

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 3011
LOUISVILLE AND NASHVILLE RAILROAD COMPANY
REPORT IN RE ACCIDENT
AT NASHVILLE, ILL., ON
AUGUST 2, 1946

SUMMARY

Railroad: Louisville and Nashville
Date: August 2, 1946
Location: Nashville, Ill.
Kind of accident: Rear-end collision
Trains involved: Freight : Freight
Train numbers: 28 : Second 74
Engine numbers: 1578 : 1524
Consists: 8 cars, caboose : 32 cars, caboose
Estimated speeds: Standing : 40 m. p. h.
Operation: Timetable, train orders and
automatic block-signal system
Track: Single; 2° curve; 0.47 percent
ascending grade northward
Weather: Clear
Time: 4:40 p. m.
Casualties: 1 killed; 1 injured
Cause: Failure to operate following
train in accordance with
signal indications

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3011

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

LOUISVILLE AND NASHVILLE RAILROAD COMPANY

September 26, 1946.

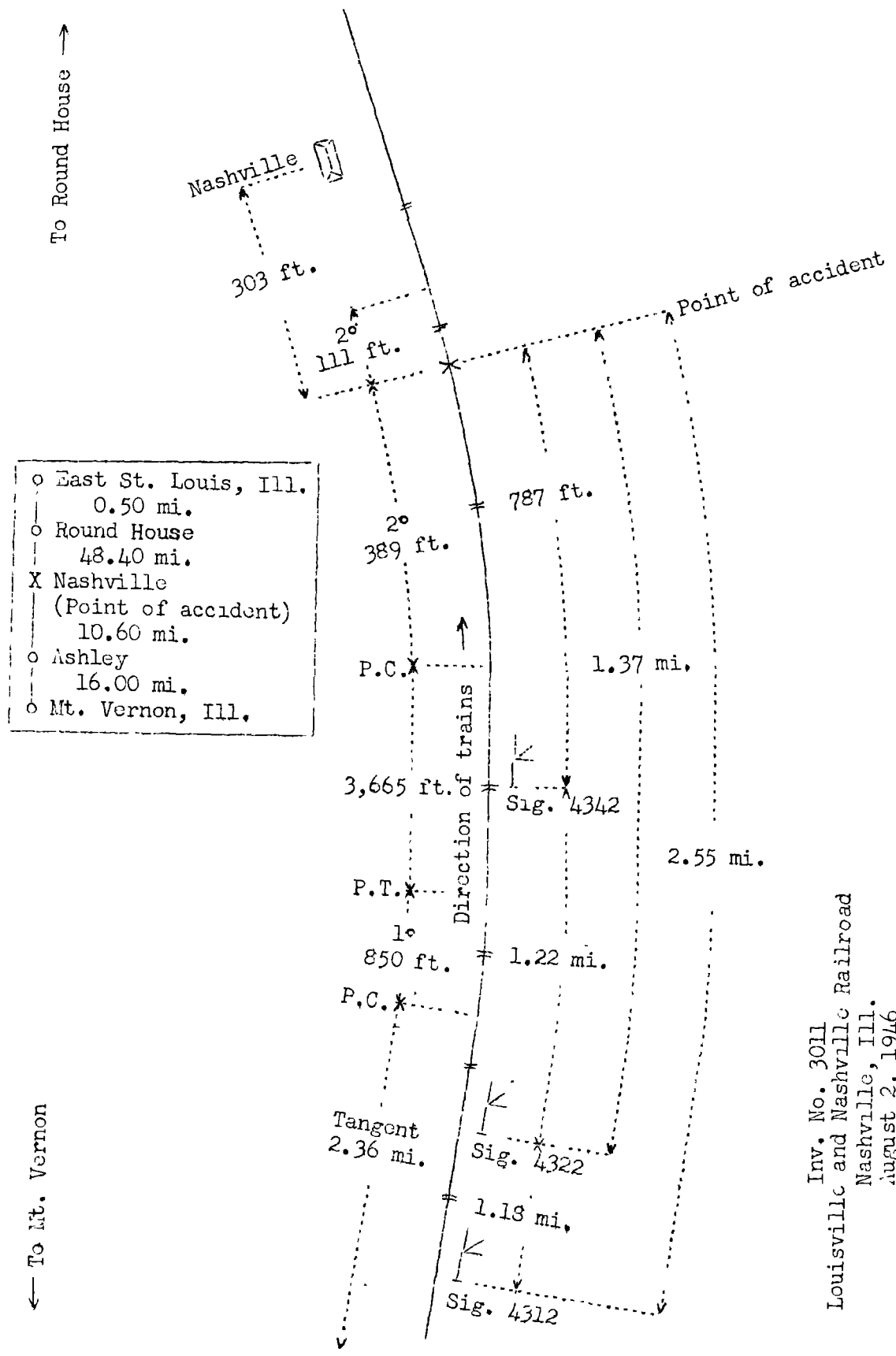
Accident at Nashville, Ill., on August 2, 1946, caused
by failure to operate the following train in
accordance with signal indications.

REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On August 2, 1946, there was a rear-end collision between two freight trains on the Louisville and Nashville Railroad at Nashville, Ill., which resulted in the death of one employee, and the injury of one employee.

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



Inv. No. 3011
 Louisville and Nashville Railroad
 Nashville, Ill.
 August 2, 1946

Location of Accident and Method of Operation

This accident occurred on that part of the Evansville Division extending between Mt. Vernon, Ill., and Round House, near East St. Louis, Ill., 75 miles, a single-track line in the vicinity of the point of accident, over which trains are operated by timetable, train orders and an automatic block-signal system. The accident occurred on the main track at Nashville, 26.6 miles north of Mt. Vernon, at a point 303 feet south of the station. From the south there are, in succession, a tangent 2.36 miles in length, a 1° curve to the left 850 feet, a tangent 3,665 feet and a 2° curve to the left 389 feet to the point of accident and 111 feet northward. The grade for north-bound trains varies between 1.01 percent and 1.06 percent descending 3,500 feet, then it varies between 0.47 percent and 0.75 percent ascending 2,234 feet to the point of accident, where it is 0.47 percent.

Automatic signals 4312, 4322, and 4342, governing north-bound movements, are, respectively, 2.55 miles, 1.37 miles, and 787 feet south of the point of accident. These signals are of the one-arm, three-position, upper-quadrant, semaphore type, and are approach-lighted. The involved day aspects and corresponding indications and names of these signals are as follows:

| <u>Signal</u> | <u>Aspect</u> | <u>Indication</u> | <u>Name</u> |
|---------------------|---------------------------------|---|---------------------|
| 4312 and 4322 | Yellow, 45° above horizontal | Prepare to stop at next signal. Train exceeding medium speed must at once reduce to that speed. | Approach |
| 4342 | Red, horizontal | Stop; Then proceed in accordance with Rule 509 (B). | Stop and Proceed |

The controlling circuits of these signals are so arranged that when the block extending between signals 4322 and 4342 is occupied, signal 4312 displays prepare-to-stop-at-next-signal and signal 4322 displays stop-then-proceed. When the block immediately north of signal 4342 is occupied, signal 4322 displays prepare-to-stop-at-next-signal and signal 4342 displays stop-then-proceed.

Operating rules read in part as follows:

DEFINITIONS

* * *

Restricted Speed.--Proceed prepared to stop short of train, obstruction, or anything that may require the speed of a train to be reduced.

* * *

Medium Speed.--One-half maximum authorized speed at point involved, not exceeding thirty miles per hour.

11. A train finding a fusee burning red on or near its track must stop and extinguish the fusee, and then proceed at restricted speed. When burning yellow, it is a Restricted-Speed signal. * * *

15. The explosion of one torpedo is a signal to stop; * * *

34. All members of train and engine crews must * * *, when practicable, communicate to each other by its name the indication of all signals affecting the movement of their train.

35. The following signals will be used by flagmen:

Day signals -- A red flag,
Torpedoes and
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. At a point one-fourth of a mile from the rear of his train, he will place one torpedo on the rail; continuing back to a distance of not less than one-half mile from the rear of his train, he will place two torpedoes on the rail one rail length apart. * * *

* * *

99 (b) Should a train be seen or heard approaching before flagman has reached the required distance, he must at once place one torpedo on the rail, * * *, continuing in the direction of the approaching train as rapidly as possible.

509 (B). When a train is stopped by a Stop and Proceed signal it may proceed at once at restricted speed.

On the line on which this accident occurred the maximum authorized speeds are 70 miles per hour for passenger trains and 45 miles per hour for freight trains.

Description of Accident

No. 28, a north-bound second-class freight train, consisting of engine 1578, 8 cars and a caboose, departed from Ashley, 10.6 miles south of Nashville, at 4:07 p. m., 5 hours 41 minutes late, and stopped on the main track at Nashville about 4:30 p. m., with the rear end standing about 150 feet south of signal 4342. A car was picked up from an industry track in this vicinity, then No. 28 moved northward about 930 feet and stopped about 4:38 p. m., with the rear end standing 787 feet north of signal 4342. Then the first 4 cars were detached and pulled northward to another industry track. About 2 minutes later the rear end of No. 28 was struck by Second 74.

