

IN RE INVESTIGATION OF AN ACCIDENT ON THE WABASH  
RAILWAY AT BRITTON, MICH., ON AUGUST 30, 1917.

September 29, 1917.

On August 30, 1917, there was a derailment of a freight train on the Wabash Railway at Britton, Mich., which resulted in the death of two employees. After investigation the Chief of the Division of Safety reports as follows:

That part of the Wabash Railway upon which this accident occurred is a double track line from Detroit to Britton, a distance of 46.7 miles; from Britton to Franklin, a distance of 38 miles, it is single track. The tracks of the New York Central Railroad intersect the Wabash tracks at Britton, at which place there is a mechanical interlocking plant with Wharton type derrails, this plant governing train movements over this crossing and the movement of Wabash trains to and from single and double track. The switch leading from single to double track is located 78 feet east of the New York Central Crossing, the eastbound route from single to double track being through a turnout or crossover, and the westbound route from double to single track is straight, which permits westbound freight trains to pass through the interlocking plant at a speed of 25 miles an hour. From Detroit to Milan, a distance of 37 miles, trains are operated under an automatic block signal system, and in the territory where the accident occurred they are operated by train orders transmitted by telegraph. The track is laid with 85-pound steel rails, 33 feet in length, with 18 or 19 oak ties under each rail and on stone ballast, all in fair condition. At the point of accident the track is level and straight for several miles in each direction.

Westbound freight train, second No. 91, consisted of locomotive 2049, 37 loaded cars and a caboose, in charge of Conductor Pattee and Engineman Kuricofe, and was en route from Detroit, Mich., to Montpelier, Ohio. It left Oakwood yards, Detroit, at 1:13 p. m., passed Cone, the last telegraph office before reaching the point of accident and 4.5 miles distant therefrom, at 2:47 p. m., and was derailed at a point about 560 feet east of the station at Britton, or about 310 feet east of the New York Central crossing, at 2:56 p. m., while running at a speed of 25 or 30 miles an hour.

The fireman and head brakeman were killed. The locomotive was derailed at the derail on the westbound track and east of the interlocking plant, turned to the right as it left the rails, and came to rest on its left side at an angle of about 45 degrees with the track with its front end about 78 feet

from the north rail and about 190 feet west of the derail. The first five cars were derailed, piled up on top of and to the left of the locomotive, and were totally destroyed; the next four cars were derailed but stood upright on the roadbed, and with the locomotive were considerably damaged, while the front trucks of the tenth car were derailed.

The track was torn up for five rail lengths on the north side of the track, beginning at a point one rail length west of the riser rail, and for six rail lengths on the south side of the track, beginning at the west end of the derail. The first wheel marks on the ties were located about eleven feet west of point of derailment. The weather was clear.

The derail at the point where the locomotive was derailed is located on the inside of the left hand or south rail, and consists of two pieces of T rail, each 10 feet in length, and planed to a point at the east end, while the riser rail, located on the north side of the north rail, is also made up of two 10-foot pieces of T rail. The derail is connected by two tie rods, one near its point and the other about five feet west of its point, the throw rod being attached to it at the east end of the riser rail. After the accident the eastern section of this derail showed flange marks extending as far as the west end of the first section of the derail as though several wheels had recently come in contact with it and was bent in the middle about 1-1/2 inches to the left, while the western section of the derail was torn out by the derailment. The angle bars connecting the two sections of the derail and the plate supporting the middle ends of the rails constituting the derail were broken but were replaced after the accident, the same rails being again used. The riser rail on the north rail was not damaged by the derailment. The tie rod farthest from the derail point was found to be broken and the tie rod nearest the point of derail was fractured but it was not a complete break.

Engineman Karioffe stated that his train was approaching Britton at a speed of about 25 miles an hour, and when within about a mile of that place he saw the signal go to the clear position and called the attention of the fireman and brakeman to it. He stated that he had a clear view of the signal and felt sure he had made no mistake as to its position, and after the accident he saw the home signal in the clear position. When within three or four car lengths of the derail east of the interlocking tower he looked down at the rail, saw that the derail was up against the rail and set against his train. He shut off steam, applied the brakes, and the derailment occurred almost immediately thereafter. He stated that when

the locomotive passed over the deraill he felt a jar as though the pony trucks had struck something, and about an hour after the accident he examined the track and found a broken rod and clamp which had been attached to the deraill, and a small bolt or pin about 2 inches long with the cotter key missing. He said that he examined the locomotive before leaving Detroit and again at the last stop before reaching the point of accident, and found it in good condition, and was certain nothing dropped from it and caused the accident.

Conductor Pantee stated that approaching Britton he had a clear view and saw both the signal and order board in the clear position. About a half hour after the accident he examined the track and found the deraill properly set for his train to proceed and the tie rod connecting it was broken; he then examined the levers in the interlocking tower and they appeared to be in proper position for his train to proceed. He said that it was not possible to change the position of these levers or the signal after the accident because some of the cars of his train were on the detector bars. It was his opinion that when the train reached the deraill, the deraill was set against his train, that the wheels of the locomotive struck it, broke the connecting rod and opened it, and he discovered flange marks on the deraill which confirmed him in this belief.

Brakeman Cable stated that approaching Britton he saw the home signal in the clear position.

Towerman Brown stated that he went on duty in the interlocking tower at Britton at 2 p. m., at which time the track was lined up for eastbound trains, but before the accident he lined it up for westbound train No. 91. He said that in addition to a signal maintainer who gave part of his time to this plant, a man looked after it two days a week, cleaning the lamps, oiling its parts, and making adjustments of the mechanism when requested to do so, and about two weeks prior to the accident this man had spent some time adjusting the westbound signal. The plant was in fair condition except that some of the levers were a little more difficult to move than others, but he had not had any trouble with any particular signal or deraill. He stated that after the accident he examined the deraill and signal and found the both in proper position for westbound trains. He said it would be impossible to place the signal in the clear position for train No. 91 and then set the deraill against it, and was certain that the tracks were properly lined up for that train and did not believe that the derailment was caused by the train running off the deraill, for had the train struck the deraill he would have noticed an unusual vibration on the levers controlling the deraill.

Signal Maintainer Orr stated that he inspected the interlocking plant at Britton on August 21, 1917, and inspected it again after the accident and found a bolt lock on the pipe line outside the tracks disconnected. He said this bolt lock was used as an added protection to prevent the clearing of the signal without also properly setting the derail, but even with the loss of this bolt lock it would have been impossible to give the train a clear signal and set the derail against it unless some of the other connections were broken. In his opinion the interlocking plant had nothing to do with the accident.

Section Foreman Coony stated that he arrived on the scene of accident about 3:50 p. m., made an inspection of the track, and found the derail open, but did not find any indication that train No. 91 had struck it.

This accident was caused by train No. 91 running off the derail at the interlocking plant. Just what caused it could not be ascertained.

After the accident locomotive 2049 was inspected and no defects were found that could have caused the derailment. The track at point of accident was also examined and the derail on the westbound track east of the interlocking tower and the north rail of the track were flange marked, indicating that several wheels had recently passed over them. All the evidence is positive that the signal was in the clear position when train No. 91 approached Britton, and the interlocking plant was carefully inspected and tested a few days after the accident and no condition was found that would permit the clearing of the home signal without also properly setting the derail.

J. O. T.