

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
LOUISVILLE, HENDERSON & ST. LOUIS RAILWAY NEAR
SOAPER, KY., ON FEBRUARY 1, 1929.

April 30, 1929.

To the Commission:

On February 1, 1929, there was a head-end collision between a passenger train and a freight train on the Louisville, Henderson & St. Louis Railway near Soaper, Ky., which resulted in the death of five employees and one person carried under contract.

Location and method of operation

This accident occurred on that part of the Louisville, Henderson & St. Louis Railway extending between Strawberry and Henderson, Ky., a distance of 137.1 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. Between Evansville, Ind., and Henderson, a distance of 12.4 miles, trains of this railway are operated over the tracks of the Louisville & Nashville Railroad. The accident occurred at a point 3,583 feet east of the east passing-track switch at Soaper; approaching this point from the west the track is tangent for a distance of more than 1 mile, followed by a $3^{\circ} 48'$ curve to the right 1,373 feet in length, the accident occurring on this curve at a point 706 feet from its western end. Approaching from the east there is a 2° curve to the right 300 feet in length and then the track is tangent for 1,048 feet, followed by the curve on which the accident occurred. The grade at the point of accident is level, this being at the apex of grades slightly ascending from each direction. The accident occurred near the western end of a cut, the maximum depth of which is approximately 30 feet; at the point of accident it was 10 feet in depth. Owing to this cut the view of the point of accident from the right side of the cab of an eastbound train is restricted to about 725 feet while a view of the same point can be had from the east for a distance of about 550 feet.

The weather was clear at the time of the accident, which occurred at about 3.39 a.m.

Description

Eastbound passenger train No. 146 consisted of one baggage car, one combination baggage and passenger car, two coaches and three Pullman sleeping cars, all of steel construction except the first and last cars, which were of steel-underframe construction, hauled by engine 83, and was in charge of Conductor Root and Engineman Bush. At Evansville, on the Louisville & Nashville Railroad, the crew received a copy of train order No. 5, Form 31, reading as follows:

"No.146 Eng 83 wait at Soaper until
three forty five 345 am for First
No 167 Eng 58."

Train No. 146 departed from Evansville at 2.45 a.m., on time, left Henderson, on the Louisville, Henderson & St. Louis tracks, 4.1 miles west of Soaper, at 3.30 a.m., five minutes late, passed Soaper without stopping and collided with train first No. 167 shortly afterwards while traveling at a speed variously estimated to have been between 15 and 45 miles per hour.

Westbound second-class freight train first No. 167 consisted of 19 cars and a caboose, hauled by engine 58, and was in charge of Conductor Gregory and Engineman Harder. This train left Doyle, 27.1 miles east of Soaper, at 2.34 a.m., one hour and four minutes late, the crew having received at that point a copy of train order No. 5, on Form 19, previously referred to, and was approaching Soaper when it collided with train No. 146 while traveling at an estimated speed of 30 to 40 miles per hour.

The boilers of both engines were torn from their frames, the boiler of engine 58 coming to rest on its right side and the boiler of engine 83 came to rest standing on end and leaning against the boiler of engine 58, both engines and their tenders were destroyed. None of the cars in train No. 146 was derailed except the forward truck of the first car, this car was destroyed and the second car considerably damaged by fire. The first four cars and the 13th to the 16th cars, inclusive, in the freight train were derailed, the first three being demolished while the balance of the derailed cars were not badly damaged. The employees killed were the engineman and fireman of train No. 146 and the engineman, fireman, and head brakeman of train first No. 167.

Summary of evidence.

Conductor Root of train No. 146, stated that he received the train order at Evansville and read it to the engineman and operator at that point, the requirements of the order being thoroughly understood. He was riding in the fourth car from the engine working with his tickets as his train approached Soaper when he heard a station whistle signal sounded, which was followed by another signal acknowledging the wait order; he looked at his watch at this time and, to the best of his recollection, it was 3.40 a.m., and the thought occurred to him that his train would be delayed five minutes. He then proceeded to the forward end of the coach, opened the vestibule door as his train was passing Soaper and observed that a train was standing on the passing track, but on account of steam and smoke he was unable to distinguish the engine number. He also looked for classification markers but did not see them, which he also attributed to the hazy atmosphere, although he afterwards said that he was passing the engine at the time he opened the vestibule door. He said that speed was reduced after the whistle signals were sounded but before reaching the passing track the speed was increased, which led him to believe that the engineman had identified the engine number of the train standing on the siding as that of train first No. 167, and he therefore took no action toward bringing the train to a stop but returned to his seat in the coach and continued to arrange his tickets. His first intimation of anything wrong was when he felt what he thought was a slight application of the brakes; he estimated the speed of his train at the time of the accident at not more than 40 miles per hour. Conductor Root further stated that it is not his custom to leave to the engineman the sole responsibility for ascertaining that the train to be met at meeting points has arrived and he could not recall any other time when this had been done, he did so in this instance in view of the fact that speed was resumed after it had been reduced before reaching Soaper, which supported his belief that the engineman had assured himself that train first No. 167 was then on the siding.

