IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE GREAT NORTHERN RAILWAY AT NASHWAUK, MINN., ON NOVEMBER 11, 1920.

February 15, 1921.

On November 11, 1920, there was a rear-end collision between two freight trains near Nashwauk, Minn., resulting in the death of 2 employees. After investigation the Chief of the Bureau of Safety reports as follows:

The seventh district of the Mesaoi Division, on which this accident occurred, extends from Kelly Lake to Gunn, Minn., a distance of 31.2 miles. It is a single-track line over which trains are operated by time-table and train orders, no block-signal system being in use. The accident occurred on bridge D-4, which is 473 feet in length and is located nearly 1,000 feet west of the east end of a compound curve to the left having an average curvature of approximately 50, approaching this curve from the east the track is tangent for about 3,500 feet. The view is materially obscured by a cut at the western end of the tangent and the eastern end of the curve. The grade is for the most part slightly descending, out at the point of accident is level. The east yardlimit board is located approximately 1,300 feet east of bridge D-4. The weather was cloudy.

Westbound freight train extra 992 consisted of engine 992, 14 cars and a caocose, in charge of Conductor Hurley and Engineman Gotschell. This train left Kelly Lake at 7.55 a.m. and after distributing supplies at intervening stations arrived at Nashwauk at about 9.15 a.m. stopping to unload oil and

supplies at a pump house located near the mestern end of the curve. While standing at this point, with its rear end on bridge D-4, it was struck by extra 473 at about 9 39 a.m.

Westbound freight train extra 473 consisted of engine 473, a dozer and caboose, in charge of Conductor Taggart and Engineman. Hayes, According to the train sheet it left Kelly Lake at 9.15 a.m., and proceeded westward without stopping, colliding with the rear end of extra 992 while travelling at a speed variously estimated at from 8 to 20 miles an hour.

The caboose and one car of extra 992 were thrown from the bridge to the ravine below and totally destroyed; the front end of engine 475 was considerably damaged. The employees killed were the conductor and a brakeman of extra 992

The statements of Engineman Hayes and Fireman Brassard, of extra ±73, indicate that the engineman sounded the whistle approaching the yard-limit board, after which he shut off steam and applied the independent brake, reducing the speed of the train passing the yard-limit board to 10 or 12 miles an nour. Shortly afterwards, his view being restricted by the Curvature and the cut and realizing that he was running rather fast, Engineman Hayes told Fireman Brassard, who was working on the fire, to look out and on doing so the fireman saw the rear end of extra 992 about 100 or 150 feet distant and at once notified the engineman, who applied the air brakes in emergency and reversed the engine. Engineman Hayes understood that within yard limits he was required to run

under control, and acknowledged his responsibility for the accident. Fireman Brassard was familiar with the road and knew that the engineman's view was obstructed and admitted that under these circumstances he should have been looking out on his side of the engine, but he said he had been having difficulty with the fire, which statement was verified by the engineman, and that he was not paying close attention to the exact location of his train. The conductor and two brakemen of extra 473 were riding in the caboose and none of them knew that there was anything wrong until they felt the emergency application of the air brakes.

Trainmaster Bailey, who had been riding on extra 992, was standing near the west end of bridge D-4 and said that his attention was first attracted to extra ±73 by hearing the exhaust of an engine working steam. He saw the engine when it came out of the cut, travelling at a speed estimated by him to have been about 18 miles an hour, and said that he did not notice any decrease in the speed prior to the occurrence of the accident. The statements of Relief Agent Williams and Pumper accounted indicated that there was little or no decrease in the speed of extra ±73 prior to the accident.

This accident was caused by extra 473 not being operated under control within yard limits, for which Engineman Hayes is responsible.

Under rule 93 of the rules and regulations for the government of employees of the operating department, all

trains are required to run "with great care and under control within yard limits. Engineman Hayes acknowledged that he failed to comply with this rule.

Engineman Hayes entered the service as fireman in 1906 and was promoted to engineman in 1910. The crew of extra 473 was on duty a little more than 5 hours and the crew of extra 992 about 3 hours, after periods off duty ranging from 8 hours to nearly 3 days.