.

Summary of evidence.

Engineman Moench, of train No. 19, stated that owing to the fog he had difficulty in seeing the indication displayed at signal 31982 and also in seeing the water pan lights. When the water scoop nose blew off it caused a heavy service application of the air brakes, and before the train came to a stop he whistled out a flag. He did not see the indication displayed at signal 32101 until it was only 10 car lengths distant.

Flagman Rudd, of train No. 19, stated that he was riding on the rear end of his train and had been watching the reflection of the headlight of the following train. He was in the smoking room in the rear of the rear car when he felt the heavy air-brake application after passing over the water pan, and he immediately threw off a lighted five-minute red fusee, this being at a point 478 feet east of the point of accident, then opened the vestibule door and the trap door. Before his train came to a stop he got

off with full flagging equipment and ran back between tracks 1 and 3, waving a lighted red fusee until the engineman of train No. 47 acknowledged his signal. He shouted as the train passed him, at a speed of about 40 miles an hour, at which time he was about 825 feet from the point of accident, and he saw fire flying from the wheels of the cars. Flagman Rudd further stated that the fog was in banks in the vicinity of the point of accident, and when he first saw train No. 47 through the fog while going back to flag it was a very few car lengths east of where it finally passed him, this point being estimated to have been approximately 333 feet distant. Flagman Rudd also said that on his way back he looked at signal 32101 and it was displaying a stop indication, while the markers on the rear end of his train were burning.

Engineman Gibbons, of train No. 47, stated that a running test of the air brakes was made on leaving Syracuse, they responded properly, and he again reduced speed while passing Syracuse Junction, 2.82 miles west of Syracuse. The fog did not interfere with his vision materially until signal 31982 was reached; when about an engine length from this signal he saw it was at caution, called its indication to the fireman, and immediately made an air-brake reduction, slightly more than 10 pounds, judging the extent of this application by the length of time he left the brake valve handle in service position. He said he did not notice anything unusual in connection with the exhaust, but the brakes did not seem to take the proper effect, and just prior to reaching the water pan he made another reduction, about 12 pounds, but again he did not feel the brakes take hold properly. On reaching the water pan the scoop on the engine was dropped and water was taken so quickly he realized definitely that the speed of the train was too high in view of the two previous air-brake applications, being about 40 or 45 miles at this time, and he immediately applied the air brakes in emergency while still over the water pan, which would be at a point at least 2,400 feet from the point of accident. Shortly afterwards he saw the flagman, fusee, signal 32101, and the rear end of train No. 19, all about the same time, but the speed of his train was not reduced materially between the water pan and the point of accident. He acknowledged the flagman's signals by sounding the engine whistle and though he looked back along his train when the engine passed the flagman, but he did not recall having seen fire flying from the wheels. Engineman Gibbons knew train No. 19 preceded his train only a few minutes and said that in this instance the speed of his train never exceeded 62 or 63 miles an hour at any point prior to the accident, the maximum permissible speed being 70 miles an hour. Engineman Gibbons was unable to explain why he could not stop his train, except that the brakes did not take hold properly.

Fireman Gleason, of train No. 47, who is a qualified engineman, stated that the usual terminal test of the air brakes was made at Syracuse, and nothing out of the ordinary was noticed. In other respects his testimony substantially corroborated that of Engineman Gibbons, although on account of being engaged in lowering and raising the water scoop over the pan he was not paying particular attention to the speed or the effect of the air-brake applications. He further stated that his attention was attracted to the emergency air-brake application made just prior to the accident by the usual sound that results from an application of this nature, however, an emergency effect was not obtained.

