

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
NEW YORK CENTRAL RAILROAD AT CLEVELAND, OHIO, ON DECEMBER
24, 1919

March 10, 1920.

On December 24, 1919, there was a side collision between two yard engines on the New York Central Railroad at Cleveland, Ohio, which resulted in the death of 2 employees and the injury of 1 employee. After investigation of this accident, the Chief of the Bureau of Safety reports as follows:

The accident occurred at the east end of the Union Passenger Station. Approaching the station from the east there are four main tracks, numbered from the north, these tracks are Nos. 4, 3, 1, and 2, with crossovers connecting all tracks. Track 4 passes the station on the north side, track 3 enters the station as depot track 1, while tracks 1 and 2 when within a short distance of the station are known as north and south lead tracks, respectively, and serve to connect with the various depot tracks. There is a crossover extending from the south lead to the north lead. Just west of the west crossover switch is the switch leading from the north lead to depot track 3. About 100 feet beyond this switch is the east switch of a crossover extending from depot track 3 to depot track 2. That part of depot track 2 between the west switch of this second crossover and the point where the depot track connects with the north lead is known as an island track. The accident occurred at the frog of the west switch of the lead track crossover. West of this crossover movements of trains and engines are under the jurisdiction of the depot yardmaster, while to the east, including the crossover switches, they are under the freight yardmaster. There is no block signal system or interlocking plant, movements being governed by hand-thrown switches and hand signals. There is a switchtender's shanty located between the switches of the lead track crossover, near the eastern end, known as the east end shanty. Opposite the western end of the crossover is another shanty known as the middle switchtender's shanty.

The yard engines involved in this accident were engine 4489, in charge of Conductor Dean and Engineman Mason, and engine 4416, in charge of Conductor Wolf and Engineman Fuller,

Engine 4416 had removed 3 extra coaches from passenger train No. 43 on depot track 5 and had placed them at the east end of depot track 3. After having coupled two other cars to train No. 43, the engine returned to depot track 3 for the 3 coaches, intending to move them eastward through the lead track crossover to the south lead. The crew had made two attempts to couple to the 3 coaches and were preparing to make the third attempt, with the engine standing on the frog of the west switch of the lead track crossover, about 8 or 10 feet from the cars, with Conductor Wolf and Switchman Moore adjusting the drawbar on the rear end of the tender, when the head end of engine 4416, which was headed east, was cornered by some cars being moved

westward on the north lead by engine 4489, the collision occurring at 7.25 p.m.

Engine 4489, which was headed west, was pushing a combination car and three sleeping cars toward the station, these cars being a part of the equipment of a train which was being made up on depot track 2. That part of track 2 known as the island track was occupied by 2 cars, and on this account it was necessary for engine 4489 to continue on the north lead to depot track 3 and then use the crossover leading from depot track 3 to depot track 2. The switch leading from the north lead to depot track 2 was closed, its normal position, with the switch lamp showing green. The next switch, which was the west switch of the lead track crossover, was not in normal position, being lined for a crossover movement for the purpose of allowing engine 4416 with its three cars to move eastward through the crossover to the south lead. On account of engine 4416 standing on the frog, the indication of the switch lamp could not be seen by the crew of engine 4489. They saw the headlight of engine 4416, but could not tell that it was fouling the switch until within 4 car lengths of it, and they were then unable to convey stop signals to the engineman in time for him to stop. At the time of the collision the air brakes on 3 of the 4 cars being handled by engine 4489 were not in use.

The drawbar of the combination car struck the north side of the pilot beam of engine 4416. The force of the collision turned over the rail under the driving wheels on the south side of engine 4416 and moved the engine back against the 3 coaches to which the crew had been attempting to couple, knocking down and running over the conductor and switchman who were adjusting the drawbar on the tender. The damage to equipment was slight. The weather at the time of the accident was clear.

Day Yardmaster Converse stated that before he went off duty at about 6.50 p.m., he had instructed Conductor Dean of engine 4489, to take a combination car and 3 Pullman sleeping cars from GAR Yard, north of the station, out upon main track 4 and remain there until he got orders to move them into the station, his intention being to move the cars in upon depot track 5 after train No. 43 had been switched. He gave Conductor Wolf, of engine 4416, instructions to take 3 coaches from train No. 43, place them temporarily on depot track 3, and after doing other switching in connection with train No. 43, to handle the coaches, which he intended should be used to make up train No. 637 on track 5. After issuing these instructions he returned to the depot yard office, about 300 feet east of the lead track crossover, where he met Night Yardmaster Shaffer, who was preparing to relieve him, and informed him of the instructions he had given. The move to be made by engine 4489 in reaching the depot tracks from GAR Yard consisted in moving east on main track 4 to a point clear of the main track crossovers, thence west through these crossovers to main tracks 1 and 2, or the north or south leads, over the P. R. R. crossing and thence through the switches to the depot tracks. He said the move was not an unusual one, and that when making the move, even if the main track crossover switches were properly lined up crews should first get signal from the switch-

