INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE BALTIMORE AND OHIO RAILROAD AT MARTIN, IND., ON DECEMBER 21, 1928.

February 28, 1929.

To the Commission:

On December 21, 1928, there was a head-end collision between two passenger trains on the Baltimore and Ohio Railroad at Martin, Ind., which resulted in the injury of 14 passengers, 8 mail clerks, 1 express messenger, and 15 Pullman and railroad employees.

Location and method of operation

This accident occurred on the Washington Subdivision of the St. Louis Division, extending between North Vernon and Shops, Ind., a distance of 98.2 miles, in the vicinity of the point of accident this is a single-track line over which trains are operated by time-table, train orders and a manual block-signal system. Eastbound trains are superior to westbound trains of the same class. The accident occurred at a point about 300 feet east of the west passing-track switch at Martin. Approaching this point from the west the track is a series of curves and tangents, followed by a compound curve to the right 1,190.4 feet in length with a maximum curvature of 4°, the track then is tangent for a distance of 2,270.9 feet, the accident occurring on this tangent at a point 390.3 feet from its western end. Approaching from the east there is a 4° curve to the right 1,559 feet in length, followed by the tangent on which the accident occurred. The grade at the point of accident is 0.03 per cent ascending for eastbound trains. A view of the point of accident can be had from the cab of an eastbound engine for a distance of more than 1 mile.

The weather was clear at the time of the accident, which occurred at about 2.28 p.m.

Description

Eastbound passenger train No. 22 consisted of three mail cars, two express cars, one baggage car, two coaches, one Pullman sleeping car, one dining car and one Pullman sleeping car, in the order named, hauled by engines 5160 and 5115, and was in charge of Conductor Cole and Engineman Boyles and Lahorney. The cars were of all-steel construction except the 1st, 4th and 10th cars, which were of steel-underframe construction. At Washington, 21.9 miles west of Martin, the crew received a copy of train order No. 255, Form 19, directing them to take siding and meet train No. 21 at Martin instead of at Cannelburg. Train No. 22 left Washington at 2.00 p.m., 20 minutes late, and upon arrival at Loogootee, the last open office, 14.1 miles from Washington, a clearance card, Form A, was received calling attention to the meet with train No. 21 at Martin as provided in train order No. 255. Train No. 22 departed from Loogootee at 2.19 p.m., 15 minutes late, proceeded to Martin, passed the west passing-track switch at that point, and collided with train No. 21 while traveling at a speed estimated to have been between 12 and 20 miles per hour.

Westbound passenger train No. 21 consisted of one mail car, two express cars, two mail cars, one baggage car, two coaches, one Pullman sleeping car and one dining car, all of steel construction except the last car which was of steel underframe construction, hauled by engine 5101, and was in charge of Conductor Brown and Engineman Black. This train left Mitchell, 21.3 miles east of Martin, at 1.58 p.m., two hours and three minutes late, after the crew had received a copy of train order No. 255 previously mentioned, and was brought to a stop on the main track east of the west passing-track switch at Martin; it had been standing at this point only a minute or two when it was struck by train No. 22.

Engine 5160 was partly derailed, the cab was telescoped by the tender, the tender coming to rest with its forward end against the boiler head and its rear end resting on the pilot of engine 5115 Engine 5115 had its front end slightly damaged. The first car in train No. 22 was telescoped for about two-thirds of its length, the second car was derailed and rolled down an embankment for a distance of approximately 25 feet, coming to rest on its right side, while the forward truck of the third car was also derailed. The driving wheels of engine 5101 were derailed and the front end of the engine damaged to some extent. None of the other equipment was derailed or damaged.

Summary of evidence

Engineman Black, of train No. 21, stated that his train was brought to a stop on the main track at Martin about three engine-lengths east of the clearance point at the west switch. As soon as his train came to a stop the fireman informed him that he could see the smoke of an approaching train, whereupon Engineman Black instructed the fireman to get off and open the switch. The fireman got off and ran towards the switch but was unable to reach it before train No. 22 passed it. Engineman Black said he did not see the opposing train until shortly before the occurrence of the accident, since it was approaching around the curve beyond the point at which his own train was standing. He then realized that it could not be brought to a stop in time to avert an accident and jumped from his engine. Engineman Black estimated that about one or one and one-half minutes elapsed between the time his train came to a stop and the time it was struck by train No. 22.

The statements of Fireman Overturf, of train No. 21, substantiated those of Engineman Black, while the statements of Baggageman Meloy, Conductor Brown and Flagman Huss, of the same train, were to the effect that after their train had stopped they observed train No. 22 approaching about one-half mile distant and at that time, on account of the speed at which the train was traveling, they became apprehensive as to whether or not it could be brought to a stop before passing the west passing-track switch. Baggageman Meloy estimated the time his train had been standing prior to the occurrence of the accident at two minutes and Conductor Brown thought it was about one minute.

