

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 3189
ILLINOIS CENTRAL RAILROAD COMPANY
REPORT IN RE ACCIDENT
AT RIVES, TENN., ON
JUNE 15, 1948

SUMMARY

Railroad: Illinois Central
Date: June 15, 1948
Location: Rives, Tenn.
Kind of accident: Rear-end collision
Equipment involved: Engine with cars : Freight
Train numbers: Extra 1350 North : Extra 2351 North
Engine numbers: 1350 : 2351
Consists: 29 cars, caboose : 88 cars, caboose
Estimated speeds: 7 m. p. h. : 35 m. p. h.
Operation: Timetable, train orders and automatic block-signal system
Tracks: Double; tangent; 0.016 descending grade northward
Weather: Clear
Time: 4:06 p. m.
Casualties: 3 killed; 2 injured
Cause: Engine with cars occupying main track immediately in front of following train

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3189

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

ILLINOIS CENTRAL RAILROAD COMPANY

July 23, 1948

Accident at Rives, Tenn., on June 15, 1948, caused by an engine with cars occupying the main track immediately in front of a following train.

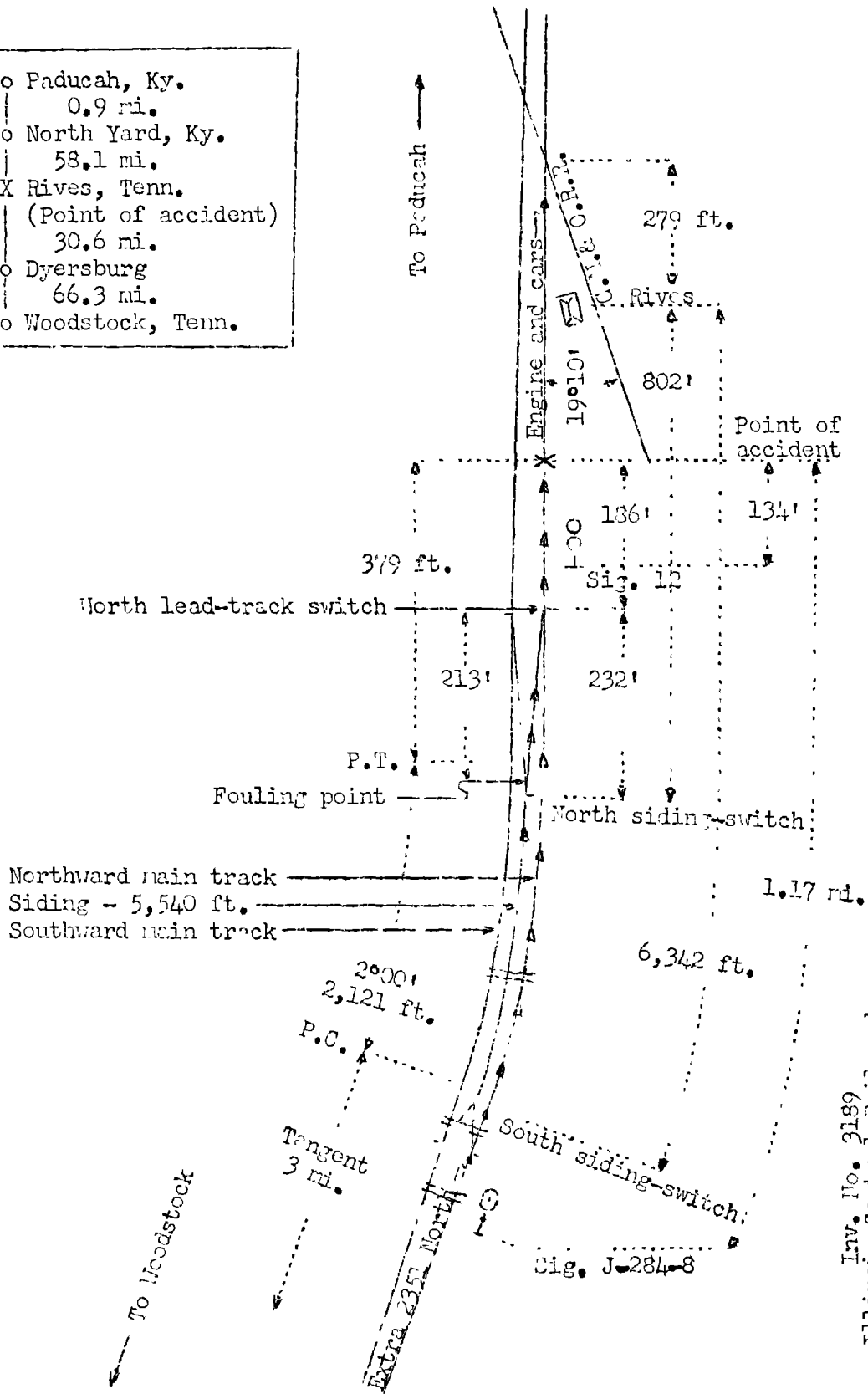
REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On June 15, 1948, there was a rear-end collision between an engine with cars and a freight train on the Illinois Central Railroad at Rives, Tenn., which resulted in the death of three employees, and the injury of two employees.

