## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE CHICAGO & NORTHWESTERN RAILWAY AT CHICAGO, ILL., ON DECEMBER 14, 1924.

February 10, 1925.

To the Commission:

On December 14, 1924, there was a rear-end collision between two freight trains on the Chicago & Northwestern Railway at Chicago, Ill., which resulted in the death of one employee and the injury of one employee.

Location and method of operation

This accident occurred on Subdivision No 1 of the Galena Division, which extends between Chicago and West Chicago, Ill., a distance of 30 miles. In the immediate vicinity of the point of accident this is a six-track line, the two inside tracks are passing tracks, while tracks 1 and 2 on the south, and tracks 5 and 6 on the north, are, respectively, westbound and eastbound The six-track section extends between a main tracks point known as "End of Six Tracks" and Kenton Avenue, a distance of 4.75 miles, following freight-train movements through this territory on track 5 are spaced 10 minutes apart, and must be protected by flag in accordance with rule 99 Track 5 joins track 6 at Kenton Avenue, the normal position of the switch being for track Movements from track 5 at this point are governed by home automatic signal B4, located about 250 feet west of the switch, distant signal DB4, located 5,130 feet west of signal B4, displays only a distant indication for that signal, and when in caution position requires a train to "approach home signal with caution." collision occurred on track 5 at a point approximately 25 feet cast of signal DB4; approaching this point from the west the track is tangent for several miles, while the grade is practically level for more than 1 mile and is then 0.22 per cent descending to the point of accident, about 500 feet distant.

The weather was clear at the time of the accident, which occurred at 7.22 p.m.

## Description

Sastbound yard transfer 2152, consisting of 41 cars and a caboose, hauled by engine 2152, in charge of Conductor Dalbani and Engineman Ruff, left Proviso Yard, 6.3 miles west of the point of accident, at 6.50 p m, en route to "estern Avenue Yard, about 10.3 miles distant. It rossed signal DB4, which was displaying a caution indication, and upon finding a stock train ahead was brought to a stop at 7.15 p.m with the caboose about 25 feet east of signal DB4. It had been standing at this point about seven minutes, without flag protection, when the rear end was struck by extra 2507.

Eastbound stock train extra 2507 consisted of 56 cars and a caboose, hauled by engine 2507, and was in charge of Conductor Mackey and Engineman Woods. This train left Clinton, Iowa, at 2.40 p.m., passed JN Tower, 5.4 miles west of the point of accident, at about 7.08 p.m., and collided with the yard transfer while traveling at a speed variously estimated to have been from 8 to 20 miles an hour.

The force of the collision derailed the caboose and four rear cars in yard transfer 2152, a caboose and rear car being destroyed and the others considerably damaged. Engine 2507 was not derailed and was only slightly damaged. The employee killed was the conductor of the yard transfer, who was in the caboose at the time of the collision.

## Summary of evidence

Engineman Ruff of yard transfer 2152, said he saw the caution indication displayed by signal DB4 and that his train approached and bassed it moving at a low rate of speed. Upon receiving signals from the flagman of the train ahead he brought his train to a stop, but he said he did not sound the whistle signal for the flagman to protect the rear of the train as he was required to do by rule 99b, his reason for not doing so being that a bulletin had been issued which forbade excessive and unnecessary whistling within city limits. Engineman Ruff later admitted that under the circumstances he should have sounded this whistle signal.

Fireman Corrigan, of yard transfer 2152, said he could see the markers on the train ahead when about 3/4 mile distant, but did not see the indication of signal DB4 as his train approached or passed it on account of being on the deck of the engine working on the fire He looked at his watch when his train was brought to a

stop and noted that it was then 7.15 p.m, while the accident occurred at 7.22 p.m. The statements of Head Brakeman Miller, of the yard transfer, corroborated those of Engineman Ruff and brought out no additional facts of importance On account of injuries, Rear Brakeman McQueen of the yard transfer was unable to make any statement, and this fact, coupled with the death of the conductor, precluded obtaining definite information as to why the rear of the train was not protected by flag.

