

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 2604
THE ILLINOIS CENTRAL SYSTEM
REPORT IN RE ACCIDENT
AT ST. ROSE, LA., ON
JULY 19, 1942

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SUMMARY

Railroad: Illinois Central

Date: July 19, 1942

Location: St. Rose, La.

Kind of accident: Head-end collision

Trains involved: Passenger : Passenger

Train numbers: 32 : Second 35

Engine numbers: 1054 : 1075

Consist: 7 cars : 7 cars

Speed: Standing : 25-50 m. p. h.

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

Track: Single; 2° curve; practically level

Weather: Clear

Time: 7:47 a. m.

Casualties: 162 injured

Cause: Accident caused by failure properly
to control speed in accordance with
signal indications and when approach-
ing a meeting point

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2604

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

THE ILLINOIS CENTRAL SYSTEM

September 1, 1942.

Accident at St. Rose, La., on July 19, 1942, caused by
failure properly to control speed in accordance with
signal indications and when approaching a meeting point.

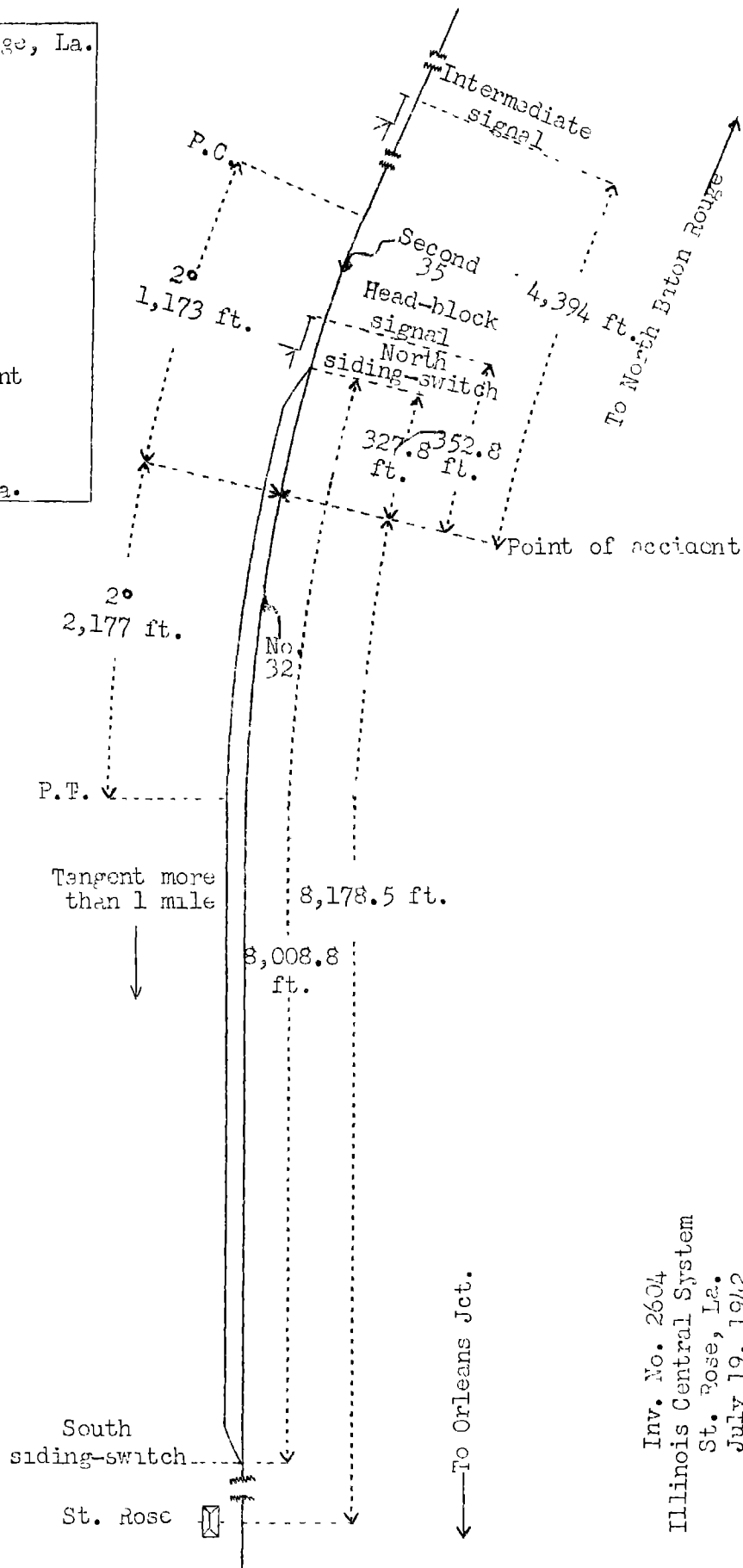
REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On July 19, 1942, there was a head-end collision between two passenger trains on the line of the Illinois Central System at St. Rose, La., which resulted in the injury of 152 passengers, 2 railway-mail clerks, 1 railroad official and 7 train-service 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.

