

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 2815
THE CHICAGO, BURLINGTON & QUINCY
RAILROAD COMPANY
REPORT IN RE ACCIDENT
AT SHELBYNA, MO., ON
AUGUST 9, 1944

SUMMARY

Railroad: Chicago, Burlington & Quincy
Date: August 9, 1944
Location: Shelbina, Mo.
Kind of accident: Derailment
Train involved: Passenger
Train number: 3
Engine number: 2929
Consist: 4 cars
Estimated speed: 50 m. p. h.
Operation: Timetable, train orders and
automatic block-signal system
Track: Single; tangent; level; No. 11
turnout
Weather: Clear
Time: 1:50 p. m.
Casualties: 2 killed; 9 injured
Cause: Failure properly to control speed
of train entering siding

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2815

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

THE CHICAGO, BURLINGTON & QUINCY RAILROAD COMPANY

September 12, 1944.

Accident at Shelbina, Mo., on August 9, 1944, caused by
failure properly to control the speed of a train
entering a siding.

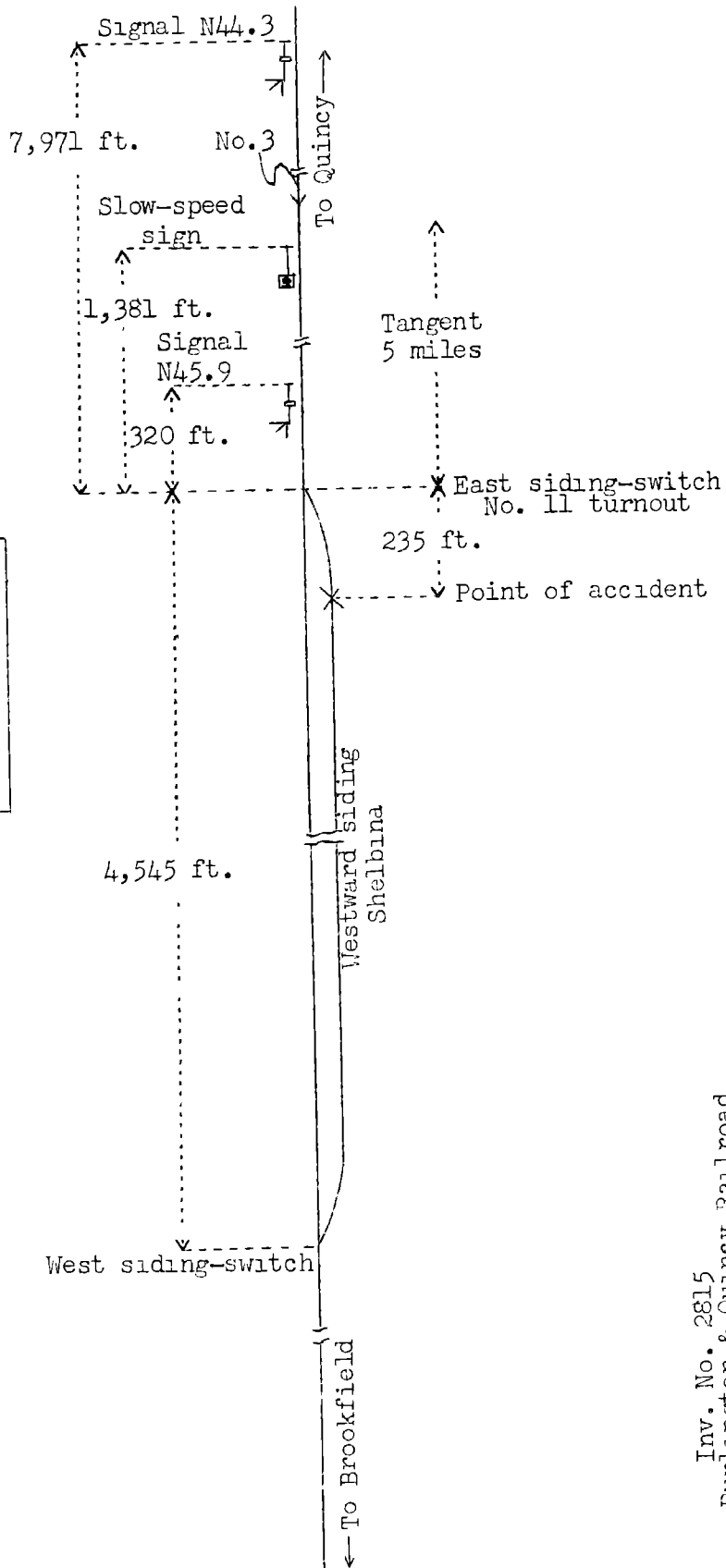
REPORT OF THE COMMISSION¹

PATTERSON, Chairman:

On August 9, 1944, there was a derailment of a passenger train on the Chicago, Burlington & Quincy Railroad at Shelbina, Mo., which resulted in the death of two train-service employees, and the injury of six passengers, one railway-express messenger and two railway-mail clerks.

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

- Quincy, Ill. 14.5 mi.
- Palmyra, Mo. 22.0 mi.
- Hunnewell 9.9 mi.
- X Shelbina (P.of A.) 57.4 mi.
- Brookfield, Mo.



Inv. No. 2815
 Chicago, Burlington & Quincy Railroad
 Shelbina, Mo.
 August 9, 1944

Location of Accident and Method of Operation

This accident occurred on that part of the Hannibal Division designated as the Quincy, Hannibal and Brookfield Sub-division and extending westward from Quincy, Ill., to Brookfield, Mo., 103.8 miles. In the vicinity of the point of accident this was a single-track line over which trains were operated by timetable, train orders and an automatic block-signal system. At Shelbina, 46.4 miles west of Quincy, a siding 4,545 feet long and designated as the westward siding paralleled the main track on the south. Entry to the westward siding at the east switch was made through a No. 11 turnout having a curvature of 6°, without superelevation. The accident occurred on this turnout at a point 235 feet west of the east switch. From the east the main track was tangent 5 miles to the east switch of the westward siding and a considerable distance westward. At the point of accident the grade was practically level.

