

## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN  
ACCIDENT ON THE NEW YORK CENTRAL RAILROAD AT NATIONAL  
JUNCTION, N. J., ON NOVEMBER 1, 1933.

January 16, 1934.

To the Commission:

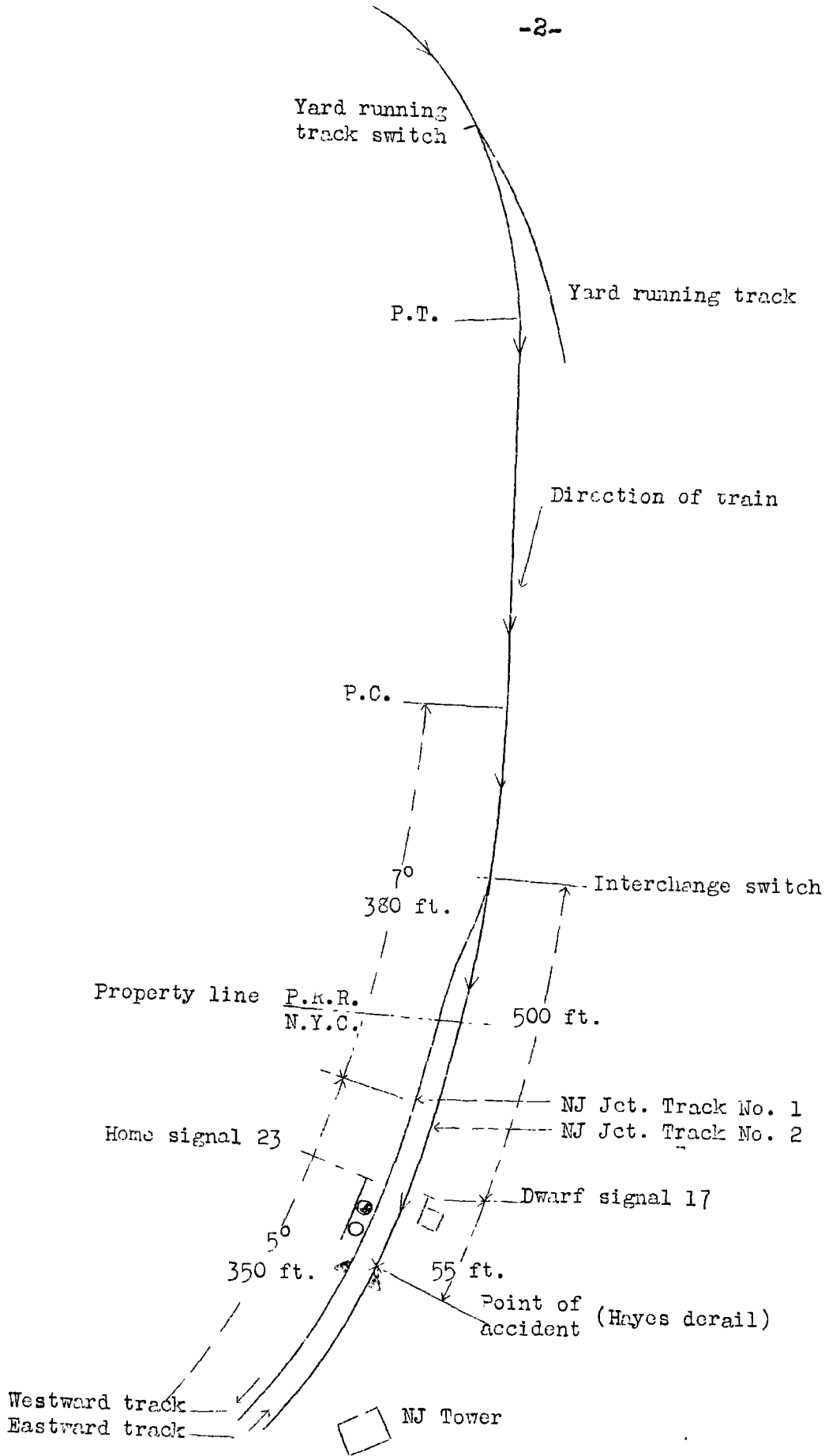
On November 1, 1933, there was a derailment of a freight transfer train on the New York Central Railroad at National Junction, N. J., which resulted in the death of 1 employee and the injury of 2 employees. This accident was investigated in conjunction with the New Jersey Board of Public Utilities Commissioners.