Conductor Glover, of train No. 47, stated that approaching the point of accident he was riding in the first car in the train. The air brakes were applied in the vicinity of the Sage Canal bridge, located less than a mile east of signal 11982, after which they were released and the train was permitted to drift until the water pan was reached. Just before reaching the water pan, while drifting over the Seneca River bridge, a second air brake application was made and then the train started over the water pan the speed was so low, about 20 miles an hour, that the conductor was of the impression it would not be possible to scoop up water. While passing over the pan the speed was increased and shortly afterwards the engine whistle was sounded, the air brakes were applied, and the accident occurred, all practically about the same time. He thought the speed was about 30 miles an hour at the west end of the water pan and about 45 miles an hour at the time of the accident. After the accident he noticed that signal 11981 was displaying a stop indication. Engineman Gibbons is his regular engineman and he has never known him to use poor judgment in the handling of trains prior to this accident. After the accident a relief engine hauled train No. 47 to Buffalo, and Conductor Glover stated that during this trip the air brakes worked properly, no trouble being experienced in rolling the various stops. The statements of Baggageman Cleveland practically corroborated those of Conductor Glover, except that he thought the speed was about 40 miles an hour on reaching the water pan. He did not think an emergency effect was obtained when the brakes were applied just prior to the collision.

Head Brakeman Lee, of train No. 47, stated that he noticed an air-brake application approaching Seneca River bridge, that he did not notice any release of the brakes, that the speed was about 45 miles an hour on reaching the water pan, and that it decreased as the train approached

the western end of the titer pan. He did not recall any other air-brake application having been made, while he did not notice whether or not the whistle was sounded just prior to the accident, at which time he estimated the speed to have been about 30 miles an hour. Flagman Kelly, riding in the rear vestibule of the last car in train No. 47, also noticed only one air-brake application prior to the accident, when the rear of the train was about halfway over the water pan, this application not being released. As soon as the rear end of the train had passed over the water pan Flagman Kelly threw off a fusee, then turned to open the vestibule door and look ahead, and had the door nearly wide open and had seen a fusee, apparently that of the Flagman of train No. 19, nearly opposite the car in which he was riding, when the collision occurred, knocking him unconscious. When he recovered he started back to flag and found the fusee he had thrown off to be still burning, he did not meet any one from the crew of train No. 19. Flagman Kelly estimated the speed to have been about 40 miles an hour on reaching the water pan and between 25 and 30 miles an hour at the time of the accident.

The testimony of other employees was to the effect that the usual terminal test of the air brakes was made before train No. 47 departed from Albany, and again at Syracuse, and that they worked properly throughout the train on both of these occasions, while the engineman who handled this train from Albany to Syracuse stated that the air brakes worked properly en route; furthermore, although some of the cars were damaged as a result of the collision, the engineman who handled the train from North Port Byron to Buffalo after the accident experienced no difficulty in making the various stops en route.

The investigation disclosed that the automatic block-signal system was in proper working order before and after the accident.

A check of the train sheet indicated that train No. 47 traveled the distance between Syracuse and the point of accident, a distance of about 31.34 miles, in 55 minutes, or at an average speed of approximately 33 miles an hour; the distance from Farmers to the point of accident, about 14.30 miles, was traveled in about 12 minutes, or at an average speed of 71.50 miles an hour.

Conclusions.

This accident was caused by the failure of Engineman Gibbons, of train No. 47, properly to observe and obey automatic block-signal indications.

Rule 703, of the book of rules of this railroad, illustrates a caution indication by a signal of the type in use in the vicinity of the point of accident, on which the following interpretation is placed.

Indication -- Proceed at a speed reduced to not exceeding one-half the maximum authorized at point involved (not exceeding thirty miles per hour) prepare to stop at the next signal.

Name--Approach--Signal.

Although Engineman Gibbons emphatically stated that the air brakes did not work properly just prior to the accident, the weight of evidence is to the effect that the air brakes were in proper working order both before and after the accident, and it is believed that Engineman Gibbons misjudged the speed of his train in the fog and did not definitely realize it was excessive, in view of the caution indication displayed at signal 51982, until it was too late to avert the accident.

Had an adequate automatic train stop or train control device been in use this accident would have been prevented.

Engineman Gibbons entered the service of this railroad as a fireman in 1891, and was promoted to engineer in 1894; his record was good. At the time of the accident none of the employees involved had been on duty in violation of any of the provisions of the hours of of service law.

Respectfully submitted,

W. P. JOPLANT,

Director