RAILROAD ACCIDENT INVESTIGATION

Report No 3832

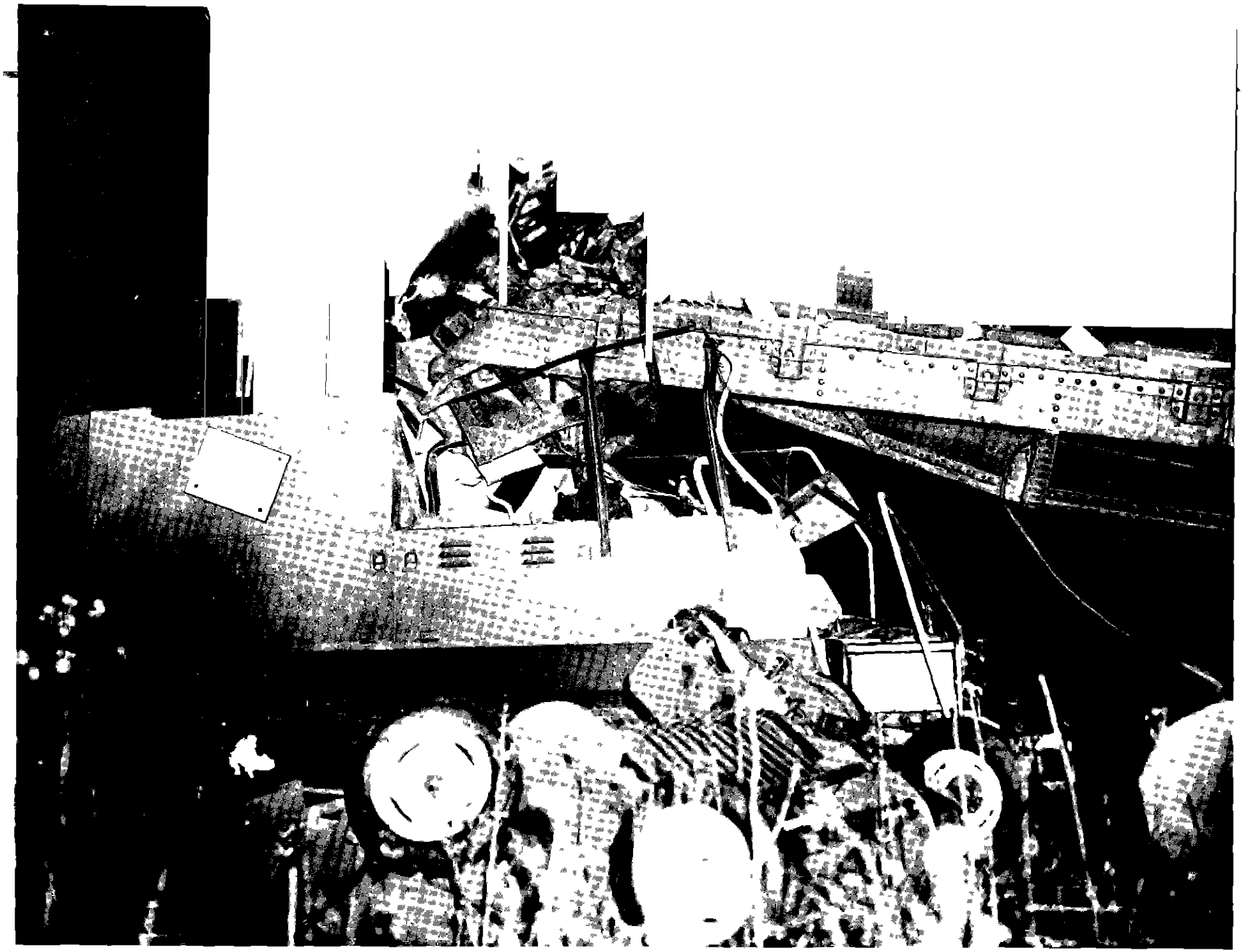
CHICAGO, MILWAUKEE, ST PAUL AND PACIFIC RAILROAD COMPANY

FREEPORT, ILL

JANUARY 7, 1959

INTERSTATE COMMERCE COMMISSION

Washington



SUMMARY

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DATE	January 7, 1959	
RAILROAD	Chicago, Milwaukee, St Paul and Pacific	
LOCATION	Freeport, Ill	
KIND OF ACCIDENT	Collision	
EQUIPMENT INVOLVED	Locomotive	Rear portion of train
TRAIN NUMBER	86	
LOCOMOTIVE NUMBER	Diesel-electric units 2377, 2390, and 2369	
CONSIST	Locomotive	102 cars, caboose
SPEEDS	15 m p h	Standing
OPERATION	Timetable, train orders, and manual block system	
TRACK	Single, 1° curve, 0 58 percent descending grade westward	
WEATHER	Misty	
TIME	5 10 p m , dusk	
CASUALTIES	1 killed, 1 injured	
CAUSE	Failure properly to control speed of locomotive returning for rear portion of train	