○	North Baton Rouge, La.	2.6 mi.
○	Baton Rouge	27.8 mi.
○	Burnside	19.2 mi.
○	Lutcher	20.2 mi.
○	Good Hope	4.0 mi.
○	Destrehan	1.16 mi.
X	Point of accident	1.54 mi.
○	St. Rose	4.1 mi.
○	Orleans Jct., La.	



Inv. No. 2604
 Illinois Central System
 St. Rose, La.
 July 19, 1942

Location of Accident and Method of Operation

This accident occurred on the Baton Rouge District, which extends between North Baton Rouge and Orleans Jct., La., a distance of 80.6 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 St. Rose a siding 8,008.8 feet in length parallels the main track on the west. The north switch of this siding is located 8,506.3 feet north of the station. The accident occurred on the main track at a point 327.8 feet south of the north siding-switch and 8,178.5 feet north of the station. As the point of accident is approached from the north there is a tangent about 1 mile in length, which is followed by a 2° curve to the left 1,173 feet to the point of accident and 2,177 feet beyond. As the point of accident is approached from the south there is a long tangent, which is followed by the curve on which the accident occurred. In the vicinity of the point of accident the grade is practically level.

The automatic-block system is of the absolute-permissive type and consists of double-location signals near the ends of sidings and intermediate signals between sidings. The signals are of the one-arm, three-position, upper-quadrant, semaphore type, and are approach lighted. The involved signals governing south-bound movements are located, respectively, 4,394 feet and 352.8 feet north of the point of accident. The involved aspects and corresponding indications and names of these signals are as follows:

<u>Day Aspect</u>	<u>Indication</u>	<u>Name</u>
45 degrees	Proceed; preparing to stop at next signal. Train exceeding medium speed must at once reduce to that speed.	Approach
Horizontal	Stop; then proceed at restricted speed.	Stop and Proceed. See Rule 509 (a)

DEFINITIONS

* * *

Medium Speed.- A speed not exceeding thirty miles per hour.

Restricted Speed.-Proceed prepared to stop short of train, obstruction, or switch not properly lined and to look out for broken rail.

Operating rules read in part as follows:

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.
* * *	

16. Communicating Signals.

SOUND	INDICATION
* * *	
(1) _____	Approaching meeting or waiting points. See Rule S-90.
* * *	

S-90. On trains equipped with communicating signal system, the conductor must give signal 16 (1) to the engineman after passing the last station, but not less than one mile preceding a schedule meeting point with a train of the same or superior class, or a point where by train order it is to meet, * * *, an opposing train. The engineman will immediately reply with signal 14 (n). If the engineman fails to answer by signal 14 (n), the conductor must take immediate action to stop the train.

* * *

FORMS OF TRAIN ORDERS.

S-P.

Superseding An Order Or Part Of
An Order

This order will be given by adding to prescribed forms the words "instead of ____."

(1) No 1 Meet No 2 at C instead of B

* * *

When a train is directed by train order to take siding for another train, such instructions apply only at the point designated in that order, and do not apply to the superseding order unless so specified.

509(a) * * * trains may pass Stop and Proceed signals without stopping, * * * at restricted speed not exceeding fifteen miles per hour.

Air brake rules read in part as follows:

275 (b). The running test of brakes, * * * must also be made on passenger trains at a point which will permit train to be stopped by locomotive and tender brake alone, before reaching * * * meeting and passing points, * * *

Time-table special instructions provide as follows:

S-72. Northward and eastward trains are superior to trains of the same class in the opposite direction.

In the vicinity of the point of accident the maximum authorized speed for passenger trains is 65 miles per hour.

Description of Accident

No. 32, a north-bound first-class passenger train, consisted of engine 1054, one baggage-mail-express car, four coaches and two Pullman sleeping cars, in the order named. All cars were of steel construction. At Orleans Jct., 4.1 miles south of St. Rose, the crew received, among others, copies of train orders Nos. 218 and 219, which read as follows:

218

First 35 Eng 1115 Meet No 32
at Orleans Jct
No 32 Eng 1054 take siding at
Destrehan and Meet Second 35
Eng 1075 at Destrehan

219

No 32 Eng 1054 Meet Second
35 Eng 1075 at St. Rose instead
of Destrehan

This train departed from Orleans Jct. at 7:34 a. m., according to the dispatcher's record of movement of trains, 2 minutes late, departed from the station at St. Rose at 7:43 a. m., 3 minutes late, and stopped on the main track at a point 327.8

feet south of the north siding-switch about 7:45 a. m. Soon afterward this train was struck by Second 35.

