

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 2690
THE CHICAGO, ROCK ISLAND & PACIFIC
RAILWAY COMPANY
REPORT IN RE ACCIDENT
NEAR TIE PLANT, ARK., ON
APRIL 4, 1943

SUMMARY

Railroad: Chicago, Rock Island & Pacific
Date: April 4, 1943
Location: Tie Plant, Ark.
Kind of accident: Head-end collision
Trains involved: Passenger : Passenger
Train numbers: 45 : Passenger Extra
1703 East
Engine numbers: 888 : 1703
Consist: 8 cars : 8 cars, caboose
Estimated speed: 50 m. p. h. : 10 m. p. h.
Operation: Timetable and train orders
Track: Single; tangent; level
Weather: Clear
Time: 12:20 p. m.
Casualties: 2 killed; 71 injured
Cause: Accident caused by an inferior train
occupying the main track on the time
of an opposing superior train
Recommendation: That the Chicago, Rock Island &
Pacific Railway Company establish
an adequate block-signal system
on the line on which this accident
occurred

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2690

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

THE CHICAGO, ROCK ISLAND & PACIFIC RAILWAY COMPANY

May 10, 1943.

Accident near Tie Plant, Ark., on April 4, 1943, caused by
an inferior train occupying the main track on the time
of an opposing superior train.

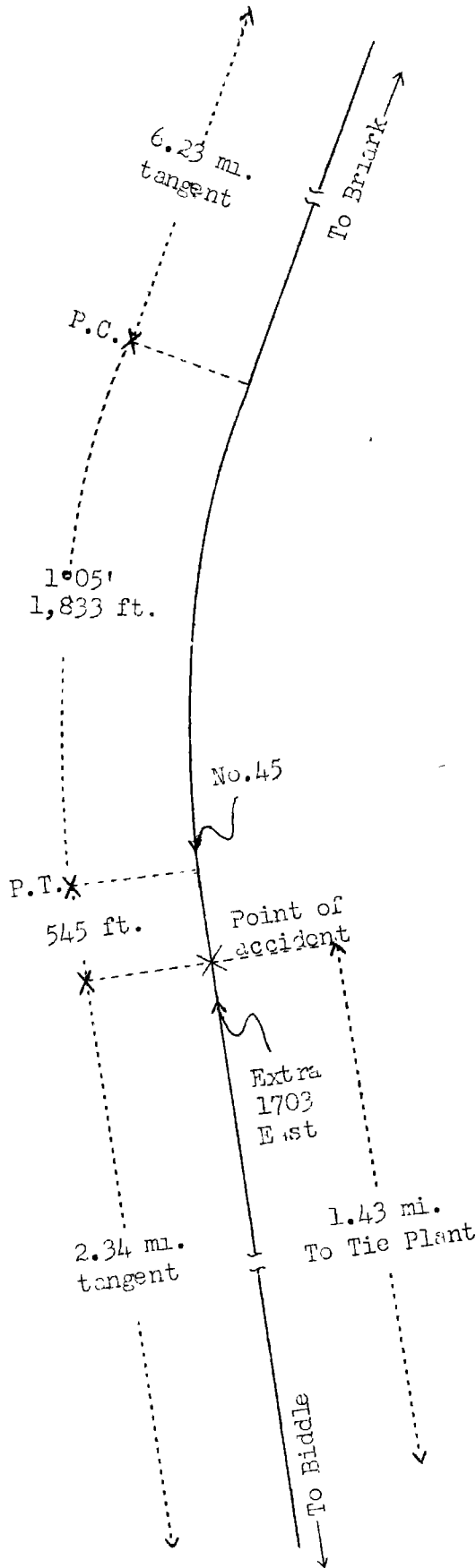
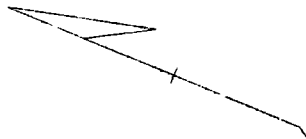
REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On April 4, 1943, there was a head-end collision between two passenger trains on the Chicago, Rock Island & Pacific Railway near Tie Plant, Ark., which resulted in the death of 2 train-service employees, and the injury of 49 passengers, 2 railway-mail clerks, 6 train-service employees and 14 other employees.

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.

○ Briark, Ark.	5.3 mi.
○ Hulbert	59.1 mi.
○ Cotton Belt Jct.	43.0 mi.
○ Lonoke	16.67 mi.
X Point of accident	1.43 mi.
○ Tie Plant	2.3 mi.
○ North Little Rock	0.9 mi.
○ MoPac Crossing	0.1 mi.
○ Little Rock	2.3 mi.
○ Bidale, Ark.	



