

INTERSTATE COMMERCE COMMISSION

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REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON
THE LOUISVILLE & NASHVILLE RAILROAD AT WEST
FRANKFORT, KY., ON SEPTEMBER 7, 1924.

October 17, 1924

To the Commission:

On September 7, 1924, there was a head-end collision between a freight train of the Chesapeake & Ohio Railway and a light engine of the Louisville & Nashville Railroad on the line of the last-named carrier at West Frankfort, Ky., which resulted in the death of three employees and the injury of one employee.

Location and method of operation

This accident occurred on the Lexington Branch of the Louisville, Cincinnati & Lexington Division, which extends between Lexington and Lagrange, Ky., a distance of 67.2 miles, this being a single-track line over which trains are operated by time-table and train orders, no block-signal system being in use. The point of accident was about half a mile south of West Frankfort passing track, approaching this point from the north beginning at the south switch of the passing track there are 338 feet of tangent, a curve of $20^{\circ} 8'$ to the left 752 feet in length, 885 feet of tangent, and a reverse curve first to the left and then to the right having a total length of 4,503 feet, the length of the curve to the left being 2,539 feet. The accident occurred on this curve to the left, 340 feet from its northern end, at a point where the curvature is $40^{\circ} 26'$. Approaching from the south there is a compound curve to the left 2,719 feet in length, 388 feet of tangent, and then the reverse curve on which the accident occurred. The grade from the north is generally descending and is then 0.73 per cent ascending for a short distance to the point of accident. Approaching from the south it is descending, then ascending, and then 0.73 per cent descending for a short distance. The view across the inside of the curve is restricted to less than 400 feet. The weather was clear at the time of the accident, which occurred at 2.38 p.m.

Description

Louisville & Nashville light engine 971, in charge of Conductor Rodgers and Engineman Kamenish, was engaged in helping freight trains and was being operated as a work extra. After assisting a southbound freight train from Cliffside, which is north of West Frankfort, to Bagdad, which is 12.5 miles south of West Frankfort, work extra 971 started toward West Frankfort, the engine being operated backing up. A stop was made at Cath, 8.9 miles from West Frankfort, where the conductor called the dispatcher and asked for orders against train first No. 137 and received a train order, No. 354, on Form 31, to meet that train at West Frankfort. This order was made complete at 2.20 p.m. and the train proceeded, colliding with train first No. 137 before reaching West Frankfort while traveling at a speed estimated to have been about 18 miles an hour.

Chesapeake & Ohio second-class freight train first No. 137 consisted of 20 cars and a caboose, hauled by engine 431, and was in charge of Conductor Carpenter and Engineman Muir. At Lexington the crew received among others a copy of train order No. 326, on Form 31, providing in part for a meet with work extra 971 at West Frankfort. Train first No. 137 passed West Frankfort without stopping, however, and collided with work extra 971 while traveling at a speed estimated by the employees to have been from 10 to 12 miles an hour.

The tender of engine 971 was practically demolished, while the engine was driven southward a distance of 690 feet. Engine 431 was derailed and came to rest 330 feet south of the point of collision, while the first car in the train was demolished. The employees killed were the engineman and fireman of train first No. 137 and the fireman of work extra 971.

Summary of evidence

Inasmuch as work extra 971 was being operated backing up, Engineman Kamenish was on the outside of the curve and his first knowledge of anything wrong was when he received a stop signal from Conductor Rodgers who was riding on the foot-board of the tender, the collision occurring before the air brakes had time to apply. The conductor said he heard a noise as his engine was approaching West Frankfort and soon afterwards saw the engine of train first No. 137 approaching around the curve not more than six or seven car lengths distant, and he at once gave a stop signal to his own engineman and jumped. In his opinion the engine of train first No. 137 was working steam when the collision occurred.

Conductor Carpenter, of train first No. 137, said Engineer man Muir read the orders received at Lexington and appeared to understand them correctly. After departing from the water tank at Frankfort the conductor and both brakemen were riding on the rear platform of the caboose, the head brakeman having looked over the train as it pulled by him and then boarded the caboose. Conductor Carpenter said that when approaching West Frankfort no signals were exchanged with the engine crew as is required by rule when approaching a passing track, and that on account of cars on the inside of the curve he was not certain that extra 971 had not pulled in on the stock track instead of on the passing track until the caboose had reached the clearance point of the passing track. He said he then attempted to enter the caboose for the purpose of stopping the train by means of the conductor's valve but that the door stuck, delaying him for several seconds, and that the caboose was about 11 car lengths beyond the passing track, moving at a speed of 20 miles an hour, when he finally succeeded in applying the air brakes. Although no previous difficulty had been experienced with the brakes he said that on this occasion they did not seem to take hold promptly, although the speed was reduced to about 10 or 12 miles an hour at the time of the collision, which occurred when his train had moved 10 or 15 car lengths beyond the point where the brakes were applied. The statements of Head Brakeman Harnett and Flagman Watson practically corroborated those of Conductor Carpenter.

Operator Jacobs, on duty at the yard where the crew of train first No. 137 received their orders, said the orders were read in his presence by the conductor and engineman and he checked their reading of the orders as being correct. Operator Jacobs noticed nothing unusual in their appearance or actions.

Mechanical Foreman Fuss said he found the reverse lever on engine 971 in back motion, four or five inches from the center, the reverse lever on Chesapeake & Ohio engine 431 was about in the center, while he was unable to tell whether the throttle was open or closed.

Car Inspector Eldridge, on duty at the yard where train first No. 137 originated, said the train was tested from the yard plant before the engine was coupled on, all the air brakes being found in working order, and when the engine coupled to the train he notified the engineman accordingly.

Conclusions

This accident was caused by failure to obey a meet order, for which Conductor Carpenter and Engineman Muir are responsible.

The evidence shows that the crew of train first No. 137 received the order to meet the work extra at West Frankfort, the order being compared and apparently understood by the members of the crew, but after taking water at Frankfort the train proceeded and passed West Frankfort without stopping. No reason can be assigned for the failure of the engine crew to obey the order, according to the statements of the train crew they remained on the rear platform of the caboose until it was about opposite the clearance point of the south switch, and delay was then encountered in opening the conductor's valve on account of the door not opening readily, while the brakes did not seem to take hold well after the conductor's valve had been opened.

Regardless of the reasons thus advanced for their failure to stop their train before the collision occurred, the evidence indicates that the air brakes had been tested before the departure of the train and that they had worked properly en route, and had the members of the train crew exchanged signals with the engine crew when approaching the passing track as required by rule, or had any one of them stationed himself where he could have a better view than that afforded from the rear platform of the caboose, it is probable the fact that work extra 971 had not arrived would have been discovered in ample time to have stopped the train. Conductor Carpenter was familiar with the physical surroundings, knew that none of the members of the train crew was in position to see ahead, and is equally responsible with Engineman Muir for the occurrence of this accident.

The scheduled traffic on that part of the road between Lexington and Christiansburg, within which territory this accident occurred, consists of 14 first-class trains and 8 second-class trains, exclusive of sections and extras. Traffic of this density on a single-track line warrants the installation of a block-signal system. Had an adequate block-signal system been in use on this line, this accident probably would not have occurred, an adequate automatic train stop or train control device would have prevented it.

With the exception of the two brakemen of train first No. 137, the employees involved were experienced men. At the time of accident the crew of train first No. 137 had been on duty about 3 hours and the crew of work extra 971 about 5 hours, previous to which all of these employees had been off duty 12 hours or more.

Respectfully submitted,

W. P. BORLAND,

Director