

RAILROAD ACCIDENT INVESTIGATION

Report No 3840

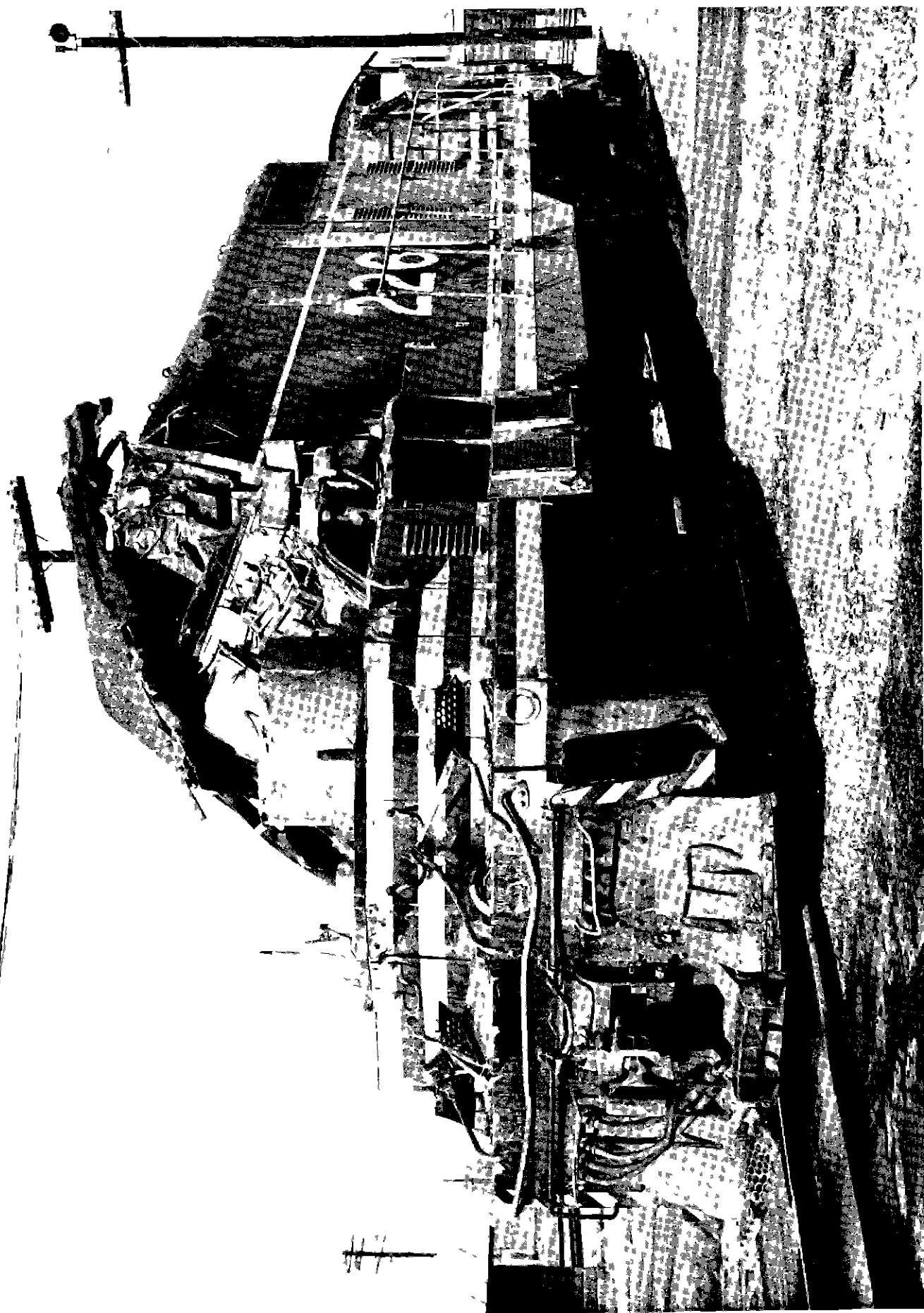
THE NEW YORK CENTRAL RAILROAD COMPANY

ROSAMOND, ILL

FEBRUARY 9, 1959

INTERSTATE COMMERCE COMMISSION

Washington



2

SUMMARY

§ § §

DATE	February 9, 1959	
RAILROAD	New York Central	
LOCATION	Rosamond, Ill	
KIND OF ACCIDENT	Rear-end collision	
TRAINS INVOLVED	Freight	Freight
TRAIN NUMBERS	Extra 7011 West	Extra C&E1 226 West
LOCOMOTIVE NUMBERS	Diesel-electric unit 7011	Diesel-electric unit 226
CONSISTS	11 cars, caboose	12 cars, caboose
