INTERSTATE COMMERCE COMMISSION.

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE PENNSYLVANIA RAILROAD NEAR BRIGHTSIDE, MD., ON MARCH 2, 1924.

April 14, 1924.

To the Commission:

On March 2, 1924, there was a derailment of a passenger train on the Pennsylvania Railroad near Brightside, Md., which resulted in the death of 1 passenger, and the injury of 17 passengers and 4 employees.

Location and Method of Operation.

This accident occurred on the Baltimore Division which extends between Baltimore, and Cargo Junction, Md., a distance of 65.7 miles. In the vicinity of the point of accident this is a double-track line over which trains are operated by time-table, train orders, and a manual block-signal system. Approaching the point of accident from the west there is a curve of 4° 30' to the right 9915 feet in length, then a tangent 265 feet in length, followed by a 5° 30' curve to the left 460 feet in length, the accident occurring on this last-mentioned curve at a point approximately 125 feet from its eastern end. The grade is generally descending eastward varying from 0.31 to 0.37 per cent, being 0.55 per cent at the point of accident. Time table direction is used in this report. In the vicinity of the point of accident the tracks are bordered on the south by Lake Roland.

The track is laid with 100-pound rails, 33 feet in length, with 18 ties to the rail length, tie-plated, ballasted with trap rock and is well maintained. Anti-rail creepers are also used.

Time-table rules permit a speed of 55 miles an hour for passenger trains on this division, except on specified curves, the speed of passenger trains on the curve at Brightside being restricted to 40 miles an hour. The weather was clear at the time of the accident, which occurred at 7.44 p.m.

Description.

Eastbound passenger train No. 970 consisted of five baggage cars, one steel box car used in express service, one combination passenger and baggage car, one coach, one dining car, and one Pullman chair car, hauled by engine 920. The first five cars were of wooden construction while the remainder were of all-steel construction.

This train, in charge of Conductor Gettel and Engineman Taylor left Harrisburg at 5.57 p.m., 27 minutes late, passed "FA" block station, approximately 4.4 miles west of Brightside at 7.37 p.m., 11 minutes late, and on nearing Brightside the derailment occurred while the train was running at a speed estimated to have been about 35 miles an hour.

The engine, tender and first five cars broke loose from the derailed cars and were not derailed. The sixth car, which was the express car, was derailed to the right and came to rest at the foot of the embankment, bottom side up and turned completely around; the last four cars were also derailed, the first of these being badly damaged while the others remained upright on the roadbed, the rear trucks of the last car not being derailed.

Summary of evidence.

The testimony of the crew was to the effect that prior to the accident nothing unusual occurred on this run; the brakes were working properly, no trouble being experienced in making the various stops and there were no jerks or shocks; their first knowledge of anything wrong was when the accident occurred. Engineman Taylor said he had made a service application of the air brakes to steadythe train around the curve, west of the point of accident, released the brakes, and was about to make another application when the accident occurred. While this train had made up approximately 16 minutes of the lost time since leaving its terminal, Harrisburg, in a distance of 77 miles, according to the statements of the employees involved the speed of the train at no time was excessive.

Division Superintendent Smith arrived at the scene of the accident at about 10.15 p.m. and made a careful examination of the track and equipment. He said he noticed light marks on the ties near the left rail of the eastbound main track, which he thought were caused by dragging equipment, but further examination disclosed that these marks continued eastward beyond the point of derailment and did not therefore enter into the cause of the present accident. Careful examination of the express car which evidently was the first car to be derailed failed to disclose any missing or broken parts which might have caused the derailment. Superintendent Smith was present when this car was re-railed and placed upon its trucks, at which time it was the general opinion that this car had excessive side bearing clearance, but examination made later at the shops at Mt. Vernon disclosed that the side bearing clearance was within the prescribed limits. Superintendent Smith was unable to determine the cause of the derailment.

General Car Inspector Taylor said he arrived at the scene of the accident shortly after its occurrence and upon learning that a portion of the train had proceeded on to Baltimore he immediately went there and in company with other inspectors carefully examined that part of the train but nothing was found which could have contributed to the cause of the accident. He was present at the Mt. Vernon shops when the trucks of the first car to be derailed were examined for side bearing clearance and make records of the findings which showed the clearance to be in conformity with the standard for this type of car. The coupler at the rear end of the fifth car in the train was broken in the guard arm, apparently due to the strain following the derailment. He was unable to say what caused the accident.

Freight Trainmaster Watkins, Baltimore Division, stated that he arrived at the point of accident about 25 minutes after its occurrence and made a careful examination of the track and equipment but was unable to find anything that could have caused the derailment. He traced the first marks on the ties and ground to the truck of the express car which was the first car to be derailed, this truck was torn from the body of the car and was partly buried in the ground. There were no marks to indicate that the wheels of this truck had climbed the rail. He said this type of car was generally used in fast express or passenger service and is equipped to meet the requirements of such service.

Supervisor of Track Orwig said he arrived at the scene of the accident at about 9.20 p.m., and immediately gave attention to the condition of the track west of the point of accident, making measurements and records of conditions as found, but was unable to find any defects in the track which could have caused the derailment. He said the track is patrolled day and night, a track walker having passed over that portion of the track a short time before the accident occurred, and no defective condition of the track had been reported or observed.

The last train to pass this point prior to the accident was eastbound passenger train No. 994, which passed Brightside at about 7.19 p.m.

Examination of the track disclosed that there were marks just outside the south rail, with corresponding marks on the gauge side of the north rail, these marks led off the ties to the right. There were no wheel-flange marks on top of the rails, or anything to indicate that the wheels had climbed the rail.

Measurements made of the track beginning at a point 110 feet west of the first mark of derailment, and extending for 33 feet east of this point, at intervals of 11 feet, showed the gauge and alignment to be well maintained. The maximum elevation was 4 9/16 inches, while the gauge at the point of derailment was 4 feet 9 1/16 inch. The eastbound track was torn up for a distance of about 225 feet, and the westbound track was knocked out of alignment for about 75 feet.

Conclusions.

The cause of this derailment was not ascertained.

All of the employees involved were experienced men. 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.