Engineman Woods, of extra 2507, said his train entered upon track 5 at River Forest, which is approximately 3 miles west of the point of accident and he estimated its speed between these two points to have been from 20 to 28 miles an hour Aporoaching the point of accident, he said he saw the caution indication displayed by signal DB4 when his train was at least 1/4 mile from it and could have brought his train to a stop before reaching it had he thought it necessary or had he encountered torpedoes or other flagman's signals. He said, however, that his understanding of the caution indication was that his train should approach the next signal, B4, prepared to stop before passing it, and he did not understand that he might find a train between the two signals. He applied the air trakes in a service application and had not released them when he saw the marker light on the right side of a caboose about 10 or 12 car lengths distant, placed the brake valve in emergency position, at the same time shouting a warning to the fireman and brakeman, and jumped from the engine just before the collision occurred Engineman Woods estimated the speed of his train at the time of the collision to have been . about 8 miles an hour.

Fireman Rubright, of extra 2507, said he had just finished putting in a fire and was about to get on his seatbox when Engineman Woods made a brake-pipe reduction, which had not been released when the brakes were applied in erergency, the engineman at the same time calling a warning. Fireman Rubright said he looked ahead, noticed the caution signal indication, and saw the reflection of the headlight on the rear of the caboose, but the collision occurred before he could leave the engine. Fireman Rubright estimated the speed of his train to have been about 20 miles an hour just prior to the time the emergency application of the air brakes was made.

Head Brakeman Baird, of extra 2507, was riding on the engine approaching the point of accident, he saw the caution indication displayed by signal DB4

about the time the engine was opposite Austin station, which is approximately 950 feet west of the signal, the speed of his train at that time being about 20 miles an hour. Very shortly afterwards both he and Engineman Woods saw the markers on the caboose ahead, both shouted a warning, and Engineman Goods applied the air brakes in emergency.

The statements of Conductor Mackey and Rear Brakeman Strawn, of extra 2507, brought no additional facts of importance.

In connection with the statement by Engineman Woods that he did not understand a caution indication of signal DB4 to mean trut he might find a train between that signal and ho e signal B4, a statement was made by G B.Schrand, superintendent of freight terminals, that when signal DB4 was displaying a caution indication it was necessary for an engineman to have his train under complete control prepared to stop at the signal or at any point between that signal and the home signal. book, however, describes signal DB4 when in the caution position as a "caution-signal", and its indication is given as "approach home signal with caution " Mr. Schrand's further explanation, however, was that there is no rule, bulletin or other instruction on which he based his statement, but rather that it is a matter of general custom, or usage, as an engineman may find two or three trains waiting at signal B4 in readiness to proceed

## Conclusions

This accident was caused by the failure of the crew of yard transfer 2152 to protect their train by flag, for which Conductor Dalbani and Rear Brakeman McQueen are responsible. Engineman Ruff, of the yard transfer, is also at fault for his failure to sound the whistle signal for the flagman to protect the train.

The evidence indicates that yard transfer 2152 had been standing at the point of accident about seven minutes, during which time no apparent effort was made to afford protection of any kind, but as the conductor was killed and the flagman so badly injured that no statement could be obtained from him at the time of this investigation, it is not known why the proper flag protection was not afforded. Engineman Ruff admitted that he did not sound the whistle signal for the flagman to protect the rear of the train, and that this signal should have been sounded.

Train movements over the track on which this accident occurred were not protected by the block system. The signals at the eastern end of track 5 governed the movement of trains through the switches at Kenton Avenue where the six tracks converged into two tracks. The movement of trains eastward from "End of Six Tracks" to Kenton Avenue was governed by the ten-minute spacing rule, and the statement of Superintendent Schrand indicates that it was not unusual for trains to close up at the eastern end of track 5 and be held until the route through the Kenton Avenue switches was lined up and signal B4 cleared. Had an adequate block-signal system been in use on this line this accident probably would not have occurred; an adequate automatic train stop or train control device would have prevented it.

At the time of the accident the crew of the transfer train had been on duty about  $4\frac{1}{2}$  hours, after 16 hours or more off duty, the crew of extra 2507 had been on duty between 5 and 6 hours, after 17 hours or more off duty.

Respectfully submitted,

W. P. BORLAND,

Director,

Bureau of Safety.