

BUREAU OF SAFETY

REPORT NO. 1961

Railroad: Delaware, Lackawanna & Western
Date: January 19, 1935
Location: Newton, N. J.
Kind of accident: Derailment
Train involved: Passenger
Casualties: 1 employee killed
Cause of accident: Failure of flagman to close main track
switch after it had been used and
failure of enginemen to notice the train
had been diverted from the main track.

1961

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN
ACCIDENT ON THE DELAWARE, LACKAWANNA & WESTERN RAILROAD
AT NEWTON, N.J., ON JANUARY 19, 1935.

March 6, 1935.

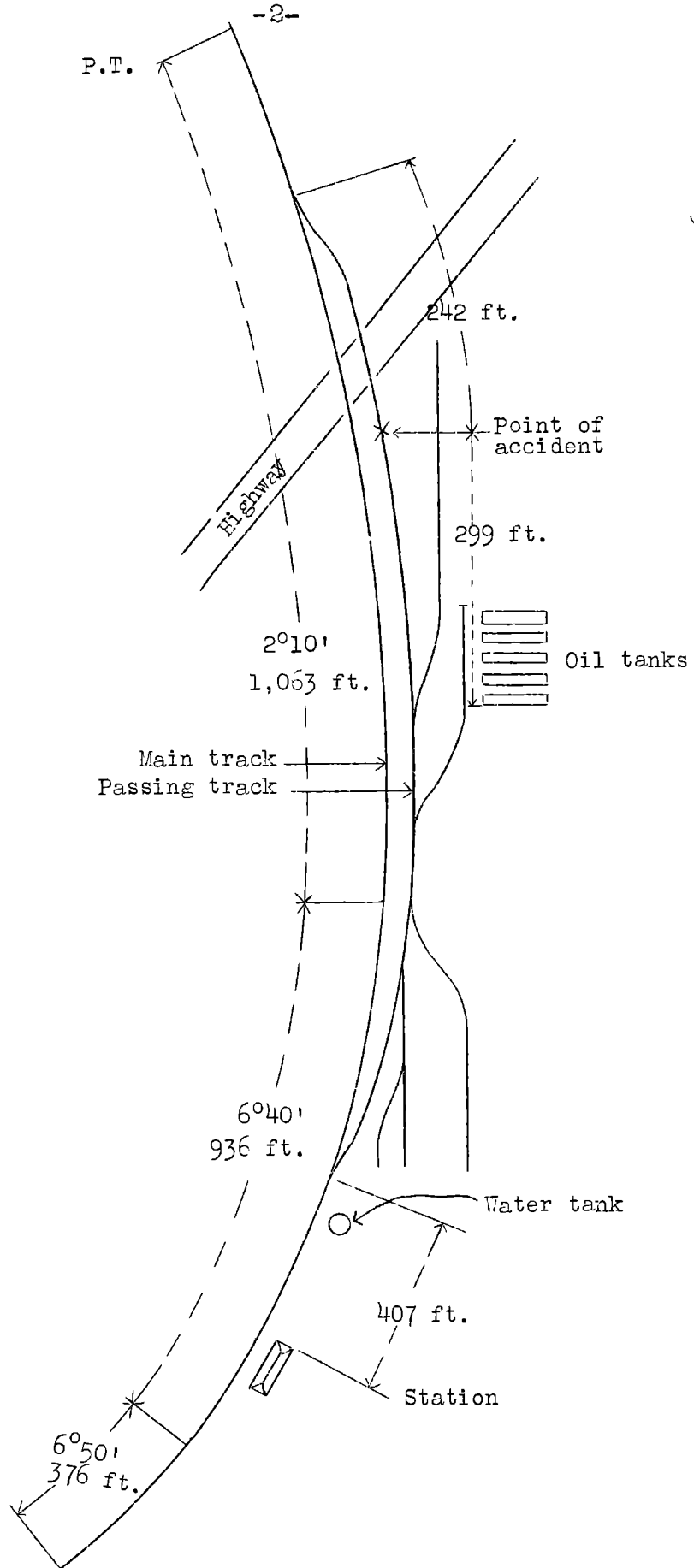
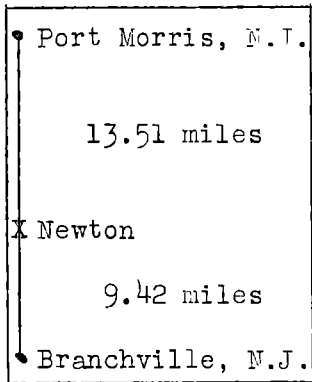
To the Commission:

On January 19, 1935, there was a derailment of a passenger train on the Delaware, Lackawanna & Western Railroad at Newton, N. J., which resulted in the death of one employee. The investigation of this accident was held in conjunction with representatives of the New Jersey Board of Public Utility Commissioners.

