

The Chairman

CIRCULATED *Oct 3/19* -----

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IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
BALTIMORE & OHIO RAILROAD NEAR BROOKLYN, OHIO,
ON SEPTEMBER 15, 1919.

October 25, 1919.

On September 15, 1919, there was a head-end collision between a freight train and a locomotive hauling two cabooses, on the Baltimore & Ohio Railroad near Brooklyn, Ohio, which resulted in the injury of 5 employees on duty and 2 employees off duty. After investigation of this accident, the Chief of the Bureau of Safety reports as follows:

The C. T. & V. Sub-division of the Baltimore & Ohio Railroad, on which this accident occurred, extends from Cleveland, Ohio, to Valley Junction, Ohio, a distance of 75 miles. From Cleveland to RD Tower, a distance of 5 miles, the line is double-tracked while the remainder of the line is single-tracked. Train movements are governed by time-table and train orders, no block signal system being in use.

The accident occurred at a point approximately 1 mile east of Brooklyn and approximately 3 miles west of Willow. Beginning at a point 3,250 feet east of Brooklyn station and proceeding in an easterly direction there is a 2-degree curve to the left about 1,000 feet in length, about 500 feet of tangent track, and a 5-degree curve to the right about 1,650 feet in length. The collision occurred on this curve about 500 feet east of its western end. Approaching from the east, there is a compound curve to the right, having a maximum curvature of 5 degrees, followed by 350 feet of tangent and then the curve on

which the collision occurred. On account of a high embankment on the inside of this curve the view of engineers on trains approaching from either direction is limited to a distance of about 400 feet. The grade at the point of accident is level.

Willow station, located 3.8 miles east of Brooklyn, is a non-telegraph station, but there is a telephone located at the western end of the building and connected with the dispatcher's office at Howard Street, Akron. On the south side of the main track at Willow there is a passing track having a capacity for holding a locomotive and 48 cars. The eastern end of the passing track is about 300 feet west of the station while the switch at the western end is located about 475 feet west of the eastern end of a 2-degree 30-minute curve about 1,250 feet in length. An embankment on the inside of this curve prevents the engineer of an approaching eastbound train from seeing a train on the passing track until only 150 or 200 feet away. The view from a locomotive standing at the west end of the passing track is limited to the same distance.

On September 14th westbound locomotive 2627 pulling a train of freight cars and a caboose left New Castle Junction, Pa., en route to Cleveland, Ohio, at 7.25 p.m., the train being in charge of Conductor Underwood and Engineer Sense. At Akron Junction Conductor Richardson boarded the train to act as pilot for Conductor Underwood and reported to him at that point. This train was filled out to 50 freight cars at Akron and left Akron Junction at 4.50 a.m., September 15th, arriving at Akron Howard

Street at 5.02 a.m. At this point Dispatcher Frisch delivered to Conductor Underwood a clearance card, form A, and 4 train orders, none of which are directly involved in this accident. Train order No. 406, however, designated this train as 1st No. 97. Train 1st No. 97 departed from Akron Howard Street, the last open train order station, at 5.47 a.m., 7 hours and 2 minutes late, and headed into the passing track at Willow to wait for eastbound passenger train No. 60. When train No. 60 approached the west switch of the passing track the engineman of that train was flagged and given a signal that the rear end of train 1st No. 97 was not into clear. After train No. 60 passed the head end of train 1st No. 97, the latter train headed out on to the main line to allow the passenger train to pass its rear end. It then proceeded toward its destination, leaving Willow at 7.30 a.m. At about 7.40 a.m., while train 1st No. 97 was travelling at a speed estimated at between 8 and 12 miles an hour, it collided with train 2d No. 60.

Eastbound passenger train 1st No. 60 was a regularly scheduled train running between Cleveland and Bridgeport, Ohio, and was in charge of Conductor Burress and Engineman Burke. At Cleveland the crew received a copy of train order No. 407 reading as follows:

"No. Sixty 60 Eng. 1315 display signals RD Tower to Akron Junction for Eng. 2080."

