INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY
IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED
ON THE PENNSYLVANIA RAILROAD AT IRON HILL, MD.,
ON OCTOBER 25, 1929.

February 17, 1930.

To the Commission

On October 25, 1929, there was a derailment of a freight train, the wreckage of which was struck by a passenger train traveling in the same direction on an adjacent track, on the Pennsylvania Railroad at Iron Hill, Md., resulting in the death of 1 employee, and the injury of 23 passengers and 2 employees.

Location and method of operation

This accident occurred on the Maryland Division, extending between Brill, Pa., and North Point, Md., a distance of 85.3 miles, in the vicinity of the point of accident this is a four-track line over which trains are operated by time-table, train orders, and an automatic block-signal system. The tracks are numbered from east to west, 1, 2, 3, and 4, the tracks involved being northbound tracks 1 and 2. The accident occurred at a point approximately 1,825 feet south of the station at Iron Hill; approaching this point from the south the tracks are tangent for a considerable distance, followed by a 0° 30' curve to the left about 740 feet in length, the accident occurring on this curve at a point about 135 feet from its southern end. The grade for northbound trains is 0.65 per cent ascending at the point of accident.

The weather was clear at the time of the accident, which occurred at about 5.55 p.m.

Description

Northbound freight train extra 1650 consisted of 106 loaded cars and a caboose, hauled by engine 1650, and was in charge of Conductor Cook and Engineman Derrickson; helper engine 1635 was coupled behind the caboose and was in charge of Engineman Coulter. This train passed Big Elk, the last open office, 2.2 miles south of Iron Hill, at 5.44 p.m., moving from that point on track 1. The twentieth car in the train developed an overheated journal and it was decided to set off this car at Iron Hill, but when the stop was made, the fifty-third car in the train, Reading box car 15444, apparently buckled toward the east and caused the

fifty-second car, CC&O box car 8039, to be derailed toward the west and to foul track 2.

Northbound passenger train No. 148 consisted of three Pullman parlor cars, one dining car and three coaches, in the order named, all of steel construction, hauled by engine 3738, and was in charge of Conductor Collins and Engineman Rollins. This train passed Big Elk at 5.52 p.m., about two minutes late, moving on track 2, and while approaching the station at Iron Hill it collided with the wreckage of extra 1650 while traveling at a speed estimated to have been between 60 and 70 miles per hour.

Engine 3738 had its pilot beam on the right side broken off and that side of the engine was scraped, the front engine-truck wheels were derailed to the east, while the rear engine-truck wheels were derailed to the west, however, none of the driving wheels was derailed and the engine continued to work steam and ran with its engine truck and tender derailed for a distance of about 30 car-lengths, tearing up the track and causing all of the cars in the passenger train to become derailed. All of the passenger cars were damaged on their right sides, due to scraping the freight cars, but came to rest in an upright position along track 2. The employee killed was the engineman of train No. 148, while the employees injured were the fireman of that train and a dining-car cook.

Summary of evidence

Engineman Derrickson, of extra 1650, stated that a terminal test of the air brakes was made at Perryville, 17.6 miles south of Iron Hill, and that the brakes on all of the cars in the entire train worked properly. A stop was made at Principio, 2.2 miles north of Perryville, by means of a 15-pound air-brake application, after which both engines were cut off and took water. After the engines recoupled to the train the brake-pipe pressure was pumped up to 70 pounds and then Engineman Derrickson made a 25-pound reduction, the air brakes working properly at the time this test was made; there was no brake-pipe leakage of any consequence. After leaving Principio, no air-brake application was made by Engineman Derrickson prior to the accident. Approaching Iron Hill, Head Brakeman Short called the engineman's attention to an overheated journal, on the twentieth car in the train, and it was decided to set off this car at Iron Hill. Engineman Derrickson closed the throttle and after the train had traveled about 50 or 60 car-lengths, Head Brakeman Short got off on the fireman's side of the engine, at which time the speed was about 6 or 8 miles per hour. Engineman Derrickson looked back along the train for a stop signal from the head brakeman however, he said that he received no such signal, but that

he did see the brakeman's lantern as he moved out from between the cars and away from the train and that at about the same time he also saw fire toward the rear of the train, calling this to the attention of the fireman and remarking that something was wrong. Engineman Derrickson maintained that he did not apply the air brakes from the engine, saying that he did not use either the independent engine brake or the automatic air brakes, he did not notice any reduction in the brake-pipe pressure on the engine gauge. Engineman Derrickson at first stated that to the best of his knowledge the air brakes did not apply on the cars in the forward portion of the train, and that after the accident occurred he noticed that the gauge registered 70 pounds brake-pipe pressure and 100 pounds main-reservoir pressure, however, he subsequently stated that it would have been possible for the angle cock to have been closed by the brakeman after the stop was made. Engineman Derrickson was not certain whether his train had come to a full stop at the time train No. 148 collided with the wreckage, but said that with the heavy train he had, and with his engine not working steam, it would have been impossible for the helper engine alone to have shoved the train over the grade, but that it would have come to a gradual stop, which it did. After the accident, the engineman asked the head brakeman whether he had turned an angle cock and the head brakeman replied that he had turned the angle cock behind the car with the overheated journal, but that it had not been turned until after the train came to a full stop. Engineman Derrickson felt positive that the head brakeman did not turn the angle cock until after the train came to a stop and emphatically maintained that he did not use the brakes on the engine to bring the train to a stop.

