U.S. INTERSTATE COMMERCE COMMISSION,

WASHINGTON

INVESTIGATION NO. 3201

THE PENNSYLVANIA RAILROAD COMPANY

REPORT IN RE ACCIDENT

AT FRANK, OHIO, ON

SEPTEMBER 1, 1948

SUMMARY

Railroad:	Pennsylvania	
Date:	September 1, 1948	
Location:	Frank, Ohio	
Kind of accident:	Side collision	
Trains involved:	Freight	: Freight
Train numbers:	Extra 6403 South	: Extra 6493 North
Engine numbers:	6403	: 6493
Consists:	132 cars, caboose	: 128 cars, caboose
Estimated speeds:	10 m. p. h.	: 6 m. p. h.
Operation:	Timetable, train orders and manual-block system	
Track:	Single; tangent; 0.21 percent ascending grade southward	
Weather:	Clear	
Time:	8:05 p. m.	
Casualties:	2 injured	
Cause:	Failure properly to control speed of train moving on siding and approaching clearance point	

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3201

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

THE PENNSYLVANIA RAILROAD COMPANY

November 22, 1948

Accident at Frank, Ohio, on September 1, 1948, caused by failure properly to control speed of train moving on siding and approaching clearance point.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On September 1, 1948, there was a side collision between two freight trains on the Pennsylvania Railroad at Frank, Ohio, which resulted in the injury of two train-service employees.

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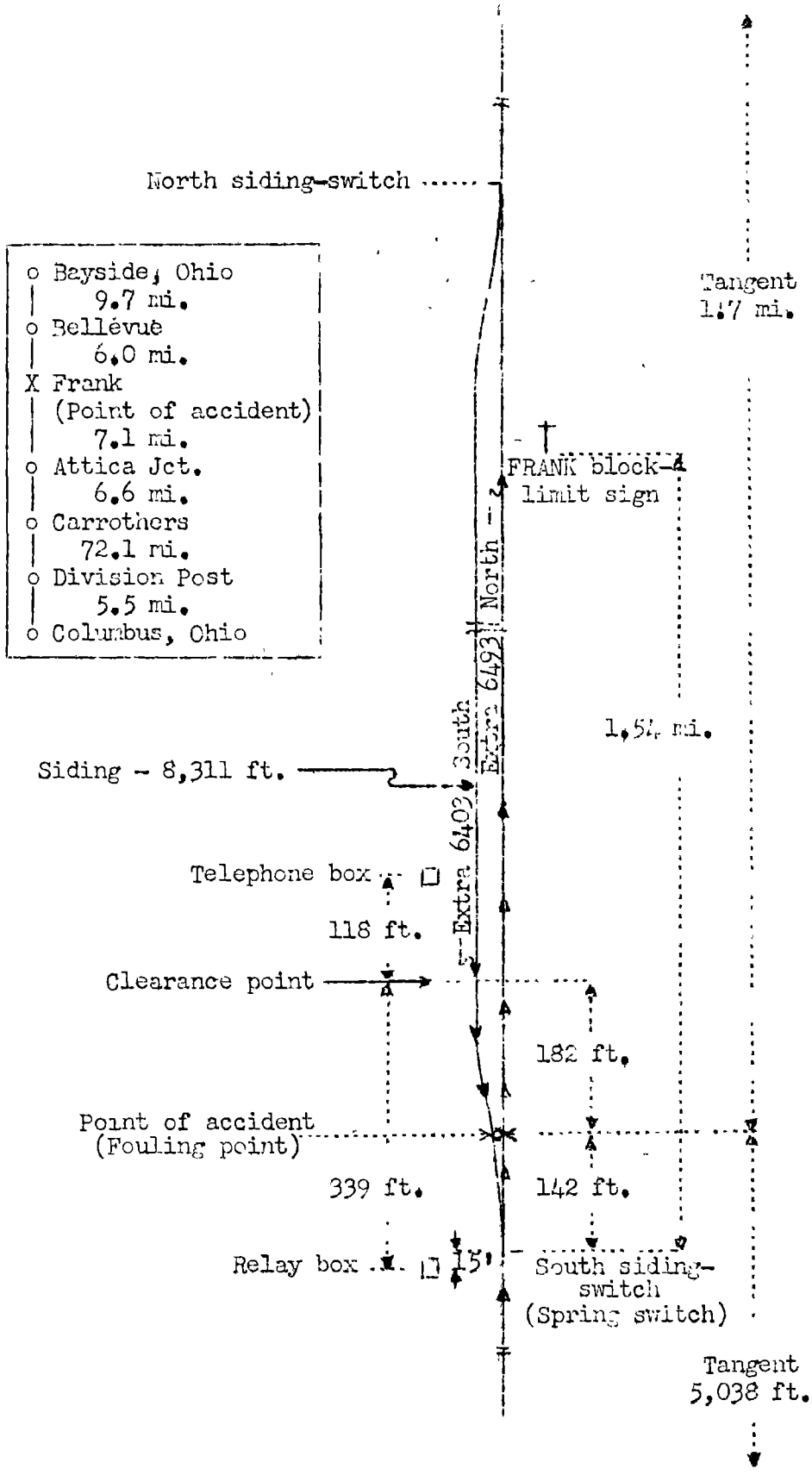
[1] Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.