INTERSTATE COMMERCE COMMISSION

REPORT NO 3832

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

CHICAGO, MILWAUKEE, ST PAUL AND PACIFIC RAILROAD COMPANY

April 30, 1959

Accident at Freeport, Ill , on January 7, 1959, caused by failure properly to control the speed of a locomotive returning for the rear portion of a train

REPORT OF THE COMMISSION[1]

FREAS, Commissioner

On January 7, 1959, at Freeport, Ill , there was a collision between a locomotive and the rear portion of a freight train on the Chicago, Milwaukee, St Paul and Pacific Railroad, which resulted in the death of 1 train-service employee and the injury of 1 train-service employee

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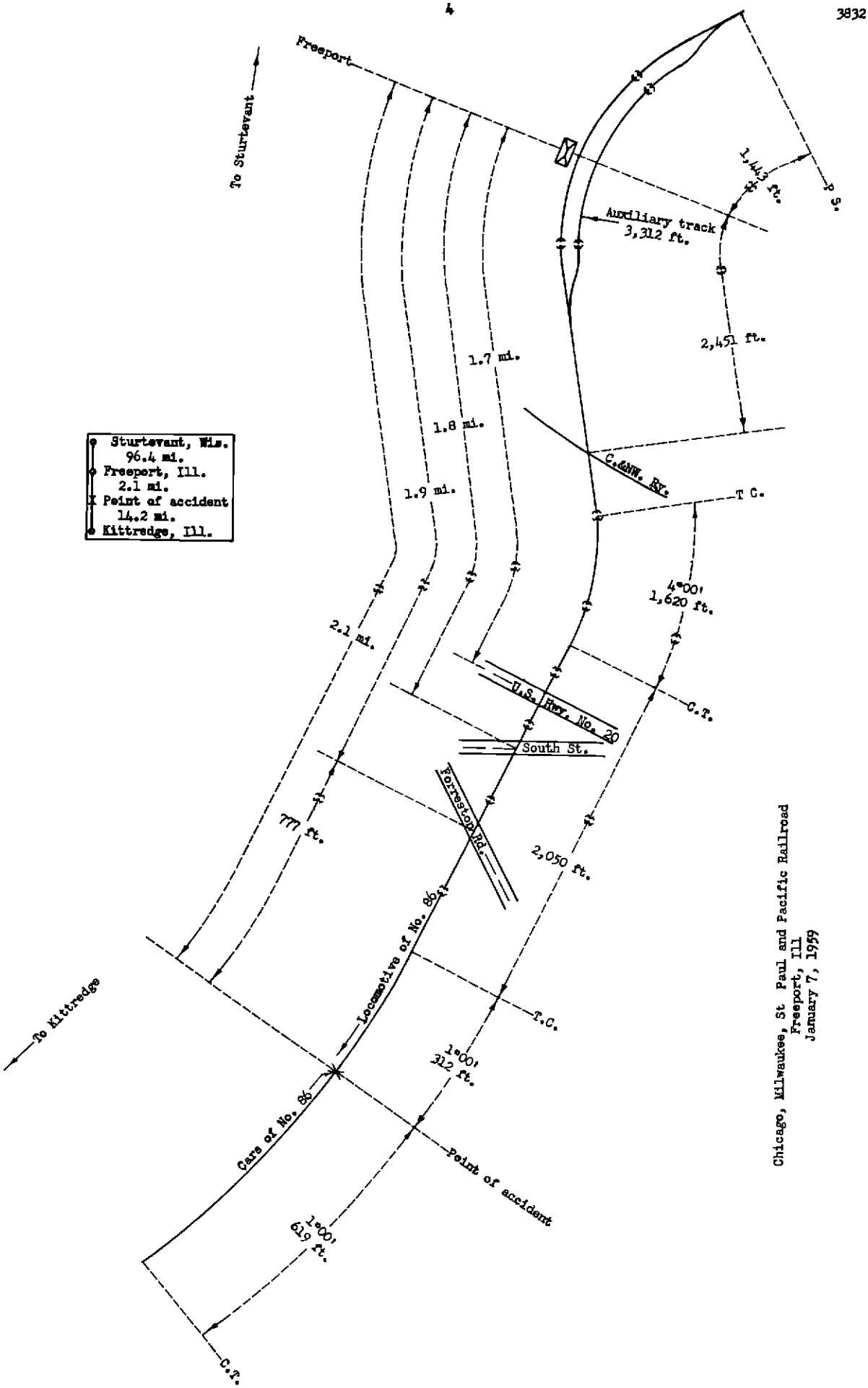
[1] Under authority of section 17 (2) of the *Interstate Commerce Act* the above-entitled proceeding was referred by the Commission to Commissioner Freas for consideration and disposition