Night Yardmaster Shaffer stated that after being informed by Day Yardmaster Converse of his plans, he intended to make up train No. 637 on depot track 2 instead of on depot track 5 and to use the combination car in engine 4489's cut of cars, but only one of the 3 sleeping cars. Engine 4416 was to move the 3 coaches from depot track 3 into clear on the south lead, engine 4489 was to push the combination car in on depot track 3, east of the crossover leading from depot track 3 to depot track 2, then pull back into clear on the north lead with the 3 sleeping cars, after which it was intended to have engine 4416 couple the 3 coaches to the combination car and then move into clear on the south lead, after which engine 4489 was to couple one sleeping car behind the coaches. He accordingly proceeded to the double track crossover, east of the yard office, where he instructed Switchtender Powers, stationed at that point, to let engine 4489 down off main track 4, on the north lead. Returning to the point where engine 4416 was working he instructed Conductor Wolf to take the 3 coaches from depot track 3 and move eastward into clear on the south lead track. Switchtender Powers was the only person advised by Yardmaster Shaffer of the movement to be made by engine 4489 and he said it was the duty of Switchtender Powers to get a signal from Switchtender Coughlin, at the east end shanty, before making the move. He did not inform Switchtender Coughlin, or Conductor Dean of engine 4489, of the move he contemplated making, although he passed by the east end switch shanty twice before the move was started, both these men being inside the shanty at the time, the conductor waiting for instructions as to when to move the cars into the station; he said he did not know where the conductor was located. He did not personally give any signals to move engine 4489, and assumed that the movement would be protected under timetable rule 12, which reads as follows:

12. HAND AND LAMP SIGNALS

Cleveland Trains and engines entering Cleveland Passenger Station must receive proceed hand signal from switch tender before entering station and proceed expecting to find track occupied

When he returned to engine 4416 he stood on the south side of the engine and was not in a position to see engine 4489 when it approached, his first knowledge of this being when the collision occurred.

Switchman Powers, located at the double track crossover, stated that he had asked Switchtender Coughlin, at the east end shanty, if engine 4489 could move the cars into the station, and was told that he would be notified when it could be done. Shortly afterward Yardmaster Shaffer told him that it was all right to left engine 4489 in on the north lead, and then walked toward the station. He thereupon lined up the crossover switches and gave a signal for engine 4489 to come ahead. From where he was standing he could see engine 4416, but could not tell on what track it was located. He also informed Assistant Yardmaster Potter of the authority for the move having been given him by Yardmaster Shaffer, whereupon Freight Yardmaster Potter also gave a proceed signal to

engine 4489 Engine 4489 was moving about 5 miles an hour when it passed him. He further stated that while it was customary to receive a signal from Switchtender Coughlin, at the east end shanty, he did not receive any such signal on this occasion, believing it was all right to make the move on the instructions he had received from Yardmaster Shaffer

Freight Yardmaster Potter, whose jurisdiction extended west to and including the lead track crossover switches, stated that he met Switchtender Powers walking east, lining up the crossover switches, and the switchtender informed him that Yardmaster Shaffer had instructed him to let engine 4489 move into the station. Yardmaster Potter stated that he took it for granted that Yardmaster Shaffer knew what he wanted and that the move would be made according to the rules, although he had not seen Switchtender Powers exchange any signals with the switchtender at the east end shanty. Switchtender Powers gave engine 4489 a proceed signal and started walking west ahead of them, giving proceed signals, but was soon passed by the engine. He did not see anyone on the leading car, but a brakeman appeared from the inside of the car when he stepped to the middle of the track and called to the crew. He also gave Engineman Mason, of engine 4489, another proceed signal, following which he gave proceed signals to a light engine, which had been standing behind engine 4489. After the light engine had moved west, he closed the switches behind it, then went into Switchtender Powers' office, where he was later informed of the accident.

Switchtender Coughlin, located at the east end shanty, stated that his duties were to throw switches and give signals to trains about to enter the station, as well as exchange signals with the switchtender at the double track crossovers, although these signals were sometimes given by conductors when they were present. He had thrown the east lead track crossover switch for the purpose of admitting engine 4416 from the south lead to depot track 3 to couple to the coaches on that track; he did not have control of the west switch of this crossover and did not know what further moves were to be made by that engine. After engine 4416 passed through the switch he closed it and returned to his shanty. From where he was sitting in the shanty, he could see engine 4416 and also knew that engine 4489 was awaiting permission to move into the station, as Conductor Dean had been in the shanty for 40 or 45 minutes, waiting for a lineup. He said he had asked Yardmaster Converse where train No. 637 was to be made up and received instructions to hold engine 4489 for further orders, accordingly he had told Switchtender Powers that he would let him know when the move was authorized, Conductor Dean had also told Switchtender Powers to hold the engine until he received instructions. About 15 minutes prior to the accident, Yardmaster Shaffer came up to the shanty and Conductor Dean had told him that the cars were ready. He stated that he gave no signals to the crew of engine 4489 and was unaware that they had started to move until he heard Target-tender Crawford, located at a crossing of the Pennsylvania Railroad just east of the shanty, say that the cars were coming, the leading car was then passing his shanty and was within about 90 feet of engine 4416.