Location and method of operation

This accident occurred on that part of the Sussex Branch of the Morris and Essex Division extending between Branchville and Port Morris, N. J., a distance of 22.93 miles; in the vicinity of the point of accident this is a single-track line over which trains are operated by time table, train orders, and an automatic block-signal system. The passing track at Newton is 1,143 feet in length and parallels the main track on the south; the west switch, a facing-point switch for east-bound trains, is located 407 feet east of the station and the accident occurred on the passing track at a derailing switch located 242 feet west of the east switch. Approaching the point of accident from the west, there is a compound curve to the left 2,375 feet in length with a maximum curvature of $6^{\circ}50'$, the accident occurring on this curve at a point 519 feet from its eastern end where the curvature is $2^{\circ}10'$. The grade is 0.81 percent descending for east-bound trains at the point of accident.

The switch stand at the west switch is located on the south side of the track and is 6 feet $1 \frac{5}{16}$ inches in height, equipped with rectangular banners approximately 14 inches in width and 26 inches in height which display white or red indications according to whether the switch is closed or open, respectively. The derail switch stand is on the south side of the passing track and is 1 foot $9 \frac{1}{4}$ inches in height, equipped with an oval green target and a double blue target, each half of which is circular in shape, the indications being green when



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the switch is closed and blue when it is open. These switch stands were not equipped with switch lamps and no automatic block-signals were involved in the accident.

The weather was clear and it was dark at the time of the accident, which occurred about 5:34 p.m.

Description

Train No. 1054, an east-bound passenger train, consisted of 1 coach, 1 combination main and baggage car, 1 mail car, and 5 milk cars, in the order named, hauled by engine 1010, of the double-cab type, and was in charge of Conductor Henne and Engineman Ash. This train arrived at Newton at 5:25 p.m., and while station work was being performed, engine 1008, also of the double-cab type, in charge of Engineman McClain, backed out from the passing track and coupled to the head end of the train, the passing-track switch being left open. The train left the station at 5:30 p.m., on time, but stopped at the water tank, 348 feet east of the station, where the second engine took water. At that time the lead engine was standing on the turnout leading to the western end of the passing track and the front end of the second engine was practically opposite the switch stand. After water was taken the train proceeded through the passing track, ran through an open yard-track switch, and was derailed when it encountered the open derailing switch near the eastern end of the passing track while traveling at a speed estimated to have been between 15 and 25 miles per hour.

Both engines, their tenders and the forward truck of the first car were derailed; the engines stopped on their right sides with the front end of engine 1010 about 3 feet ahead of and to the left of the tender of engine 1008, which was leaning to the right at an angle of about 45°. The employee killed was the engineman of the lead engine.

Summary of evidence

Fireman Buckley, of engine 1008, stated that on the day of the accident his engine hauled Train No. 1052 from Branchville to Newton, its destination, arriving at 4:55 p.m., after which the cars were placed in the yard and they waited for the arrival of Train No. 1054, which train they were to double-head to Port Morris. When Train No. 1054 arrived, his engine moved out of the yard to the passing track and then backed westward on the passing track to the main track and coupled to the head end of the train. The train moved slowly to the water tank and while engine 1010 was taking water Fireman Buckley was fixing the fire and did not notice the position of the switch leading to the passing track and thought his engine was on the main track.

Both engines used steam when leaving the water tank and upon approaching a highway crossing near the east switch his engine man started sounding a crossing signal and had about finished when the second engine whistled for brakes and they were applied in emergency, followed almost immediately by the derailment; he estimated the speed at the time of the accident at 25 miles per hour. He was not certain whether the headlight was burning and did not know whether the throttle was closed prior to the accident, having been in the fireman's cab after leaving the water tank, but the engine man had handled the engine properly during the day and he thought the engine man must have been in normal condition and alert at this particular time, otherwise he would not have whistled for the crossing or applied the brakes when the second engine man whistled for them. Fireman Duckley had fired for Engine man McClain on this same run for 3 months and could not account for the failure of his engine man to observe the indication displayed by the target of the switch stand at the entrance to the passing track unless it was because he was looking back at the time their engine approached and passed it in order to spot engine 1010 at the water tank.

Flagman Reynolds, of Train No. 1052, who handled the switcher for engine 1008, stated that when Train No. 1054 arrived at Newton he opened the west passing-track switch and gave his engine man a back-up signal, and while the engine was backing from the passing track he proceeded eastward and closed some yard switches and then hurried back towards the train but forgot to close the main-track switch, having in mind that the train would not stop for water and that he would have to hurry in order to ride the train to his home at Natick, near Port Morris. The train started before he reached it and he boarded the forward end of the coach and sat down in the smoking compartment; it did not occur to him that he had failed to close the passing-track switch until the train came to a sudden stop and he discovered that the engines had run off the passing-track derail. He said that it was the usual practice in making a movement of this kind, to close the yard switches and then the passing-track switch but he overlooked the latter switch in this instance although he passed it on his way to the train; he did not think he would have overlooked it if it had been equipped with a lamp.