This train left Cleveland at 7.00 a.m., on time, and stopped at RD Tower where green signal flags are claimed to have been placed on the locomotive in accordance with train order No. 407; it left RD Tower at 7.15 a.m., 3 minutes late, met train 1st No.

97 at Willow and proceeded on its way eastward, reaching South Park the first open day train order office beyond RD Tower at 7.31 a.m.

Train 2d No. 60 consisted of locomotive 2080 and 2 cabooses and was in charge of Conductor Wiley and Engineman McBurney. At RD Tower the crew received train order No. 407 and a clearance card form A. It left RD Tower at 7.32 a.m. and collided with train 1st No. 97 about 1 mile east of Brooklyn while running at a speed of 25 or 30 miles an hour. The weather at the time of the accident was cloudy.

The force of the collision drove train 2d No. 60 back a distance of about 30 feet. The front end of the locomotive of that train mounted the front end of the locomotive of train 1st No. 97 and its engine trucks became derailed. Both cabooses and the tender of train 2d No. 60 remained on the track. The engine of train 1st No. 97 was derailed but remained on the road-bed parallel to the track, while the tender remained on the rails, which had been turned over under the wheels. The leading truck of the first car of the train and one wheel of the fifth car were derailed. The twelfth car from the head end was slightly damaged and the fifth car from the rear end buckled up so that the body of it was afterwards destroyed.

Dispatcher Trisch, on duty at Akron Howard Street, stated that on the morning of the accident he delivered 4 train orders and a clearance card to Conductor Underwood of train 1st No. 97, but gave no copies of the orders to Pilot Richardson as required by rule. He stated that he thought Conductor Underwood

was more qualified to have charge of the train than the pilot, not knowing at that time that Pilot Richardson had been acting as brakeman over the C. T. & V. Sub-division for the past 10 months.

Engineman Hense of train 1st No. 97 stated that when he left Akron Howard street he figured that he had time to go to Brooklyn for train No. 60 but upon reaching Brecksville he discovered he could not make Brooklyn and therefore upon reaching Willow pulled into the passing track at that point. He stated that he pulled into the siding as far as possible but about 2 cars still protruded out on to the main track at the eastern end of the passing track. The head brakeman then went forward with a flag to protect against train No. 60. His train had been in the siding about 15 minutes before train No. 60 arrived and when he heard the passenger train approaching he arose and started his lubricator. When train No. 60 appeared he was looking out of the front window, but said that if it was displaying signals he did not notice them. He stated that the speed of train No. 60 was about 20 or 30 miles an hour and on account of the curve he was able to see the locomotive for only about one engine length. He stated that he heard the engineman of train No. 60 answer the head brakeman's flagging signals but did not hear him sound any whistle signal calling attention to the signals said to be displayed on the locomotive. He said that there were no unusual conditions that would have prevented his hearing whatever signals were sounded by the engineman of train No. 60 and he was of the opinion that it would have been

impossible for the engineman of train No. 60 to sound any signal directly after answering the flagman's signals without his noticing it. After train No. 60 passed he called in the flagman and received a signal to go ahead. The conductor boarded the train about 35 cars back from the locomotive and as his train was pulling out of the siding so as to clear the rear end of the main track, the conductor gave him a proceed signal. He stated that the speed of his train at the time of the collision with train 2d No. 60 was about 8 miles an hour.

Fireman Bates of train 1st No. 97 stated that when train 1st No. 60 was approaching the passing track at Willow he heard 2 short blasts of the whistle in answer to the head brakeman's flagging signals. He was not looking out of the window when train No. 60 came into sight and did not see the locomotive until the cab was opposite his own locomotive. He therefore could not say whether or not the locomotive of train No. 60 was carrying signals. He further stated that he did not hear any whistle signal sounded by the engineman of train No. 60 other than the 2 short blasts in answer to the head brakeman's signals and is sure that if any other signals were sounded he would have noticed them. He estimated the speed of his train at the time it collided with train 2d No. 60 at 4 or 5 miles an hour.

