INTERSTATE COMMERCE COMMISSION.

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN/IN-VESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE MICHIGAN CENTRAL RAILROAD AT GRAYLING, MICH., ON JUNE 12, 1923.

June 29, 1923.

To the Commission:

On June 12, 1923, there was a side collision between a light engine and a mixed train on the Michigan Central Railroad at Grayling, Mich., which resulted in the death of three employees. This accident was investigated in conjunction with a representative of the Michigan Public Utilities Commission.

Location and method of operation.

This accident occurred on that part of the Northern Division which extends between Mackinaw City and Bay City, Mich., a distance of 182.32 miles, this is a single-track line over which trains are operated by time-table, train orders, and a manual block-signal system. The point of accident was within yard limits at Grayling, approximately 3,650 feet north of the station, at a double-slip switch which connects the yard tracks with the main line, approaching this point from the north the track is tangent for more than 3,000 feet, while the grace for 2,100 feet is slightly descending, being 0.29 per cent at the point of accident. The weather was clear at the time of the accident, which occurred at about 10.14 a.m.

Description.

Northbound freight train extra 7870 consisted of 53 cars and a caboose, hauled by engine 7870, and was in charge of Conductor Smith and Engineman Roach. This train arrived at Grayling at about 10:10 a.m., and proceeded into yard track 2. The engine was detached and while making a movement from yard track 2 to yard track 1, it fouled the main lime and was struck on the right side by southbound mixed train No. 158.

Southbound mixed train No. 158 consisted of 17 freight cars, 1 express car, 1 baggage car, and 1 coacn, hauled by engine 7835, and was in charge of Conductor Cummins and Engineman Ayers. This train passed Frederick approximately 8 miles north of the point of accident, at 9:54 a.m., on time, at a point about 1/4 mile north of

the point of accident it slowed down and picked up the flagmen of train M-G-4, who was protecting his train which had just arrived at the yard from the north, the train then proceeded southward, the flagman riding on the engine, and while traveling at a speed estimated to have been about 15 or 30 miles an hour, passed over the double-slip switch and collided with light engine 7870.

The engine and tender, of train No. 158, were detailed to the left, the engine came to rest on its left side parallel to the main track while the tender came to rest bottom up, at right angles to the track. The first five cars of train No. 158 were detailed, three of which were entirely destroyed, and the other two badly damaged. Ergine 7870 was considerably damaged on its right side, but remained upright on the track. The employees killed were the engineman and fireman of engine 7835, and the flagman of train M-G-4.

Summary of evidence.

Engineman Roach, of engine 7870, stated that after the engine was detached from the train on track 2, he pulled up and stopped at a point about 10 or 15 feet from the south end of the acuble-slip switch. He did not see the brakeman go to the switch levers or see the movements of the brakeman, as the switch levers were on the opposite side of the engine, but knew that ${\cal U}$ was necessary to make only one lever movement to give him the correct route. He said by leaning far out the cab window he could see the first switch points and after the points moved, which lined the switch correctly for track 1, he proceeded without receiving a signal from the brakeman who was operating the switch levers. According to his statements, immediately after starting and after the first switch points had passed from his view, Brakeran McLellan threw lever No. 2, which lined up the switch for a crossover movement to the main track. He said he could see train No. 158 a short distance away, at which time his own engine was moving very slowly, and upon discovering that his engine was heading out on the main track he applied the air brakes and had practically stopped when the accident occurred.

Fireman York, of engine 7870, said that after the engine was brought to a stop near the double-slip switch, he saw Brakeman McLellan throw a lever which gave the correct route to track 1, and after the engine started he did not notice that the route had been changed or that the engine had fouled the main line until the accident occurred.

Brakeman McLeilan stated that after cutting off the engine from his train he rode the rear sill step to the double-slip switch, operated one switch lever, and not being able to observe the position of the switch points from the point at which he was standing, he then threw the second switch lever, intending to go over to the track and note the position of the switch points, and if correct, then to signal the engineman. He stated that he threw the first lever, and being uncertain as to the effect, he moved the second lever. He operated these levers with his back towards the engine, and then turned and saw that the engine was moving, before he could signal the engineman, the engine had foiled the main track and was struck by train No. 158.

Conductor Cummins, of train No. 158, said his train passed the north yard-limit coard at a speed of about 30 miles an hour, slowed down to pick up the flagman of a train that had come into the yard ahead of them, and then proceeded. Conductor Cummins estimated the speed at which his train was traveling at the time of the collision to have been about 15 miles an hour.

Conclusions.

This accident was caused by Engineman Roach moving his engine through a double-slip switch without receiving a signal from the brakeman who was operating the switch at the time.

Brakeman McLellan had thrown one of the switch levers, lining up the first set of switch points correctly for the movement intended to be made. He was not sure as to the position of the various switch points and so threw the second switch lever, which as a matter of fact anverted the engine to the crossover leading to the main track and resulted in its fouling that track as train No. 158 approached. He said it was his intention to examine the switch points after throwing the levers, in order to see whether they were linea for the proper route, but in the meantine, Engineman Roach had seen that the switch points at the south end of the switch were correctly lined, and moved his engine shead without receiving a proceed signal from the brakeman, whose back was toward the engine and who did not notice that the engine was moving. Engineman Roach did not know that the second lever had been thrown, the stand being on the left side of his engine, and when he saw that his engine was being diverted toward the main track, it was too late to stop it before it had fouled that track. Rule 104-G provides in part that enginemen must know that switches are properly set before using them, and had Engineman Roach waited until he received a proceed signal from the brakeman, this accident probably would not have occurred.

Fireman York, of engine 7870, was in position to see the brakeman who was operating the switch levers, and saw the first lever thrown, which lined up the switch for the intended movement. His engine then proceeded and he paid no further attention to the position of the switches. Had Fireman fork maintained a lookout as his engine proceeded toward the switch, for the purpose of receiving the proper signal from the brakeman, he probably would have discovered that the switch was not lined up for the intended movement in time to warn the engineman so as to stop before fouling the main track.

All of the employees were experienced men, familiar with conditions in the vicinity of the point of accident. The crews of the two trains had been on duty from 5 to 10 hours, after being off duty from 11 to 43 hours.

Respectfully submitted,

W. P. Borland,

Director.