INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT NO. 3568

THE NEW YORK CENTRAL RAILROAD COMPANY

IN RE ACCIDENT

NEAR POST, IND., ON

JANUARY 15, 1954

SUMMARY

Date	January 15, 1954
Railroad	New York Central
Location	Post, Ind.
Kind of accident:	Collision between two portions of train
Train involved:	Passenger
Train number:	24
Engine number	Diesel-electric units 4043 and 4105
Consist:	14 cars
Speed.	Undetermined
Operation	Signal indications
Tracks.	Double, tangent, 0.29 percent descending grade eastward
Weather	Misting
Time	6:48 p. m.
Casualties	5 injured
Cause	Insufficient braking effort on rear car to stop car short of forward portion of train after train became separated

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3568

IN THE MATTER OF MAKING ACCIDENT INVESTIGATION REPORTS UNDER THE ACCIDENT REPORTS ACT OF MAY 6, 1910.

THE NEW YORK CENTRAL RAILROAD COMPANY

June 9, 1954

Accident near Post, Ind., on January 15, 1954, caused by insufficient braking effort on rear car to stop car short of forward portion of train after train became separated.

REPORT OF THE COMMISSION[1]

CLARKE, Commissioner:

On January 15, 1954, there was a collision between two portions of a passenger train on the New York Central Railroad near Post, Ind., which resulted in the injury of one passenger, three dining-car employees, and one train-service employee. This accident was investigated in conjunction with a representative of the Indiana Public Service Commission.

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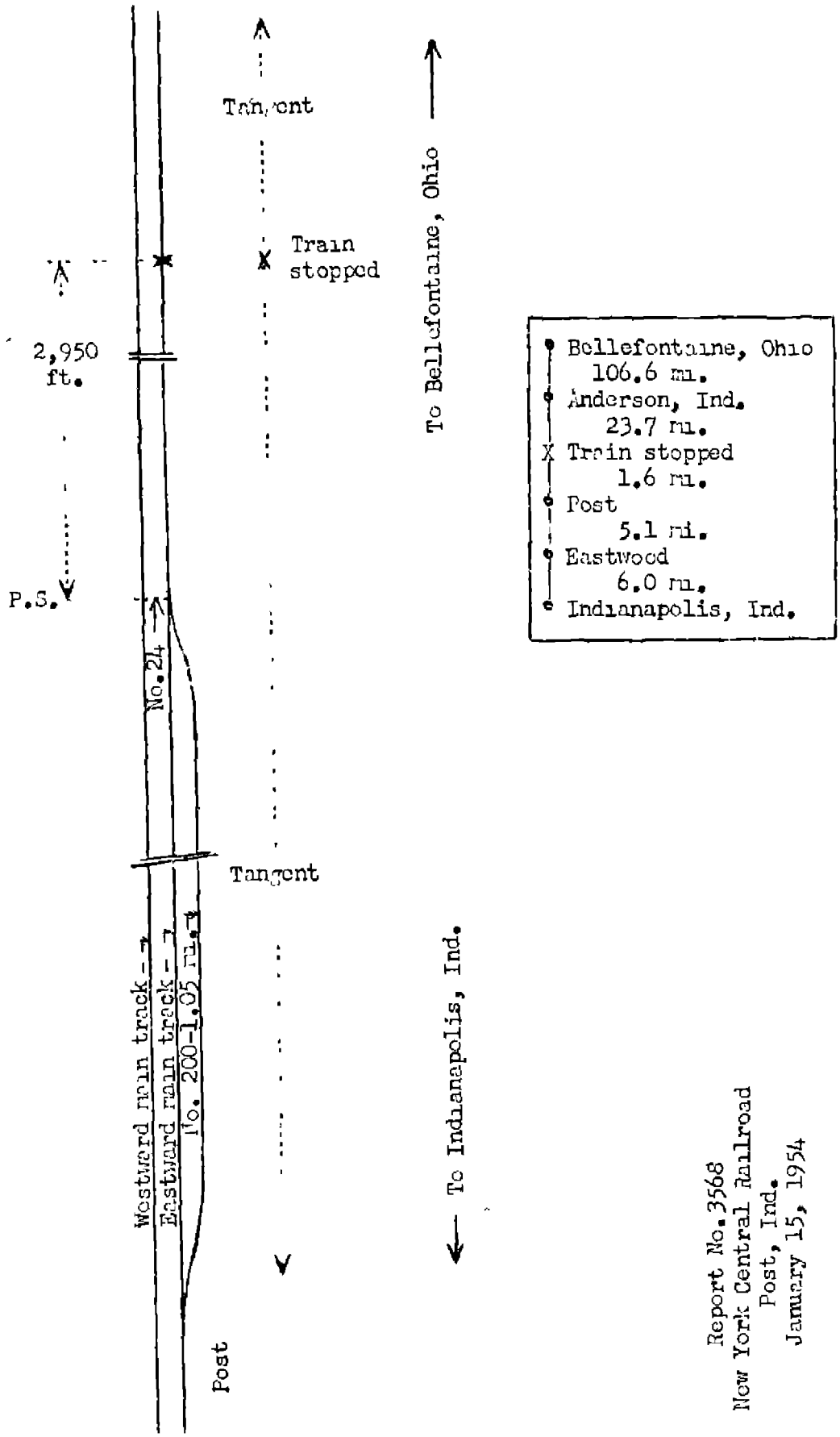
[1] Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Clarke for consideration and disposition.



