## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN REINVESTIGATION OF AN ACCIDENT THICH OCCURRED ON THE NEW YORK CENTRAL RAILPOAD NEAR KANAUGA, OHIO, ON OCTUBER 15, 1927.

Novemver 29, 1927.

To the Commission:

On October 15, 1927, there was a head-end collision between a passenger train and a freight train on the New York Central Railroad near Kanauga, Ohio, which resulted in the death of two employees and the injury of seven passengers.

Location and method of operation

This accident occurred on that part of the Southern Division which extends between Hobson Junction, Ohio, and Dickinson, W. Va., a distance of 82.8 miles, although from Hobson Junction to Karauga, a distance of 9.6 miles, trains are operated over a single-track line of the Hocking Valley Railway. Between Kanauga and Point Pleasant, W. Va., a distance of 2.5 miles, within which territory this accident occurred, the New York Central is a single-track line, train movements being controlled by manual block-signal indications under a special time-table rule reading in part as follows:

" \*\*\* trains or engines will run by block signal whose indications will subcreede time table superiority and will take the place of train orders. "Southward trains will move from the Junction switch at Kanauga to the southward signal on hand signal from the signalman."

The accident occurred at a point 5,357.7 feet south of the station at Kanauga; this station is on a 3°28° curve to the right for southoound trains, the southern end of the curve being 958.2 feet from the station. This curve is followed by 2,915.6 feet of tangent and then a compound curve to the left naving a total length of 4,749 feet, extending nearly to the northern approach of a bridge across the Ohio River, the point of accident being on this curve at a point 1,483.9 feet from its northern end. The junction

switch of the New York Central track leads off the Hocking Valley track to the right at a point 138.4 feet south of the station; at a point 683 feet south of the junction switch there is another switch leading off the New York Central track to the right to the south-bound passing track, which parallels the main track on the west, while the northbound passing track is located on the opposite side of the main track. These passing tracks extended southward practically to the point of accident. At the time of the accident the northbound passing track, which was on the inside of the curve where the accident occurred, was occupied by cars which materially restricted the range of vision of the engine crew. The grade at the point of accident is 0.35 per cent ascending for southbound trains.

The only signal involved was the manual block signal located between the main track and the southbound passing track at a point 909.3 feet south of the station. This signal, which is operated from the station, is of the one-arm, three-position, upper-quadrant type, displaying green, yellow, and red indications for proceed, caution, and stop, respectively, and governs southbound movements between Kanauga and Point Pleasant. A signal arm of the same type is also located on this signal mast for the purpose of governing movements northbound from the New York Central track to the tracks of the Hocking Valley Railway.

A dense fog prevailed at the time of the accident, which occurred at about 7.06 a.m.

## Description

Northbound freight train third No. 99 consisted of 67 cars and a caboose, hauled by engine 3952, and was in charge of Conductor Hysell and Engineman Roush. It passed Point Pleasant at 6.55 a.m., 4 hours and 35 minutes late on its time-table schedule, and shortly afterwards it was brought to a stop on the main track approximately I.5 miles north of that point, near the south switch of the southbound passing track at Kanauga, and it was still standing at that point when it was struck by southbound train No. 32.

Southbound passenger train No. 32 consisted of one combination mail and baggage car and two coaches, all of steel construction, hauled by engine 4754, and was in charge of Conductor Shumaker and Engineman Thomas. This train backed into Kanauga on the Hocking Valley track, northbound. It then departed from Kanauga southbound on the New York Central track at 7.03 a.m., according to the train sheet on time, and shortly afterwards it collided with train third No. 99 while

traveling at a speed estimated to nave ocen between 20 and 25 miles our hour.

Engine 3952, of the 2-8-2 type, remained upright with only its driving whoels derailed but it was considerably damaged, as was also the case with the second and third cars in its train; the first car was only slightly damaged. Engine 4754 came to rest in an upright position with the forward end mounted on the end casting of engine 3952, and the tender buckled against its rear end. None of the cars in train No. 32 was derailed or materially damaged. The employees killed were the engineman and fireman of train No. 32.

## Summary of evidence

Operator Anderson, on duty at Point Pleasant, stated that at 6.48 a.m. he obtained a clear block for train third No. 99 from the operator at Kanauga. As the engine of that train passed his station at about 6.53 a.m. he signaled the engineman to head in at Kanauga and the engineman gave him a similar signal, he then called the operator at Kanauga and informed him that train third No. 99 would take the siding, the operator acknowledging this information. About 7.10 or 7.12 a.m. Operator Anderson again called the Kanauga operator, inquired as to the location of train No. 32, and was informed that he did not know, but that he did not think the train would proceed without obtaining a clear block. Operator Anderson further stated that he did not authorize the operator at Kanauga to admit train No. 32 to the block and that he had no record of its admittance.