Inv. No. 3201
Pennsylvania Railroad
Frank, Ohio
September 1, 1948

Location of Accident and Method of Operation

This accident occurred on that part of the Toledo Division designated as the Sandusky Branch and extending between Bayside and Division Post, Columbus, Ohio, 101.5 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 a manual-block system. The main track is tangent throughout a distance of 1.7 miles immediately north of the point of accident and 5,038 feet southward. The grade is 0.21 percent ascending southward. At Frank, 15.7 miles south of Bayside, a siding 8,311 feet in length parallels the main track on the west. The south switch of the siding is a spring-switch located 1.54 miles south of the block-limit sign at Frank, and is normally lined for movements on the main track. The accident occurred at the fouling point of the main track and the south turnout of the siding, at a point 142 feet north of the switch points. The clearance point of the siding is 324 feet north of the switch points. A reflector disc 3 inches in diameter and colored red is attached to the north side of a pole 442 feet north of the switch points, 4 feet 10 inches above the level of the tops of the rails and about 15 feet west of the centerline of the siding. This disc was installed to mark the clearance point. A telephone box painted black is mounted on the same pole. The south siding-switch is marked by a disc bearing the letters SS in black on a white background. This sign is mounted on a stand above the switch-indicator lights 16.3 feet south of the switch points, 10 feet east of the centerline of the main track, and about 3 feet above the tops of the rails. A relay case painted black is located 26 feet west of the centerline of the main track, 158 feet south of the clearance point of the siding and about 5 feet above the level of the tops of the rails.

In this territory there are two blocks involved, one of which extends from Bellevue, an open station, to Frank, a block-limit station, 6.0 miles, and the other extends from Frank to Attica Jct., an open station, 7.1 miles. The accident occurred at a point 1.51 miles south of the block-limit signal at Frank and 5.59 miles north of Attica Jct. The block-limit station at Frank is controlled by the operator in charge of the open block station at Bellevue. The block-limit signal at Frank is located about 7 feet east of the main track, at a point 191 feet south of the north siding-switch.

The day aspect is the station sign "FRANK" lettered in white on a black rectangular signboard mounted vertically on a mast about 7 feet high. The night aspect consists of a red lamp and a yellow lamp facing each direction of traffic and mounted horizontally near the top of the mast. The yellow lamp is located next to the track governed. Block telephones are provided at Bellevue, near each switch of the siding at Frank, and at Attica Jct.

A trainphone communication system is in service on this division. This system is operated on the inductive two-channel principle, and equipment is provided for communication between stations, including the wayside stations at Bellevue and Attica Jct., between engines and cabooses, and between wayside stations and engines and cabooses. The equipment consists of hand-set telephones, loud speakers, and associated apparatus so installed that communication can be had between any two stations, either mobile or stationary, so equipped.

This carrier's operating rules read in part as follows:

DEFINITIONS

* * *

Reduced Speed--Prepared to stop short of train or obstruction.

Train--An engine or more than one engine coupled, with or without cars, displaying markers.

* * *

19. The following signals will be displayed, one on each side of the rear of every train, as markers, to indicate the rear of the train:

* * *

By night, * * *, marker lamps lighted showing red to the rear except in manual block system territory when clear of main track, marker lamps lighted showing yellow to the rear.

105. Unless otherwise provided, trains using a siding must proceed at Reduced speed. * * *

220. Train orders once in effect continue so until fulfilled, superseded or annulled. * * *

* * *

Forms of Train Orders

* * *

S-A

Fixing Meeting Points for Opposing Trains

(1) * * *

Psgr extra 652 north meet extra 231 south at B.

* * *

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.

Timetable special instructions read in part as follows:

SANDUSKY BRANCH

* * *

Block-Limit stations controlled by open block stations:

Block-Limit Station	Controlled by
* * *	* * *
Frank	Bellevue
* * *	* * *

USE OF TELEPHONES

3501. Employees using telephones in connection with train movements, must satisfy themselves that they are in communication with the proper persons and must not consider conversation finished until the persons taking part are assured that they have heard all of the conversation and that it is understood.

* * *

GENERAL ORDER No. 903

Effective 12:01 A. M., Sunday, June 6, 1948

* * *

(b) SANDUSKY BRANCH
TRAINPHONE

* * *

Trainphone is being installed on:

Track	Between	And
Sandusky Branch	Fields	Bayside

Block stations are being equipped with trainphone as follows:

* * *

Attica Jct. Block Station
Bellevue Block Station

* * *

Engines and cabin cars equipped with trainphone must have the apparatus in service at all times between Fields and Bayside.

