

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3728
SOUTHERN RAILWAY COMPANY
IN RE ACCIDENT
AT JOHNSON CITY, TENN., ON
DECEMBER 21, 1956

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SUMMARY

Date: December 21, 1956

Railroad: Southern

Location: Johnson City, Tenn.

Kind of Accident: Rear-end collision

Trains involved: Maintenance-of-way service train : Freight

Train numbers: Work Extra 6507 : 73

Locomotive numbers: Diesel-electric unit 6507 : Diesel-electric units 4255, 4418, 4419, and 4254

Consists: 8 cars, cabooses : 62 cars, cabooses

Estimated speeds: Standing : 10 m. p. h.

Operation: Timetable, train orders, and automatic block-signal system; yard limits

Track: Single; 2° curve; 0.41 percent ascending grade westward

Weather: Raining

Time: 6:40 a. m.

Casualties: 1 killed; 2 injured

Cause: Failure to maintain proper lookout ahead while moving within yard limits

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3728

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

SOUTHERN RAILWAY COMPANY

February 1, 1957

Accident at Johnson City, Tenn., on December 21, 1956,
caused by failure to maintain a proper lookout ahead
while moving within yard limits.

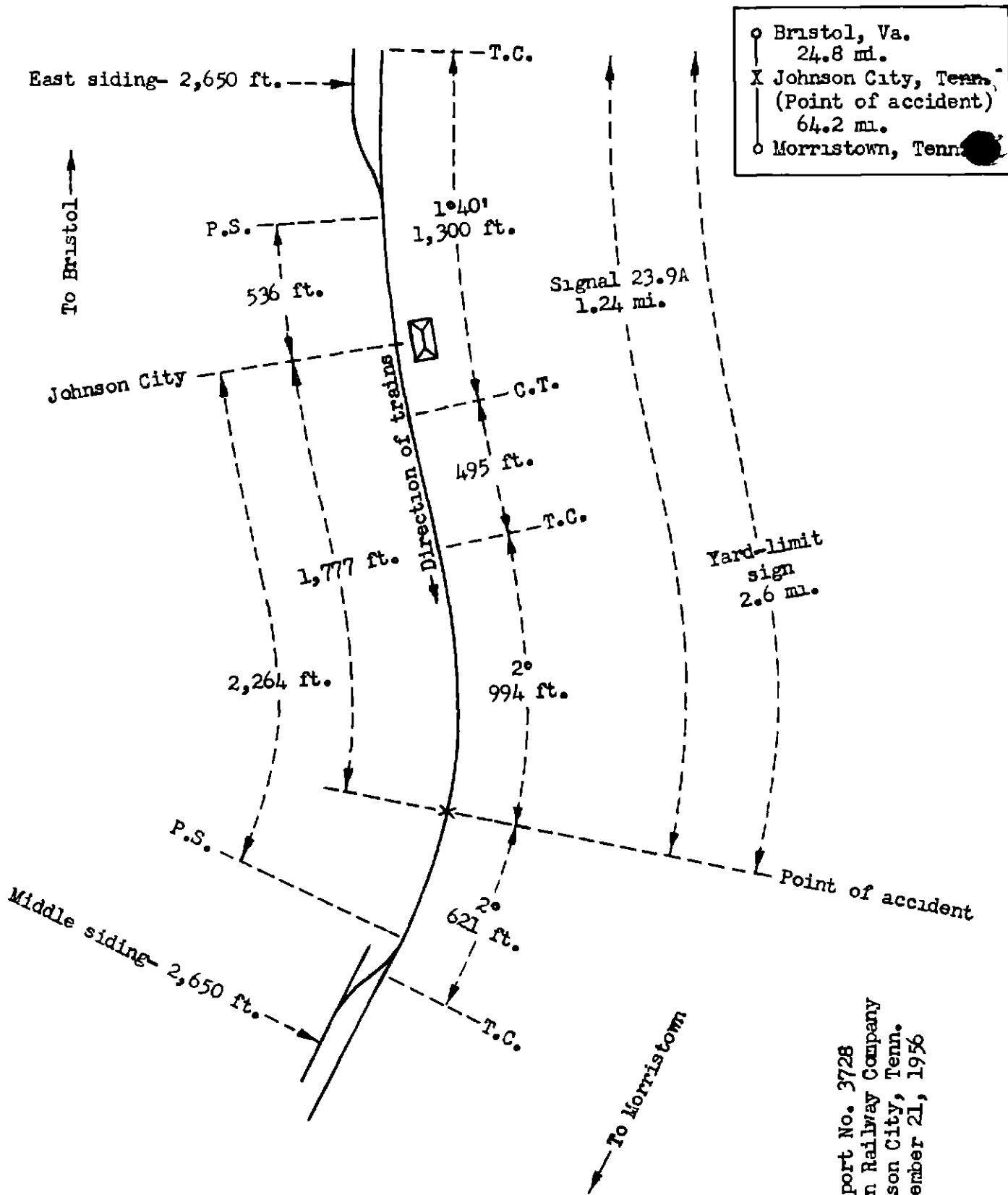
REPORT OF THE COMMISSION¹

TUGGLE, Commissioner:

On December 21, 1956, there was a rear-end collision between a maintenance-of-way service train and a freight train on the Southern Railway at Johnson City, Tenn., which resulted in the death of one maintenance-of-way employee, and the injury of two maintenance-of-way employees. This accident was investigated in conjunction with a representative of the Tennessee Public Service Commission.

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Under 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.



Report No. 3728
 Southern Railway Company
 Johnson City, Tenn.
 December 21, 1956

Location of Accident and Method of Operation

This accident occurred on that part of the Knoxville Division extending between Bristol, Va., and Morristown, Tenn., 89.0 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 an automatic block-signal system supplemented by an intermittent inductive automatic train-stop system. Within yard limits at Johnson City, Tenn., 24.8 miles west of Bristol, a siding designated as the east siding and a siding designated as the middle siding parallel the main track on the north. The west switch of the east siding and the east switch of the middle siding are located, respectively, 536 feet east and 2,264 feet west of the station. Each siding