The switch-stand of the east switch of the westward siding was of the hand-throw, intermediate-stand type, and was provided with a red rectangular target 36 inches by 8 inches. No switch lamp was provided. The center of the target was 7 feet 7-1/2 inches above the ties, and 6 feet 11-3/4 inches north of the gage side of the north rail of the main track. When the switch was lined normally the target was parallel to the track and not visible from an approaching train. When the switch was lined for entry to the siding the target was at right angles to the track.

The automatic block system was arranged on the absolute-permissive-block principle, and consisted of double-location signals at sidings and intermediate signals between stations. Signals N44.3 and N45.9, governing west-bound movements, were located, respectively, 7,971 feet and 320 feet east of the east switch of the westward siding. These signals were of the three-indication, color-light type, and were continuously lighted. The involved aspects and corresponding indications and names of these signals were as follows:

<u>Signal</u>	<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
N44.3	Green, with number plate	Proceed	Clear-Signal
N45.9	Red, with number plate	Stop; then proceed	Stop and Proceed-Signal

The controlling track circuit was so arranged that when the east switch of the westward siding was lined normally and the track was unoccupied signals N44.3 and N45.9 would display proceed. When the switch was lined for entry to the siding these signals would display stop-then proceed.

DEFINITIONS

* * *

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

Operating rules read in part as follows:

10. Color Signals.

COLOR.	INDICATION.
--------	-------------

* * *

* * *

(b) Yellow.

Proceed at restricted speed, * * *

* * *

* * *

509. * * *

* * *

When a train is stopped by a Stop and Proceed-signal it may proceed--

(A) On single track, at once at restricted speed, expecting to find a train in the block, broken rail, obstruction or switch not properly lined.

* * *

914. A yellow signal by day and a yellow light by night on the right of the track indicates that the track 3,000 feet distant is safe for a speed of but 10 miles an hour, unless otherwise directed by train order.

