

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN
ACCIDENT ON THE ERIE RAILROAD AT GARFIELD, N.J., ON
FEBRUARY 10, 1933.

May 2, 1933

To the Commission:

On February 10, 1933, there was a derailment of a freight train, the wreckage of which was struck by another freight train traveling in the opposite direction on an adjoining track, on the Erie Railroad at Garfield, N. J., which resulted in the death of 1 employee and the injury of 1 employee. The investigation of this accident was held in conjunction with a representative of the New Jersey Board of Public Utility Commissioners.

Location and method of operation

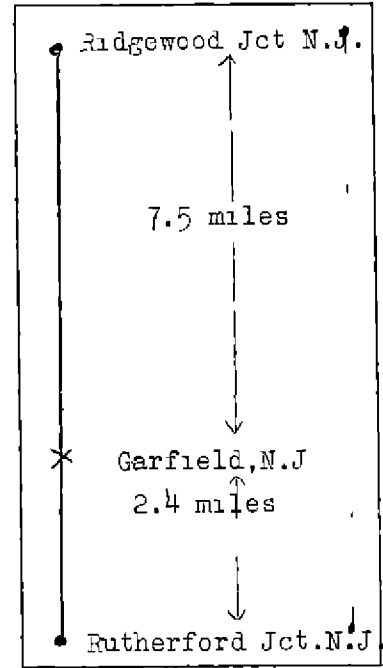
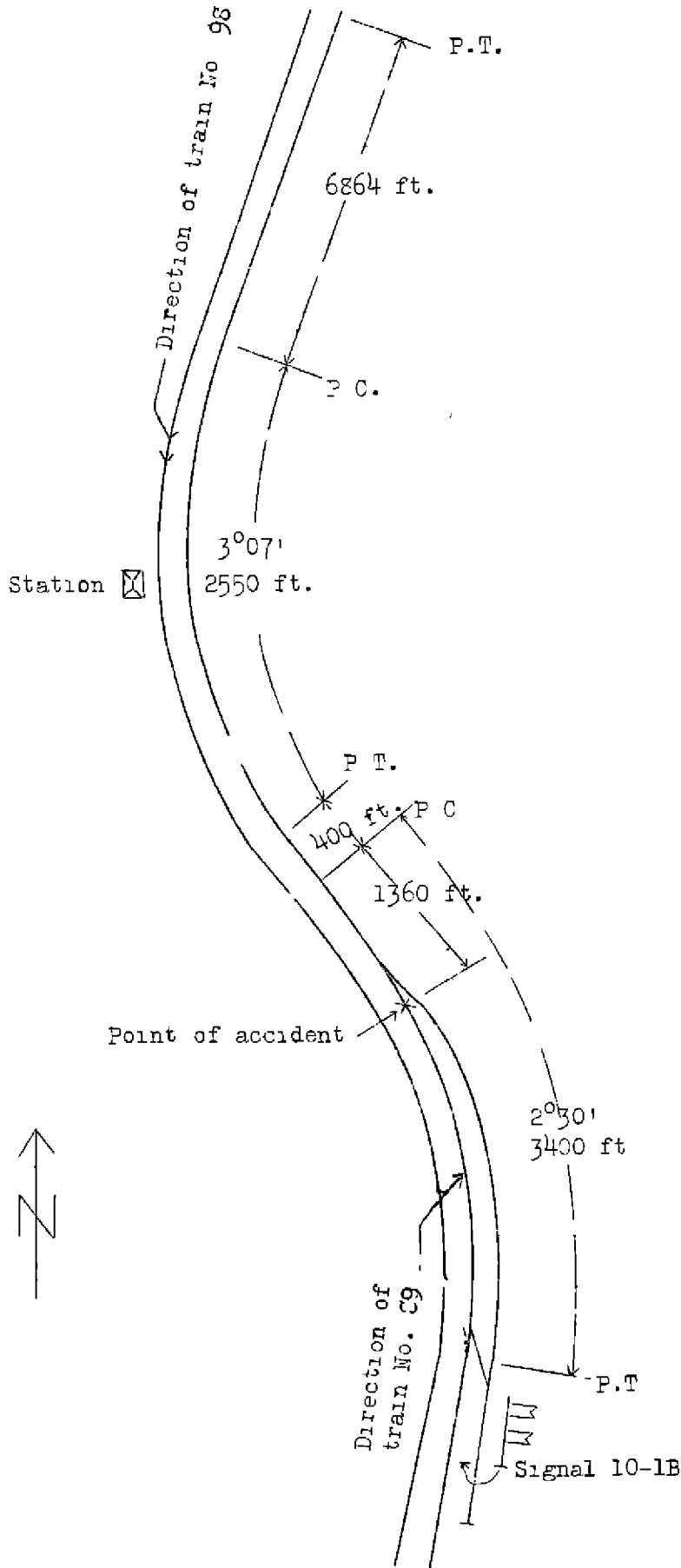
This accident occurred on that part of the Eastern District of the New York Division extending between Rutherford Junction and Ridgewood Junction, N. J., a distance of 9.9 miles; in the vicinity of the point of accident this is a double-track line over which trains are operated by time table and an automatic block-signal system. The accident occurred at a point approximately 3,000 feet east of the station at Garfield; approaching this point from the west, the track is tangent for a distance of 6,864 feet, followed by a 30° 07' curve to the left approximately 2,550 feet in length, tangent track for a distance of about 400 feet, and then a 20° 30' curve to the right approximately 3,400 feet in length, the accident occurring on this last-mentioned curve at a point about 1,360 feet from its western end. Approaching from the east, the track is tangent for several miles, followed by the curve on which the accident occurred. The grade at the point of accident is 0.42 percent ascending for east-bound trains. There is a siding which parallels the main tracks on the north and at the time of the accident there were 15 tank cars stored on this siding.