Engineman Boyles, of the leading engine of train No. 22, stated that when the engines were coupled together at Washington Shops the brakes were tested and worked properly, and that they functioned satisfactorily between the shops and the station. After the engines were coupled to the train another air-brake test was made which also proved satisfactory. As soon as the train had picked up sufficient speed after ascending the grade east of Washington he made a running air-brake test and the brakes applied and released properly, while he experienced no difficulty in making the station stop at Loogootee, the only stop en-route. Before departing from Washington he received the order to take the siding and meet train No. 21 at Martin instead of at Cannelburg, which he read and understood and then handed to the fireman. At Loogootee he received a clearance card referring to the meet at Martin and authorizing him to enter the block with the signal displaying a stop indication. Upon reaching a point about 1½ miles from the west passing-track switch at Martin a meeting-

point signal was sounded from the train, which he acknowledged with the engine whistle. Shortly afterwards he shut off steam and about 15 or 20 seconds later, or when within a distance of 55 or 60 car-lengths from the switch, traveling at a speed of from 50 to 55 miles per hour, he made a brake-pipe reduction of from 6 to 10 pounds, this reduction being made from a brake-pipe pressure of 110 pounds. He felt an appreciable reduction in speed as a result of this air-brake application, and as the train neared the switch he made two more reductions, without having released, and then moved the brake-valve handle to the emergency position, but he said that on account of having drawn off considerable pressure the usual emergency effect was not received, he did not look at the gauge at the time he attempted to make the emergency application. He estimated the speed at the time of the accident at 15 miles per hour. Engineman Boyles further stated that he had in mind that his train was required to take the siding but misjudged the speed and did not begin braking soon enough to bring the train to a stop before passing the west switch and also allowed the train to go too far before making the second reduction.

The statements of Fireman Mandell of the leading engine of train No. 22, practically corroborated those of Engineman Boyles. He also stated that it did not appear that the brakes held properly, although the brake-pipe exhaust sounded the same as usual, there being no indication that the brake valve was cut in on the second engine.

Flagman Artman, of train No. 22, stated that he boarded the leading engine at Looscootee for the purpose of being in a position to open the passing track switch at Martin without delay, and that he held some conversation with the engineman en route regarding the fact that their train was required to take the siding to meet train No. 21. As his train was rounding the curve west of the point of accident he observed the opposing train standing near the west passing-track switch and called the engineman's attention to it, the engineman acknowledging by answering in the affirmative. Flagman Artman practically corroborated the statements of Engineman Boyles and Fireman Mandell as to the handling of the brakes just prior to the collision, and estimated the speed at the time of the accident at 20 miles per hour.

Engineman Mahorney, in charge of the second engine of train No. 22, stated that before the engines left the pit at Washington shops he closed the cut-out cock under the brake valve on his engine. It appeared from the brake tests made at Washington and the running test after

departing from that point, as well as the station stop at Loogootee, that the brakes were functioning properly. When about one-half mile from Martin he shut off steam and at about the same time the lead engineman applied the brakes, which appeared to hold properly. He did not know whether there were any subsequent brake-pipe reductions as he did not watch the air gauge, being confident at the time the brakes were applied that the train would be brought under control before reaching the switch. He did not realize that it could not be brought to a stop until within a distance of three or four car-lengths of the switch, and upon observing that the switch was not open he jumped off, as he had seen the opposing train standing near the switch and knew that a collision was inevitable. Before getting off, however, he noticed that the brake valve on his engine was still cut out. He further stated that he did not reverse his engine nor did the lead engineman call for brakes or give any signal to indicate that he was in trouble. Engineman Mahorney estimated the speed at the time of the accident at 12 miles per hour, while it was 50 to 55 miles per hour at the time the brakeswere first applied.

The statements of Fireman Glasson, Baggageman Stevens and Conductor Cole, of train No. 22 were to the effect that they were familiar with the requirements of the meet order at Martin, that the proper air-brake tests had been made, and that nothing unusual was noticed in the handling of the train en route, the brakes appearing to have the usual retarding effect at the time they were applied as the train approached the point of accident.

Car Inspector Dunbar stated that he was at the station at Washington when train No 22 arrived at that point and observed that when it was coming to a stop all of the brakes were applied. Engines were changed, and when engines 5180 and 5115 were coupled to the train he made the hose connections and opened the angle cocks. The brakes were then tested and appeared to function properly at the head end of the train while another inspector stationed at the rear of the train signalled that they were working all right, he did not inspect each car when this test was made to ascertain whether all of the brakes applied and released, neither did he inspect the engine brakes although he noticed that the angle cocks were open between the engines.

Supervisor of Locomotive Operation Hodapp stated that he was riding on train No. 22 at the time of the accident and immediately after its occurrence he made an examination of the equipment. The thought occurred to him

that possibly the engineman of the second engine had his brake valve cut in but upon boarding the engine he found the double-heading cock closed. He also found the angle cock closed on the head end of the second engine, and the handle broken off, but it was his opinion that this was caused by the drawbars sliding up on the pipe. A thorough inspection developed no defects in the air-brake equipment.

Conclusions

This accident was caused by the failure of Engineman Boyles, of train No. 22, properly to control the speed of his train approaching a meeting point.

The evidence indicated that a thorough test of the air brakes on train No. 22 was not made before departing from Washington, but in making the running test after departing from that point it was found that the brakes operated properly, and also when making the station stop at Loogootee. Engineman Boyles said he had in mind that his train was required to take the siding for the meet at Martin and stated that the accident was due to his own failure to begin braking soon enough coupled with the fact that he allowed the train to move too great a distance before making the second reduction.

An examination of the air-brake apparatus on engine 5115 shortly after the accident disclosed that the double-heading cock was closed and there was nothing found to indicate that the brakes were in a defective condition, except that the angle cock at the head end of engine 5115 was closed and the handle broken off which apparently was a result of the accident.

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.