

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED  
ON THE PIEDMONT & NORTHERN RAILWAY NEAR  
SPARTANBURG, S. C., ON OCTOBER 17, 1917.

November 30, 1917.

On October 17, 1917, there was a rear-end collision on the Piedmont & Northern Railway between two passenger trains near Spartanburg, S. C., which resulted in the death of 3 passengers and the injury of 20 passengers. After investigation the Chief of the Bureau of Safety reports as follows:

The First District of the South Carolina Division on which this accident occurred is a single-track line, extending from Spartanburg to Greenville, S. C., a distance of 13.5 miles, over which train movements are governed by time table and train orders. Trains are handled over this road by both electric motors and steam locomotives.

Extra 2017, an electric train consisting of two combination motor and passenger cars and one coach, was known as the soldier shuttle train, and ran between Spartanburg and Camp Wadsworth. It left Camp Wadsworth about 7:12 p.m., in charge of Conductor Turner and Motorman Duke, stopped at Warehouse Crossing where a number of passengers boarded the train; also made a stop of a few seconds at Lenwood, and then about 2,750 feet from that station and proceeding toward Spartanburg, it was struck by extra 80 at mile post 86 at about 7:13 p. m., while moving at a speed of from 4 to 6 miles an hour.

Extra 80, a steam train, consisting of locomotive 80, two combination motor and passenger cars, and eight coaches, in charge of Conductor Silver and Engineman Lineberger, was made up at Calvert, a station one mile south of Camp Wadsworth, for the purpose of transporting laborers from Camp Wadsworth to Spartanburg. This train followed extra 2017 from Camp Wadsworth, stopped behind it at Warehouse Crossing and waited there until extra 2017 had finished loading passengers and departed. Extra 80 then pulled down to the station at Warehouse Crossing, and after being loaded with laborers, left there and collided with extra 2017 while running at a speed of 12 or 15 miles an hour.

Neither the locomotive nor any of the cars was derailed. The rear car of extra 2017 was telescoped a few feet by the front end of the locomotive and the front end of the first car of extra 80 overrode the rear end of the tender and telescoped a few feet by the front end of the locomotive and the front end of the first car of extra 80 overrode the rear end of the

tender and telescoped it a short distance. All of the fatalities occurred at these places. The remainder of the cars were not damaged.

Approaching the point of accident from the south the track is tangent for 5,000 feet; then there is a 3-degree curve to the left, 830 feet in length, and extending through a cut; then a 1,675-foot tangent; then a 3 degree curve to the right, 925 feet long and extending through a cut; then 125 feet of tangent to point of accident. The grade is slightly descending for north-bound trains.

Conductor Turner of extra 2017 stated that his train left Camp Wadsworth about 7:03 p. m., stopped at Warehouse Crossing and Lenwood, but made no other stops prior to the collision. He stated that the train was badly overcrowded and he was busy collecting fares and did not pay much attention to its speed, although he knew it was moving slowly on account of lack of current, and it did not occur to him to protect the rear of his train by flag. He said he could not state positively whether or not the markers were in proper position and burning as he had not gone to the trouble to observe them at Camp Wadsworth.

Motorman Duke of extra 2017 stated that after leaving Camp Wadsworth his train stopped at Warehouse Crossing and Lenwood, left Lenwood at a moderate rate of speed, due to low electric current, and when the collision occurred was moving at a speed of about 5 or 6 miles an hour. He said that after leaving Lenwood he looked back and saw the marker on the right hand side of the rear of his train and it was burning properly.

Brakeman Oglovie, of extra 2017, stated that he entered the service of the Piedmont & Northern Railway as a brakeman 24 days previous to the accident and that he had had no railroad experience prior to that time. He stated further that he had never been examined even on the flagging rules, nor had he since his employment received any instructions except those received from Conductor Turner. He thought when a train was running at a slow speed it is required to be protected, but that he did not know how such protection was furnished. He stated that he saw the markers on the rear of his train before leaving Camp Wadsworth, he having placed one on the left hand side of the train and the brakeman having placed one on the right hand side. He said that he made certain that they were burning, but that the markers were smoking to some extent. The interior of the rear car of his train was not illuminated. The conductor directed

him to collect the fares from the passengers in the rear coach, but he commenced to collect fares in the middle coach and had not finished when the collision occurred. He stated that he knew the train was running at a low rate of speed, but as the conductor had instructed him to collect tickets he did not know he was expected to perform any other service.

Brakeman Edwards of extra 2017 stated the markers on the rear of his train were burning at Camp Wadsworth, he having placed one on the right hand side and Brakeman Olevie placed one on the left hand side of the train. He stated that after leaving Camp Wadsworth he started back toward the rear of his train, but owing to the crowded condition of the train he was unable to reach the rear before the collision occurred. He also stated that his train was moving very slowly at the time of the collision.

Conductor Silver of extra 80 stated that extra 2017 left Camp Wadsworth without displaying markers on its rear and he mentioned it to Engineman Lineberger, cautioning him to keep a close lookout ahead for that train. He stated that before leaving Camp Wadsworth he placed his flagman on extra 2017 to protect his train as it proceeded to Spartanburg, and his train left there about four minutes after extra 2017, stopped at Warehouse Crossing 15 minutes and took on passengers, and after leaving there the speed of his train was 10 or 12 miles an hour when he felt the air brakes being applied and the collision occurred within three or four seconds thereafter.