¹
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 Paducah, Ky.
0.9 mi.
- o North Yard, Ky.
58.1 mi.
- X Rives, Tenn.
(Point of accident)
30.6 mi.
- o Dyersburg
66.3 mi.
- o Woodstock, Tenn.



Inv. No. 2189
 Illinois Central Railroad
 Rives, Tenn.
 June 15, 1948

Location of Accident and Method of Operation

This accident occurred on that part of the Kentucky Division extending between Woodstock, Tenn., and North Yard, Paducah, Ky., 155 miles. In the vicinity of the point of accident this is a double-track line over which trains moving with the current of traffic are operated by timetable, train orders and an automatic block-signal system. At Rives, 96.9 miles north of Woodstock, a siding 5,540 feet long lies between the main tracks. The south and the north switches of the siding are, respectively, 6,342 feet and 802 feet south of the station. Two lead tracks at each end of the siding extend from the ends of the siding to the main tracks. The lead track to the northward main track at the north end of the siding is 232 feet long. The accident occurred on the northward main track at a point 186 feet north of the northward lead-track switch. From the south on the northward main track there are, in succession, a tangent about 3 miles in length, a 2°00' curve to the left 2,121 feet and a tangent 379 feet to the point of accident and a considerable distance northward. The grade for north-bound trains varies between 0.50 percent and 0.016 percent descending throughout a distance of 1.8 miles immediately south of the point of accident, where it is 0.016 percent.

Automatic signal J-284-8 and semi-automatic signal 12, governing north-bound movements on the northward main track, are, respectively, 1.17 miles and 134 feet south of the point of accident. The involved aspects and the corresponding indications and names of these signals are as follows:

<u>Signal</u>	<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
J-284-8	Green	PROCEED.	CLEAR.
12	Green-over-red	PROCEED.	CLEAR.
		Red-over-red	STOP.

A single-track line of the Gulf, Mobile and Ohio Railroad intersects the line of the I.C. at an angle of 19°10' at a point 279 feet north of the station at Rives. Signal 12 is the interlocking home signal governing movements over the crossing on the I.C. northward main track, and this signal is controlled from the station. An audible annunciator located in the station is actuated to indicate approaching

movements on the I.C. northward main track when a train enters the circuit 5.16 miles south of the station. The controlling circuits are so arranged that, when the route is lined for movement on the I.C. northward main track over the crossing and when this track is unoccupied north of signal 12, automatic signal J-284-8 and semi-automatic signal 12 display proceed indications. When the northward lead-track switch is lined for movement from the siding to the northward main track, signal J-284-8 displays a stop-and-proceed indication. When a train or an engine is occupying the northward main track immediately north of signal 12, signal J-284-8 displays an approach indication and signal 12 displays a stop indication. The fouling section of the turnout of the northward lead track extends 213 feet south of the lead-track switch.

The switch-stand of the north siding-switch is between the northward main track and the siding, and is of the hand-operated two-position ground-throw low-stand type. It is not provided with a target, a switch lamp or a lock. The switch-stand of the northward lead-track switch is of the hand-operated intermediate-stand type, and is provided with a red rectangular target. When the lead-track switch is lined for movement from the siding the target is displayed at right angles to the track.

This carrier's 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.
* * *	
(c) — o o o	Flagman protect rear of train.
* * *	

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, placing two torpedoes, and when necessary, in addition, displaying lighted fuses. When recalled, or relieved by another flagman, and safety to the train will permit, he may return.

When the conditions require, he will leave the torpedoes and a lighted fusee.

* * *

When a train is moving under circumstances in which it may be overtaken by another train, the flagman must take such action as may be necessary to insure full protection. By night, or by day when the view is obscured, lighted fusees must be thrown off at proper intervals.

* * *

D-152. When a train * * * obstructs another track, unless otherwise provided, it must first be protected, as prescribed by Rule 99, in both directions on that track.