## Location and method of operation

At National Junction there are interchange tracks of the New York Central Railroad and the Pennsylvania Railroad. These two roads have reciprocal interchange of freight traffic between the New York Central Weehawken terminals and the Pennsylvania Jersey City terminals, consisting of one round trip each day, which is performed alternately by the respective roads for 30-day periods; the New York Central period for this service began on October 18, 1933. The accident occurred within yard limits, on the eastward interchange track at a Hayes derail located 55 feet west of dwarf signal 17, or 555 feet west of the switch where the two interchange tracks converge; east of this switch there is a stretch of single track 493 feet in length that joins with the yard running track. Neither of these switches was equipped with a switch target or lamp, and the interchange switch was not equipped with a lock. Approaching the derail from the east, beginning at the yard running-track switch, the stretch of single track is tangent almost to the interchange switch; then there is a compound curve to the right, the curvature averaging  $7^{\circ}$  to a point about 340 feet west of the interchange switch and then  $5^{\circ}$  to and beyond the derail. The grade is descending for westward movements from the running-track switch to and beyond the derail, being about 1 percent at the point of accident.

NJ tower is located on the south side of the interchange tracks and about 180 feet west of dwarf signal 17; this signal governs movements against the current of traffic on the eastward interchange track and the derail is operated in connection with this signal. Dwarf signal 17 is of the upper-quadrant, 2-position type, night indications being purple and yellow, for stop and proceed at slow speed prepared to stop, respectively; it is located on the south side of the interchange tracks and 500 feet west of the switch. Semiautomatic home signal 23 is located on a mast on the north side of the interchange tracks, almost

Inv. No. 1864  
New York Central R.R.  
National Junction, NJ  
November 1, 1933



directly opposite dwarf signal 17; it is of the color-light type, equipped with two panels, the upper displaying a permanent red indication, and the lower displaying red, yellow and green, for stop, proceed at slow speed prepared to stop, and proceed at slow speed, respectively. Home signal 23 governs movements with the current of traffic on the westward interchange track. At the time of the accident dwarf signal 17 was displaying a purple indication, while home signal 23 was displaying a green indication.

The boundary line between the New York Central and Pennsylvania properties is about half way between the interchange switch and signal 23, both the switches involved being on Pennsylvania property while both signals, as well as NJ tower, are on New York Central property. The signals are operated from NJ tower; the switches formerly were operated from RU tower, located on the Pennsylvania property just east of the running track switch; RU tower was closed on May 1, 1932, and the switches now are manually operated.

The weather was clear at the time of the accident, which occurred about 12:10 a.m.

#### Description

The westward freight transfer train involved in this accident consisted of 14 loaded and 16 empty cars, hauled by New York Central engine 3168, and was in charge of Conductor Captain and Engineman Moxham. On arrival at National Junction the head brakeman opened the yard running-track switch and boarded the engine; the train entered upon the short stretch of single track and then the crew saw home signal 23, governing movements with the current of traffic on the westward interchange track, displaying an indication to proceed at slow speed, which indication was accepted. The interchange switch, however, was lined for the eastward interchange track, and the entire crew, all of whom were riding on the engine, failed to notice this fact in the dark, neither did they notice that their train had entered upon and was moving over the wrong track; as a result it proceeded against the current of traffic and passed dwarf signal 17, which was displaying a stop indication, and was derailed at the derail while traveling at a speed estimated to have been about 15 miles per hour.

Engine 3168 was derailed to the left and stopped on its left side, 18 feet from NJ tower; the tender and first car were across both tracks behind the engine, but remained upright. The forward truck of the second car was also derailed. The employee killed was the head brakeman.

#### Summary of evidence

Engineman Moxham stated that he was familiar with the interchange run and had been in this service since this period

started on October 18. About the time the head brakeman returned to the engine after opening the running track switch the engineman received a proceed signal given with a flashlight by a railroad patrolman standing at the switch. Engineman Moxham entered upon the short stretch of single track, passed the interchange switch without noticing its position, and when he observed signal 23 displaying a proceed indication, about 200 feet distant, he opened the throttle and also the sanders preparatory to making a run for the ensuing ascending grade; he then felt a jar, as a result of the engine encountering the derail, followed by the overturning of the engine. Engineman Moxham said he had assumed the interchange switch was lined for the westward track, as it had always been the practice since he had been on the run for the railroad patrolman to line the switch, and when he received the signal given with the flashlight by the patrolman he construed it as meaning that the interchange switch was properly lined; he had not noticed that his train was on the wrong track, although the headlight was burning brightly, neither did he notice the stop indication of signal 17. Engineman Moxham further stated that it was customary for the railroad patrolman to close the running-track switch, thus making it unnecessary for him to stop for that purpose, and that on arrival at National Junction he generally found that switch opened for his train, as well as the interchange switch, and had always accepted and acted upon the flashlight signal of the patrolman whom he assumed had attended the lining of both switches.

Fireman Razez had been busy on the deck of the engine until just before the accident occurred and had not seen the switches or signals, neither did he know his train was on the wrong track.

Conductor Captain, who was riding on the engine and is the regular head brakeman on this run, said that he was busy making a record of the time of arrival and departure at the running-track switch and did not pay particular attention to what transpired after seeing that switch opened by the head brakeman, while after the train started the conductor made no further observations of track or signals prior to the accident because he was still busy making his record. Conductor Captain also stated that it was the practice for the railroad patrolman to close the switches behind the train.

