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INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT OF THE DIRECTOR

BUREAU OF SAFETY

ACCIDENT ON THE
NEW YORK CENTRAL RAILROAD

YONKERS, N. Y.

APRIL 9, 1938.

INVESTIGATION NO. 2265

SUMMARY

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Railroad: New York Central
Date: April 9, 1938
Location: Yonkers, N. Y.
Kind of accident: Derailment
Train involved: Milk Train
Train number: 182
Engine number: Electric motor 332
Consist: 20 cars
Speed: 8 m.p.h.
Track: No. 8 turnout on 1°50' curve; 1 percent descending grade.
Weather: Clear
Time: 9:30 p.m.
Casualties: 1 killed
Cause: Split switch

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April 26, 1938.

To the Commission:

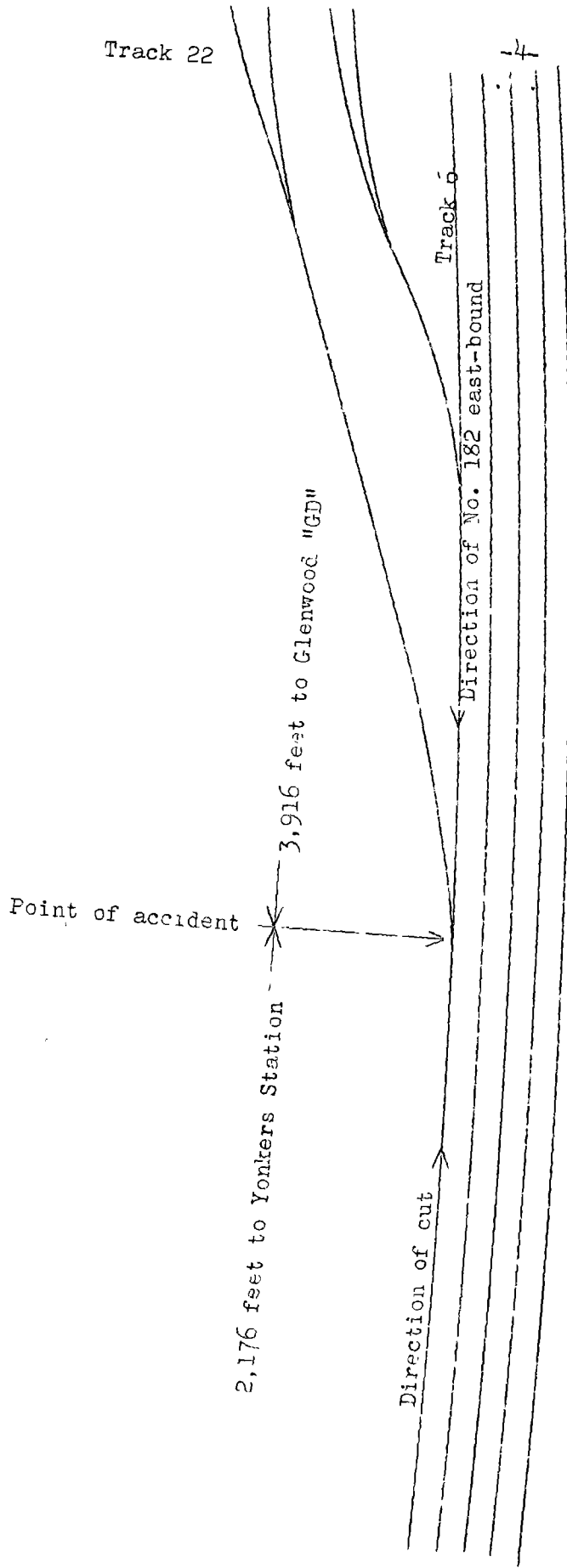
On April 9, 1938, there was a derailment of a milk car being backed into a siding of the New York Central Railroad at Yonkers, N. Y., which resulted in the death of one employee.

