

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
NASHVILLE, CHATTANOOGA & ST. LOUIS RAILWAY AT
SMYRNA, TENN., ON MAY 5, 1926.

July 23, 1926.

To the Commission:

On May 5, 1926, there was a head-end collision between two passenger trains on the Nashville, Chattanooga & St. Louis Railway at Smyrna, Tenn., resulting in the death of one employee, and the injury of seven employees and two mail clerks.

Location and method of operation

This accident occurred on that part of the Chattanooga Division extending between Nashville and Chattanooga, Tenn., a distance of 151.72 miles; in the vicinity of the point of accident this is a single-track line over which trains are operated by time-table and train orders, no block-signal system being in use. Smyrna is located 20.19 miles south of Nashville; the passing track at Smyrna is 3,180.3 feet in length, and the accident occurred between the switches of the passing track, on the main track, at a point 392 feet north of the south switch. Approaching the point of accident from either direction the track is tangent for a considerable distance, while the grade is 1.01 per cent descending for northbound trains almost to the point of accident, from which point it is practically level to and beyond the station, which is located west of the tracks and almost midway between the switches of the passing track.

The weather was clear at the time of the accident, which occurred at about 3.51 p.m.

Description

Southbound passenger train No. 5 consisted of one mail car, one baggage car, and three coaches, hauled by engine 511, and was in charge of Conductor Sutton and Engineman McKeand. At Lavergne, 4.46 miles north of

Smyrna, a train order was received, containing instructions to meet train No. 96 at Smyrna. Train No. 5 arrived at Smyrna at 3.48 p.m., on time; after completing station work it proceeded down the main track at a speed of about 3 or 4 miles an hour and had reached a point 392 feet north of the south switch of the passing track when it collided with train No. 96.

Northbound passenger train No. 96 consisted of three express cars, two mail cars, and one combination passenger and baggage car, hauled by engine 533, and was in charge of Conductor Montgomery and Engineman Burns. At Murfreesboro, 11.48 miles south of Smyrna, copy of train order No. 94, Form 31, was received reading as follows:

"No 5 engine 511 meet No 96 engine
533 at Smyrna"

Train No. 96 departed from Murfreesboro, the last open office, at 3.37 p.m., five minutes late, and on reaching Smyrna, instead of heading in at the south switch of the passing track, as required, being the inferior train by direction, it continued northward on the main track and collided with train No. 5 while traveling at a speed variously estimated to have been between 20 and 45 miles an hour.

Both engines and their tenders were derailed and badly damaged, but none of the cars in either train was derailed or materially damaged. The employee killed was the fireman of train No. 5.

Summary of evidence

Engineman Burns, of train No. 96, stated that engines were changed at Chattanooga and after engine 533 was coupled to his train Assistant Traveling Engineer Neal oiled one side of it and that he oiled the other. He did not know whether or not the air brakes were tested at this point but said he made inquiry and was informed that all the air brakes were working, while no trouble was experienced in making the various stops and slow downs en route to Smyrna, a distance of 131.53 miles. At Murfreesboro he received a copy of train order No. 94 and thoroughly understood that his train was required to take the siding for train No. 5 at Smyrna. Approaching Florence, 5.31 miles south of Smyrna, the section foreman had a flag out and the speed of the train was reduced to about 5 or 6 miles an hour while passing over the section of track under repair. He sounded the station signal when approaching Smyrna and on reaching a point about one car-length south of a public road crossing, located 1,311

feet south of the south switch of the passing track, he made about a 10-pound air brake reduction, at which time the gauge registered full brake-pipe and main-reservoir pressures. When at a point about half way between the road crossing and the switch he noticed that the speed of his train was increasing and moved the brake valve handle to the emergency position, reducing the speed to about 15 or 18 miles an hour; he thought the speed was about 15 miles an hour when passing the south switch, and said it then increased, being about 18 or 20 miles an hour at the time of the collision. Engineman Burns further stated that the pump on the engine had been working properly, that all appurtenances pertaining to the air-brake system apparently were in good condition, that ordinarily the first air-brake application would have brought the train to a stop before reaching the south switch, and that he did not know why it did not do so in this case.

Fireman Smith, of train No. 96, stated that the air brakes were tested after changing engines at Chattanooga and worked properly en route. The meeting-point whistle signal was sounded approaching Smyrna, at the station board, located about one-half or three-fourths of a mile south of the south switch, at which time the speed was about 50 miles an hour. When the first air-brake application was made, just south of the road crossing, the air brakes responded but did not seem to take proper effect, in comparison with the way they had been holding, and just after passing the road crossing Fireman Smith said he remarked to the engineman that they were going to run by the switch. Engineman Burns then applied the brakes in emergency and opened the sanders; this action resulted in gradually reducing the speed until finally Fireman Smith jumped, when just north of the south switch, at which time the speed was about 20 miles an hour. Fireman Smith further stated that he thoroughly understood his train was to take siding at Smyrna for train No. 5 and said the air brakes were applied at the usual place for the contemplated stop; he could offer no explanation as to why the air brakes did not respond properly. The statements of Train Porter Westmoreland, who was riding on the engine for the purpose of opening the south switch, corroborated in substance those of Fireman Smith, except that he did not recall an emergency application having been made just prior to the accident.

