

RAILROAD ACCIDENT INVESTIGATION

Report No 3810

THE NEW YORK CENTRAL RAILROAD COMPANY

NEW YORK, N Y

JULY 5, 1958

INTERSTATE COMMERCE COMMISSION

Washington

SUMMARY

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DATE	July 5, 1958	
RAILROAD	New York Central	
LOCATION	New York, N Y	
KIND OF ACCIDENT	Rear-end collision	
TRAINS INVOLVED	Freight	Freight
TRAIN NUMBERS	Extra 1051 West	Extra 1095 West
LOCOMOTIVE NUMBERS	Diesel-electric units 1051, 3343, and 1085	Diesel-electric units 1095, 3304, 3312, 3360, and 1091
CONSIST	Caboose	143 cars, caboose
SPEEDS	Standing	21 m p h
OPERATION	Timetable, train orders, and automatic block-signal system	
TRACK	Double, tangent, 0 40 percent descending grade westward	
WEATHER	Clear, dusk	
TIME	8 25 p m	
CASUALTIES	1 killed, 2 injured	
CAUSE	Failure to operate following train in accordance with signal indications	

INTERSTATE COMMERCE COMMISSION

REPORT NO 3810

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

THE NEW YORK CENTRAL RAILROAD COMPANY

October 13, 1958

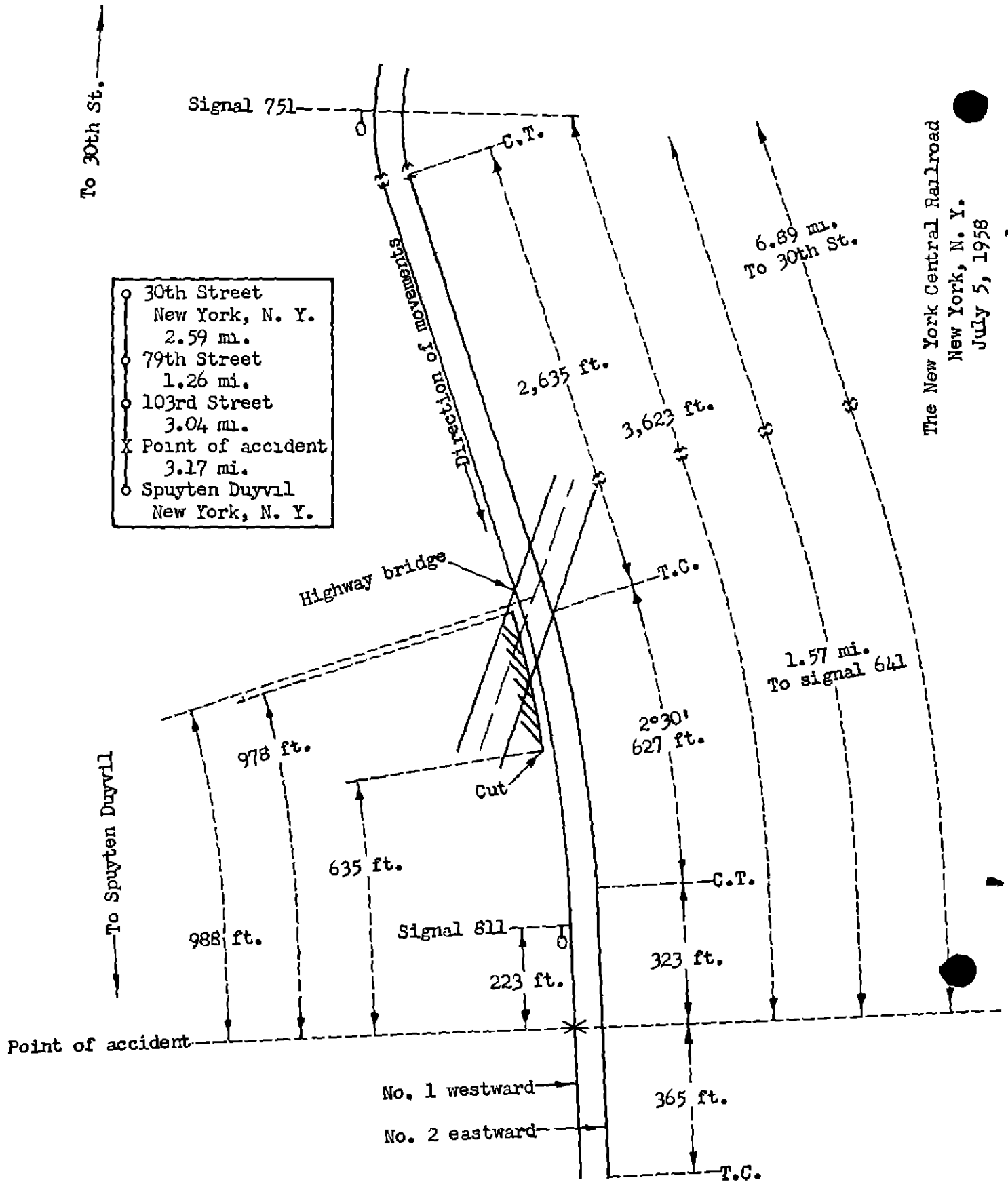
Accident at New York, N Y , on July 5, 1958, caused by failure to operate the following train in accordance with signal indications

REPORT OF THE COMMISSION¹

TUGGLE, Commissioner

On July 5, 1958, there was a rear-end collision between 2 freight trains on the New York Central Railroad at New York, N Y , which resulted in the death of 1 train-service employee not on duty and the injury of 2 train-service employees. This accident was investigated in conjunction with representatives of the New York Public Service Commission.