is approximately 2,650 feet in length. The accident occurred on the main track at a point 2.6 miles west of the east yard-limit sign and 1,777 feet west of the station at Johnson City. From the east there are, in succession, a 1°40' curve to the left 1,300 feet in length, a tangent 495 feet, and a compound curve to the right, having a maximum curvature of 2°, 994 feet to the point of accident and 621 feet westward. The grade is 0.41 percent ascending westward at the point of accident.

Automatic signal 23.9A, governing west-bound movements, is located 1.24 miles east of the point of accident.

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

DEFINITIONS

Restricted Speed--Proceed prepared to stop short of another train, obstruction, or switch not properly lined and look out for broken rail, but at a speed not exceeding 15 miles per hour.

Yard Speed--A speed that will permit stopping within one-half the range of vision.

19. A reflectorized disc, showing red when on the main track and changed to show yellow when clear of the main track, will be displayed to the rear of every train as a marker to indicate the rear of the train.

* * *

93. Within yard limits the main track may be used, * * *. Protection against second and third class, extra trains and engines is not required.

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Second and third class, extra trains and engines must move within yard limits at yard speed, * * *

510. When a train or engine has passed a signal permitting it to proceed and is delayed in the block, it must proceed at restricted speed to the next signal.

517. Within automatic block signal territory, unless otherwise provided, before a train or engine enters on or fouls a main track, * * * trainmen will operate all switches involved, and in addition to other precautions, trains and engines will wait three minutes before the movement is made, * * *

The maximum authorized speed for freight trains is 50 miles per hour, but it is restricted by city ordinance to 6 miles per hour over several rail-highway grade crossings in the vicinity of the point of accident.

Description of Accident

Work Extra 6507, a maintenance-of-way service train, consisted, from west to east, of Diesel-electric unit 6507, eight cars, and a caboose. This train departed west-bound from the east siding at Johnson City about 6:30 a. m. and stopped on the main track with the caboose 1,777 feet west of the station. The locomotive was detached and moved onto the middle siding. About 10 minutes later the caboose was struck by No. 73.

