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INTERSTATE COLLEGE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE  
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON  
THE MICHIGAN CENTRAL RAILROAD NEAR BAKERTOWN,  
MICH , ON JANUARY 6, 1925

February 14, 1925

To the Commission

On January 6, 1925, there was a rear-end collision between two freight trains on the Michigan Central Railroad near Bakertown, Mich , which resulted in the death of one employee

Location and method of operation

This accident occurred on that part of the West Division which extends between Chicago, Ill , and Niles, Mich , a distance of 92.92 miles . In the vicinity of the point of accident this is a double-track line over which trains are operated by time-table, train orders, and an automatic block-signal system . The point of accident was 1,519 feet east of the east passing-track switch at Bakertown, approaching this point from the west the track is tangent for a distance of more than 2 miles, while the grade is 0.587 per cent descending for about 1 mile and is then level to the point of accident, an additional distance of about 850 feet

The automatic signals are of the three-position, upper-quadrant type, night indications are red, yellow, and green, for stop, caution, and proceed, respectively. Eastbound signals 2012 and 2002 are located 6,723 and 849 feet, respectively, west of the point of accident. Signal 2012 is a two-arm signal, the upper arm is a part of the automatic block system and governs the through route on the main track, while the bottom arm, which normally displays a stop indication, is a head-in signal and governs movements into the passing track, the west switch of which is 583 feet beyond the signal.

The weather was foggy at the time of the accident, which occurred at 3 a m

Description

Eastbound freight train extra 7831 consisted of 52 cars and a caboose, hauled by engine 7831, and was in

charge of Conductor Legett and Engineman Fisher. It had entered the passing track at Bakertown at 1 48 a. m. and while at that point the crew in charge received instructions from the dispatcher to follow train second No. 36. Extra 7831 departed from the passing track at about 2 50 a. m., as soon as the signals had cleared following the departure of train second No. 36, and had attained a speed of about 8 or 10 miles an hour when its rear end was struck by extra 7987.

Eastbound freight train extra 7937 consisted of 41 cars and a caboose, hauled by engine 7987, and was in charge of Conductor Weed and Engineman Glossenger. It took siding at Galien at 2 19 a. m., departing from that point at 2 30 a. m., following train second No. 36, and collided with the rear of extra 7831 east of Bakertown while traveling at a speed estimated to have been about 30 miles an hour.

The caboose and two rear cars of extra 7831 were demolished, while four other cars in that train were damaged. Engine 7987 came to rest about 100 feet east of the point of accident with only the engine truck derailed, while none of the cars in this train was damaged. The employee killed was the fireman of extra 7987.

#### Summary of evidence

Engineman Fisher, of extra 7931, said that as soon as the switch indicator had cleared after the departure of train second No. 36 the switch was opened and he began to move his train out on the main track. It was impossible to see signals from the rear of the train on account of the fog and he therefore proceeded at a low rate of speed for some distance so as to give the flagman a chance to close the switch and overtake the train. He then began to increase speed, but he thought the speed was only about 8 miles an hour when the rear of the train was struck by extra 7987. Engineman Fisher also stated that signal 2012 was displaying the proper indications when his train passed it, the top arm being at stop while the bottom arm displayed the indication for his train to enter the passing track.

Here Brakeman Barnes had opened the switch as soon as the indicator cleared and he noted that this indicator again assumed the stop position as soon as the switch had been opened. He boarded the engine as it passed him and on instructions from the engineman got off again so as to relay signals, and when the caboose was near enough for him to see the markers he gave the engineman a proceed signal with a lighted fusee, after which he threw the fusee toward the right-of-way fence still lighted. Brake

man Barnes then boarded the caboose and was inside when Flagman Britton called attention to the headlight of an approaching train which Brakeman Barnes estimated to have been about 15 or 20 car lengths distant, and he said he at once jumped from the caboose, he estimated the speed of extra 7937 to have been about 30 miles an hour

Conductor Leggett, of extra 7831, was at the head end of his train when it started to pull out on the main track and boarded the caboose as it passed him. The warning given by Flagman Britton was his first knowledge of the approach of extra 7987 and he at once started for the door and jumped. While so engaged he saw Flagman Britton pick up a fusee but he did not know whether or not he lighted it. He estimated the speed of extra 7987 when passing him, 7 or 8 car lengths behind the caboose, to have been about 40 or 45 miles an hour. Conductor Leggett further stated that he had given the flagman no instructions about flagging on this trip as he considered him to be an efficient flagman who had always been prompt in the discharge of his duties.