The track is laid with 110-pound rails, 39 feet in length, with an average of 24 ties to the rail length, fully tieplated, and is ballasted with crushed stone to a depth of about 12 inches. The track is well maintained.

The weather was clear at the time of the accident, which occurred about 3:35 p.m.

Description

East-bound freight train No. 98 consisted of 75 cars and a caboose, hauled by engine 3363, and was in charge of Conductor Hayne and Engineer Hull. This train passed Ridgewood Junction, 7.5 miles west of Garfield, at 5:22 p.m., and was derailed at Garfield while traveling at an estimated speed of 30 miles per hour.



Inv. No. 1808
 Erie Railroad
 Garfield, N.J.
 February 11, 1933

West-bound freight train No. 89 consisted of 88 cars and a caboose, hauled by engine 3315, and was in charge of Conductor Conklin and Engineman Quick. This train passed Rutherford Junction, 2.4 miles east of Garfield, at 3:31 p.m., and collided with the wreckage of train No. 98 while traveling at a speed estimated to have been between 25 and 30 miles per hour.

Engine 3368 and the first 29 cars in train No. 98 remained coupled and were not derailed. The thirtieth to the thirty-eighth cars, inclusive, were derailed; the thirtieth car stopped across the west-bound track, the thirty-first car stopped on the south side of the east-bound track, the thirty-second car was diagonally across both tracks, and the other derailed cars remained on the roadbed in line with the track. Engine 3315 and the leading car of train No. 89 stopped leaning against the cars stored on the siding adjacent to the west-bound main track, while the tenth car in the train buckled; 5 of the cars standing on the siding were also derailed and 4 others were damaged. The employee killed was the fireman of train No. 89 and the employee injured was the conductor of the same train.

Summary of evidence.

Engineman Hull, of train No. 98, stated that the brakes were tested before the train left its initial terminal and he was informed by an air-brake inspector that they were in proper working order, while in making stops and in reducing speed at several points en route he had no difficulty in handling the train. His first indication of anything wrong was when he felt a jerk; he was looking back at the time and observed that the train had parted, and as the engine of a west-bound train was then passing his own engine he immediately sounded the whistle for brakes to warn the engineman of that train of the danger. He estimated the speed of his train at the time of the accident at 30 miles per hour.

Fireman Kent, of train No. 98, watched the left side of the train while it rounded the curves at Garfield, as did Head Brakeman Clauson, but neither of them noticed anything irregular. Immediately after the engineman sounded one long blast of the whistle, Fireman Kent heard the brakes apply on the west-bound train.