Inv. No. 2690
 Chicago, Rock Island & Pacific Railway
 Tie Plant, Ark.
 April 4, 1943

Location of Accident and Method of Operation

This accident occurred on that part of the Arkansas Division designated as Subdivision 52 and extending between Biddle and Briark, Ark., 131.1 miles. This is a double-track line between Biddle and Little Rock, 2.3 miles, and a single-track line between Little Rock and Briark. Trains are operated between Biddle and Little Rock by timetable and train orders, between Little Rock and North Little Rock, 1 mile, by a centralized-traffic-control system, the indications of which supersede time-table superiority, and between North Little Rock and Cotton Belt Jct., 63.4 miles, by timetable and train orders. There is no block system in use between North Little Rock and Cotton Belt Jct. The accident occurred 3.73 miles east of North Little Rock and 1.43 miles east of the station at Tie Plant. Approaching from the west the track is tangent a distance of 2.34 miles to the point of accident. Approaching from the east there are, in succession, a tangent 6.23 miles in length, a 1°05' curve to the left 1,833 feet, and a tangent 545 feet to the point of collision. At this point the grade is level.

Signal 2, which governs east-bound movements between Little Rock and North Little Rock, is located 385 feet east of the end of double track at Little Rock. This signal is of the 2-position, color-light type. The involved aspect and corresponding indication and name of this signal are as follows:

<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
Green	Proceed	Clear signal

Operating rules read in part as follows:

S-83. A train must not leave its initial station on any subdivision, * * * or pass from one of two or more tracks to single track, until it has been ascertained whether all trains due, which are superior, have arrived or left.

S-87. An inferior train must keep out of the way of opposing superior trains and failing to clear the main track by the time required by rule must be protected as prescribed by Rule 99.

Extra trains must clear the time of opposing regular trains not less than five minutes, unless otherwise provided, * * *

261. On portions of the railroad, and on designated tracks so specified on the time-table, trains will be governed by block signals whose indications will supersede the superiority of trains for both opposing and following movements on the same track.

The maximum authorized speed for passenger trains hauled by class C-43 engines is 50 miles per hour, and for passenger trains hauled by class P-33 engines, 70 miles per hour.

Description of Accident

No. 45, a west-bound first-class passenger train, consisted of engine 888, of the P-33 class, one mail-baggage car, three coaches, one cafe-lounge car, one parlor car and two Pullman sleeping cars, in the order named. All cars were of steel construction. This train departed from Lonoke, 18.1 miles east of Tie Plant and the last open office, at 12:04 p. m., according to the dispatcher's record of movement of trains, 55 minutes late, and while moving at an estimated speed of 50 miles per hour it collided with Passenger Extra 1703 East at a point 1.43 miles east of the station at Tie Plant.

Passenger Extra 1703 East, an east-bound passenger train, consisted of engine 1703, of the C-43 class, one refrigerator car, four Pullman tourist cars, one Pullman sleeping car, one Pullman tourist car, one dining car and a caboose, in the order named. The first and ninth cars were of steel-underframe construction and the remainder were of all-steel construction. At Biddle, 5.6 miles west of Tie Plant, the crew received a clearance card and copies of four train orders, of which two were orders Nos. 44 and 51 reading in part as follows:

No. 44

Eng 1703 run Psgr Extra
Biddle to Briark

No. 51

Trains due at Little Rock * * *
at or before 11 30 a m have
passed * * *

Passenger Extra 1703 departed from Biddle at 11:55 a. m., according to the dispatcher's record of movement of trains, departed from Little Rock, 3.3 miles west of Tie Plant and the last open office, at 12:12 p. m., passed signal 2, which

displayed proceed, passed North Little Rock, where it was required to clear for No. 45, passed Tie Plant and while moving at an estimated speed of 10 miles per hour it collided with No. 45.

From an engine moving in either direction, in the vicinity of the point of accident, the view of an engine approaching in the opposite direction is materially restricted, because of buildings adjacent to the track and track curvature.

The engine of each train and the first car of Passenger Extra 1703 were demolished. The second car of Passenger Extra 1703 was derailed and badly damaged. The first and second cars and the rear truck of the fourth car of No. 45 were derailed. The first to fifth cars, inclusive, were considerably damaged.

It was clear at the time of the accident, which occurred about 12:20 p. m.

The train-service employees killed were the engineers of both trains. The train-service employees injured were the fireman, the front brakeman and the swing brakeman of Passenger Extra 1703, and the fireman, the conductor and the train baggageman of No. 45.

Data

Little Rock is designated by time-table special instructions as a register point for first-class trains.

The centralized-traffic-control system between Little Rock and North Little Rock is in the charge of the signalman at MoPac Crossing, 0.1 mile east of the east end of the double track at Little Rock. The train dispatcher at Little Rock supervises the signalman at MoPac Crossing in the operation of trains in the centralized-traffic-control territory.