Head Brakeman Cooper of train 1st No. 97 stated that when his train pulled into the siding at Willow he saw that the rear end was not entirely into clear, so went forward to flag. He had reached a point about 10 car lengths west of the west

passing track switch when he saw train No. 60 approaching, being about 15 car lengths distant when he first saw it. The engineman of train No. 60 answered his signals with 2 short blasts of the whistle and he then gave the engineman a signal to indicate that train 1st No. 97 was not into clear at the east end of the passing track. As the locomotive passed by, the engineman gave him a signal indicating that he understood. He stated that the speed of train No. 60 as the locomotive passed him was about 20 miles an hour. He is positive that there were no signals displayed on the locomotive and the only whistle signals he heard from the locomotive of train No. 60 were 2 short blasts in answer to his flag. Brakeman Cooper stated that after the train passed, he walked back to the passing track switch, opened it, the train headed out on the main line, and he boarded the locomotive as it passed him.

Flagman Doene of train 1st No. 97 stated that when his train pulled into the siding at Willow the train stopped with about 2 cars out on the main track and he went back about 20 car lengths to flag. On the arrival of train 1st No. 60 from the west, he was called in by the engineman and he ran in, closed the east switch and caught the caboose. He stated that train No. 60 had to slow down approaching the east switch to allow his train to get into clear. He further stated that the engineman of train No. 60 sounded the whistle when passing the caboose to indicate that there was a following section and he acknowledged this signal by holding up his hand. He stated that he did not see any flags displayed on the locomotive but was not in a posi-

tion to see them if they had been displayed. As the rear end of train No. 60 passed the caboose, the conductor of that train asked where they were going for train 2d No. 60 and he gave the conductor a signal to indicate that they were going to remain at Willow. He stated that his own train kept on moving and he swung a stop signal with his red flag but on account of the curve he could not see any one on the head end of his train and his signals were therefore not observed. He and Pilot Richardson then decided that train 1st No. 60 must have left orders with the head end regarding train 2d No. 60. After the caboose had reached a point about 15 car lengths beyond the west switch of the passing track, Conductor Underwood came back to the caboose and the flagman asked him what orders he had concerning train 2d No. 60, the conductor replying that they were going to RD Tower and that train 2d No. 60 had better stay into clear there. He further stated that he did not say anything to the conductor about train 1st No. 60 carrying signals for a following section and that inasmuch as he called the conductor's attention to the fact that there was another section of train No. 60, he thought he had properly fulfilled his duties.

Pilot Richardson of train 1st No. 97 stated that when he was called to act as pilot, he told the call boy that he had not been examined on the C. T. & V. sub-division and was not qualified, but the call boy told him that Terminal Trainmaster Gensley had said he should go. He therefore took charge of train 1st No. 97 at Akron and while at Akron Junction, Conductor

Underwood told him that he had been running over this territory for the past 6 or 7 months and did not need a pilot. At Akron Howard Street the engineman and conductor were given orders and the conductor read the orders to him. He did not, however, receive copies of the orders for himself. When the train stopped at Willow, he remained in the caboose to see that the switch was properly set; the flagman went back to flag while the conductor went up toward the head end of the train. He did not hear the engineman of train No. 60 sound the whistle as it passed the head end of his train. At the time train No. 60 passed the caboose he was standing on the rear platform and noticed the green flag signals on the locomotive. The engineman of train No. 60 also called his attention to the signals by sounding the whistle, which he answered by holding up two fingers and then dropping his hand toward his engine. He stated that as the rear part of train No. 60 passed, the conductor of that train asked him where they were going for train 2d No. 60 and he shrugged his shoulders to indicate that he did not know. His train then pulled out on to the main track and when Conductor Underwood came back to the caboose he told him train 1st No. 60 was carrying signals and asked him where they were going for train 2d No. 60; the conductor remarked that train 2d No. 60 had better stay at ED Tower as that was where they were going for it. Pilot Richardson then took it for granted that the conductor had received information from train 1st No. 60, and he therefore made no attempt to hold the train at Willow; neither did he insist on seeing the conductor's