Chicago, Milwaukee, St Paul and Pacific Railroad
Freeport, Ill
January 7, 1959

Location of Accident and Method of Operation

This accident occurred on that part of the Madison Division extending between Kittredge, Ill , and Sturtevant, Wis , 112 7 miles In the vicinity of the point of accident this is a single-track line over which trains are operated by timetable, train orders, and a manual block system At Freeport, Ill , 16 3 miles east of Kittredge, an auxiliary track 3,312 feet in length parallels the main track on the south The east switch of the auxiliary track is 1,443 feet east of the station The Chicago and North Western Railway, U. S Highway No 20, South Street, and Forreston Road intersect the main track in the vicinity of the point of accident The centerlines of these intersections are, respectively, 2,451 feet, 1 7 miles, 1 8 miles, and 1 9 miles west of the station at Freeport

The accident occurred on the main track at a point 2 1 miles west of the station at Freeport and 777 feet west of the centerline of the Forreston Road crossing From the east there are, in succession, a 4° curve to the right 1,620 feet in length, a tangent 2,050 feet, a 1° curve to the right 312 feet to the point of accident and 619 feet westward From the east the average grade is 0 88 percent descending 2,871 feet to the point of accident and 629 feet westward

This carrier's operating rules read in part as follows

> 9 * * *
>
> Night signals must be displayed from sunset to sunrise
>
> 102(A) * * *
>
> When an engine leaves its train or part of its train on the main track, * * * torpedoes must be placed a sufficient distance in advance of the detached portion, to warn the engineer in returning, and at night a light must be placed on the front end of the detached portion of the train When conditions require, a flagman must protect the returning engine

The maximum authorized speed for freight trains in the vicinity of the point of accident is 49 miles per hour

Description of Accident

No 86, an eastbound second-class freight train, consisted of road-switcher type diesel-electric units 2377, 2390, and 2369, coupled in multiple-unit control, 105 cars, and a caboose This train departed from Savanna, Ill , 21 miles west of Kittredge, at 3 32 p m , 6 hours 27 minutes late, passed Kittredge at 4 28 p m , and at 4 55 p m it stopped on the main track with the front end of the locomotive approximately 460 feet west of the centerline of Forreston Road crossing and 2 miles west of the station at Freeport The locomotive and the first 3 cars were detached from the train and moved to the east switch of the auxiliary track at Freeport After the 3 cars were placed on the auxiliary track, the locomotive returned westward on the main track, and while moving at an estimated speed of 15 miles per hour it collided with the detached portion of the train

The locomotive stopped with the west end about 39 feet west of the point of accident The front end of the 1st car, a loaded flat car, overrode the platform on the west end of the 3rd diesel-electric unit, and damaged the superstructure throughout a distance of about 10 feet The impact forced the rear end of the 1st car 19 feet westward under the underframe of the 2nd car The 3rd diesel-electric unit and the 1st car were considerably damaged, and the 2nd car was slightly damaged

The front brakeman was killed, and the fireman was injured

The weather was misty and it was dusk at the time of the accident, which occurred about 5 10 p m

The 1st and 3rd diesel-electric units and the caboose were provided with 2-way radio-telephone equipment This equipment is so designed that a pushbutton must be depressed while speaking, and released when listening

A fireman's emergency brake valve was provided in the control compartment at the west end of the locomotive

Discussion

No 86 was stopped on the main track about 2 3 miles west of the east switch of the auxiliary track at Freeport to avoid blocking several rail-highway grade crossings and a railroad grade-crossing while the first three cars of the train were being placed on the auxiliary track After the locomotive and three cars were detached from the train and moved eastward, the members of the crew involved did not place torpedoes in advance of the detached portion of the train nor did they place a light on the front end of the detached portion as required by a rule of the carrier

After the three cars were placed on the auxiliary track and as the locomotive was returning westward on the main track, the engineer was at the controls in the control compartment at the east end of the locomotive, the fireman was inspecting the engines, and the front brakeman was in the control compartment at the west end of the locomotive The conductor was in the caboose, and the flagman was protecting the rear of the train The brakes of the locomotive had been tested and had functioned properly when used en route The engineer said that the headlight on the west end of the locomotive was lighted The radio-telephone equipment in the caboose and in the control compartment at each end of the locomotive had been used by members of the crew on the day of the accident and had operated satisfactorily The engineer said that the dusk and the mist restricted visibility to about 200 feet According to a statement of the fireman, however, visibility at the time of the accident was at least 1,600 feet