Report No. 3568
New York Central Railroad
Post, Ind.
January 15, 1954

Location of Accident and Method of Operation

This accident occurred on that part of the Ohio Division extending between Indianapolis, Ind., and Bellefontaine, Ohio, 143.0 miles. In the vicinity of the point of accident this is a double-track line, over which trains moving with the current of traffic are operated by signal indications. At Post, Ind., 11.1 miles east of Indianapolis, an auxiliary track 1.05 miles in length, designated as track No. 200, parallels the eastward main track on the south. The accident occurred on the eastward main track at a point approximately 12.5 miles east of Indianapolis and several hundred feet east of the east switch of track No. 200 at Post. In the vicinity of the point of accident the main tracks are tangent. Throughout a distance of 3,000 feet immediately east of the east switch of track No. 200 the grade averages 0.29 percent descending eastward

The maximum authorized speed for passenger trains is 75 miles per hour.

Description of Accident

No 24, an east-bound first-class passenger train, consisted of Diesel-electric units 4043 and 4105, coupled in multiple-unit control, four express-refrigerator cars, one mail-baggage car, one passenger-baggage car, two coaches, one sleeping car, one lounge-sleeping car, two sleeping cars, one dining car, and one dormitory car, in the order named. The first four cars were of steel underframe construction, the fifth, eleventh, and fourteenth cars were of conventional all-steel construction, and the other cars were of lightweight steel construction. The sixth to the tenth cars, inclusive, and the twelfth and thirteenth cars were equipped with tightlock couplers. This train departed from Indianapolis at 6·27 p. m., 7 minutes late, passed Eastwood, approximately 6.5 miles west of the point of accident and the last open office, at 6·42 p. m., 8 minutes late, and while it was moving on the eastward main track at a speed of about 79 miles per hour the rear car became detached from the forward portion of the train at a point several hundred feet east of the east switch of track No 200 at Post. Although the separation resulted in the parting of the air hose and an emergency application of the brakes, the brakes of the rear car were not effective in bringing the car to a stop before it collided with the forward portion of the train. The train

stopped with the rear end approximately 2,950 feet east of the east switch of track No. 200. No equipment was derailed. The thirteenth car was slightly damaged by the force of the impact.

The flagman was injured.

It was misting at the time of the accident, which occurred about 6:46 p. m.

The fourteenth car, N.Y.C. 2796, was formerly a parlor car. It was rebuilt for use as a dormitory car at the Beech Grove Shops, Indianapolis, Ind., during October, 1952. It is 83 feet 6 inches long over the buffers and has two six-wheel trucks. It is provided with a type D coupler at the A end, which was coupled to the thirteenth car, and a type E coupler at the B end. These couplers are provided with bottom-operating coupler release rigging. Uncoupling attachments are provided on each side at each end of the car. The center portion of each uncoupling attachment is bent outward sufficiently to engage the lock lift mechanism when it is raised. The car is equipped with U.C.B. type air-brake equipment with a single body-mounted brake cylinder. The carrier's rules require that the brake-cylinder piston travel be adjusted to from 7 to 8 inches. The air-brake equipment of this car was last cleaned and tested on September 2, 1952. The total weight of the car is 176,300 pounds, and the braking ratio is approximately 91 percent. The car was equipped with insulated flexible metallic steam conduits for train heating.

Discussion

When No 24 arrived at Indianapolis on the day of the accident a yard locomotive removed the rear two cars of the train, then returned with N.Y.C. 2796, and this car was coupled to the rear end of the thirteenth car. Immediately afterward the slack was stretched by a reverse movement of the yard locomotive. The yard brakeman who gave the signals for the coupling movements said he observed that the cars were properly coupled. The yard locomotive was then detached from the rear of the train. The car inspector who completed coupling the steam, air-brake, and train signal lines between the thirteenth and fourteenth cars said that he observed the lock lift mechanisms of both couplers and that their positions indicated to him that the cars were properly coupled. An air-brake test was made, and car inspectors inspected the train before it departed from the station.