Engineman Lineberger of extra 80 stated that he held orders for his train to work between Spartanburg and Calvert from 4:30 to 9:00 p. m., protecting at all times while using main track. After making up his train at Calvert for the northbound trip an air brake test was made and all brakes were reported to be in good working condition. His train then proceeded to Camp Wadsworth and after reaching there he saw extra 2017 arrive but did not see any markers on that train. He further stated that extra 2017 left Camp Wadsworth without displaying markers and Conductor Silver remarked to him that "they had not put tail lights up." He stated that his train left Camp Wadsworth about eight minutes after extra 2017, and when his train reached Warehouse Crossing he observed extra 2017 as it was leaving there but saw no markers on it; the only light he saw on that train was the light from the windows. His train left Warehouse Crossing about thirteen minutes after extra 2017 and made no stops before the collision occurred. Upon reaching the curve at Arcadia he made a service application of the brakes which reduced the speed

to 10 or 15 miles an hour and by the reflection of the headlight of engine No. 80 he saw the rear of extra 2017 about one and one-half car lengths ahead. He immediately applied the air brakes in emergency and reduced the speed of his train to about four miles an hour when the collision occurred.

Fireman Thompson of extra 80 stated that he observed extra 2017 at Warehouse Crossing without any markers on its rear end.

Yardmaster Milan stated that he boarded extra 2017 at Camp Fadsworth but did not observe whether the marker lights were in position or properly displayed, but did remember seeing one of the marker lights in possession of a soldier which was brought to the forward end of the train after the accident for use in flagging an approaching train from the north.

Switchman Hahn who was working for the Southern Railway in the camp yard's opposite Warehouse Crossing stated that he observed extra 2017 and extra 80 leave that place spaced three or four minutes apart and the speed of train 80 increased rapidly after leaving there. He said that the interior of the rear coach on extra 2017 was not illuminated and he could not say whether or not there were markers on that train.

Rules 52 and 52a of the operating rules of the Piedmont & Northern Railway read in part as follows:

52. When a train stops or is delayed, under circumstances in which it may be overtaken by another train, \*\*\* the Rear Brakeman or Conductor must immediately go back with danger signals to stop any train moving in the same direction.

52a. If from any cause the speed of a train is reduced, or it falls back upon the tail of another train, the Conductor will be held responsible for fully protecting the rear of his train against following trains by the use of proper signals.

Rule 295 reads as follows:

Where the rules require it, Rear Brakeman must immediately protect the train as provided in Rule 52 without waiting for signal or instructions to do so.

The direct cause of this accident was the failure of the conductor and flagman of extra 2017 properly to protect the rear of their train as required by rule 52a.

In view of the fact that the speed of extra 2017 had been materially reduced on account of low electric power, and extra 80 was following it only a short distance away, Conductor Turner should have immediately taken steps to protect the rear of his train as required by the rules. Had he done so this accident undoubtedly would not have occurred.

Rule No. 45 provides that

Unless some form of block signal is used, trains in the same direction must keep at least 10 minutes apart, except in closing up at meeting or passing points.

The crew of extra 80 did not comply with this rule. The evidence shows that they left Camp Radaworth and Warehouse Crossing before 10 minutes had elapsed after the departure of extra 2017. While there is some conflict as to how much time intervened between the departure of extra 2017 and extra 80, it is probable that extra 80 followed extra 2017 from these stations within about four or five minutes.

It is believed that the workers were in proper position on the rear of extra 2017, but on account of the conflict in the testimony it was impossible to determine whether or not they were lighted. However, the engineman and conductor of train No. 80 claim that there were no markers on the rear of extra 2017, and if this be true, it should have caused them to exercise even greater care in following that train so as to avoid colliding with it.

This investigation showed that a majority of the crew of each train involved in this accident were men of very limited railroad experience in train service, and some of them charged with the responsibility for the safety of their train had not been examined on the operating rules of this company, nor were they thoroughly familiar with the rules and duties required of them. Especially is this true of the flagman of extra 2017, who had only been in the service since September 4th, and who had had no train service experience previous to that date. The investigation also developed instances of a lax method of

employing and instructing men for train service, which is irregular and does not tend to promote the necessary efficiency to insure safe train operation. Had the officials charged with the responsibility of train operation determined by examination whether or not the employees involved in this accident were qualified to assume positions where the safety of trains devolves upon them, this accident might have been prevented.

Since the establishment of a Cantonment, known as Camp Wadsworth on the line of the Piedmont and Northern Railway near Spartanburg, S. C., the traffic on this line has increased to such an extent, that its capacity is heavily taxed. This company is prepared to install an absolute manual block signal system on the portion of track extending from Spartanburg to Camp Wadsworth, similar to the one now in use between Look and Greenville, S. C., recently installed to care for a similar condition, arising since the establishment of a Cantonment on its line near Greenville, S. C., known as Camp Sevier, and have the material on the ground to do so, but have delayed the installation on account of a contemplated change in the location of stations to accommodate the requirements of the War Department, all the details of which have not as yet been made known to the company.

J. O. T.