Target-tender Crawford, in charge of the target at the Pennsylvania crossing, 168 feet east of the point of collision, stated that at the time of the accident and for a half hour previous thereto the target had been in the horizontal position, indicating clear for New York Central trains. He first saw engine 4489 when the cars were about 3 car lengths east of the crossing, moving at a speed of 10 or 15 miles an hour. He saw a switchman who was riding on the north side of the leading car give a stop signal with a white lantern, then go into the car, he reappeared almost immediately and got off the car. Target-tender Crawford then called to the men in the east end shanty. From his position in the tower he could have seen any signal given to the switchman riding on the cut of cars being handled by engine 4489 and was positive no signal was given, nor was there any signal given by the switchtender at the east end to the switchtender at the double track crossovers.

Switchtender Roche, located at the middle switch shanty, stated that when engine 4416 put the 3 coaches in on depot track 3, Switchtender Coughlin threw the east switch of the lead track crossover, while he himself threw the west switch. At the time of the accident he was on the south side of engine 4416 and did not see engine 4489 approaching.

Conductor Dean, in charge of engine 4489, stated that he had been instructed by Yardmaster Converse to pull four cars from GAR Yard, to be used in making up train No. 637 in the station. After instructing Switchmen Culp and Martin of the move to be made, the cars were brought out on main track 4, while he got off and went into Switchtender Coughlin's shanty, expecting to receive further instructions from Yardmaster Converse as to where the cars were to go, but was told that there was no room for them at that time. While he was in the shanty, Switchtender Powers came down and asked Switchtender Coughlin if the cars could be moved into the station, but was informed in the negative, and he himself told Switchtender Powers to hold the cars on main track 4. He stated that he had no conversation with Yardmaster Shaffer, that neither he nor Yardmaster Converse came into the shanty while he was there and he did not think it necessary that he be out looking after the cars. He had been in the shanty about 50 minutes, waiting for instructions and checking his line-up, when he heard Switchtender Coughlin say: "Here come your cars," he estimated the cut of cars was moving from 7 to 10 miles an hour when they passed the shanty and said that the accident occurred before he could do anything to prevent it. Conductor Dean was familiar with timetable rule 12 and also the special instructions requiring the air to be coupled up on cuts of cars being moved into the station. He said the custom was for the car inspectors, when making line-ups of cars, to couple up the air on all of them, leaving the only duty to the train crews that of coupling on the engine; he did not know until after the accident that the air was coupled on only one of the cars his crew was handling.

Switchman Culp, of engine 4489, stated that Yardmaster Potter instructed him to move the cars into the station, and also gave proceed signals to Engineman Mason. The Pennsylvania crossing

signal was properly set for the movement, but he did not receive any signal from the switchtender at the east end shanty, depending on the conductor having the route lined up. He said he did not know that they were to go in on depot track 3, nor did he know that track was blocked. When the leading car was near the east end shanty he noticed a headlight on one of the depot tracks, but did not know on what track it was until the cars were within 2 car lengths of the Pennsylvania crossing, or about 4 car lengths from engine 4416. He signalled Engineman Mason to stop and then entered the combination car, pulled the emergency valve and at that time discovered that the air brakes were not in operation. He then jumped off, at which time the cars were just east of the Pennsylvania crossing, ran north toward main track 4 and gave the engineman another stop signal, but was unable to prevent the collision. He estimated that the cut of cars was moving 6 or 7 miles an hour when passing over the Pennsylvania crossing. He further stated that this move was made by them about four times a day and that it was not always customary to get a signal from the switchtender at the east end shanty. He considered that they were making the move under control, and he thought that had Engineman Mason been able to see his first signals, and had the air been cut in on all the cars, they could have stopped without difficulty. Switchman Culp further stated that he was at the rear car when the car inspector uncoupled the air hose between that car and those left standing on track 7 in GAR Yard, but was not watching closely and did not notice whether or not there was any exhaust of air from the hose. He did not consider it necessary to have the air cut in at all times, but in previous instances he had always found the air properly coupled and on this occasion he made no effort to ascertain whether or not the air had been cut in on all the cars, there being no doubt in his mind but that the air was in use, it has always been his practice to leave ^{to} the car inspectors the duty of coupling up the air. He did not think Engineman Mason used the air in bringing the cars to a stop on main track 4; had he done so, he thought he would have discovered at that point that the air was not cut in.