SPEEDS	Standing	33 m p h
OPERATION	Signal indications	
TRACK	Single, tangent, 0 41 percent ascending grade westward	
WEATHER	Dense fog	
CASUALTIES	5 injured	
TIME	2 50 p m	
CAUSE	Failure to operate a following train in accordance with signal indications	

INTERSTATE COMMERCE COMMISSION

REPORT NO 3840

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

THE NEW YORK CENTRAL RAILROAD COMPANY

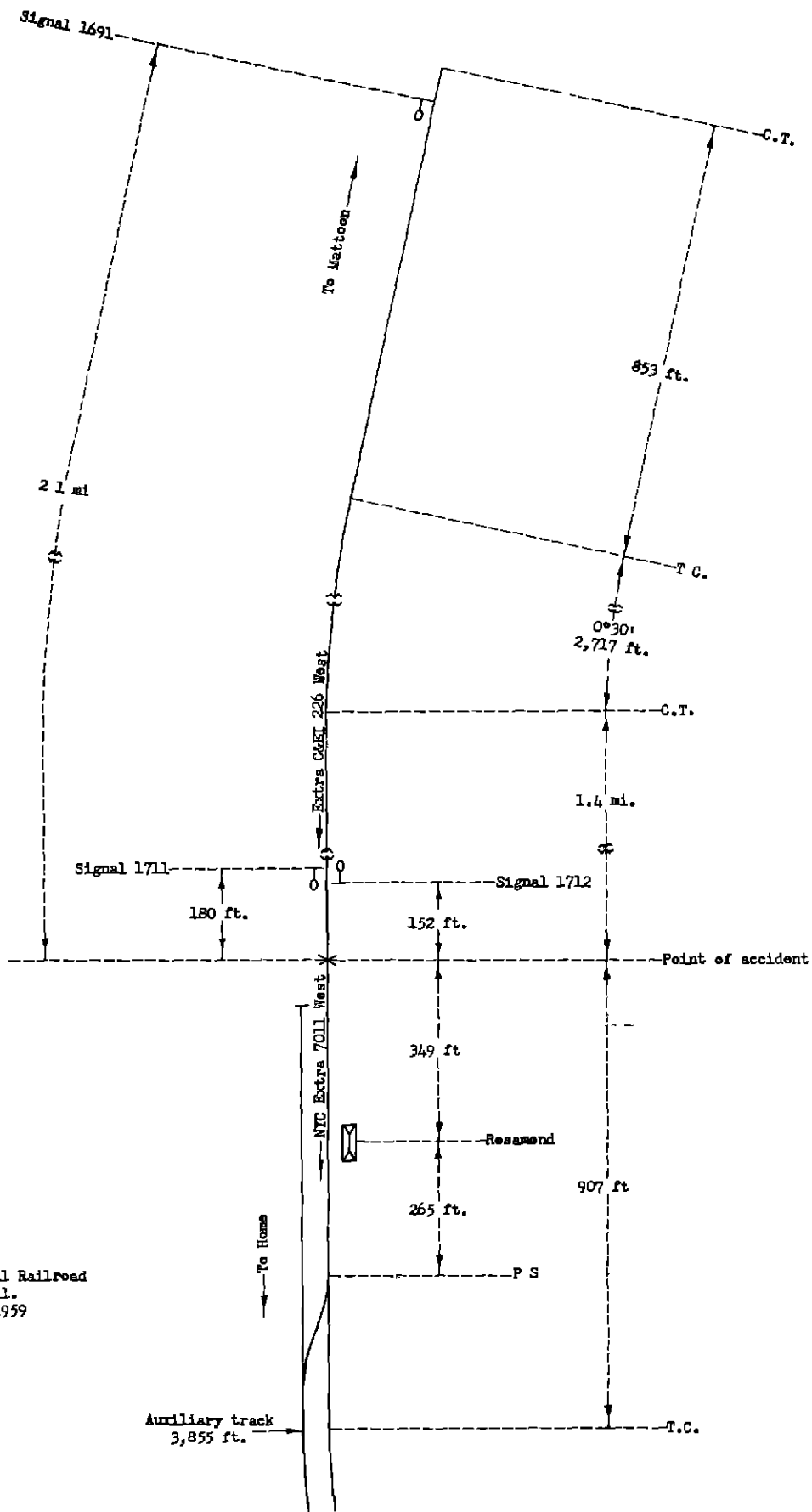
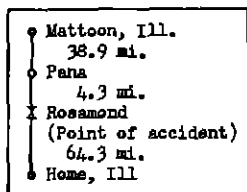
July 24, 1959

