

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 3130
LOUISVILLE AND NASHVILLE RAILROAD COMPANY
REPORT IN RE ACCIDENT
AT ELMORE, ALA., ON
MAY 8, 1948

SUMMARY

Railroad: Louisville and Nashville

Date: May 8, 1948

Location: Elmore, Ala.

Kind of accident: Head-end collision

Trains involved: Passenger : Passenger

Train numbers: Second 4 : 5

Engine numbers: 409 : Diesel-electric
unit 760

Consists: Auxiliary water : 7 cars
car, 13 cars

Estimated speeds: Standing : 20 m. p. h.

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

Track: Single; tangent; level

Weather: Foggy

Time: About 2:21 a. m.

Casualties: 60 injured

Cause: Failure properly to control speed of
train in accordance with signal
indications and approaching meeting
point

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3180

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

LOUISVILLE AND NASHVILLE RAILROAD COMPANY

June 24, 1948

Accident at Elmore, Ala., on May 8, 1948, caused by failure properly to control the speed of a train in accordance with signal indications and approaching a meeting point.

REPORT OF THE COMMISSION¹

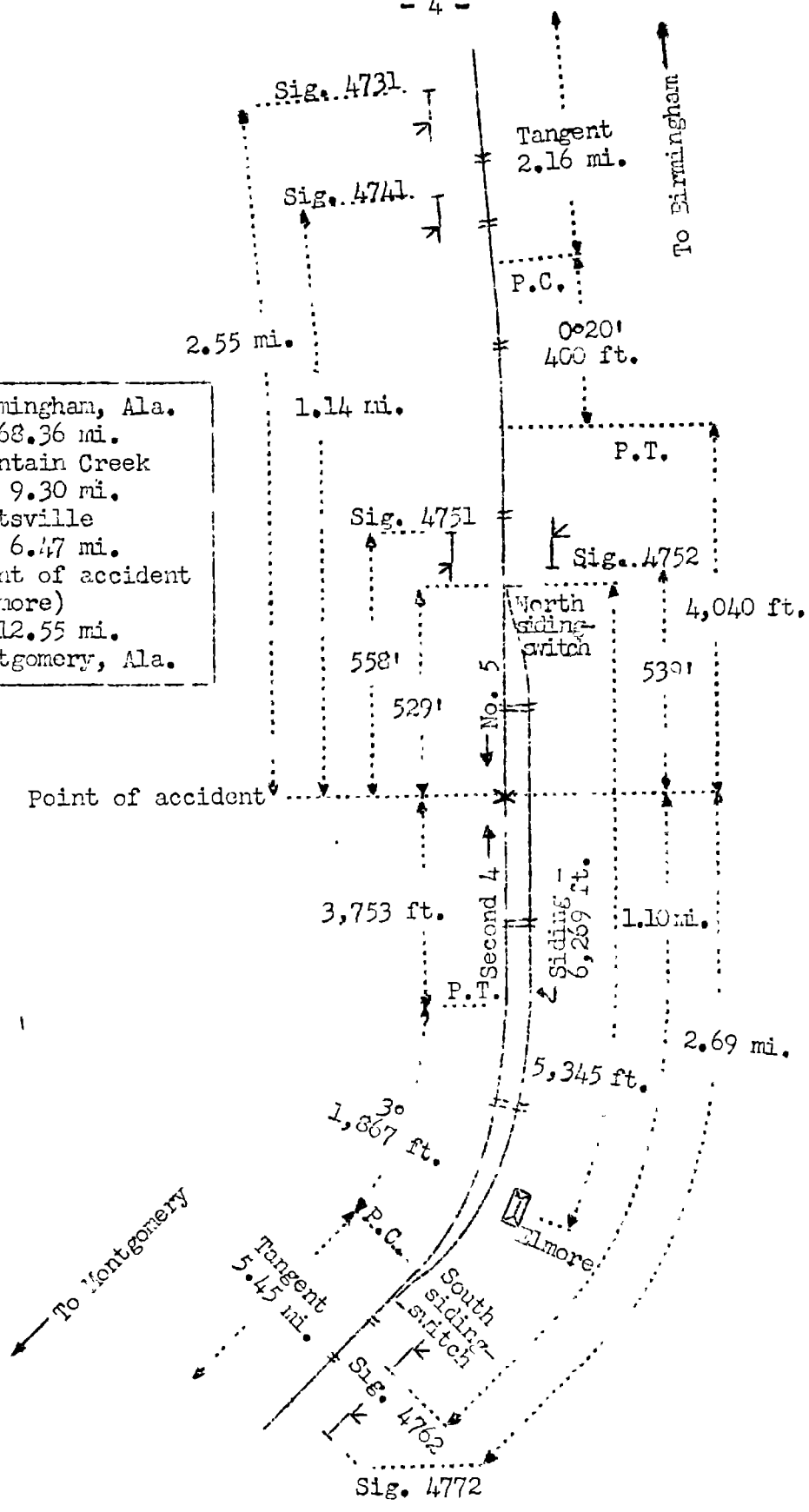
PATTERSON, Commissioner:

On May 8, 1948, there was a head-end collision between two passenger trains on the Louisville and Nashville Railroad at Elmore, Ala., which resulted in the injury of 44 passengers, 10 dining-car employees, 1 coach attendant, 1 passenger representative, 1 train porter and 3 train-service employees.

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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 Patterson for consideration and disposition.

- o Birmingham, Ala. 68.36 mi.
- o Mountain Creek 9.30 mi.
- o Deatsville 6.47 mi.
- X Point of accident (Elmore) 12.55 mi.
- o Montgomery, Ala.



Inv. No. 318C
 Louisville and Nashville Railroad
 Elmore, Ala.
 May 8, 1948

Location of Accident and Method of Operation

This accident occurred on that part of the Birmingham Division extending between Montgomery and Birmingham, Ala., 96.68 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. At Elmore, 12.55 miles north of Montgomery, a siding 6,260 feet in length parallels the main track on the east. The north switch of the siding is 5,345 feet north of the station. The accident occurred on the main track 529 feet south of the north siding-switch. From the south there are, in succession, a tangent 5.45 miles in length, a 3° curve to the left 1,367 feet and a tangent 3,753 feet to the point of accident. From the north there are, in succession, a tangent 2.16 miles in length, a 0°20' curve to the right 400 feet and a tangent 4,040 feet to the point of accident. The grade is level.

The automatic block-signal system is arranged on the absolute-permissive principle, and consists of double-location signals near the ends of sidings and intermediate signals between stations. Signals 4772, 4762, and 4752, governing north-bound movements, are, respectively, 2.69 miles south, 1.10 miles south and 539 feet north of the point of accident. Signals 4731, 4741, and 4751, governing south-bound movements, are, respectively, 2.55 miles, 1.14 miles and 558 feet north of the point of accident. These signals are of the three-position, upper-quadrant, semaphore type, and are approach lighted. The involved night aspects and the corresponding indications and names are as follows:

<u>Signal</u>	<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
4772	Green	PROCEED.	Clear.
4762, 4731, 4741	Yellow	PREPARE TO STOP AT NEXT SIGNAL. TRAIN EXCEEDING MEDIUM SPEED MUST AT ONCE REDUCE TO THAT SPEED.	Approach.
4751	Red	STOP; THEN PROCEED IN ACCORDANCE WITH RULE 509 (B).	Stop and Proceed.
4752	Red over letter "A"	STOP.	Stop.

The controlling circuits are so arranged that, when a south-bound train passes signal 4731, signals 4772 and 4762 display approach indications, and signal 4752 displays a stop indication. When a north-bound train passes a point 2,138 feet south of signal 4762, signals 4731 and 4741 display approach indications, and signal 4751 displays a stop and proceed indication.

This carrier's 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, but not exceeding 15 miles per hour.

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

14. Engine Whistle Signals.

Note.--The signals prescribed are illustrated by "o" for short sounds; "___" for longer sounds. * * *.

Sound

Indication

* * *

(n) ___ o

Approaching meeting or waiting points. See Rule S-90.

* * *

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

S-90. * * *

* * *

The engineman of each train will give signal 14 (n) at least one mile before reaching a meeting or waiting point. Should the engineman fail to give signal 14 (n) as herein prescribed, or fail to prepare to stop short of fouling point where required, the conductor must take immediate action to stop the train.

* * *

211. * * *

Enginemen must promptly show train orders to firemen and when practicable to forward trainmen. Conductors must promptly show train orders to flagmen and when practicable to other trainmen.

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FORM OF TRAIN ORDERS.

* * *

S-A.

FIXING MEETING POINTS FOR OPPOSING TRAINS.

(1). No 1 Eng 400 meet No 2 Eng 401 at B.

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* * *

Trains receiving these orders will run with respect to each other to the designated points and there meet in the manner prescribed by the rules.