Operator Root, employed by the Hocking Valley Railway at Kenauga, stated that at about 6.35 a.m. the operator at Point Pleasant requested the block for train third No. 99, which request was granted, but he had no record of that train having entered the block although it had always been the practice to make such a record and he knew that that train had presed Point Pleasant. Operator Root said le did not know whether train third No. 99 would hold the main track on its arrival at Kenauga and for this reason, when he went out to hand on some mail to the crew of train No. 32 on its arrival at the station ne walked to within 15 or 20 feet of the engine and told the fireman that his train should take the siding, the fireman acknowledging by modding his Operator Root said ac and no conversation with any other member of the crew, although he had ample time in which to have done so. Operator Root then returned to his office in the station and at about the time he got there, 7.03 s. m., some one, he thought it

was the head brakeman of train third No. 99, called him by telephone from the south end of the passing tracks and informed nim that that train would continue down the main track. Train No. 32 started while this conversation was taking place, without Operator Root naving given the reduired hand signal for that train to proceed. Operator Root further stated that when he returned to the station after talking with the fireman he noticed by the position of the lever that the southbound manualblock signed was in the stop position, although he could not see the signal due to the fog. He said he had placed this signal in the stop position after the passing of a southbound train at 6.20 a. m., in which position it remained until after the accident. He further stated that trains were permitted to pass the signal in the stop position provided they entered the southbound passing track, but first they would have to receive permission, waich was not given in this instance.

Agent Rathbun stated that he arrived at Kanauga on train No. 32 and saw Operator Root hand mail into the baggage car and walk toward the engine and talk with the fireman. Agent Rathbun went into the office and observed that the levers which operate the northbound and southbound block signals were in a position indicating that the signals were in the stop position. Operator Root, who followed him into the office, answered a telephone call and then remarked to Agent Rathbun that ne was talking with the engineman of train third No. 99, who stated that train would hold the main track and let train No. 32 use the passing ttack. Agent Rathbun replied that he would notify the engineman of train No. 32 to that effect but was unable to do so as the train had started before he reached the platform and neither the conductor nor the brakeman was in sight as the train passed. He said he was absent from the office not more than one-half minute for this purpose and during that time the signal could not have been changed to the proceed position. He said he was aware that train No. 32 departed from the station without authority but expected it would head in at the north switch of the passing track as the block was red. At about 9.30 a.m. the signal was tested and was found to be functioning properly.

Engineman Roush, of train third No. 99, stated that he received a clear block at Point Pleasant and while passing that station he saw the operator standing in the doorway but did not see nim transmit any signals. His train continued and was brought to a stop just south of the passing track switch at Kanauga at 7 a.m. He got off the engine and followed the head brakeman to the telephone booth and heard the brakeman inform the

operator at Kanauga as to the position of their train. The brakeman informed Engineman Roush that the operator instructed him to continue on the main track, that train No. 32 would be routed through the passing track. Engineman Roush then started to return to his engine when he heard train No. 32 approaching; he hurriedly boarded the engine and observed the approaching train about 25 car-lengths distant, the fog not being so thick here as at Kanauga. On account of the cars standing on the northbound passing track ne could not deter-nine whether train No. 32 was on the main track or on the southound passing track. As soon as ne recertained that the train was on the main track he sounded the engine waistle and jumped off. He said the head light of his own train was burning brightly at the time of the accident but that the headlight on train No. 32 was not burning; he estimated the speed of that train at 20 or 25 miles per hour, and noted the time of the accident as 7.06 a.m. Engine an Roush said his reason for holding the nain track was the heavy tonna e of his train.

The statements of Fireman Johnson and Head Braker an Swatzel, of train third No. 99, practically substantiated those of Engineman Roush, while Conductor Hysell and Flagman Rollins, of the same train, were unsware of the impending accident until its occurrence.

Express kessenger Smith, of train No. 32, stated that at the time his train stopped at Kanauga he opened the door of his car and Operator Root handed him some mail and then started towards the office, but he did not know whether the operator returned to the office nor did he hear the operator say anything to the fireman. After the accident he met Operator Root, who said the engineman ran by a red block. The operator elso said something to the effect that he was joing to tell the fireman of train No. 32 but Express Messenger Smith said the operator did not complete this statement. as he appeared to be somewhat excited, and Express Messenger Srith did not know what the operator was talking about. Express Messenger S ith said the fog was so dense that the range of vision was not more than 50 or 75 feet. The statements of Bagar eman Hayes, of train No. 32, added nothing of importance as he paid no attention to viat was transpiring while his train was standing et Kanauga.