Flagman Britton, who was a promoted conductor, said he was in the caboose when his train began to move out on the main track, he turned the markers so that they would show red to the rear but did not place any torpedoes, or a fusee, on the main track for protection as he did not consider it necessary under the weather conditions prevailing at the time, saying that he could see the white lantern of the conductor at the head end of the train. The train was entirely out on the main track moving at a speed of about 12 miles an hour when he saw the headlight of extra 7987 apparently about 65 or 75 car lengths distant, but this distance had been reduced to 15 or 20 car lengths by the time he had notified the conductor and head brakeman, run out on the rear platform, and lighted a fusee. After giving stop signals from the caboose platform he jumped to the ground on the fireman's side of the track and gave additional stop signals with the fusee, after which he threw it on the track and got out of the way, it was at this time that he noticed the fog was heavy in the vicinity of the point of accident.

Engineman Glossenger, of extra 7987, said that on account of the fog it was difficult for him to estimate the speed of his train after leaving Gallien but he thought it was about 30 or 35 miles an hour. When about an engine length from signal 2012 he saw the top arm displaying a clear indication while a red indication was displayed by the bottom arm, these signals indicating that the track was clear as far as signal 2002 and that the passing-track switch was closed. Engineman Glossenger saw signal 2002 in the stop position when about two or three car

lengths from it and at once shut off steam, applied the air brakes in emergency and reversed the engine, and he estimated that at the time of the collision the speed had been reduced from 35 or 40 miles an hour to about 20 miles an hour.

Head Brakeman Spang, who was riding on engine 7987, said the engineman had the cab window open, apparently looking for the indication of signal 2012, but he did not hear the engineman make any comment concerning its indication. Brakeman Spang had been standing on the engineman's side of the cab and he said he did not see the indications displayed by signals 2012 and 2002, nor did he see the rear end of extra 7831.

Conductor Wood, of extra 7087, said that on account of the fog he did not see the train-order board until the cabooses had nearly reached it and that shortly afterwards the air brakes were applied in emergency, at which time the train was moving at a speed of about 35 miles an hour. Flagman Callender went back to flag immediately after the occurrence of the accident and stated that the eastbound train which was following his own train was stopped by the indication of signal 2012 prior to reaching the point at which he was flagging.

Signal Foreman Visel said he inspected signals 2012 and 2002 about two and one-half hours after the occurrence of the accident and found them to be in perfect working order, and he said he also observed them working properly when a light engine passed them and also when two trains passed after the track had been cleared.

#### Conclusions

This accident was caused by the failure of Flagman Britton, of extra 7831, properly to protect his train, and by the failure of Engineman Glosenger, of extra 7987, properly to observe and obey automatic signal indications.

Flagman Britton said that when his train started to pull out on the main track he did not put down any torpedoes on that track, opposite the cabooses, or leave a lighted fusee, because in his judgment the weather conditions were not such as to require such action. The flagging rules of this railroad, however, do not leave it to the judgment of the flagman to determine whether the condition of the weather warrants flag protection. In the case of a standing train the use of torpedoes is mandatory, while the use of fusees is, in effect, left to his judgment, in the case of a train moving at night under circumstances in which it may be overtaken by a following train the use of fusees is mandatory. Under these rules

it was incumbent upon Flagman Britton to protect the movement of his train from the passing track to the main track, even in clear weather. The statements of all the other employees, however, indicate that the view was materially obscured by a fog which restricted their range of vision to a few car lengths, and under these circumstances it was particularly incumbent on Flagman Britton to take efficient measures for the proper protection of his train.

Engineman Glossenger stated that the top arm of signal 2012 was displaying a clear indication and that his first knowledge of anything wrong was when he saw signal 2002 displaying a stop indication. These signals, however, were operating properly when passed by extra 7831 and the evidence indicates that signal 2012 also operated properly when a following eastbound train approached the scene of the accident shortly after its occurrence, while examination of the signals by Signal Foreman Visel who reached the scene of the accident less than three hours after its occurrence, disclosed that there was nothing wrong with the signal system other than a few wires bent as a result of the accident. Under these circumstances it is believed the top arm of signal 2012 was displaying a caution indication at the time it was passed by extra 7987 and that Engineman Glossenger either misread or failed to observe this indication, resulting in his failure to have his train under such control as to be able to stop before passing signal 2002.

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

All of the employees involved were experienced men. At the time of the accident the crew of extra 7831 had been on duty  $11\frac{1}{2}$  hours after  $10\frac{1}{2}$  hours off duty, the crew of extra 7987 had been on duty  $5\frac{1}{2}$  hours after  $11\frac{1}{2}$  hours off duty.

Respectfully submitted,

W P Borland,

Director