Conductor Montgomery, of train No. 96, stated that the speed was about 45 or 50 miles an hour when a brake application was made, just south of the crossing approaching Smyrna and that the speed had been reduced to about 18 or 20 miles an hour at the time of the collision; he was riding in the rear car of the train and was unaware that the air

brakes had been applied in emergency. Conductor Montgomery could not account for the train not being brought to a stop before reaching the south switch. The statements of Flagman Wright practically corroborated those of Conductor Montgomery.

Assistant Traveling Engineer Neal stated that he rode train No. 96 as far as Cowan, 67.17 miles south of Smyrna, and up to this point no trouble was experienced with the air brakes, nor was any complaint registered by Engineman Burns as to the manner in which they worked. Between Chattanooga and Cowan the air gauge registered 130 pounds main-reservoir pressure and 110 pounds brake-pipe pressure.

Safety Inspector Gordon, an employee of the railroad, who was riding on train No. 96 at the time of the accident, stated that the speed of the train was between 55 and 60 miles an hour when the first air-brake application was made, just south of the road crossing, and about 45 or 50 miles an hour when the emergency application was made, just south of the south switch. While he did not think the speed of train No. 96 was continuously excessive he did think that it was high and that the speed limit was exceeded between Murfreesboro and Smyrna. After the accident he rode train No. 96 to Nashville and he said the air brakes on the cars involved in the accident worked properly. Inspector Gordon further stated that train No. 96 ran by the regular station stop at Murfreesboro a distance of about three car-lengths, passing the station telegraph office at a speed of about 30 to 35 miles an hour. He was of the opinion that the accident was the result of the failure of Engineman Burns to apply the air brakes soon enough.

Engineman McKeand, of train No. 5, stated that after station work was completed at Smyrna his train proceeded at a speed of about 3 or 4 miles an hour toward the clearance point of the passing track, to wait for train No. 96 to take the siding. The brakes on his train were applied at the time of the collision, while he estimated the speed of train No. 96 to have been between 15 and 20 miles an hour.

Conductor Sutton, Baggage-master Collins, Flagman Knight, and Train Porter Ready, all of train No. 5, were unaware of anything wrong until just prior to the accident, at which time their train was proceeding at a low rate of speed toward the clearance point of the south switch. Conductor Sutton estimated the speed of train No. 96 to have been about 40 miles an hour at the time of the collision, and said that his own train was driven backward a distance of about 12 or 15 feet by the force of the impact; he did not think that the air brakes were applied on his train prior to the collision.

After the accident he examined both trains; the air brakes were set on every car in train No. 96 and the angle cocks were in proper position. Flagman Knight estimated the speed of train No. 96 to have been between 40 and 45 miles an hour on passing the south switch.

Conductor Austin and Engineman Totty, who were in charge of train No. 96 at the time it was moved from Smyrna to Nashville after the accident, stated that the air brakes on the cars worked properly.

Head Brakeman Wilson, of southbound third-class train No. 43, said his train had stopped on the passing track far enough from the south switch to allow train No. 96 to head in at that switch to clear train No. 5. Before train No. 96 approached he went to the switch for the purpose of opening it for that train, but when he saw the rate of speed at which the train was approaching he did not open the switch, thinking the train would have more room on the main track in which to stop. Brakeman Wilson heard the engineman of train No. 96 sound onelong and one short blast on the whistle before reaching the road crossing, followed by several short blasts as a warning to men who were working close to the track, and he thought the presence of those men might have diverted the attention of the engineman. Brakeman Wilson estimated the speed of train No. 96 when passing the switch to have been about 20 miles an hour.

Statements of various employees were to the effect that the air brakes were thoroughly tested and worked properly on train No. 96 after engine 533 was substituted for engine 552 at Chattanooga, and that they also worked properly at the time the cars were moved to Nashville after the accident, while when they were tested at Nashville nothing wrong was found.

In company with operating and mechanical officers of the railway, the Commission's inspectors conducted tests of various parts of the air-brake mechanism of engine 533, but nothing wrong was found.

Conclusions

This accident was caused by the failure of Engineman Burns, of train No. 96, properly to control the speed of his train approaching a meeting point.

Engineman Burns said he thoroughly understood that his train should head in at the south switch of the passing track, but that the air brakes did not work properly. The evidence, however, was to the effect that the air brakes worked properly before and after the collision, and it is believed that Engineman Burns did not start to apply the air brakes soon enough for the rate of speed at which the train was traveling, and that had he properly controlled the speed of his train the accident would not have occurred.

All of the employees involved were experienced men; 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.