INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE CHICAGO, BURLINGTON & QUINCY RAILROAD AT HANNIBAL, MO., ON AUGUST 17, 1925.

January 8, 1926.

To the Commission.

On August 17, 1925, there was a head-end collision between a passenger train and a light engine at Hannibal, Mo., resulting in the death of 1 employee, and the injury of 45 passengers and 3 employees.

Location and method of operation.

This accident occurred on that part of the Hannibal Division extending between Hannibal and Old Monroe, Mo., a distance of 68.1 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 an automatic block-signal system. The point of accident was within yard limits, about 500 feet north of a yard office which is shown on the time-table as "Hannibal H. L.," which is 1.7 miles south of the station and will be hereinafter referred to as HN office.

The automatic block signals are of the color-light type, displaying red, yellow and green, for stop, caution and proceed, respectively. Between Hannibal Union Station and the point of accident there are three signals governing the movement of southbound trains, the last signal encountered being signal 118.67, located about 1/2 mile north of the point of accident. Approaching from the south the last signal encountered is signal 116.72, located more than 1 mile south of the point of accident; the next signal governing northbound movements, signal 118.22, is located a few feet north of the point of accident.

Under the rules, second and inferior class and extra trains must move within yard limits prepared to stop unless the main track is seen or known to be clear, while under bulletin No. 15 switch engines and light engines must obtain permission through the operator at HN office before using the main track north of this point.

Approaching the point of accident from the north there is a 2° curve to the right 345 feet in length, 490 feet of tangent, and then a 1° 48' curve to the left 872 feet in length, the accident occurring on the last-mentioned curve at a point about 450 feet from its northern end, approaching from the south there are about 3,100 feet of tangent, followed by the curve on which the accident occurred. The grade in this vicinity is practically level.

It was daylight and the weather was clear at the time of the accident, which occurred at about 6.28 a.m.

Description

Southbound passenger train extra 2150, a commuters train operating between the Union Station and an industrial plant at Illasco, Mo., 3.1 miles distant, consisted of six coaches, all of wooden construction, hauled by engine 2150, and was in charge of Conductor Hayden and Engineman Murphy. While classified as an extra, it was operated daily on an established schedule. It departed from Hannibal at 6.20 a. m., its regular departing time, proceeded southward at a speed said to have been about 10 miles an hour, and while traveling at a low rate of speed collided with extra 2848 at a point near HN office.

Northbound engine 2848, running light, passed Saverton, 6.2 miles from Hannibal, at 6.20 a. m. according to the train sheet, entered the yard limits at Hannibal while traveling at a speed of about 30 miles an hour, passed HN office traveling at a speed variously estimated to have been from 3 to 35 miles an hour, and collided with extra 2150 while traveling at a comparatively low rate of speed.

Both engines and the forward end of the first coach were considerably damaged. The employee killed was a brakeman who was on the front platform of the first coach in extra 2150.

Summary of evidence

Engineman Murphy, of extra 2150, said that after leaving the station his train proceeded southward at a speed not in excess of 10 miles an hour, and that clear indications were displayed by the three automatic block signals encountered en route. His first knowledge of the opposing train was about the time his own train approached the curve on which the collision occurred, at which time the fireman called a warning of danger and jumped from the engine. Engineman Murphy

said he applied the air brakes in emergency but did not have time to leave the engine before the collision occurred, by which time his train had almost stopped. Due to his being on the outside of the curve he was unable to see any material distance ahead and he did not at any time see the light engine as it approached.

The testimony of Fireman Shafer, of extra 2150, corroborated that of Engineman Murphy with respect to the indications displayed by the automatic block signals passed by their train. He said he saw engine 2848 about the time it was passing HN office and thought it was moving at that time at a speed of about 35 miles an hour; he at once called a warning of danger to the engineman and jumped from the gangway of the engine, just before the collision occurred.

Conductor Hayden, of extra 2150, said his train proceeded through the yard at normal speed, not more than 12 or 15 miles an hour at any point. He was collecting transportation and when approaching the point of accident he heard one blast of the whistle and the brakes were applied in emergency, the collision occurring shortly thereafter, he thought the speed of his train at the time of the collision was about 6 or 7 miles an hour. The statements of Flagman Barbour, of extra 2150, corroborated those of Conductor Hayden and brought out no additional facts of importance.