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



The New York Central Railroad
 New York, N. Y.
 July 5, 1958

Location of Accident and Method of Operation

This accident occurred on that part of the New York Terminal Division extending between 30th Street and Spuyten Duyvil, New York, N. Y., 10.06 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 timetable, train orders, and an automatic block-signal system. The main tracks from north to south are designated as No. 1 westward and No. 2 eastward. The accident occurred on track No. 1 at a point 6.89 miles west of 30th Street. From the east there are, in succession, a tangent 2,635 feet in length, a 2°30' curve to the right 627 feet, and a tangent 323 feet to the point of accident and 365 feet westward. The grade for westbound trains at the point of accident is 0.40 percent descending.

A rock cut with a retaining wall at each end is located north of track No. 1. The east end of the easterly retaining wall and the west end of the westerly retaining wall are located, respectively, 978 feet and 635 feet east of the point of accident. A highway bridge spans the main tracks at an angle of approximately 20 degrees. The centerline of the bridge is located 388 feet east of the point of accident. In the vicinity of the point of accident the range of vision is materially restricted by curvature of the track, the rock cut and retaining walls, and the highway bridge.

Automatic signals 641, 751, and 811, governing westbound movements on track No. 1, are located, respectively, 1.75 miles, 3,623 feet, and 223 feet east of the point of accident. These signals are of the searchlight type and are approach lighted. The aspects applicable to this investigation, and the corresponding indications and names are as follows:

Signal	Aspect	Indication	Name
641	Yellow-over-staggered-yellow	PROCEED PREPARING TO STOP AT SECOND SIGNAL. TRAIN EXCEEDING LIMITED SPEED MUST AT ONCE REDUCE TO THAT SPEED. REDUCTION TO LIMITED SPEED MUST COMMENCE BEFORE PASSING SIGNAL AND BE COMPLETED BEFORE ACCEPTING A MORE FAVORABLE INDICATION.	ADVANCE APPROACH
751 811	Green-over-staggered-green	PROCEED	CLEAR
751	Yellow-over-staggered-red	PROCEED PREPARING TO STOP AT NEXT SIGNAL. TRAIN EXCEEDING MEDIUM SPEED MUST AT ONCE REDUCE TO THAT SPEED. REDUCTION TO MEDIUM SPEED MUST COMMENCE BEFORE PASSING SIGNAL AND BE COMPLETED BEFORE ACCEPTING A MORE FAVORABLE INDICATION.	APPROACH

8.1	Red-over-staggered-red	STOP, THEN PROCEED AT RESTRICTED SPEED	STOP AND PROCEED
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The controlling circuits are so arranged that when the block of signal 811 is occupied, signal 641 displays an Advance-Approach aspect, signal 751 displays an Approach aspect, and signal 811 displays a Stop-and-Proceed aspect. The most favorable aspect that can be displayed by signal 641 is Advance-Approach.

This carrier's operating rules read in part as follows:

DEFINITIONS

Speeds

Limited Speed --A speed not exceeding fifty miles per hour

Medium Speed --A speed not exceeding thirty miles per hour

Slow Speed --A speed not exceeding fifteen miles per hour

Restricted Speed --A speed not exceeding that which will enable a train to stop short of train, obstruction, or switch not properly lined, look out for broken rail, and not exceeding slow speed.

OPERATING RULES

99. When a train stops under circumstances in which it may be overtaken by another train, the flagman must go back immediately with flagman's signals a sufficient distance to insure full protection * * *

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Note --When trains are operating under Automatic Block Signal System Rules, the requirements of Rule 99, in so far as protecting against following trains is concerned, will have been complied with when full protection is afforded against trains moving at Restricted Speed.

The maximum authorized speed for freight trains in the vicinity of the point of accident is 45 miles per hour.

Description of Accident

Extra 1051 West, a westbound freight train, consisted of diesel-electric units 1051, 3343, and 1095, coupled in multiple-unit control, and a caboose. This train departed from West 79th Street, approximately 4.3 miles east of the point of accident, at 8:10 p. m., passed signal 641, which displayed an Advance-Approach aspect, passed signal 751, which displayed a Clear aspect, and while moving at a speed of 44 miles per hour, as indicated by the tape of the speed-recording device, it struck a tie or ties placed on track No. 1 by a person or persons unknown. The train then passed signal 811, which displayed a Clear aspect, and stopped with the rear end 223 feet west of signal 811. Shortly after, the rear end was struck by Extra 1095 West.