Head Brakeman Short, of extra 1650, said that after getting off the engine on the fireman's side, he waited at that point and boarded the nineteenth car, in order to inspect the overheated journal on the firemen's side of the twentieth car. He then crossed over to the enginemen's side of the train, got down on the step, gave the enginemen stop signals with his lantern, and while giving these signals the air brakes applied, the head brakeman hearing them apply on the nineteenth car, and a smooth stop was made. Head Brakeman Short was of the opinion that the train had been brought to a stop by Engineman Derrickson in response to his stop signals. After the train came to a full stop, he got off the nineteenth car and walked to the twentieth car, to make the cut in order to set off that car, and just after closing one angle cock, on the south end of the twentieth car, he heard the crash, caused by train No. 148 colliding with the wreckage. Head Brakeman Short emphatically stated that his train had come to a full stop at the time he got off the nineteenth

car and before he turned the angle cock on the twentieth car.

Engineman Coulter, of helper engine 1635, stated that the air brakes were tested at Perryville and Principio and worked properly. While shoving the train up the ascending grade at Iron Hill, the brakepipe pressure registered 65 pounds on the gauge in his engine and his engine continued shoving until the train stopped, due to an air-brake application, the stop being a very smooth one. When the train came to a stop, at which time he still had the throttle open on the helper engine, in order to keep the slack bunched while going up the hill, the brake-pipe pressure reduced from 65 pounds to about 45 or 50 pounds, and then the indicator kept going down until it reached zero. The flagman then came by the helper engine on his way back to flag, and inquired as to the reason for the stop, and Engineman Coulter answered that he thought it probably was due to an overheated journal. At about the time the stop was made, passenger train No. 148 passed on the adjacent track, and shortly afterwards, on looking northward along the left side of the train, Engineman Coulter saw the markers on the rear end of the passenger train and told his fireman to afford protection as he believed that something had happened.

Conductor Cook and Flagman Wootton were riding in the caboose; the conductor stood in the caboose watching the air gauge by means of his lantern, it registered about 65 pounds pressure, and after the train had come to a full stop, the gauge registered about 52 pounds pressure. The conductor started to get off the front platform of the caboose and took one step down, but then stepped back again to allow train No. 148 to pass. Conductor Cook further stated that there was no slack shock whatever from the air brake application that brought his train to a stop. The flagman immediately went back to flag, being of the impression that the stop was made merely on account of an overheated journal. Statements of other members of the crew of extra 1650 developed nothing additional of importance, the indications being that there was not sufficient time to have afforded protection to train No. 148 in time to have prevented the collision with the wreckage.

Fireman Fraim, of train No. 148, stated that the air brakes were tested at Washington and worked properly en route. He thought that the freight train was standing still when his engine passed the rear end of that train and the first he knew of anything wrong was when the crash occurred. A few boards from the wreckage flew into the engine cab, and Enginemen Rollins fell over and knocked

him down, the engine running a considerable distance before the fireman could close the throttle and apply the air brakes. Fireman Fraim further stated that after passing Big Elk, all signals displayed clear indications for track 2. Other members of the crew of train No. 148 were unaware of anything wrong prior to the collision; Conductor Collins estimated the speed of his train to have been between 60 and 65 miles per hour at the time of the collision, while Head Brakeman Coskey estimated it to have been between 65 and 70 miles per hour.

Subsequent to the accident the entire freight train was carefully inspected for a burst air hose, but all of them found to be in good condition and all brake hangers, brake shoes, keys and bottom connections were found intact.

Conclusions

This accident was caused by the buckling of the 53rd car in extra 1650, causing the 52nd car to foul track 2, where it was struck by train No. 148.

The evidence was conflicting as to how extra 1650 was brought to a stop. Engineman Derrickson said he did not make any air-brake application, merely shutting off steam and allowing the train to come to a stop; Head Brakeman Short said he gave a stop signal from his position on the nineteenth car, and that he heard the brakes apply on that car, presumably in answer to his signal, Engineman Coulter, of the helper engine, said the brake-pipe pressure dropped from 65 to 45 or 50 pounds, and then started down again, while Conductor Cook said the caboose gauge indicated that a 13-pound application was made in bringing the train to a stop. In any event, however, all the evidence was to the effect that the stop was made very smoothly and without any indication that there had been any damage to the train, with the result that when train No. 148 approached on the adjoining track a few seconds afterwards, no attempt was made to stop it, and apparently the enginemen of that train had no indication that there was anything wrong prior to the time his engine collided with the car which was fouling track 2.

All the employees 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.