Accident at Rosamond, Ill , on February 9, 1959, caused by failure to operate a following train in accordance with signal indications

REPORT OF THE COMMISSION¹*FREAS, Commissioner*

On February 9, 1959, at Rosamond, Ill , there was a rear-end collision between two freight trains on the New York Central Railroad, which resulted in the injury of 5 train-service employees

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



The New York Central Railroad
 Rosamond, Ill.
 February 9, 1959

Location of Accident and Method of Operation

This accident occurred on that part of the Illinois Division of the New York Central Railroad (NYC) extending between Mattoon and Home, Ill., 107.5 miles. In the vicinity of the point of accident this is a single-track line over which trains are operated by signal indications supplemented by an intermittent inductive-type automatic train-stop system. Trains of the Chicago and Eastern Illinois Railroad (C&EI) regularly operate over this line between Pana and Mitchell, 38.9 and 109 miles, respectively, west of Mattoon. In the vicinity of the point of accident a southbound C&EI train moves westward by NYC timetable directions, which are used in this report. At Rosamond, 43.2 miles west of Mattoon, an auxiliary track 3,855 feet in length parallels the main track on the north. The east switch of the auxiliary track is located 265 feet west of the station.

The accident occurred on the main track at a point 4.2 miles west of Pana and 349 feet east of the station at Rosamond. From the east there are, in succession, a tangent 853 feet in length, a 0°30' curve to the left 2,717 feet, and a tangent 1.4 miles to the point of accident and 907 feet westward. The grade in the vicinity of the point of accident is 0.41 percent ascending westward.

Controlled signal 1691 and automatic signal 1711, governing westbound movements on the main track, and automatic signal 1712, governing eastbound movements on the main track, are located 2.1 miles, 180 feet, and 152 feet, respectively, east of the point of accident. These signals are of the color-light type and are approach lighted. Aspects applicable to this investigation and the corresponding indications and names are as follows:

SIGNAL	ASPECT	INDICATION	NAME
1691	Yellow over red	PROCEED PREPARING TO STOP AT NEXT SIGNAL	APPROACH
1712		TRAIN EXCEEDING MEDIUM SPEED MUST AT ONCE REDUCE TO THAT SPEED. REDUCTION TO MEDIUM SPEED MUST COM- MENCE BEFORE PASSING SIGNAL AND BE COMPLETED BEFORE ACCEPTING A MORE FAVORABLE INDICATION	
1711	Red	STOP, THEN PROCEED AT	STOP AND PROCEED
1712		RESTRICTED SPEED	

Signals 1691, 1711 and 1712 form part of a traffic-control system which is controlled from the train dispatchers' office at Mattoon. The controlling circuits are so arranged that when the block of signal 1691 is unoccupied, and the block of signal 1711 is occupied, and the control lever for signal 1691 on the traffic control-machine is in proceed position, signal 1711 will display a "Stop and Proceed" aspect, signal 1691 will display an "Approach" aspect, and signal 1712 will display a "Stop and Proceed" aspect. When the control lever for signal 1691 is in stop position, signal 1711 will display a "Stop and Proceed" aspect, signal 1691 will display a "Stop" aspect, and signal 1712 will display an "Approach" aspect.