Location and method of operation

This accident occurred on that part of the Electric Division which extends between Grand Central Terminal, New York City, and Croton-on-Hudson, N. Y., a distance of 33.86 miles. In the vicinity of the point of accident there are four main tracks over which trains are operated by timetable, train orders and an automatic block-signal system. Between Glenwood and a point east of Yonkers a fifth track, designated "Track 6", parallels the main track on the south; the block system is not installed on this track. At Yonkers a train yard consisting of eight tracks, numbered from north to south in consecutive even numbers from 8 to 22, lies south of track 6 and is generally parallel to it. The yard tracks merge into leads at each end and these lead tracks connect with track 6. The switch leading from track 6 to the east end of track 22 is trailing point for east-bound trains and is provided with a No. 8 turnout. The derailment occurred at this switch which is located 3,916 feet east of Glenwood, and 54 feet from the east end of a 1°50' curve to the south. The grade is one percent descending on the lead track to the east end of track 22. Electricity is used for propulsion purposes and power is transmitted by a third rail carried on a line of suspension brackets set parallel to each track.

Track 6 is laid with 105-pound rail in 33 foot lengths on twenty ties to the rail-length, tie plated. It is single-spiked, ballasted with cinders and well maintained.

The switch involved is equipped with a Ramapo No. 20B switch stand of the ground-throw type; in this type, the latch of the hand-throw lever is built into the switch stand and is provided with a coil spring designed to snap the latching bar into a retaining recess where it is secured by a hook inserted in the hole of a hasp which extends through a slot in the latching bar. The stand is provided with an oil lamp having lenses approximately 20 inches above the head block. A white light is displayed when the track is lined for track 6, and a yellow light is displayed when the track is lined for the lead.



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The weather was clear at the time of the accident, which occurred about 9:30 p.m.

Description

No. 182, an east-bound milk train, consisted of 19 loaded milk cars and 1 coach, hauled by electric motor 332, and was in charge of Conductor Euler and Engineman Rogg. This train entered track 6 at Glenwood and proceeded upon that track to the east end of Yonkers yard where it arrived about 9:25 p.m. A cut was made behind the fifth car and the motor and the five cars moved eastward over the yard-lead switch. A back-up movement was started for the purpose of placing the cars in the yard, but after the cut had moved a distance of 2 or 3 car lengths, at a speed of about 8 miles per hour, the leading car of the cut became derailed and the cut came to a stop.

The leading car of the cut, G.P.E.X. 738, was entirely derailed with its west truck on track 6 and the east truck on the lead; it remained coupled to the next car, the west truck of which was derailed. The employee killed was the head brakeman.

Summary of evidence

Engineman Rogg stated that his train entered track 6 at Glenwood and stopped at the east end of Yonkers yard. Brakeman Kane made a cut behind the fifth car and gave a go-ahead sign, and as the switch stand for track 22 was displaying white, indicating that the route was lined for track 6, he pulled the entire cut up over the switch; at that point the brakeman gave a stop signal and after lining the switch for track 22 he gave a signal to back up. Engineman Rogg started to move the cut back and as he did so the brakeman stepped toward the cars and the movement of his lantern indicated that he boarded the head end of the cut and then moved over on to the end sill. Because of the descending grade into the yard he had shut off the power as soon as the train started to move and was drifting at a speed of about 8 miles per hour when he felt a slight decrease in the speed and saw an arc, after which the train stopped without an application of the brake. He did not know what had happened until the flagman came to the engine and told him. He did not make any inspection of the switch.

Fireman Rankey stated that the switches were properly lined for the movement eastward on track 6. From his position in the cab he was unable to see what went on after the cut of cars moved over the switch leading to track 22 and he did not know what had happened until informed of the accident by the brakeman. After the accident he observed that the switch was displaying a yellow indication and that the switch point seemed to be against the rail. He did not notice the latch of the switch but did see that the hook was not in the switch.