orders. He thought that inasmuch as Conductor Underwood had been on this run for the past 6 or 7 months he knew more about the work than himself. Pilot Richardson maintained that he was not qualified to act as pilot on the C. T. & V. Sub-division, claiming that he was not thoroughly familiar with a few of the curves and grades. However, when questioned he stated correctly the location of all train order signals and sidings and the capacity of some of the sidings. His statements indicated that he had worked on this part of the road for 10 months in local freight service; also that there was no difference in the operating rules.

Conductor Underwood of train 1st No. 97 denied that he told Pilot Richardson that he had been running over the C. T. & V. Sub-division for the past 6 or 7 months, but told him that he had run over the road between Akron Junction and Cleveland, although not this year. He stated that when his train stopped at Willow, Flagman Doene went back to protect the rear of the train as it was not entirely clear of the main track, while he himself went to the head end of the train to see if it were not possible for the train to pull entirely on to the passing track. After finding it was not possible he walked to the west switch and observed Brakeman Cooper about 10 car lengths west of the switch and still walking westward. As train No. 60 approached he heard the engineman of that train sound 2 short blasts in answer to the brakeman's signals. This was not the proper signal with which to answer flags and he was not therefore sure that the engineman of train No. 60 had seen Brakeman Cooper. He stated that he had a view of the locomotive of train No. 60 for about 15 car lengths

but did not observe any signal flags displayed on the locomotive. The only whistle signal that he heard sounded by the engineman of train No. 60, other than the 2 short blasts, was when the locomotive was nearly to the east end of the passing track. After train No. 60 had passed, the engineman called in the flagman, and he walked toward the locomotive to get a signal from the rear end of the train if one should be given. His train then pulled out on the main track and he boarded the train about 20 or 25 car lengths from the west switch. He then gave his engineman a proceed signal and went back to the caboose. When he reached the caboose, Flagman Doene asked him where they were going for train 2d No. 60 and he told the flagman that he had nothing on train 2d No. 60 and that as far as he knew they were going to RD Tower. He stated that he was not aware that train 1st No. 60 had displayed signals indicating that another section was following and that the flagman's question did not suggest anything of the kind to him. He said the pilot asked him nothing.

Engineman Burke of train 1st No. 60 stated that on the day of the accident he received an order at Cleveland to carry signals from RD Tower to Akron Junction to indicate that locomotive 2080 was following. He saw his fireman place the green signal flags on the head end of the locomotive at RD Tower, after which he called them to the attention of train No. 91, standing nearby, by sounding one long and two short blasts on the whistle, and the engineman of train No. 91 answered him.

Approaching the west switch at Willow he was flagged about 10 car lengths from the switch by the head brakeman of train 1st No. 97. He first saw the head brakeman when only about 3 car lengths from him; he answered the flagging signals with 2 short blasts of the whistle, because he did not have time to give the correct signal of 2 short and 1 long blast, and also shut off steam and apply the brakes, before reaching the switch. He stated that the brakeman then gave him a proceed signal and a signal indicating that train 1st No. 97 was not into clear at the east end of the passing track. He stated that he passed the locomotive on the siding at a speed of 15 or 20 miles an hour and saw Engineman Sense sitting in the cab. When about opposite the locomotive he sounded one long and two short blasts of the whistle to indicate that he was carrying signals for a following train. His signal was followed by the sound of the whistle on the locomotive of train 1st No. 97, but on account of the noise made by his own locomotive he could not say positively whether or not Engineman Sense answered his signal. However, he took it for granted that he did. He sounded the same signal again at the rear end of the train and saw two men standing on the rear platform of the caboose, one of whom gave him a hand signal. He stated that the caboose was moving when he passed it.