Switchman Martin, of engine 4489, stated that he coupled the engine to the cars and cut the air in between the engine and first car, he did not ascertain whether or not the air was cut in on all the cars, saying that he regarded this as a matter to be handled by the car inspectors. He was riding on the steps between the 2nd and 3rd cars from the engine, and did not see any proceed signal given when starting to move toward the station, but after the engine had started, saw some one on the front end of the cut giving signals. He did not see any more signals given between the time of leaving main track 4 and the time he saw brakeman Culp jump to the ground, at which time he also jumped from the cars and gave the engineman a stop signal; he estimated the speed at this time at 5 or 6 miles an hour. In his opinion the accident would have been avoided had the air been cut in on all the cars.

Engineman Mason, of engine 4489, stated that he did not know on how many cars the air was cut in before leaving GAR Yard; his brakes were in good condition, but slow in releasing. The

signal to proceed from main track 4 was given by two men at the head end of the cars, which he acknowledged by sounding the whistle twice. After starting, one of the switchmen was at the head end of the head car, while another was on the second car from the engine. The speed was about 7 miles an hour when he saw a stop signal given by one of the switchmen who was out on the main line, about at the Pennsylvania crossing, and he immediately applied the air brakes in emergency, the engine coming to a stop within a distance of about 45 feet

Fireman Gray, of engine 4489, stated that he knew nothing about the air being coupled up on the cars, that he had put in a fire after they started from main track 4, was working on the injector and saw no signals given. He estimated the speed at the time of collision at 5 or 6 miles an hour

Engineman Fuller, of engine 4416, stated that his engine had come up through the lead track crossover and thence to depot track 3, and had twice attempted to make the coupling, he had then moved it ahead about 8 or 10 feet for the purpose of allowing the crew to adjust the coupler, the engine standing on the crossover headed east, with the brakes applied and the headlight burning. He was looking back toward the tender and did not see the cut of cars approaching; there was no warning given before the collision occurred.

Fireman Snodgrass, of engine 4416, stated that he was in the gangway on the north side of the engine and that he did not see the cars being handled by engine 4489 before the collision occurred

Switchman Gerstacker, of engine 4416, stated that when engine 4416 had backed in on depot track 3 he had walked across the tracks from depot track 6 and had boarded the third coach from the engine, while Conductor Wolf walked across toward the first coach. He stated that he had no knowledge of the move being made by engine 4489.

This accident was caused by the failure of Switchtender Powers to hold engine 4489 on main track 4 until he had received the proper signals from Switchtender Coughlin authorizing its movement into the station. A contributing cause was the failure of Conductor Dean and Switchman Culp, of engine 4489, to have the air brakes coupled on all the cars being handled by that engine.

Yardmaster Shaffer had instructed Switchtender Powers to allow engine 4489 to proceed toward the station but there was nothing in these instructions which authorized Switchtender Powers to do this without first receiving the necessary signals from Switchtender Coughlin. Switchtender Powers was an experienced employee, and while he stated that he had never acted as switchtender at the east end, he was fully acquainted with the manner of handling engines and cars in and out of the station, and knew that a signal was required to be given by the east end switchtender. He should have waited therefore, until such signal had been given instead of assuming that the instructions he had received

authorized a violation of the rules and practices covering such movements.

The special instructions requiring the use of air brakes in all switching movements in the passenger yard were addressed to all switchmen. While it may have been the custom or duty of the car inspectors to couple the air hose, in view of the special instructions being addressed only to switchmen responsibility for knowing that the air hose was properly coupled rested upon the switching crew handling the cars. Switchman Martin, when coupling the engine to the cars, coupled the air hose between the engine and the first car, but Switchman Culp, although standing nearby when the car inspector uncoupled the four cars from those which were left in the yard, did not pay particular attention to see whether or not the air hose was coupled, and Conductor Dean, who was in charge of the crew, apparently gave no thought to the matter until after the collision occurred. Had either of these employees paid sufficient attention to their duties, they would have known that the air hose was not properly coupled, had the air brakes on all four cars been in use either Switchman Culp, by operating the conductor's valve, or Engineman Mason, of engine 4489, would have been able to stop in time to avoid the collision.

Had an interlocking plant been used at this point, this accident would beyond question have been averted

All of the employees at fault in this accident were experienced men with good records. At the time of the accident Yardmaster Shaffer had been on duty about 1 hour and Conductor Dean and Switchman Culp about 5 hours, previous to which all of these employees had been off duty at least 12 hours