Flagman Kirchner stated that when his train stopped at Yonkers he was at the rear of the train. He started ahead and had reached a point near the middle of the train when he saw Brakeman Kane make the cut and give a go-ahead signal. After the cut of cars had passed beyond the switch leading to track 22 he saw Brakeman Kane give a stop signal, throw the switch, and give a back-up signal. Flagman Kirchner said that the switch was displaying yellow; he then turned to walk west on track 22 and had gone only a short distance when he heard the cars go on the ground. After the accident he observed that the switch was displaying a yellow indication and that the switch was latched but the hook was not in place.

Conductor Euler stated that at the time of the accident he was in the caboose and did not know about the accident until the flagman told him about it. When he reached the point of derailment he found the switch displaying a yellow indication; the handle of the switch was latched in position but the hook was not in place. He did not examine the switch points.

Assistant Supervisor of Track McCarthy stated that he reached the scene of the derailment at 10:35 p.m. He examined the switch and found it unlatched, with the throwing lever in about a 45° position; the hook of the switch stand was not in position, but was lying on the headblock. The turnout point of the switch was slightly away from the stock rail. The switch was undamaged except for the switch stop on the south switch point, and when the cars had been pulled away from the switch he operated it and found that the points fitted properly against the stock rail. It was not necessary to make any repairs to the switch except to replace the broken switch stop.

Observations of the Commission's Inspectors

The first mark of derailment was a flange mark on top of the switch stop of the south switch point, 11 feet west of the point of the switch; this mark was followed by wheel and flange marks on the rails, joint-plates and bolts at the heel of the switch point between the switch point and the lead rail. Three feet farther on similar marks appeared between the north switch point and the stock rail of track 6. Flange marks continued along track 6 for 27 feet and then veered sharply to the north. Except for a bent metal switch-stop on the south point, the switch was not damaged, and the stock rails were in good condition. The switch stand and its connecting parts were also in good condition, and it was apparent that no adjustments had been made. Operation of the switch disclosed that the points fitted properly against the stock rails, and that the point would remain open about $\frac{1}{4}$ inch when the hand-throw lever was operated for movement into the lead track but was not latched in position. In this position the target light showed the proper indication for a turnout movement. Inspection of G.P.E.X. 738 disclosed that the center plates

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and pins were in good condition, the side bearings were intact and the wheels were in good condition. No defects of any kind were found except such as were new and were apparently caused by the derailment.

Discussion

The evidence indicates that after the cut had been made in the train after arrival at the east end of Yonkers yard, the switch connecting the lead to track 22 with track 6 was displaying a white indication. When the cut of cars had been moved over the switch it was thrown so as to display a yellow indication and the brakeman gave a back-up signal. Due to the descending grade power was used only to start the train, and the train was drifting when the derailment occurred. All of the employees involved agreed that after the derailment the switch lamp was still displaying a yellow indication, and two of these employees noticed that the throw-lever of the switch stand was latched but the latch bar was not secured by the hook. However, the Assistant Supervisor of Track who examined this switch about one hour after the accident, before the derailed equipment had been moved, stated that he found the throw-lever unlatched and in about a 45° position, and that the point of the switch was slightly away from the stock rail. It was found unnecessary to make any repairs to the switch or the switch stand after the derailment had been cleared up, and a test of the switch showed that with the hand-throw lever thrown as far as possible without latching, the switch lamp would display a yellow indication although the switch point was about $\frac{1}{2}$ inch from the stock rail. Flange and wheel marks on the track indicated that the derailment resulted from wheel flanges entering between the switch point and the stock rail but an examination of the derailed car after the accident failed to disclose any defect that would have contributed to the cause.

Considering the condition of the equipment, and of the track after the derailed equipment had been moved away, it appears that, notwithstanding a slight preponderance of evidence to the effect that the hand-throw lever of the switch was latched in position, the derailment was caused by the throw lever of the switch being left unlatched or becoming unlatched before the back-up movement was started.

Conclusion

This accident was caused by the separation of a switch point from the stock rail due to the throw lever of the switch stand being unlatched.

Respectfully submitted,

W. J. PATTERSON

Director.