* * *

Time-table special instructions read in part as follows:

Speed Restrictions

* * *

Through * * * turnouts, * * *

Passenger Trains
M. P. H.
10

The maximum authorized speed for passenger trains was 55 miles per hour.

Description of Accident

No. 3, a west-bound first-class passenger train, consisted of engine 2929, a 4-6-2 type, one baggage car, one baggage-mail car, one express car and one coach, in the order named. The first and second cars were of all-steel construction and the remainder were of steel-underframe construction. At Palmyra, 31.9 miles east of Shelbina, the crew of this train received copies of train order No. 237 reading as follows:

From 715 am until 601 pm Trains
use Westward siding at Shelbina
account main track out of service
between switches of Westward
Siding at Shelbina

No. 3 departed from Palmyra at 12:38 p. m., 1 minute late, passed Hunnewell, 9.9 miles east of Shelbina and the last open office, at 1:33 p. m., 16 minutes late, passed signal N44.3, which displayed proceed, passed a slow-speed sign located 1,381 feet east of the east switch of the westward siding at Shelbina, passed signal N45.9, which displayed stop-then-proceed, and while moving at an estimated speed of 50 miles per hour it entered the east switch of the westward siding, and was derailed.

The engine and the first car stopped on their right sides south of the siding, with the front end of the engine about 220 feet west of the point of derailment. The second, third and fourth cars stopped practically upright south of the siding and in line with it. The engine was badly damaged, the first car was considerably damaged, and the second and third cars were slightly damaged.

It was clear at the time of the accident, which occurred about 1:50 p. m.

The engineer and the fireman were killed.

Discussion

The investigation disclosed that at the time of the accident track forces were engaged in resurfacing the main track about 3,600 feet west of the east switch of the westward siding at Shelbina. In order to avoid delay to trains and to expedite the work of the track forces, train-order instructions were issued to all trains that the main track between the switches of the westward siding was out of service and that trains would proceed through the siding. Slow-speed signs were placed to the east and the west of the siding switches. The sign governing west-bound movements was placed on the north side of the track and 1,381 feet east of the east switch. This sign required the speed to be reduced to not exceeding 10 miles per hour and to be so controlled that the train could be stopped short of a switch not properly lined. Switchtenders were assigned to operate the switches for trains to enter and to leave the siding. To avoid the display of stop-then-proceed indications by intermediate signals, these employees were instructed

to line their respective switches for entry to the siding when an approaching train was about 1/2 mile distant from the switch.

Train-order instructions covering the use of the westward siding were delivered to the crew of No. 3 about 1 hour 10 minutes before the accident occurred. As this train was approaching the east switch of the westward siding the speed was about 50 miles per hour. When the engine reached a point about 2,800 feet east of this switch the switchtender lined the switch for entry to the siding. He said he was not aware that the speed of the train was not being reduced to enter the turnout until just before the engine passed the switch. The members of the train crew of No. 3 were in the rear car. They understood the provisions of the train-order instructions and that, under the rules, their train was required to be operated at a speed not exceeding 10 miles per hour through the turnouts of the siding switches. The maximum safe speed through the turnout was about 37 miles per hour. The conductor was engaged in clerical duties and the flagman was assisting passengers, who were preparing to detrain at Snelbina. These employees said they did not realize that the speed of the train was not being reduced in accordance with the requirements until the train entered the turnout. There was no application of the brakes made immediately prior to the accident. The brakes had been tested and had functioned properly en route. Examination of the engine after the accident disclosed that the automatic and the independent brake valves were in running position, the main throttle was one-third open and the reverse lever was latched in the second notch forward of center position on the quadrant. There was no condition found that would prevent the proper application of the train brakes. Why the speed was not reduced at the switch in compliance with the requirement of the train order is not known, as the enginemen were fatally injured in the accident. An employee of the railroad, who was in the vicinity soon after the accident occurred, stated that he heard the engineer say he had forgotten the provisions of the train order.

Cause

It is found that this accident was caused by failure properly to control the speed of a train entering a siding.

Dated at Washington, D. C., this twelfth day of September, 1944.

By the Commission, Chairman Patterson.

(SEAL)

W. P. BARTEL,
Secretary.