INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED AT THE INTERSECTION OF THE TRACKS OF THE CHICAGO & EASTERN ILLINOIS RAILWAY AND THE WABASH RAILWAY AT DANVILLE, ILL , ON JUNE 25, 1923

July 21, 1923.

To the Commission:

On June 25, 1923, there was a side collision between two passenger trains at the intersection of the tracks of the Chicago & Eastern Illinois Railway and the Wabash Railway at Danville, Ill , which resulted in the injury of nine passengers, four persons carried under contract, and seven employees

Location and method of operation.

The point of collision was on a double-track crossing of these two lines, 594 feet north of the Chicago & Eastern Illinois Railway station at Danville Both railways are double-track lines over which trains are operated by time-table, train orders and automatic block-signal systems. Approaching the point of accident from the east on the Wabash Railway the track is tangent followed by a slight curve to the left at the point of accident, with a grade which is slightly descending westward, proceeding northward from the station of the Chicago & Eastern Illinois Railway toward the point of accident, there is a 4-degree curve to the right extending to the point of accident; the grade for this distance is practically level.

Movements over this crossing are governed by a ball-target signal device consisting of a mast 32 feet above the ground level, to the top of which is attached a cross arm 14½ feet in length On each end of the horizontal cross arm is attached a sheet iron cylinder 2½ feet in diameter and 6 feet in height. Suspended by means of chains passing through these cylinders and over the top of the cross arm to the ground, one on each side of the mast, are two metal balls 24 inches in diameter. To these balls lanterns are hung for night indications The balls are raised into the cylinders or lowered below them by the targetman on the ground who operates the target by pulling on or releasing the chains to which the balls are attached. One ball is painted white and the other red Rule 5, of time-table No 5, effective April 29, 1923, of the Chicago & Eastern Illinois Railway, reads in part as follows:

DANVILLE Wabash Ry , red signal, crossing clear for C & E I White signal, clear for Wabash. Red and white signal both displayed, block both roads

The weather was clear at the time of the accident, which occurred at about 7.52 a. m.

Description.

Northbound Chicago & Eastern Illinois passenger train No 4 consisted of two baggage cars and two coaches, hauled by engine 1011, and was in charge of Conductor Forsnier and Engineman Fletcher. It left the station at Danville at 7 50 a m., on time, and, following an emergency application of the air brakes, had practically stopped with the front end of the engine fouling the westbound main track of the Wabash Railway, when it was struck by Wabash train No. 9.

Westbound Wabash Railway passenger train No 9 consisted of one mail car, one express car, three coaches, five Pullman sleeping cars, and one dining car, hauled by engine 675, and was in charge of Conductor Hurlburt and Engineman Maloney This train was brought to a stop at a point about 200 feet east of the crossing and after receiving a proceed signal on the ball target, started ahead, and had attained a speed of about 15 miles an hour, when it struck the front end of Chicago & Eastern Illinois engine 1011.

Engine 1011 was derailed to the left but remained upright across the Chicago & Eastern Illinois southbound track and partly on the Wabash eastbound main track, the front end of the engine was considerably damaged. Wabash engine 675 was derailed to the right, badly damaged on the front end, and the left side of the engine cab was slightly damaged.

Summary of evidence.

Engineman Fletcher, of engine 1011, stated that he was standing on the station platform near the engine just prior to the time of departure, and, according to his statements he looked toward the crossing and noted that the target indication was a red ball, or clear signal for his train. After leaving the station and upon reaching a point approximately 375 feet south of the crossing he noted that the train-order board at the yard office, which is just north of the crossing, was displayed, indicating that there were orders for his train, he did not sound a whistle signal for the crossing but sounded a signal for a 19 order and called a clear target to the fireman, at which time he discovered that the ball target was set for the Wabash train, and heard the engine of that train approaching and working steam. He immediately applied the air brakes in emergency, but was unable to

stop his train before fouling the crossing Fireman Baldwin corroborated the statement of Engineman Fletcher as to the indication of the ball target just prior to the time their train left the station He estimated the speed of train No. 4 approaching the crossing at 10 miles an hour.

Targetman Keefe said the target was at stop for both roads when he reported for duty on the morning of the accident, and that at about 7 30 a m a light engine passed on the Chicago & Eastern Illinois tracks, this being the only movement over the crossing prior to the accident. After this movement the target was again set at stop for both lines, and upon the approach of the Wabash train and after it had come to a stop, 200 feet from the crossing, he changed the position of the target and gave that train a white ball or clear indication He said that just as the Wabash train had started he saw the Chicago & Eastern Illinois train approaching at what appeared to be a very low rate of speed, and thought it would stop before reaching the crossing.

Statements by Street Crossing Flagman McFerrin, Switchmen Thiede and Hannapel, and Fireman Ball, were to the effect that the signal was displayed for the movement of the Wabash train over the crossing All of these witnesses were employees of the Chicago & Eastern Illinois Railway and were in the immediate vicinity at the time the accident occurred.

Foreman Inspector Magnus stated that the brakes were tested on train No. 4 before the train left the station, at which time they were working properly The brakeman had said there was trouble with the brakes on one of the coaches applying in emergency, and the brakes on the train were tested three times, but no trouble with the triple valve on that car was found.

Engine 1011 was received from the shops on June 15, 1923 On the following day the air brakes were reported to be in fair condition, and a notation also made on the work report to take up both the engine and tender brakes Engineman Fletcher had the engine on June 19, and in his work report showed the brakes to be in poor condition, that the driving-wheel brakes should be adjusted and that there was an air leak under the brake valve. On June 20 the work report signed by another engineman showed the brakes to be in good condition, although notation was made of an air leak on the right side under the cab On June 24 the brakes were also reported to be in good condition, while a notation was also made to set the pump governor. Although Engineman Fletcher and Fireman Baldwin said the independent engine brake would not work on the day of the accident, and that it had been necessary to use the automatic brake in emergency application in order to stop the engine, moving light, before it was coupled to the train, it appeared from the statement of the brakeman that the air brakes applied with sufficient force just before the accident occurred to throw him and result in slight injuries.

Tests made subsequent to the accident showed that the ball signal could not be seen from the point at which Engineman Fletcher claimed to have seen it prior to the departure of his train from the station.

Conclusions.

This accident was caused by the failure of Engineman Fletcher of Chicago & Eastern Illinois train No. 4, properly to observe and obey the stop indication of the ball target.

Engineman Fletcher said he saw the signal displayed for his train before it departed from the station, but not only did tests show he could not see the indication of the signal from the station, but there is ample evidence to the effect that the signal was displayed for the Wabash train at about the time his own train left the station and that it was not observed by him as he approached the crossing, his attention being attracted to the position of the train-order board beyond the crossing, and he did not notice the indication of the target until about the time he heard the exhaust of the engine hauling the Wabash train. While he claimed that the air brakes were not in first-class condition on the engine, at the low rate of speed at which the train must have been moving, the brakes on the four cars in the train should have been sufficient to bring the train to a stop had Engineman Fletcher properly observed the indication of the signal and operated his train accordingly.

All of the Chicago & Eastern Illinois employees were experienced men. At the time of the accident these employees had been on duty less than an hour, after from 22 to 34 hours off duty.

Respectfully submitted

W. P. Borland,

Director