Conductor Shumaker, of train No. 32, stated that when his train arrived at Kanauga he opened the trap door to persit Agent Rathbun to get off and at that time noticed Operator Root to to the baggagecar door with some hall. Conductor Shumaker said

the train stood at that point about one and one-nalf minutes and that he then closed the door and pulled the waistle cord to proceed, without having received a proceed signal from the operator, although he was aware that the rules provided for such a signal; he did not know whether the required signal had been given by the operator to the engine crew. The weather was very foggy and the block signal could not be seen from the station and as the train approached that signal he opened a door on the right side of the train for the purpose of noting the signal indication. When the train had reached a point about six car-lengths from the signal he could distinguish the arm governing southbound roverents and it then was in the vertical or proceed position and the color light was displaying a green indication: he was positive of the position of the signal as he kept it under observation until he had reached a point very close to it. He then closed the door, at about which time the flagman care through the car and called "clear block," which Conductor Shumaker repeated. He estimated the speed of the train at the time of the accident at 20 miles per hour.

Flagman Bailey, of train No. 32, stated that as his train was backing northward over the Hocking Valley Railway toward the station at Kanauga, a few minutes prior to the accident, he observed the block signal governing southbound movements over the New York Central track, which is located about 50 feet west of the Hocking Valley track at that point, displaying a proceed indication while the signal governing northbound movements displayed a stop indication. He remained at the rear of his train while it stood at Kanauga, a period of about one minute, and did not see any hand signal given by the operator to permit his train to proceed. He did not again observe the block signal but when the train started ne went forward through the train and upon encountering the conductor, about the time the latter had closed a trap door on the right side of the train, he remarked "clear block, Charlie" to which the conductor responded "clear block," Flagman Bailey's remark being intended as an inquiry rather than as a statement made from his own observation at that particular time. After conversing briefly with the conductor regarding personal matters he entered the next car and almost immediately felt the impact of the accident. He said the speed of his train at the time of the accident was between 20 and 25 miles per hour, and that apparently no reduction had been made immediately prior to that time.

A newspeper dispaton which was circulated was to the effect that the engineman of train No. 32 made an antemortem statement accepting full responsibility for the accident. This report was investigated and found to have no basis.

On October 16, 17, and 18, observation of train movements at Kahanga was made by the Commission's inspectors and in no instance did they see the prescribed hand signal given to permit the hovement of a train from the junction switch to the block signal governing New York Central southbound trains. It was also noted that the block records maintained by the operators at Kananga and Point Pleasant did not agree in all particulars.

## Conclusions

This accident was caused by passenger train No. 32 entering an occupied block, due either to the failure of Operator Root to display a stop signal or to the failure of the crew of train No. 32 properly to observe and obey the signal indication.

The testimony is conflicting as to the indication displayed by the block signal governing southbound movements at Kanauga at the time train No. 32 departed from that point. Both Operator Root and Agent Rathbun, stationed at Kanauga, stated positively that the position of the levers which operate the northbound and southbound signals indicated that both of the signals were in the stop position, although they did not see the signals on account of the fogey weather prevailing. Conductor Shumaker asserted positively that the signal was in the proceed position at the time his train passed it, while Flagman Bailey, of the same train, was certain the southbound signal was in the clear position at the time his train was backing to Kanauga on the tracks of the Hocking Valley Railway a few minutes prior to its departure from that point, although Operator Root said this particular signal had open placed in the stop position at the time a southbound train passed that point at 6.20 a. r. and was left in that position until ofter the accident. In view of the above statements it is impossible to determine definitely what indication the southbound signal was displaying when passed by train No. 32.

The weight of evidence indicates, however, that train No.32 departed from Kanauga without the crew first naving received a hand signal from the operator as prescribed by the rules, for which Conductor Shumaker and

Engineman Thomas of that train are responsible. Had the train remained at that point until this signal had been received it is probable this accident would have been averted. In this connection, however, it is only proper to point out that the supervision of operating conditions at this point is fer from being what it should be, one indication of this being the fact that during the three days following the date of the accident it was noted that southbound trains were permitted to depart from Kanauga without having received the hand signal required by the rules, although it would naturally be expected that all concerned would be paying strict attention to the requirements of the rules, at least for a few days following the occurrence of the accident. It also eppeared that the block records maintained by the operators at Kanauga and Point Pleasant did not agree, and that the operator at Kanauga said he instructed the fireman of train No. 32 to enter the southbound passing track at that point while the operator at Point Pleasant stated he gave a hand signal to the engine crew of train third No. 99 which signal probably was not recognized, to take the passing track at Kanauga; in other words instructions were given which would nave required both trains to take the same passing track, the other passing track being blocked, and had those directions been complied with by both crews the probable result, in view of the weather conditions, would have been that the accident would nave occurred on the passing track instead of on the main track. It is also noted that in Operator Root's statements he said the fireman of train No. 32 operated the junction switch, olthough he supposed this was the duty of the operator, but that they never understood fully who was to handle the switch. It is, pernaps, needless to say that the existence of such conditions should not be tolerated on any railroad.

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

The employees involved were experienced men and at the time of the accident none of them had been on duty in violation of any of the provisions of the nours of service law.

Respectfully submitted.

W. P. Borland,

Director.