Flagman Plank, of train No. 146, stated that he read and thoroughly understood the order requiring his train to wait at Soaper until 3.45 a.m. While approaching that point he heard the station and meeting-point whistle signals sounded, after which he went to the forward end of the third car, and as his train passed Soaper, which was at 3.38 a.m., traveling at a speed of 45 miles per hour or more, he looked through the vestibule door without opening it and noticed a train on the side track at that

point but failed to see the engine number, which failure he thought might have been due to the speed of his train coupled with steam and smoke in the vicinity, he did not look for signals being displayed by that train as he did not think of it at the time. As his train continued beyond Soaper he felt confident that the engineman had observed the engine number of the train on the siding and that it was train first No. 167, he then dismissed the matter from his mind and went back in the coach and sat down. A short time later the brakes were applied in emergency, which reduced the speed, according to his judgment, to less than 15 miles per hour by the time the accident occurred. He also stated that it is customary for enginemen when approaching a meeting or waiting point to sound a meeting-point whistle signal and to reduce speed until they satisfy themselves that the train to be met is in the clear and if so speed is then increased, which was done on the morning of the accident, the whole matter apparently being left to the engineman.

Conductor Gregory, of train first No. 167, stated that at Doyle he received an order which required train No. 146 to wait at Soaper until 3.45 a.m. His train passed Bassett, 2.9 miles from Soaper, at 3.34 a.m., and at that time he expected to arrive at Soaper at about 3.40 a.m., in time to clear the superior train or else provide flag protection. He said that while approaching the point of accident he was riding in the cupola of the caboose and that he felt no application of the brakes prior to the accident, his first warning of danger being when the collision occurred, he was of the opinion that no effort was made to stop his train. The impact caused him to fall to the floor, he then got up, put on his coat and procured a lantern, and then looked at his watch and, as well as he could remember, it was then 3.40 a.m., he fixed the time of the collision at 3.39 a.m. and estimated the speed of his train at 30 or 35 miles per hour. Conductor Gregory further stated that from his position in the caboose he had observed the reflection of the headlight of his train between Bassett and the point of accident. He also said that after the accident he went to Soaper to report the accident and on his way he met the flagman of train No. 146, who inquired as to what train they had collided with, and when informed that it was train first No. 167 the flagman remarked that he thought that train was on the passing track at Soaper.

The statements of Flagman Corbin, of train first No. 167, who was also riding in the cupola of the caboose approaching the point of accident, substantiated those of Conductor Gregory as to the speed, the time of the accident, the fact that no application of the brakes was made before the collision, and that he had noticed the reflection

from the headlight of his engine as it rounded the curve on which the accident occurred. At the time of the accident he did not know just what had occurred so he started forward with the intention of providing flag protection at the head end. Upon reaching the scene of the collision he talked with Conductor Root concerning the accident and the conductor stated that he saw a train on the passing track at Soaper and thought it was train first No. 167, although he had not seen the engine number.

Engineman Cain, of second-class freight train No. 165, stated that the number of his engine was 59 and that his train was standing on the passing track at Soaper at the time train No. 146 passed that point. The headlight on his engine was extinguished but there was a light burning in the back of the headlight which clearly displayed the engine number. He held no orders pertaining to train No. 146 and as it was approaching he observed the reflection of its headlight when it was about 1 mile distant, while he heard station and stop whistle signals sounded. When that train passed, which was at 3.37.30 a.m., he noticed Engineman Bush lean out and look at the headlight of the engine of train No. 165, and at about the same time he heard the exhaust of the engine of the passenger train increase, the engineman apparently having opened the throttle wider. He estimated the speed of that train at approximately 40 miles per hour when it passed Soaper. Engineman Cain said that the weather had been clear until about 3 a.m., but that it became foggy after that time but he did not think the fog was dense enough to prevent the engineman of train No. 146 from getting a clear view of the number of his engine, he was of the opinion that Engineman Bush confused his engine number with that of train No. 167.

Operator Long, of the Louisville & Nashville Railroad, on duty at Evansville at the time train No. 146 departed from that point, stated that he delivered train order No. 5 to the conductor and engineman of that train and both of them read the order back to him and then signed it.

Conclusions

This accident was caused by failure to obey a wait order, for which the entire crew of train No. 146 were responsible.

The rules provide that trains holding orders against each other will be identified by their engine numbers, and must ascertain positively that the train or trains met or passed are those referred to in the order.

Under the requirements of train order No. 5, train No. 146 was required to wait at Soaper until 3.45 a.m. for train first No. 167. The evidence indicates that the engineman, conductor and flagman of train No. 146 read the order and understood its contents. Both Conductor Root and Flagman Plank stated that they realized it was their duty to check engine numbers of trains to be met and that they attempted to do so in this instance but on account of the speed of their train and the steam and smoke they failed to identify the engine number of the train which was standing on the passing track at Soaper at the time their train passed that point. They further stated that in view of the fact that after the engineman acknowledged the wait order and reduced speed, he then increased the speed at about the time their train passed Soaper, they were under the impression that the engineman had identified the train on the passing track as train first No. 167, and as a result neither of them paid any further attention to the requirements of train order No. 5.

No positive statement can be made as to the reason for the failure of Engineman Bush to comply with the wait order, but in view of the fact that the evidence indicates he had not forgotten the order it seems probable that he confused the number of the engine of train No. 165, which was 59, with the number of the engine of the train for which he was to wait, this latter engine number being 58. It was the duty of the engineman to show his orders to the fireman and it was the latter's duty to ask for them in case the engineman did not show them to him; nothing is known, however, as to whether the fireman was acquainted with the contents of the wait order.

On this part of the Louisville, Henderson & St. Louis Railway there are 8 first-class trains and 6 second-class trains, operated daily, and the average daily train movement for the month of January was nearly 21 trains. Traffic of this density is sufficient to justify serious consideration of the question of installing a block-signal system in order to minimize the danger of the occurrence of accidents of this character.

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.