Engine man Ash, of the second engine, stated that engine 1008 was coupled to his engine and the train moved ahead to the water tank; after taking water for his engine the brakes were tested and the train proceeded, the time then being 5:53 p.m. He looked out while passing some storage tanks located less than 300 feet from the derail and then discovered that the train was moving on the passing track; he sounded one blast of the whistle, at which time the lead engine man was whistling for a highway crossing, and the brakes were immediately applied in

emergency, at a speed of about 25 or 30 miles per hour, and the accident occurred very shortly afterwards. He had noticed that the headlight of the lead engine was burning brightly before the train left the station, but on account of the curvature of the track he could not see the reflection after departing; the headlight of his own engine had been dimmed. Engineman Ash did not notice the indication of the switch target while water was being taken as he was working on the lubricator and had no occasion to look out, but he thought that had it been equipped with a lamp its red indication would have attracted his attention; he did not hear or feel the engine pass over switches that would not have been encountered if the train had been on the main track. The brake valve on his engine had been cut out and he did not think that he could have averted the accident had he opened the cut-out cock and applied the brakes in emergency instead of whistling for brakes after observing that the train was running on the wrong track. Engineman Ash was well acquainted with Engineman McClain and had talked with him after the lead engine was coupled to the train, and he said Engineman McClain appeared to be in normal condition.

Fireman Lomborg, of the second engine, stated that he was back on the tender while taking water and that as soon as the spout was raised the train started and by the time he got back to the fireman's cab it was traveling at a pretty good rate of speed. He was shoveling coal into the firebox when he heard the lead engine whistle for a road crossing and at the same time his own engineman whistled for brakes; the two whistle signals, the emergency application of the brakes, and the derailment took place within a few seconds.

Conductor Henne stated that after the engines had been coupled, the head brakeman gave a hand signal to proceed and the train moved to the water tank, where water was taken on the second engine and the brakes were tested. As soon as the train started he walked to the head end of the coach for the purpose of collecting fares and while performing this work he heard the whistle for the highway crossing, then one blast for brakes which were applied almost immediately and the train stopped within a few seconds. The train had been traveling at the usual speed of about 15 miles per hour and there was nothing to indicate that it was on the passing track until after the derailment occurred.

Head Brakeman Newhaus stated that when engine 1008 was coupled to the train he connected both the air and communicating signal hose and then walked back along the side of the train looking for a signal from the rear end to move ahead to the water tank; during the brake test he relayed hand signals to the engineman. From his position he was unable to see the passing-track

switch and after his train departed from the water tank he did not know that it was on the passing track. His statements as to subsequent events practically corroborated those of the conductor, while the statements of Flagman Browne added nothing of importance.

Discussion

According to the evidence, Flagman Reynolds opened the main-track switch and after giving a signal for his engine to back up, he closed some yard switches and then started toward the train, passing the main-track switch without noticing it and forgetting that it had been left open until after the derailment occurred. The only explanation he could offer for his oversight was that it was dark and he was in a hurry to board the train before it left the station, not thinking that it was intended to stop for water just beyond the station.

The evidence further indicates that at the time the train stopped at the water tank the leading engine was standing on the turnout and the front end of the second engine was about opposite the switch stand, which is located on the engineman's side of an east-bound train, yet Engineman McClain apparently failed to notice that the switch was open when his engine passed it and entered the turnout while Engineman Ash said that during the time the train was standing at the water tank he was engaged with duties in the engine cab and consequently failed to see the indication displayed by the switch target. No reason can be ascribed for the failure of Engineman McClain to observe the position of the passing-track switch or to discover that the train was being operated on the passing track; he was an experienced engineman, had been on this same run for 3 months, and so far as known had been in normal condition throughout the day.

On July 30, 1932, a bulletin order was issued by the superintendent to the effect that in automatic block-signal territory all main-track switch lamps and derail lamps would be removed, no changes being made in certain territory not involved in this accident. Observations subsequent to the accident disclosed that the rays of the headlight of an engine standing near the east end of the station would focus on the water tank and not on the stand at the west switch, making it necessary for a lead engineman to watch closely to see the color of the switch target; this target could not be seen from the second engine in the dark. It also appeared that with a burning switch lamp on the stand, the position of the switch could be determined from any point where the engines stood, while a lamp at the low stand at the derail was visible to the lead engineman for a distance of about 550 feet. It appears more than probable that the use of switch lamps on these stands would have resulted in the

detection of the errors which led to the occurrence of this accident.

Conclusions

This accident was caused by running through a derail switch, due to the failure of Flagman Reynolds of engine 1008, to close the west switch of the passing track after the engine had entered the main track, and by the failure of Enginemen McClain and Ash to note that their train had entered the open switch and was moving on the passing track.

Respectfully submitted,

W. J. PATTERSON,

Director.