Conductor Haynes, of train No. 98, stated that while the train was approaching the point of accident he was looking at the track from the rear door of the caboose, and shortly after passing the station at Garfield he observed that the ties were badly damaged. Forming the opinion that there must be a broken truck in the train, he called to the brakemen, who were riding in the cupola, to open the brake valve, which was done immediately. He estimated the speed at the time of this brake application at between 30 and 35 miles per hour and thought the train traveled a distance of 30 or 35 car lengths after the brakes were applied. Flagman Leavy was the one who applied the brakes from the rear and he said he pulled the conductor's valve wide open but received only a slight exhaust.

Engineman Quick, of train No. 89, stated that while approaching signal 10-1B, located approximately 2,500 feet east of the point of derailment, and while his train was traveling at a speed of between 25 and 30 miles per hour, the head brakeman called the signal indication as being clear, but upon reaching a point about 20 car lengths from this signal it changed to stop position and he immediately applied the brakes in emergency. At that time the head end of train No. 98 had passed his engine about 8 or 10 car lengths and he could see some of the cars of that train derailing and fouling the west-bound track near the signal. The engine of train No. 98 was working steam when it passed his own engine and it was his opinion that the crew of that train had no opportunity to warn him of danger; he did not hear a whistle signal sounded by the engineman of train No. 98.

Section Foreman Tema, in charge of the section on which the accident occurred, said he inspects the track daily and had done so on the morning of the accident, but found nothing wrong. The last work performed in that locality was some surfacing at a bridge located a short distance west of the point of accident, which was done about 10 days previously; no general surfacing or any other work had been performed east of Garfield since 1931. Track Supervisor MacAsy arrived at the scene about 4:10 p.m. and found the switch stand at the main-track switch of a cross-over between the west-bound main track and the siding had been knocked down and the circuit-controller connection torn out, causing the signal governing the movement of train No. 89 to assume the stop position.

Car Foreman Knorr arrived at the scene of accident about 5 p.m. and on the rear truck of DL&W 79964, which was the thirtieth car in train No. 98 and the first car to be derailed, he found marks on the collar of the truck center plate, while the body center plate was bent upward, these marks indicating that the body center plate had been riding on this collar rather than engaging in the pockets. The bottom-bolster cover plate was deflected upwards to the extent of $\frac{1}{2}$ inch, which allowed the center portion of the body center plate to be deflected upwards the same distance. This irregularity of the center plates would allow the car to ride heavy on the side bearings and cause a somewhat rigid condition and interfere with the free curving of the truck. One side-bearing housing had been torn off while the housing on the opposite side was crushed, all the side-bearing rollers were missing and had not been located at the time of this investigation. The center pin was bent and the truck otherwise damaged, but in his opinion this damage was done when the car was derailed and torn from its trucks. He was also of the opinion that the damaged condition of the center plates developed while the car was moving under load for a considerable distance and that the defect could not have been detected by ordinary inspection. The wheels of this truck were in good condition and in gauge.

Car Inspector Kilpatrick stated that he made a careful inspection of the north side of DL&W 79964 when it arrived at Port Jervis, the initial terminal of train No. 98, and did not find any defects. Car Inspector Polanis stated that he carefully inspected the south side of DL&W 79964 at Port Jervis and found nothing wrong.

Conclusions.

This accident was apparently caused by the failure of the rear truck of the thirtieth car in train No. 98.

According to the statements of the crew of train No. 98, Conductor Haynes was the first to have any intimation of anything unusual and the brakes were at once applied by means of the conductor's valve, but apparently the derailment had already occurred as there was only a light exhaust when the brake valve was opened. An examination of DL&W hopper 79964, the thirtieth car in the train, made subsequent to the accident, disclosed that the male casting of the rear truck was worn by the flange of the female casting and the center plate was bent upward in the middle. The boss on the male casting was $1 \frac{3}{16}$ inches in thickness while the height of the flange of the female casting was $1 \frac{5}{16}$ inches which allowed some of the weight of the car to be transferred to the side bearings, retarding the free movement of the truck. The body bolster bottom cover plate was deflected up between the center sills $\frac{1}{2}$ inch, which also had a tendency to throw more weight on the side bearings. This defective condition of the truck could not have been discovered under ordinary train yard inspection. After the accident this truck was found to be otherwise considerably damaged but it is believed this damage was a result of the derailment.

From the statements of Engineer Quick, of train No. 89, he received no warning of danger until his train was about 20 car lengths from the signal governing west-bound trains when the signal suddenly changed from proceed to stop, but it was then too late to prevent his train from colliding with the wreckage.

Respectfully submitted,

W. P. BORLAND,

Director.