Engineman Briscoe, of light engine 2848, said his engine passed the cement plant, located about 1/2 mile south of the yard-limit board at Hannibal, traveling at a speed of about 30 miles an hour; that the automatic block signal at this point displayed a proceed indication, and that he passed the yard-limit board about 4,500 feet south of the point of accident without reducing speed. He first observed signal 118.22 just north of the point of accident, at the time his engine was about opposite HN office, the speed of his engine at that time being about 15 miles an hour. This signal was displaying a stop indication and he called its indication to the fireman, sounded a stop signal on the whistle and applied the air brakes. He said it was his intention to stop before passing the signal and that his engine had nearly stopped, within an engine length of the signal, when it was struck by engine 2150. Engineman Briscoe said he was familiar with the schedule of the extra and had thought of it as he approached and passed through the yard, and when he observed signal 118.22 displaying a stop indication he intended to stop and to secure permission from HN office before continuing northward on the main track. He was unable to recall having

read a bulletin which prevented light engines from using the main track north of HN office without permission from the yardmaster's office, although his signature to this bulletin was found to be on file. Engineman Briscoe further stated that as automatic signal indications governed movements through the yard his rights in this instance extended to automatic block signal 118.22, located about 550 feet north of HN office and about an engine length north of the point of collision, he later changed this statement and said that in moving through yard limits, operating under rule 93, automatic signal indications were not authority to move in all cases, but that train movements should be made as they way was seen and known to be clear. He said the range of vision at the point of accident was somewhat restricted and that he was unable to see signal 118.22 until his engine had reached HN office, approximately 15 or 20 car-lengths distant from that signal. Subsequent tests, however showed that the indication of this signal could be seen a distance of about 1600 feet from both sides of the cab.

Fireman Petit, of extra 2848, also said the block signal south of the yard-limit board was displaying a clear indication as his train approached and passed it. He thought his engine was running at a speed of about 15 miles an hour between that point and HN office, and said that when within a short distance of this office Engineman Briscoe called "red board" and immediately applied the air brakes, reducing the speed to about 3 or 4 miles an hour at the time of passing HN office. He did not notice the stop indication displayed by signal 118.22, it being at about this time that he observed extra 2150 approaching. Fireman Petit thought the running orders held by the engineman entitled them to use the main track to the round house located in the north end of the yard, and said he was not familiar with any bulletin restricting light engines from using the main track north of HN office without permission, although he knew it was the practice for freight crews to call from this office and secure such permission.

Engineman Briscoe said he had not inspected the speed recorder on his engine and that he did not know whether or not it was working. After the engine had been moved to the round house, within a few hours of the occurrence of the accident, Electrician Faucett tested the speed recorder and found no defects. That portion of the tape covering the last part of the run made by engine 2848 was missing; two days afterwards he found some pieces of tape in the vicinity of where the accident occurred and he expressed the opinion they had constituted a portion of the part which was missing.

Conclusions

This accident was caused by the failure of Engineman Briscoe, of light engine 2848, to stop at HN office and obtain the necessary authority for occupying the main track north of that point.

Engineman Briscoe said he did not remember having read the bulletin in question, but his signature to this bulletin was found to be on file. It further appeared from his statements that when he saw the stop indication of signal 118.22 he intended to stop and to obtain permission through HN office before occupying the track north of the signal, being of the opinion that under the clear signal indication he said he had previously received he could proceed as far as signal 118.22 before stopping. Not only do the indications of automatic signals fail to relieve an engineman of the duty of observing all operating rules and bulletins affecting the movement of his train, but had Engineman Briscoe ever intended to obtain the necessary authority to proceed beyond HN office it is very doubtful whether he would have passed that point a distance of 500 feet and then have walked back to that office to obtain the authority in question, it is also improbable that he would have proceeded as far as the signal if, as he claimed, he remembered the schedule of the passenger extra, which was practically on time when the accident occurred.

That portion of the speed tape which would have shown the speed of engine 2848 as it approached signal 118.22 was found to have been removed by some person unknown, but while nothing definite could be stated as to the speed of extra 2848 it seemed very probable that Engineman Briscoe entered Hannibal yard at a high rate of speed and expected to operate his engine past HN office and proceed to the round house near the Union Station without stopping for anything. The yard-limit rule of this railroad only requires that movements affected by it shall be made prepared to stop unless the main track is seen or known to be clear; such a rule in its practical effect means to stop within range of vision and it is possible that engine 2848 could have been stopped accordingly. Had the rule required the engineman to stop within half his range of vision, as is the case on several railroads in order to allow for the fact that the opposing train may be moving, then a different situation would have been presented.

It developed that extra 2150 had not been stopped when the accident occurred, but it had been operated at such a low rate of speed that it is probable it could have been stopped within the range of vision of the engine crew.

Had an adequate automatic train stop or train control device been in use on this line this accident would not have occurred.

All the employees involved were experienced men; at the time of the accident none had been on duty in violation of the hours of service law.

Respectfully submitted,

W. P. BORLAND,

Director.