Fireman Bowman of train 1st No. 60 stated that he put two green signal flags on the head end of the locomotive at RD Tower; the condition of these flags was fair, they being neither new nor old. He stated that he heard his engineman answer the brakeman's signals approaching Willow and is positive that

Engineman Burke sounded one long and two short blasts of the whistle to call attention of the engine crew of train 1st No. 97 to the signals they were carrying. He said the locomotive of his train was making an unusual amount of noise on account of popping and he did not know whether or not the engineman of train 1st No. 97 answered the signal. He is sure that his engineman also sounded the whistle again, calling the attention of the members of the crew on the rear end of train 1st No. 97 to the signals on his locomotive, and he saw the two trainmen standing on the rear platform of the caboose give his engineman a proceed signal. Fireman Bowman further stated that he did not ask his engineman whether or not the engineman of train 1st No. 97 answered his signal for the reason that he did not think of doing so.

Conductor Burress of train 1st No. 60 stated that while at RD Tower he saw the fireman of his train with the green signal flags in his hand and also saw him when he started to put them on the locomotive. He also stated that when passing the head end of train 1st No. 97 at Willow he heard 2 short blasts of a whistle, but could not say whether it was the whistle of train 1st No. 97 or the whistle of his own train. When passing the caboose, he called to the two men standing on the rear platform, asking them where they were going for train 2d No. 60, and these men gave him a hand signal indicating that they were to remain at Willow.

Brakeman Creek of train 1st No. 60 stated that he saw

the green signal flags put on the locomotive at RD Tower. On arrival at Willow he heard his engineman sound one long and two short blasts on the whistle indicating that they were carrying signals for a following section. However, he did not remember hearing an acknowledgment of this signal from train 1st No. 97; neither did he hear his engineman sound the whistle again when passing the caboose.

Baggageman McCleary of train 1st No. 60 stated that his train was flagged at Willow and he heard Engineman Burke answer with 2 short and one long blast of the whistle, followed closely by a whistle indicating that the train was carrying signals for a following section. He stated that he did not hear the train on the siding acknowledge the engineman's whistle signals. He heard Engineman Burke again sound the same signal at the rear end of the caboose but as he was on the other side of the baggage car he did not see anyone on the caboose of train 1st No. 97. He stated further that after the accident he remarked to Engineman Burke, "You sounded a whistle both at the head and the rear end of the train," to which Engineman Burke replied, "I did, but I don't know whether or not the man at the head end answered."

Engineman McBurney of train 2d No. 60 stated that at RD Tower he received train order 407 which stated that train 1st No. 60 would display signals for his train from that point to Akron Junction. His train was held at RD Tower until train 1st No. 60 reached South Park. He stated that he first saw train

1st No. 97 when not more than 100 yards away at which time his train was running at a speed of about 30 miles an hour.

Fireman Christ of train 2d No. 60 stated that he did not see train 1st No. 97 until the trains were within three car lengths of each other.

The statements of the various employees involved are conflicting as to whether or not the engine of train 1st No. 60 was carrying signals. The members of the crew of that train state that the proper signal flags had been placed on the engine. The engineman of train 1st No. 97 apparently did not notice particularly, and the statements of the head brakeman and fireman indicate that they did not look, while the flagman said that he was not in position to see them. The conductor said that he did not see them, but the pilot did see them, and in view of the apparent inattention to duty on the part of the other members of the crew it is believed that his statement is correct.