This carrier's operating rules read in part as follows

DEFINITIONS

SPEEDS

MEDIUM SPEED --A speed not exceeding thirty 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

SLOW SPEED --A speed not exceeding fifteen miles per hour

34 The following signals will be used by flagmen

Day signals -- A red flag,
Torpedoes,
Fusees

Night signals -- A red light,
A white light,
Torpedoes,
Fusees

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, placing two torpedoes, and when necessary, in addition, displaying lighted fusees * * *

When day signals cannot be plainly seen, owing to weather or other conditions, night signals must also be used

Note --Where 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

ENGINEMEN

928 They must, if anything withdraws attention from constant lookout ahead, or weather conditions make observation of signals or warnings in any way doubtful, at once so regulate speed as to make train progress entirely safe

The maximum authorized speed for freight trains in the vicinity of the point of accident is 60 miles per hour

Description of Accident

Extra 7011 West, a westbound NYC freight train, consisted of diesel-electric locomotive 7011, 11 cars and a caboose. This train departed from Mattoon at 9 10 a m, departed from Pana at 2 25 p m, and about 2 35 p m it stopped on the main track at Rosamond with the rear end approximately 180 feet west of signal 1711. About 15 minutes later the rear end of the train was struck by Extra C&EI 226 West.

Extra C&EI 226 West, a southbound C&EI freight train moving westward on the NYC line, consisted of road-switcher type diesel-electric locomotive 226, with the control compartment at the west end, 12 cars and a caboose. This train departed from Villa Grove, Ill, 60 miles north of Pana, at 8 20 a m. After setting out one car at Pana, it entered the NYC main track about 2 43 p m, passed signal 1691 which displayed an "Approach" aspect, passed signal 1711 which displayed a "Stop and Proceed" aspect, and while moving at a speed of 33 miles per hour, as indicated by the tape of the speed-recording device, it struck the rear end of Extra 7011 West.

Extra C&EI 226 West stopped with the front end 117 feet west of the point of accident, and none of its equipment was derailed. The 9th, 10th, and 11th cars, and the caboose of Extra 7011 West were derailed and stopped in various positions on or near the track structure. The west end of locomotive 226 was telescoped by the 10th car throughout a distance of approximately 15 feet. The caboose and the 11th car of Extra 7011 West were destroyed, the 10th car was heavily damaged, and the 9th car was slightly damaged. The locomotive of Extra C&EI 226 West was heavily damaged.

The engineer, the fireman, the conductor, the flagman, and the front brakeman of Extra C&EI 226 West were injured.

There was a dense fog at the time of the accident, which occurred about 2 50 p. m.

Discussion

About 2 35 p. m., Extra 7011 West stopped on the main track at Rosamond to perform switching operations, and at this time the caboose was about 180 feet west of signal 1711. The conductor and the front brakeman detached the locomotive, and proceeded to perform switching operations on the auxiliary track. The accident occurred while the locomotive was detached from the train. The enginemen, the conductor, and the front brakeman were unaware of anything being wrong until they heard the noise of the collision.

The flagman of Extra 7011 West said that he alighted from the caboose at the same time as the conductor, and that he proceeded to a point about 100 feet eastward. He said that he remained at this location until he observed the aspect being displayed by signal 1712 change from yellow to red, indicating that a train was approaching from the rear. He said that he immediately proceeded to a point about 200 feet east of signal 1711, lighted a fusee, and was giving stop signals with the fusee when the approaching train came into his view through the fog at a distance of 500 to 750 feet. He did not notice whether the brakes of Extra C&EI 226 West were applied as it passed him and collided with the rear end of Extra 7011 West.