No. 73, a west-bound second-class freight train, consisted, at the time of the accident, of Diesel-electric units 4255, 4418, 4419, and 4254, coupled in multiple-unit control, 62 cars, and a caboose. This train departed from Bristol at 5:30 a. m., 7 hours late, and stopped with the front end west of signal 23.9A. The signal indicated Proceed as the front end of the train approached and passed it. About 15 minutes later, after cars had been set off and added to the train, the train proceeded westward. While it was moving at an estimated speed of 10 miles per hour it struck the rear end of Work Extra 6507.

The rear portion of the train of Work Extra 6507 was moved westward a distance of 267 feet by the force of the impact. The caboose was destroyed. The rear car of Work Extra 6507 and the front end of the locomotive of No. 73 were somewhat damaged.

A sectionman who was in the caboose of Work Extra 6507 was killed. A section foreman and one sectionman who were in the caboose were injured.

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A light rain was falling and it was dark at the time of the accident, which occurred about 6:40 a. m.

Discussion

The crew of Work Extra 6507 reported for duty at Johnson City at 6 a. m. and assembled the train on the east siding. The locomotive then moved on the main track from the east siding-switch to the west siding-switch, entered the siding at the latter switch, and was coupled to the west end of the train. The train was moved to the east switch of the middle siding, and the locomotive was detached and moved onto the siding for the purpose of adding additional cars to the train. The conductor said that he then planned to enter the siding and permit No. 73 to pass. He said that a lighted red lantern and the red reflectorized disc which serves as a marker were displayed at the rear of the caboose. All of the members of the crew were west of the caboose when the collision occurred.

The crew of No. 73 set off and added cars to the train at a switch located a short distance east of the east switch of the east siding at Johnson City. The engineer said that while this was being done he saw the locomotive of Work Extra 6507 enter the main track at the east siding-switch and proceed westward. After No. 73 departed from this point and before it reached the station at Johnson City the engineer saw a yard locomotive, and he assumed that it was the same locomotive he had seen earlier. As this train was approaching the point where the accident occurred the enginemen and the front brakeman were in the control compartment at the front of the locomotive. The conductor and the flagman were in the caboose. The headlight was lighted. As the locomotive passed the station the operator handed the fireman copies of three train orders and a clearance form. The fireman stepped to the side of the engineer and began to read the orders. The engineer said that he maintained a lookout for highway traffic at three rail-highway grade crossings a short distance west of the station, and that as he passed the third crossing the fireman handed him one of the orders. He read the order, and when he looked up he saw the caboose of Work Extra 6507 at a distance which he thought was about 30 feet. He immediately made an emergency application of the brakes. The collision occurred before the speed of the train had been reduced. The fireman said that as he read the orders he glanced ahead at frequent intervals, but he did not see the caboose until approximately the time that the engineer applied the brakes. The front brakeman was seated in the center of the control compartment. He said that dirt on the portions of the front

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windows not cleaned by the windshield wipers, which were in operation, obstructed his view of the track ahead. He did not see the caboose until approximately the time the collision occurred. The members of the crew on the locomotive estimated that the speed of the train was about 10 miles per hour when the collision occurred.

After the accident occurred observations were made to determine the distance at which a caboose standing at the point of accident is visible from an approaching west-bound locomotive. It was dark at the time these observations were made. It was found that because of curvature of the track and buildings north of the track, the caboose could not be seen until the locomotive reached a point 658 feet east of the point of accident. The reflectorized disc which serves as a marker first became distinctly visible in the rays of the headlight at a distance of 380 feet.

This accident occurred within yard limits. The rules of this carrier provide that within yard limits second class trains will move at a speed which will permit stopping within one-half the range of vision. The rules also require that when a train is delayed in a block after passing a signal permitting it to proceed, it must proceed prepared to stop short of another train or an obstruction. In the instant case No. 73 was moving at a speed at which it could have been stopped within the distance at which the caboose of Work Extra 6507 could have been seen from the locomotive, but none of the employees on the locomotive saw the caboose until immediately before the collision occurred.

Cause

This accident was caused by failure to maintain a proper lookout ahead while moving within yard limits.

Dated at Washington, D. C., this first day of February, 1957.

By the Commission, Commissioner Tuggle

(SEAL)

HAROLD D. McCOY,

Secretary.