Second 35, a south-bound first-class passenger train, consisted of engine 1075, one passenger-baggage car, three box cars, one refrigerator-express car and two Pullman tourist cars, in the order named. All cars were of steel construction. At North Baton Rouge, 76.5 miles north of St. Rose, a terminal air-brake test was made. This train departed from North Baton Rouge at 6:13 a. m., according to the dispatcher's record of movement of trains, 1 hour 8 minutes late, and soon after the train departed a running test of the brakes was made. At Burnside, 46.1 miles north of St. Rose, the crew received copies of train order No. 218, previously quoted. This train passed Burnside at 6:55 a. m., 58 minutes late, and at Good Hope, the last open office, the crew received copies of train order No. 219, previously quoted. At Baton Rouge, Lutchter and Good Hope, located, respectively, 73.9, 26.9 and 6.7 miles north of St. Rose, undesired emergency applications of the brakes occurred following brake-pipe reductions of 10 or 12 pounds. This train departed from Good Hope at 7:44 a. m., 59 minutes late, and it passed the intermediate signal, which displayed approach, passed the head-block signal, which displayed stop-and-proceed, passed the north siding-switch, where it was required to enter the siding, and while moving at an estimated speed of 25 to 50 miles per hour it collided with No. 32.

Because of trees adjacent to the track and track curvature the view from the right side of a south-bound engine of the signal at the north end of the siding was restricted to a distance of 1,660 feet, and from the left side to 1,480 feet.

The force of the impact moved No. 32 backward about 40 feet. Engine 1054, of No. 32, was derailed to the east and stopped, badly damaged, on its right side and at an angle of about 45 degrees to the track. Both cylinders, the engine truck and the frame were broken, and the cab was demolished. The tender stopped on its right side on the roadbed and parallel to the track. The frame and the cistern sheets were bent and the trucks were broken. The first car was derailed and stopped, badly damaged, on its right side east of the track and parallel to it. The roof and the side sheets were torn. Engine 1075, of Second 35, was derailed and stopped, badly damaged, on its left side east of the track and at an angle of about 45 degrees to it, with its front end against the front end of engine 1054. The boiler was torn loose from the frame. Both cylinders, the engine truck and the frame were broken. The engine truck, the trailer truck and the cab were demolished. The tender was torn loose and stopped at the rear of the engine across the main track and at right angles to it. The frame and the cistern were bent and the trucks were broken. The first four cars were derailed and stopped, badly damaged, across the main track and the

siding and at various angles to them. One of the cars was destroyed.

It was clear at the time of the accident, which occurred about 7:47 a. m.

The train-service employees injured were the engineer, the fireman and the flagman of No. 32, and the engineer, the fireman, the conductor and the brakeman of Second 35.

Data

The air-brake equipment of Second 35 was as follows:

<u>Unit</u>		<u>Type</u>
Engine	1075	LT
IC	967	U-12-B
AT&SF	10023	AB
AT&SF	10158	AB
AT&SF	10073	AB
PRR	2782	U-12-B
Tourist	2084	L-3
Tourist	5008	L-3

In tests made after the accident the automatic brake valve, the control valve and the vent valve, of engine 1075, conformed to the requirements. The air-pressure regulating devices functioned properly. The valves of the rear three cars of Second 35 were tested in the cars and functioned properly. The other valves were tested on a test rack, and the U-12-B valve of the first car applied and released; however, a 12-pound service brake-pipe reduction produced an undesired emergency application. The AB valve of the second car passed all tests in service. The emergency portion was damaged. The AB valve of the third car leaked off after a 12-pound service reduction but remained applied as a result of a full service reduction. The emergency portion was damaged. The AB valve of the fourth car passed all tests.

After the accident, inspection of the equipment of Second 35 disclosed the angle cocks to be in proper position and the brake-pipe hose free from obstruction or loose lining.

A braking test of a south-bound train was conducted in the vicinity of the point of accident. This train consisted of the same class of engine as engine 1075, and 7 passenger-equipment cars. This train was moving at a speed of 65 miles per hour at the intermediate signal, where a 12-pound brake-pipe reduction was made. As soon as the brake-pipe exhaust ceased, another 12-pound reduction was made and the train stopped in a distance of 3,048 feet, or 1,018 feet north of the north siding-switch.

Discussion

The rules governing operation on the line involved provide that when a train is directed by a train order to hold the main track at a meeting point, such instructions are applicable only at the point designated. If the meeting point is changed by a superseding order, the preceding instructions to hold the main track are not applicable unless so specified in the order. At meeting points between trains of the same class, the train in the inferior direction must enter the siding, unless otherwise directed. A train may pass a signal displaying stop-and-proceed at a speed not in excess of 15 miles per hour. In addition, when a passenger train is approaching a meeting point, a running test of the train brake system must be made a sufficient distance from the meeting point so that the train can be stopped by use of the engine-and-tender brake only.