During the 30-day period preceding the day of the accident, the average daily movement over this line was 16.5 trains.

Discussion

Under the rules of this carrier, a train may proceed in centralized-traffic-control territory when authorized by proper signal indication. In the territory over which trains are operated by timetable and train orders, an extra train must clear the time of opposing regular trains not less than 5 minutes.

No. 45, a west-bound first-class schedule, was due to leave Tie Plant, 2.3 miles east of North Little Rock, at 11:30

a. m., and North Little Rock, 1 mile east of Little Rock, at 11:33 a. m. No. 45 passed Lonoke, 20.4 miles east of North Little Rock and the last open office, 53 minutes late. No train order restricting its movement had been issued. At Little Rock Passenger Extra 1703 received a signal indication to proceed and this train departed at 12:12 p. m. This indication authorized Passenger Extra 1703 to proceed as far as the west siding-switch at North Little Rock against all opposing trains, but it was required to enter the siding at that station as it was not authorized to proceed beyond North Little Rock against No. 45; however, Passenger Extra 1703 not only passed North Little Rock but also passed Tie Plant and collided with No. 45 at a point 1.43 miles east of the latter station.

As No. 45 was approaching the point where the accident occurred, the speed was about 65 miles per hour. The engineers were maintaining a lookout ahead, but their view was materially restricted because of buildings adjacent to the track and track curvature. The first they knew of anything being wrong was when the fireman saw Passenger Extra 1703 approaching about 800 feet distant. He called a warning to the engineer, who immediately placed the brake valve in emergency position, but the collision occurred before No. 45 could be stopped.

As Passenger Extra 1703 was approaching the point where the accident occurred, the speed was about 40 miles per hour, the fireman was on the deck of the engine and the engineer was maintaining a lookout ahead. There was no condition of the engine that distracted the attention of the engineers or obscured their vision. The fireman said he knew that his train was inferior to No. 45, but he depended upon the engineer to comply with the rules. His first knowledge of anything being wrong was when the engineer placed the brake valve in emergency position. Then the fireman looked ahead and saw No. 45 approaching about 1,000 feet distant. It could not be determined why the engineer failed to take action to clear for No. 45 at North Little Rock, as he was killed in the accident. The conductor said he understood his train had no authority to proceed beyond North Little Rock for No. 45 but, because of a discussion he had with the train dispatcher concerning instructions the dispatcher gave him to register the arrival at Little Rock of Second 112, which was an east-bound first-class schedule, he became confused as to whether his train was to be operated as Second 112 east of Little Rock, and he overlooked No. 45. The other members of the crew of Passenger Extra 1703 understood their train was inferior to No. 45, but they depended upon the conductor and the engineer to comply with the rules.

Two sections of No. 112 had been authorized between Boonville and Little Rock, which is the subdivision west of Little Rock. The arrival of First 112 was registered at Little Rock by its conductor and the train was operated east of Little Rock

as No. 112. The members of the crew of Second 112 were relieved at Biddle. The equipment of that train was operated from Biddle as Passenger Extra 1703 East, and it was in the charge of another crew. For the purpose of fulfilling the schedule of Second 112 between Biddle and Little Rock and to avoid the issuance of an annulment order, the train dispatcher instructed the conductor of Passenger Extra 1703 to register his train at Little Rock as Second 112 instead of as Passenger Extra 1703. The dispatcher understood that this procedure was irregular, but he was not aware that it would cause any confusion. No authority was given by train order for the operation of a second section on the schedule of No. 112 east of Little Rock, or for Passenger Extra 1703 to proceed beyond North Little Rock for No. 45. The schedule of No. 112 was superior by direction to that of No. 45, and, if the crew of Passenger Extra 1703 had had authority to operate their train as Second 112 east of North Little Rock and had held no train order regarding No. 45, the latter train would have been required to keep out of the way of Second 112.

In the territory where this accident occurred, trains are operated by timetable and train orders only. If an adequate block system had been in use on this line, the crew of Passenger Extra 1703 would have received additional information concerning the movement of No. 45, and the accident would not have occurred. This carrier has an automatic block-signal system in operation between Cotton Belt Jct. and Hulbert, Ark., 59.1 miles. The western end of this system is located 61.1 miles east of Tie Plant.

Cause

It is found that this accident was caused by an inferior train occupying the main track on the time of an opposing superior train.

Recommendation

It is recommended that the Chicago, Rock Island & Pacific Railway Company establish an adequate block-signal system on the line on which this accident occurred.

Dated at Washington, D. C., this tenth day of May, 1943.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.