514. A train or engine entering a block between signals must be protected as required by rules * * *

607. In automatic block signal territory, where automatic block signals are used in conjunction with interlocking signals, such signals will govern the use of the blocks as well as the use of the routes through the interlocking, * * *

990. Enginemen must be alert in all matters pertaining to safety and when it becomes evident that rear of train requires protection, immediately sound whistle signal for flagman and, if necessary, repeat the signal until protection is assured.

The maximum authorized speed for the trains involved was 50 miles per hour.

Description of Accident

Extra 1350 North, a north-bound freight train, consisting of engine 1350, 29 cars and a caboose, stopped about 4 p. m. on the siding at Rives, with the engine standing in the immediate vicinity of the north siding-switch. About 6 minutes later, after the engine and the first three cars had been uncoupled from the rear portion of the train and were moving on the northward main track at a speed of about 7 miles per hour, the rear end of the third car was struck by Extra 2351 North.

Extra 2351 North, a north-bound freight train, consisting of engine 2351, 82 cars and a caboose, departed from Dyersburg, 30.6 miles south of Rives, at 3:17 p. m., passed signal J-284-8, which displayed proceed, passed signal 12, which displayed stop, and while moving at an estimated speed of 35 miles per hour it struck the most southerly car of the cut of cars being pulled by engine 1350.

Engine 1350 and the 3 cars coupled to this engine, and the engine and the first 19 cars of Extra 2351 North were derailed and damaged. The two southerly cars being pulled by engine 1350 were tank cars containing gasoline. The tanks were punctured, escaping gasoline became ignited, and both engines and several of the derailed cars were badly damaged by fire.

The front brakeman of Extra 1350 North, the engineer of Extra 2351 North, and a fireman, who was off duty and on engine 2351, were killed. The fireman and the front brakeman of Extra 2351 North were injured.

The weather was clear at the time of the accident, which occurred about 4:06 p. m.

Discussion

The operator at Rives said that several minutes prior to the time the accident occurred he informed the train dispatcher that a north-bound train had actuated the annunciator. The train dispatcher informed the operator that there were two north-bound extra trains en route, but he did not inform the operator which train would be the first to arrive at Rives. Then the operator placed the lever controlling signal 12 for that signal to display a proceed indication, and he did not change the position of the lever until after the accident occurred. No train order had been issued restricting the authority of Extra 1350 North to proceed with respect to Extra 2351 North. The operator was not aware of anything being wrong until after the collision occurred.

The surviving members of the crew of Extra 1350 North understood that, under the rules, after their train cleared the main track flag protection was required to be furnished against following trains before it again occupied the main track. During the time the engine and the first three cars were moving from the siding to the northward main track, the conductor and the flagman were in the caboose, the engineer and the fireman were in their respective positions on the engine, the front brakeman was on the first car and the swing

brakeman was on the third car. Flag protection was not provided for the movement involved, which was being made for the purpose of picking up cars from an auxiliary track located some distance north of the station. The engineer said that he overlooked sounding the engine whistle signal for flag protection to be furnished to protect the movement. The swing brakeman said he thought there would be no following train in this vicinity ahead of No. 2, a north-bound first-class passenger train, which was due at Rives at 4:34 p. m., and for this reason he thought the switching movement could be made safely without flag protection. The conductor and the flagman said they did not know that the front portion of their train was occupying the main track until after the collision occurred.

The fireman and the front brakeman of Extra 2351 North said that the first they knew of anything being wrong was when their engine was a few hundred feet south of signal 12, and they saw, simultaneously, the indication of this signal change from proceed to stop and the rear end of the preceding movement occupying the main track. They immediately called a warning to the engineer, who moved the brake valve to emergency position, but the collision occurred before the train could be stopped. The brakes of Extra 2351 North had been tested and had functioned properly en route.

Because of trees adjacent to the track and track curvature, the view of the point where the accident occurred from the engine of an approaching north-bound train is restricted to a distance of about 1,400 feet from the left side of the engine and to a distance of about 450 feet from the right side.

Tests were made of the signal apparatus and the controlling circuits after the accident, and no defective condition was found. Since signal J-284-8 was displaying proceed when Extra 2351 North passed this signal it is apparent that the northward lead-track switch was operated to permit engine 1350 to proceed from the siding to the northward main track after Extra 2351 North passed signal J-284-8. If the lead-track switch had been provided with electric switch-locking, it would not have been possible to operate the switch to permit movement from the siding to the northward main track when a train was closely approaching, as in this case.

Cause

It is found that this accident was caused by an engine with cars occupying the main track immediately in front of a following train.

Dated at Washington, D. C., this twenty-third day of July, 1948.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.