Extra 1095 West, a westbound freight train, consisted of diesel-electric units 1095, 3304, 3312, 3360, and 1091, coupled in multiple-unit control, 143 cars, and a caboose. This train departed

from West 103rd Street, 3.04 miles east of the point of accident, at 8:15 p. m., passed signal 641, which displayed an Advance-Approach aspect, passed signal 751, which displayed an Approach aspect, passed signal 811, which displayed a Stop-and-Proceed aspect, and while moving at a speed of 21 miles per hour, as indicated by the tape of the speed-recording device, it struck the rear end of Extra 1051 West.

The front end of the first diesel-electric unit of Extra 1095 West stopped 86 feet west of the point of accident. The front wheels of the front truck of this unit were derailed. The center sill of the caboose of Extra 1051 West entered the control compartment of the first diesel-electric unit of Extra 1095 West and penetrated the roof. The caboose was destroyed. The first diesel-electric unit of Extra 1095 West was considerably damaged and the third diesel-electric unit of Extra 1051 West was slightly damaged.

A fireman not on duty who was in the control compartment of the first diesel-electric unit of Extra 1095 West was killed. The conductor and the flagman of Extra 1095 West were injured.

The weather was clear and it was dusk at the time of the accident, which occurred about 8:25 p. m.

Discussion

As Extra 1051 West was approaching the point where the accident occurred the enginemen were in their respective positions in the control compartment of the first diesel-electric unit maintaining a lookout ahead. The conductor, the front brakeman, the swing brakeman, and the flagman were in the caboose. The brakes of this train had been tested and had functioned properly. The headlight was lighted brightly. As the train was approaching signal 811 the enginemen observed the tie or ties on the track ahead at a distance of approximately 300 feet. The engineer immediately initiated an emergency application of the brakes. When the train stopped the engineer sounded the prescribed signal on the horn for the flagman to provide protection for the rear end of the train. The conductor alighted and proceeded westward to determine the reason for the emergency application of the brakes. The flagman said that when the train stopped he alighted immediately with flagman's signals and proceeded eastward. He said that shortly after alighting he observed the reflection of the light from the headlight of Extra 1095 West as the train was approaching and that he then ran eastward giving stop signals with his light. He said that the train came into view when he was approximately 370 feet east of the rear end of Extra 1051 West and that he continued to run eastward giving stop signals. He said that the engineer acknowledged the signals by operating the headlight switch. The front brakeman and the swing brakeman said that shortly after they alighted from the caboose they observed the reflection of the light from the headlight of Extra 1095 West as the train was approaching and that they proceeded eastward giving stop signals with their lights.

As Extra 1095 West was approaching the point where the accident occurred the enginemen were in their respective positions in the control compartment of the first diesel-electric unit maintaining a lookout ahead, and a fireman not on duty was seated in the brakeman's seat. The front brakeman and the swing brakeman were in the control compartment of the fifth diesel-electric unit, and the conductor and the flagman were in the caboose. The brakes of this train had been tested and had functioned properly. The headlight was lighted brightly. Signal 641 displayed an Advance-

Approach aspect The fireman called the indication and the engineer answered Both the engineer and the fireman estimated that the speed of the train was approximately 30 miles per hour when it passed that signal Signal 751 displayed an Approach aspect The fireman called the indication and the engineer answered The engineer said that he initiated a light service brake-pipe reduction before the locomotive passed the signal He said he thought that the brake-pipe reduction was sufficient to stop the train approximately 300 feet east of signal 811 When the train was approximately 700 feet east of signal 811 the fireman observed the stop signals being given by the flagman and the brakemen of Extra 1051 West He called a warning to the engineer The engineer said that he initiated an emergency application of the brakes immediately He said he observed that the speed indicator indicated the speed of the train was approximately 21 miles per hour at that time When signal 811 came into view the engineer and the fireman observed that it indicated Stop-and-Proceed The engineer said the speed indicator indicated the speed of the train was approximately 12 miles per hour when the train passed that signal

Examination of the tape of the speed-recording device removed from diesel-electric unit 1095 after the accident occurred disclosed that the speed of the train was 28 miles per hour when it passed signal 641 and that it increased to 32 miles per hour when it passed signal 751 While the train was moving at a speed of 32 miles per hour the brakes became applied in emergency at a point approximately 250 feet east of signal 811 The speed of the train was 27 miles per hour when it passed signal 811 and 21 miles per hour when the collision occurred The speed-recording device of diesel-electric unit 1095 was removed and calibrated It was found that during acceleration for speeds of 25 miles per hour, 30 miles per hour, and 32 miles per hour, the speed-recording device registered, respectively, 23.5 miles per hour, 29 miles per hour, and 30.75 miles per hour

Under the rules of the carrier the aspects displayed by signals 641 and 751 required that Extra 1095 West be operated in such manner that it could be stopped before passing signal 811 The aspect displayed by signal 811 required that the train be stopped before passing that signal

Cause

This accident was caused by failure to operate the following train in accordance with signal indications

Dated at Washington, D. C., this thirteenth day of October, 1958

By the Commission, Commissioner Tuggle

(SEAL)

Harold D. McCoy,

Secretary