As No. 24 was approaching the point where the accident occurred the speed was 79 miles per hour, as indicated by the tape of the speed-recording device. The engineer and the fireman were maintaining a lookout ahead from their respective positions in the control compartment at the front of the locomotive. The flagman was in the rear car, and the other members of the train crew were in various locations in the other cars of the train. The brakes had functioned properly when a running test was made soon after the train departed from Indianapolis. Prior to the time the train passed the east switch of track No. 200 at Post the locomotive and cars had been riding smoothly and there were no indications of defective equipment. The flagman said that when the rear end of the train was in the vicinity of this switch he heard an unusual noise under the rear car. He arose from his seat with the intention of stopping the train by use of the conductor's valve, but before he reached the valve he was thrown from his feet by the impact which occurred when the rear car collided with the thirteenth car. He said he was not aware that a brake application was made or that there was a reduction in speed between the time he heard the noise and the time the impact occurred. The other members of the crew said that the forward portion of the train was stopped by an emergency application of the brakes. The conductor, who was in the tenth car, and the assistant conductor, who was in the sixth car, said that the collision occurred immediately after the forward portion of the train stopped. The front brakeman and the baggageman said that immediately before the forward portion of the train stopped there was a run-in of slack which may have resulted from the impact. The engineer said that when he observed that the brake-pipe pressure was being depleted he placed the brake valve in lap position. Neither he nor the fireman noticed the impact of the collision.

After the train stopped it was found that the rear car had stopped with the front end against the rear end of the thirteenth car. The guard arm of the tightlock coupler at the rear of the thirteenth car was entered between the guard arm and the knuckle of the front coupler of the rear car. The knuckles of both couplers were closed. There were no indications that a vertical slip-over of the knuckles had occurred. The steam-heat connector at the front end of the rear car was missing. The angle cocks at the rear of the thirteenth car and at the front of the rear car were

open, and the brake shoes of the rear car were tight against the wheels. After the inspection was completed the rear car was coupled to the thirteenth car. The train then proceeded to Anderson, Ind., approximately 24 miles east of the point of accident, where the rear car was set off. Further inspection of the couplers of the thirteenth and fourteenth cars disclosed no defective condition which might have contributed to the cause of the separation.

N.Y.C. 2796 was inspected by members of the mechanical force at Anderson and later at the Beach Grove Shops of the carrier. The air-brake system was tested by use of a single-car test device and was found to function as intended. The piston travel in service application was 10-1/4 inches, and the travel in emergency application was 11 inches, 3 inches in excess of the maximum travel permitted under the rules of the carrier. The automatic slack adjuster was taken up to the maximum extent of its travel. Brake-cylinder leakage was 2 pounds per minute. A fresh abrasion was found on the under side of the center portion of the uncoupling attachment at the A end of the car which indicated that this attachment had been struck by a metallic object.

The main tracks in the vicinity of the point of accident were inspected on the day after the accident occurred. Scraping marks were found on several ties in the space between the rails of the eastward main track at a point approximately 125 feet east of the east switch of track No. 200. Other marks of a similar nature were found on a track motor-car set-off located approximately 500 feet east of the switch. These marks were of recent origin. The steam-heat connector which was missing from the front end of N.Y.C. 2796 was found on the north side of the westward main track approximately 1,450 feet west of the point at which the rear end of the train stopped. The locking arm was broken off the steam connector head near the gasket seat. The fracture surface showed a large area of old break. The insulating material on the connector was badly scuffed as a result of contact with the track structure. The safety spring was found about 50 feet west of the location at which the connector was found and on the south side of the eastward main track.

Apparently when No. 24 was in the vicinity of the east switch of track No. 200 at Post the steam-heat conduits between the thirteenth and the fourteenth cars became separated, either as a result of striking some object or as a result of the failure of the coupler head of the conduit of the fourteenth car. This conduit then came in contact with the track structure at several points and was deflected violently. It appears that during these violent deflections the conduit,

in addition to being torn from the steam train-pipe end-valve, came in contact with the center portion of the uncoupling attachment and moved it upward to the extent that the knuckle lock was raised sufficiently to permit the coupler knuckle to open. Because of excessive brake-cylinder piston travel and lower braking ratio, after the separation in the train occurred the stopping distance of the rear car was greater than that of the forward portion of the train, and as a result the rear car collided with the forward portion of the train before it stopped.

N.Y.C. 2796 arrived at Indianapolis on No. 427 about 3 a. m. on the day of the accident. The car was inspected on arrival at Indianapolis and again before its departure on No. 24. No defective condition was found, although it is evident from the take-up on the slack adjuster and the worn condition of some of the brake shoes that excessive piston travel had existed for some time previous to the occurrence of the accident.

Cause

This accident was caused by insufficient braking effort on rear car to stop car short of forward portion of train after train became separated.

Dated at Washington, D. C., this ninth day of June, 1954.

By the Commission, Commissioner Clarke.

(SEAL)

GEORGE W. LAIRD,

Secretary.