Both trains involved were operating on first-class schedules. The crews of both trains held copies of train order No. 219, which established a meeting point between No. 32 and Second 35 at St. Rose, instead of Destrehan. This order did not specify which train would hold the main track; therefore, since Second 35 was inferior by direction, it was required to enter the north siding-switch at St. Rose to meet No. 32.

About 7:45 a. m. No. 32 stopped on the main track with the engine standing at a point about 328 feet south of the north siding-switch. At that time the automatic signals indicated that Second 35 had not passed the north siding-switch at Destrehan, 1.3 miles north of the north siding-switch at St. Rose. The train porter proceeded to the switch to line it for Second 35 to enter the siding but before he could unlock it Second 35 passed him and collided with No. 32.

As Second 35 was approaching the point where the accident occurred, the throttle was closed and the engineer was maintaining a lookout ahead. The engineer said he understood that his train was required to enter the siding at St. Rose to meet No. 32. Soon after his train passed Destrehan, he sounded the meeting-point whistle signal but, because of a defective train air-signal system, he received no response from his conductor. The intermediate signal displayed approach for his train and when the engine was about 500 feet south of the signal, he made a 12-pound brake-pipe reduction. Soon afterward he made a 10-pound reduction, but the brakes did not appear to respond properly and, when the engine was about 1,200 feet north of the switch, he placed the brake valve in emergency position. When the engine was about 350 feet north of the switch, the engineer placed the reverse lever in position for backward motion and opened the throttle and the sander valve but the speed was not reduced sufficiently to stop short of No. 32. The engineer said that the speed was about 25 miles per hour at the time of the

collision. The brakeman said that the conductor, the trainmaster and he were in the first car, and the speed was about 50 miles per hour at the intermediate signal north of St. Rose. The brakeman heard the engine whistle sound the meeting-point signal. At that time he was not alarmed that the speed was not being controlled. He said that soon afterward, as the brakes did not appear to apply, the conductor started to open the emergency valve but, before action could be taken to stop the train, the collision occurred, at which time the speed was 40 miles per hour. The brakeman said that he felt no application of the brakes prior to the collision. According to statements of members of the crew of a train which was on the siding at St. Rose, the speed of Second 35 was about 50 miles per hour at the time of the collision, and the brakes did not appear to be applied prior to the collision. The flagman of Second 35 said that freight cars ahead of the rear two tourist cars prevented passage from the front to the rear of the train; therefore, he had not read train order No. 219 and did not know that No. 52 and Second 35 were to meet at St. Rose. At the time of the investigation the conductor of Second 35, because of injuries, was unable to make a statement, and, because of injuries, the fireman did not make a coherent statement. A trainmaster who was in the first car of Second 35 said that he understood Second 35 was required to enter the siding at St. Rose. After he heard the meeting-point whistle signal sounded he observed that the speed was being reduced and was confident that Second 35 would stop at the north siding-switch; however, he was not certain whether the brakes were applied. When the conductor started for the emergency valve the train was about 800 feet north of the siding-switch.

Under the rules, when a passenger train is approaching a meeting point, a running test of the train-brake system must be made at a sufficient distance so that if the train brakes do not control the speed the train can be stopped at the meeting point by means of the engine-and-tender brakes. In addition, when a signal displays approach, a train that is moving in excess of 30 miles per hour must immediately reduce to that speed and be prepared to pass the next signal at a speed not in excess of 15 miles per hour and be prepared to stop short of an obstruction immediately beyond that signal. The investigation disclosed that on three occasions after a brake-pipe reduction of 12 pounds or more was made, the train brakes of Second 35 became applied by an undesired emergency application. The engineer said that he expected an emergency brake application to occur at St. Rose; therefore, he delayed longer than usual in making a brake-pipe reduction. However, the brake system did not produce an undesired emergency at this time as he expected, nor did the train brakes respond to the two service reductions, which totaled about 22 pounds, but the brakes appeared to respond some time after he moved the brake valve to

emergency position. He did not make a running test of the brake system a sufficient distance north of St. Rose to determine if he could control the speed of his train at the meeting point. Furthermore, he failed to begin reduction of the speed of his train until his engine had moved 500 feet beyond a signal displaying approach. In tests after the accident, the control valve of the first car of Second 35 produced an undesired emergency application after a 12-pound brake-pipe reduction was made. The remainder of the undamaged brake equipment of this train functioned properly. If the engineer had controlled the speed of his train in compliance with the rules this accident would have been averted. If the trainmaster, the conductor, or the brakeman had observed that a running test of the brakes had not been made while the train was approaching St. Rose, or that the speed was not being properly controlled, action could have been taken to stop the train and the accident would have been prevented.

Cause

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

Dated at Washington, D. C., this first day
of September, 1942.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.