Flagman Wood, who also was on the engine, was making his first trip on this run and did not know what the usual practice was as to handling switches at National Junction; he was told by the conductor, however, that the railroad patrolman would close the running-track switch behind his train.

Conductor Redmond and Engineman Wright, of the Pennsylvania Railroad are assigned to the interchange run when that railroad handles it, and those employees, together with Conductor Gleason, the regularly assigned New York Central conductor, and also New York Central Engineman Matthews, who has been on the run, were interrogated relative to the practice followed in handling the

switches and they said that they always determined the position of the interchange switch before using it, both conductors saying that they went to the switch and observed its position. These witnesses also said that the two switches were never opened by the railroad patrolman on the arrival of trains at National Junction, but that occasionally he closed them behind the train when a heavy train was being handled, owing to grade conditions.

Towerman Pough, at NJ tower, said the usual practice was followed in the handling of this train; the towerman at Z tower on the Pennsylvania Railroad near the Jersey City terminal, phoned to him that the train was coming and giving its consist, and he in turn lined the route and notified the railroad policeman, which he supposed was done so that the policeman could inspect the seals on the cars. The two switches involved in the accident, however, were not a part of the interlocking and Towerman Pough did not know who handled them on this occasion, neither did he know who usually handled them.

New York Central Patrolman Eckerson, who was off duty on the night of the accident, stated that he invariably adjusted the interchange switch for the westward interchange track, doing this on his own initiative while en route from NJ tower to the running-track switch for the purpose of looking over the train, being governed by information he received from the towerman at NJ tower as to which route would be lined for the train through the interlocking, and after the train had departed he would close the running-track switch behind it; he did not have a switch key, however, and never opened the running-track switch. Patrolman Eckerson had never been authorized to handle switches and understood that the rules did not permit him to do so, saying that he merely did it to assist trains on account of grade conditions.

New York Central Patrolman Euler, on duty the night in question, said he did not handle or even look at the interchange switch as he passed it on his way from NJ tower to the running-track switch for the purpose of looking over the train, inspecting the seals on the cars, etc. The train was just entering the running-track switch when he arrived there and he saw Head Brake-man Schceeler board the engine; the patrolman denied that he gave any signal to the crew with his flashlight. Patrolman Euler said that he worked this trick twice each month, but that he had never handled the switches except to close the running-track switch behind trains after they had departed, which he did on this occasion.

#### Conclusions

This accident was caused by running off a derail, due to the failure of Conductor Captain and Engineer Moxham, of engine 3168, to observe or know that the interchange switch was not properly lined for the movement intended as a result of which their train was diverted from its proper route and they accepted a proceed signal indication which did not apply to the track to which their

train had been diverted.

The evidence is conclusive that out of the entire crew of engine 3168, all five of whom were riding on the engine, Engineman Moxham was the only one who paid any attention of consequence to the movement of the train after it entered the running-track switch, and then he assumed that the interchange switch was properly lined for a movement on the westward track and did not notice that he had entered upon the eastward track. The proceed indication displayed by home signal 23, governing movements over the westward track, was called by the engineman when his engine was within 200 feet of it and other members of the crew repeated it without actually having seen the indication displayed, and no one on the engine realized that their train was not moving over the proper track until the engine encountered the derail and was derailed. The dwarf signal located 55 feet east of the derail, governing movements against the current of traffic on the eastward track, could have been seen from the fireman's side of the engine when about 500 feet distant, before home signal 23 came within sight of the engineman, yet neither Fireman Razeo or Flagman Wood, both of whom were on the left side of the engine, saw the dwarf signal or its indication.

The evidence was conflicting as to the practice followed in handling the two switches involved, but it appears that a railroad policeman often lined the interchange switch for the movement to the westward track and also that he would close the running-track switch after the rear of the transfer had cleared the running track. This was known by all concerned to be in violation of the rules, but it appears that train crews depended to a considerable extent upon switches being lined for them in this manner. On the night of the accident the regular patrolman was not on duty at this point and the switches were not lined in accordance with the common practice.

The tracks involved in this accident comprise interchange tracks about 1,000 feet in length from the Pennsylvania yard running-track switch to New York Central signals at NJ tower, the eastern half of which is single track and the western half is double track; the switches at the western end of the double-track section, on New York Central property, are interlocked, but the switch at the eastern end of the interchange and also the switch at the beginning of the double track, both on Pennsylvania property, are not interlocked and had no switch lamps or targets. Switch lamps had been used formerly, but were difficult to maintain in service because of frequent theft of equipment and materials in this vicinity. Since the accident, however, switch lamps have again been installed on these switches and increased police protection provided. Normally movements are few and are made at low speed; on occasions when special trains are operated, protection by means of switchtenders is provided.

Respectfully submitted,

W. P. BORLAND,

Director.