An eyewitness to the accident stated that while he was at a point about 250 feet north of where the collision occurred, he heard the whistle of Extra C&EI 226 West as it approached the point of accident. He said that he then saw a man jump off the east end of the caboose of Extra 7011 West, light a fusee, and run eastward on the main track while giving stop signals with the lighted fusee. He said that he could no longer see the lighted fusee when his view was obstructed by the locomotive of the approaching train as it passed in the immediate vicinity of signal 1712.

As Extra C&EI 226 West was approaching the point where the accident occurred, the engineer, the fireman, the front brakeman, and the rear brakeman were in the control compartment of the locomotive. The conductor was in the caboose. The headlight was lighted brightly. This train entered the NYC main track and departed westward from Pana about 2 43 p. m. The members of the crew said that the visibility at this time was limited to a distance of 500 to 700 feet because of a dense fog. The engineer said that the speed of the train was about 35 miles per hour as it approached signal 1691, and that after observing this signal displaying an "Approach" aspect he forestalled a brake application by the automatic train-stop system and then made a service application of the brakes. He said that the speed was reduced to about 25 miles per hour while the train was moving in the block of signal 1691. As the train proceeded in this block, the members of the crew on the locomotive surmised that Extra 7011 West was stopped at Rosamond for switching operations, and watched for the aspect being displayed by signal 1711. As the train was closely approaching signal

1711, the fireman and the front brakeman observed that it was displaying a "Stop and Proceed" aspect, and about the same time they also saw a lighted fusee and the caboose of Extra 7011 West. They called a warning to the engineer, who immediately applied the brakes in emergency at a point about 400 feet east of the signal. However, the speed was not materially reduced before the collision occurred. The engineer said that the dense fog prevented him from observing the aspect displayed by signal 1711 before he heard the warning of the fireman and the front brakeman. He said he thought that he had operated the train in the block of signal 1691 at a speed which would enable him to comply with the indication of signal 1711, but had misjudged the location of this signal.

An analysis of the tape removed from the speed-recording device on the locomotive of Extra C&EI 226 West disclosed that the speed of the train was slightly in excess of 35 miles per hour throughout a distance of approximately one mile in the block of signal 1691, and that it was 33 miles per hour immediately before the collision occurred.

A rule of the carrier provides that when a train is operating in automatic block system territory and is stopped 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 afford full protection against following trains moving at "Restricted Speed." According to the carrier's interpretation of Rule 99, in the instant case, the flagman of Extra 7011 West was not required to go back beyond signal 1711, 180 feet to the rear of his train. When weather conditions make observation of signals or warnings in any way doubtful, engineers are required to regulate the speed so as to make train progress entirely safe.

The rules provide that a train may enter a block under authority of an "Approach" signal indication, but if it is moving in excess of "Medium Speed," reduction to that speed must commence before passing the signal, and the speed also must be so controlled that the train can be stopped at the next signal. After a train stops at a signal indicating "Stop and Proceed" it may pass the signal and proceed into the block at "Restricted Speed," but the speed must be so controlled that it can be stopped short of a preceding train. According to the speed-tape, the locomotive of Extra C&EI 226 West was moving in excess of "Medium Speed" when it passed signal 1691, which indicated "Approach." Actuation of the automatic train-stop device was forestalled by the engineer and a warning whistle sounded in the control compartment before the locomotive passed this signal. Visibility was restricted in this vicinity by a dense fog. However, the tape indicates no action was taken to control the speed of the train until the brakes were applied as the locomotive was closely approaching signal 1711, which indicated "Stop and Proceed." As a result, the speed of this train was not materially reduced before it overran this signal, where it should have been stopped, and collided with the preceding train.

Cause

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

Dated at Washington, D. C., this twenty-fourth
day of July, 1959

By the Commission, Commissioner Freas,

(SEAL)

HAROLD D. McCOY,

Secretary