After inspecting the engines, the fireman entered the control compartment at the west end of the locomotive when it was approximately 2 miles east of the point of accident The fireman said that as the locomotive closely approached the C &N W grade crossing, 1 6 miles east of the point of accident, he heard the front brakeman using the radio-telephone to inform the engineer that the interlocking signal governing the route over the crossing indicated "Proceed " He did not observe the front brakeman's use of the radio-telephone equipment, nor did he hear the engineer acknowledge the call The engineer said that he did not hear this radio-telephone call from the front brakeman He said that he had also observed the interlocking signal indicating "Proceed," and that as a result he increased the speed to about 25 miles per hour as the locomotive moved over the C &N W crossing He said that he moved the throttle to idle position when the locomotive was about 3,270 feet east of the point of accident and intermittently applied the independent brake to limit the speed to about 25 miles per hour as it moved on the descending grade

The enginemen said that the speed was about 25 miles per hour as the locomotive closely approached the South Street grade crossing, 1,587 feet east of the point of accident The fireman

said that he saw the detached portion of the train at this time, and that he instructed the front brakeman to advise the engineer that the locomotive was about 750 feet from it He said that he did not observe the front brakeman use the radio-telephone equipment nor hear the engineer acknowledge the call The engineer said that he did not hear this call from the front brakeman He said, however, that he made an application of the independent brake as the locomotive closely approached the South Street crossing, and that the speed was reduced to about 20 miles per hour as the locomotive moved over the crossing He said that he then increased the application of the independent brake and the speed was further reduced to about 15 miles per hour as the locomotive moved over the Forreston Road crossing, 777 feet east of the point of accident The engineer said he thought that the application of the independent brake in this vicinity was somewhat ineffective in reducing the speed of the locomotive, and he implied that the wheels were sliding during the brake application The fireman said, however, that he felt a heavy application of the brake as the locomotive moved over the Forreston Road crossing, and that at the same time he heard a grinding noise caused by the brake shoes being in contact with the wheels, indicating that the independent brake was functioning properly without loss of adhesion between the rails and the wheels

The fireman said that when the locomotive was approximately 600 feet east of the point of accident, he and the front brakeman went to the platform on the west end of the locomotive and proceeded to give stop signals to the engineer, the front brakeman using a lighted lantern The fireman said that he realized a collision was unavoidable when the locomotive was about 300 feet from the detached portion of the train and he returned to the control compartment at that time, leaving the front brakeman on the platform He said that he was unable to make an estimate of the speed of the locomotive as it was closely approaching the point of accident or at the time of the collision The engineer said he did not see the fireman or the front brakeman giving stop signals from the west end of the locomotive, but did see the front brakeman giving two consecutive signals with a lantern He said the first signal indicated that the locomotive was approximately 300 feet distant from the detached portion of the train, and that the second was a signal to reduce speed The engineer immediately made an emergency application of the brakes, instead of increasing the service application, upon observing the signal to reduce speed, indicating that he realized at this time that he had misjudged the distance between the locomotive and the detached portion of the train He said that the collision occurred immediately after the emergency application of the brakes and while the locomotive was moving at an estimated speed of 15 miles per hour

Although the fireman said during the investigation that he first became concerned about a collision when the locomotive was about 750 feet east of the point of accident, he did not make any attempt to stop the locomotive short of a collision by operating the emergency brake valve located in the control compartment at the west end of the locomotive

A test of the brakes of the locomotive after the accident occurred disclosed that they functioned properly An inspection of the wheels did not disclose any flat spots, indicating that the effectiveness of the brake applications was not reduced as a result of loss of adhesion between the rails and the wheels

In the instant case there were no torpedoes placed in advance of the detached portion of the train, nor a light placed on the front end of the detached portion, as required by a rule of the carrier, to warn the engineer in returning the locomotive to the train However, inasmuch as the engineer said during the investigation that he knew where he was at all times with respect to the location of the detached portion of the train, and the brakes were evidently functioning properly without loss of

adhesion between the wheels and the rails, it is evident that the accident resulted from a failure to control the speed of the locomotive while approaching the detached portion of the train

Cause

This accident was caused by failure properly to control the speed of a locomotive returning for the rear portion of a train

Dated at Washington, D C , this thirtieth day of April, 1959

By the Commission, Commissioner Freas

(Seal)

Harold D McCoy,

Secretary