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

The maximum authorized speed for the trains involved was 70 miles per hour.

Description of Accident

At Montgomery, 12.55 miles south of Elmore, the crew of Second 4, a north-bound first-class passenger train, received copies of train order No. 7 reading as follows:

No. 5 Eng 760 Meet Second 4 Eng 409 at Elmore
No. 5 take siding.

Second 4 consisted of engine 409, one auxiliary water car, one passenger-baggage car, three coaches, three sleeping cars, one dining car and five sleeping cars, in the order named. All cars were of steel construction. This train departed from Montgomery, the last open office, at 2 a. m., 7 hours 30 minutes late, passed signal 4772, which displayed a proceed indication, passed signal 4762, which displayed an approach indication, and stopped on the main track between the siding switches at Elmore about 2:21 a. m., with the engine standing 539 feet south of signal 4752, which displayed stop. Immediately afterward, Second 4 was struck by No. 5.

At Mountain Creek, 15.77 miles north of Elmore, the crew of No. 5, a south-bound first-class passenger train, received copies of train order No. 7. This train consisted of Diesel-electric unit 760, one coach, one dining car, four coaches and one lounge car, in the order named. All cars were of lightweight steel construction. This train passed Mountain Creek at 2:06 a. m., 42 minutes late, passed Deatsville, the last open office, 6.47 miles north of Elmore, at 2:15 a. m., 41 minutes late, passed signals 4731 and 4741, which displayed approach indications, passed signal 4751, which displayed a stop and proceed indication, passed the north siding-switch at Elmore, where it was required to enter the siding to meet Second 4, and while moving at an estimated speed of 20 miles per hour it collided with Second 4 at a point 529 feet south of the north siding-switch.

The engine and the first two cars of No. 5, and the engine, the auxiliary water car and the first car of Second 4 were derailed. The derailed equipment remained upright. The front ends of the engines of both trains were damaged. None of the cars of either train was damaged.

The engineer, the fireman and the conductor of No. 5 were injured.

The weather was cloudy and a dense fog prevailed at the time of the accident, which occurred about 2:21 a. m.

Discussion

The crew of each train held copies of train order No. 7, which established Elmore as the meeting point between Second 4 and No. 5, and the order included the instruction that No. 5 would take siding at the meeting point. Under the provisions of this order, No. 5 was required to enter the siding at Elmore at the north switch, and to remain clear of the main track until Second 4 had been met. No. 5 passed the north siding-switch at Elmore and collided with Second 4 on the main track at a point 529 feet south of the switch.

In compliance with the meet order, Second 4 was preparing to stop on the main track short of the clearance point of the north siding-switch at Elmore and was moving at a speed of about 10 miles per hour when the enginemen observed that No. 5 had passed the north siding-switch and was moving on the main track. The engineer immediately moved the brake valve to emergency position and Second 4 had just stopped when the collision occurred.

As No. 5 was approaching Elmore the speed was about 35 miles per hour. The headlight was lighted brightly. The enginemen and the flagman were in the control compartment at the front end of the Diesel-electric unit, and they were maintaining a lookout ahead. The conductor was in the sixth car. These employees had received train order No. 7 about 15 minutes prior to the time the accident occurred. They understood that their train was required to enter the siding at Elmore at the north switch to meet Second 4. The employees on the engine said they observed the yellow aspects displayed by signals 4731 and 4741, and they called the indications. They understood that the aspects displayed by these signals required the speed of their train to be reduced immediately to not exceeding 30 miles per hour, and their train to be so operated that it could be stopped short of a signal displaying a stop and proceed indication. The engineer sounded the meeting-point signal on the engine whistle when the engine was in the vicinity of signal 4741. The engineer said that because of dense fog he did not see the usual landmarks in the vicinity of the north siding-switch. The employees on the engine were not aware that their train was closely approaching the switch until the engine was within a short distance of signal 4751, then the engineer saw the red aspect displayed by this signal and the reflection of the headlight of the engine of Second 4, and he immediately moved the brake valve to emergency position. The speed of No. 5 was about 20 miles per hour when the collision occurred. The conductor said that he heard the meeting-point signal sounded by the engineer and, until the brakes were applied in emergency, he thought the speed of his train was being so controlled that it could be stopped short of the north siding-switch. The brakes of No. 5 had been tested and had functioned properly en route.

Cause

It is found that this accident was caused by failure properly to control the speed of a train in accordance with signal indications and approaching a meeting point.

Dated at Washington, D. C., this twenty-fourth day of June, 1948.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.