There is also a question as to whether or not the engineman of train 1st No. 60 sounded the proper whistle signal when passing the head end of train No. 60, calling attention to the flag signals displayed. There is an equal amount of testimony on both sides of the question, but when the condition existing is fully considered, it is believed to be possible that he did not sound this signal. The condition leading to this suggestion arises from the manner in which he was flagged. His engine was coming around a curve where he could see but a short distance and when he saw the flagman he thought it was a case of short flagging and did not take the time to sound the full

whistle signal in answer to the flag before shutting off steam and applying the air brakes. Having his mind occupied in this manner, it is possible that he did not sound the proper signals to call attention to the flags displayed, when passing the head end of train 1st No. 97. He claimed that he did sound them, however, but said he was not sure they were acknowledged. In this event, he should have been governed by the provision of rule No. 38, which reads as follows:

"One long and two short blasts of the whistle is an indication that a train is displaying signals for a following section and will be given at both the front and rear end of trains affected thereby, and be answered by two short blasts of the whistle, and also from the rear of the train by trainmen in accordance with rule 12 (g). If not answered in accordance herewith the passing train will be stopped, reason for not answering obtained and a report made by telegraph to the Superintendent from the first open train order station at which train giving the signal stops."

The direct cause of this accident was the failure of train 1st No. 97 to remain on the siding at Willet until the arrival of train 2d No. 60, for which Engineman Sense, Conductor Underwood and Pilot Richardson, being in charge of the train, are chiefly responsible, although all of the other members of the crew contributed more or less to the accident.

That Engineman Burke sounded the proper signal when his train passed the rear of 1st No. 97 is not disputed, both the pilot and the flagman of the freight train hearing this signal and understanding clearly that there was a second section, while they were also asked by the conductor of train 1st No. 60 where they were going for the second section. When train 1st No. 97

started ahead after the departure of train 1st No. 60, the flagman tried to signal the engineman to stop, using a red flag for the purpose, but on account of the curvature of the track, his signals were not seen at the head end of the train. Both he and Pilot Richardson could have stopped the train immediately by means of the conductor's valve, but neither of them made any attempt to do so but decided that probably orders had been received and therefore they would wait until the conductor returned to the caboose. When the conductor returned, he was asked where he was going for the second section of train No. 60, and he claimed he said he had no orders relative to that train and that so far as he knew they were going to RD Tower. There is a dispute as to the conductor's exact reply, the pilot and flagman claiming he said they were going to RD Tower and that train 2d No. 60 had better stay there. Apparently none of the three men paid any further attention to the matter, although the conversation certainly should have raised a doubt in the minds of all three as to the right of their train to the main track, and they should have been governed by rule No. 40, which reads as follows:

"Conductors, enginemen and trainmen are required to give close attention to signals displayed by other trains and their significance, whether their attention is called to them or not. If in doubt, a train will not leave a station or siding until the conductor and engineman agree as to what signals, if any, were displayed by opposing or passing trains, and will report to the superintendent failure to call attention to them."

A contributing cause was the failure of Engineman Burke of train 1st No. 60 to bring his train to a stop as required by rule No. 38 when he was in doubt as to whether or not the engine-

man of train 1st No. 97 had acknowledged his signal.

With the exception of Head Brakeman Cooper of train 1st No. 97, all of the employees involved were experienced men with good records, although it is noted that both Conductor Underwood and Pilot Richardson had charges against each of them one case of failing properly to protect by flag, while Engineman Burke had been responsible for a rear-end collision due to his following a train too closely. The crew of train 1st No. 97 had been on duty about 13 hours after periods off duty ranging from 10 to 25 hours. Engineman Burke had been on duty a little more than one hour after a period off duty of about 11 hours.

This investigation developed that the failure of the dispatcher to issue copies of the train orders to Pilot Richardson was because he considered Conductor Underwood to be better acquainted with the road. In reaching this conclusion, Dispatcher Trisch was acting on an unwarranted assumption. The responsibility for placing Pilot Richardson on the train was not his; all he had to do was to issue the train orders correctly, which included the furnishing of copies to the pilot, and in this Dispatcher Trisch failed absolutely to do his duty. There is no excuse whatever for such a flagrant violation of important operating rules, and it may well be that this attitude on the part of the dispatcher, coupled with the alleged statement of Conductor Underwood that he did not need a pilot, was responsible for the apparent lack of interest displayed by Pilot Richardson in the handling of the train.