Second 74, a north-bound second-class freight train, consisting of engine 1524, 32 cars and a caboose, departed from Ashley at 4:18 p. m., 10 hours 33 minutes late, passed signals 4312 and 4322, which displayed prepare-to-stop-at-next-signal, passed signal 4342, which displayed stop-then-proceed, and while moving at an estimated speed of 40 miles per hour it collided with No. 28.

The caboose and the rear car of No. 28 were derailed, and were demolished. The engine of Second 74 was not derailed. It shoved the remaining four cars northward and stopped with the front end standing about 450 feet north of the point of collision. The first three cars of Second 74 were derailed, and were slightly damaged.

The weather was clear at the time of the accident, which occurred about 4:40 p. m.

The engineer of Second 74 was killed, and the fireman was injured.

Discussion

No. 28, a north-bound freight train, stopped on the main track at Nashville about 4:30 p. m., to perform switching. At that time, the rear end was standing about 150 feet south of signal 4342. Soon afterward this train moved northward and stopped with the rear end standing 787 feet north of signal 4342. About 4:40 p. m., after the engine and the first four cars were detached and had proceeded northward to an industry

track to perform additional switching service, the rear end of this train was struck by Second 74.

The conductor and the flagman of No. 23 said that a lighted 10-minute yellow fusee was dropped by the flagman from the rear of the caboose when their train was about one-fourth mile south of signal 4322, and the fusee remained lighted after it was dropped. When No. 23 stopped at Nashville, the flagman proceeded southward to provide protection and had reached a point about 2,300 feet to the rear of his train when he heard the exhaust of the engine of Second 74 as that train was approaching. He placed one torpedo on the east rail, then proceeded toward the approaching train and gave stop signals with a red flag. He continued to give stop signals during the time Second 74 traversed a distance of about 1 mile, and was giving stop signals when the engine of that train passed him. The flagman said that his signals were not acknowledged by the engineer of Second 74, that the engine continued to work steam, and that the engineer was seated in his usual position in the cab as the engine passed the flagman at a speed of about 40 miles per hour.

As Second 74 was approaching signal 4312, the speed was about 45 miles per hour. The engineer and the front brakeman were maintaining a lookout ahead, and the fireman was tending the fire. The brakes of this train had been tested and had functioned properly en route. Brake-pipe pressure of 80 pounds was being maintained. The front brakeman said that he called to the engineer the prepare-to-stop-at-next-signal indication displayed by signal 4312. The engineer indicated that he had seen the signal and partially closed the throttle lever, then made a light brake-pipe reduction. Soon afterward he released the brakes. Signal 4322 displayed prepare-to-stop-at-next-signal, and the front brakeman and the enginemen called the indication. The fireman said that the engineer again eased the throttle lever and made a light brake-pipe reduction, which reduced the speed to about 40 miles per hour. The front brakeman said that no brake-pipe reduction was made at this point and that the speed increased to about 50 miles per hour soon after the engine passed signal 4322. When the engine was about 1,300 feet south of signal 4342 the fireman and the front brakeman saw simultaneously the stop-then-proceed indication displayed by signal 4342 and the rear of the preceding train standing immediately north of the signal, and these employees called a warning to the engineer. They said that the engineer did not take immediate action to stop the train, and the fireman called another warning. The fireman jumped from the engine about 500 feet south of the point of collision, and he thought the engineer was making a brake-pipe reduction at that time. The front brakeman, who remained on the engine, said that the engineer made a service brake-pipe reduction, and then jumped

from the engine about 200 feet south of the point of collision. The engineer was killed, therefore, it could not be determined why proper action was not taken by him to control the speed of his train in accordance with the indications displayed by the signals involved. The front brakeman said that when he saw stop signals being given by the flagman of No. 28 he had previously warned the engineer that signal 4342 was displaying stop-then-proceed and that the preceding train was immediately north of that signal. The front brakeman and the fireman said they did not see a burning fusee or hear a torpedo explode immediately prior to the time the collision occurred. The fusee was dropped from No. 28 about 14 minutes prior to the time the accident occurred, and it is probable that the fusee had been consumed by the time Second 74 passed the point where it was dropped. The fireman said that since he had called the indications displayed by signals 4322 and 4342 and had warned the engineer of the presence of the preceding train he considered he had complied with the rules and was not required to take further action to stop his train. The tender of the engine of Second 74 was equipped with an air valve by which an emergency application of the brakes of the train could have been made.

Cause

It is found that this accident was caused by failure to operate the following train in accordance with signal indications.

Dated at Washington, D. C., this twenty-sixth day of September, 1946.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.