* * *

Timetable Special Instruction 3501 will apply to the use of trainphone.

Trainphone may be used in train operation as follows:

* * *

C--It may be used for telephone communications incidental to Manual Block System operations within the limits specified:

1. For the signalman in charge of a block-limit station to give a train approaching that block-limit station verbal permission to enter that block.

* * *

3. Reporting clear of blocks at block-limit stations.
4. Reporting clear of main tracks.

* * *

The maximum authorized speed for the trains involved was 35 miles per hour.

Description of Accident

Extra 6403 South, a south-bound freight train, consisted of engine 6403, 132 cars and a caboose. At Bellevue, 6 miles north of Frank, the crew of this train received copies of train order No. 126, reading in part as follows:

* * *

Extra 6403 South meet Extra 6493 North at Frank

Extra 6403 South take siding at Frank.

Extra 6403 South departed from Bellevue at 7:42 p. m., stopped on the siding at Frank and it was reported into clear at 8:02 p. m. Shortly thereafter, while it was moving southward on the siding at an estimated speed of 10 miles per hour it entered the south turnout of the siding and struck Extra 6493 North at the fouling point of the turnout and the main track.

Extra 6493 North, a north-bound freight train, consisted of engine 6493, 128 cars and a caboose. At Carrothers, 13.7 miles south of Frank, the crew of this train received copies of train order No. 126. Extra 6493 North departed from Carrothers at 6:48 p. m., passed Attica Jct. at 7:07 p. m., and stopped on the main track at Frank, with the rear end about 2,300 feet south of the south siding-switch. About 40 minutes later while this train was moving northward at an estimated speed of 6 miles per hour the 120th car was struck by Extra 6403 South.

The 120th and 121st cars of Extra 6493 North were considerably damaged and the 122nd and 123rd cars were derailed and damaged. The left side of engine 6403 was considerably damaged.

The conductor and the flagman of Extra 6403 South were injured.

The weather was clear and it was dark at the time of the accident, which occurred at 8:03 p. m.

Discussion

The crews of both trains held copies of train order No. 126, which established Frank as the meeting point between Extra 6403 South and Extra 6493 North and which directed Extra 6403 South to enter the siding. The rules required Extra 6403 South to remain into clear on the siding until Extra 6493 North had passed the clearance point at the south siding-switch. All of the employees involved understood this requirement. Extra 6493 North entered the block at Attica Jct. under a Permissive-block indication and stopped on the main track about 7:25 p. m., with the engine about 5,000 feet south of the block-limit signal at Frank and with the rear end 2,300 feet south of the south siding-switch. The marker lamps were in place on the rear of the caboose and were lighted. Since Extra 6493 North stopped south of the block-limit station at Frank, no member of the crew reported clear of the block at Frank. About 8:02 p. m., this train proceeded northward and about 3 minutes later the ninth car from the caboose was struck by Extra 6403 South at the fouling point of the main track and the turnout at the south siding-switch.

Extra 6403 South entered the block at Bellevue under a Clear-block indication, and entered the siding at Frank at the north siding-switch. This train stopped into clear on the siding with the engine adjacent to the engine of Extra 6493 North, and identification was made. The caboose of Extra 6403 South was not equipped with trainphone apparatus, and the conductor reported clear of the block at 8:02 p. m. to the operator at Bellevue by the block telephone located a short distance south of the north siding-switch. Then Extra 6403 South proceeded southward on the siding. Soon afterward the engineer called the operator at Attica Jct. on the trainphone and informed him that Extra 6493 North was at Frank, but he did not tell the operator that this train was clear of the south siding-switch. The operator at Attica Jct. then granted clear-block authority to Extra 6403 South from Frank to Attica Jct.

As Extra 6403 South approached the south siding-switch the engineer and the fireman were maintaining a lookout ahead from their respective positions in the engine cab, the brakeman was in the brakeman's booth on the tender, and the conductor and the flagman were in the caboose. The headlight was lighted brightly, and there was no condition of the engine that distracted the enginemen's attention or obscured their view of the track ahead. Extra 6493 North was moving on the main

track at that time, and therefore the view of the switch-indicator lamp was obscured by the intervening cars. The engineer said that it was his custom to identify the clearance point by a telephone booth attached to a pole located 118 feet north of the clearance point and 14 feet west of the centerline of the siding. This booth is painted black and, at night, blends readily into the surrounding vegetation. A relay box of similar size and shape is located 339 feet south of the clearance point and at the same distance west of the centerline of the main track as is the telephone booth. The engineer said that he was judging the position of the engine with respect to the clearance point by the relay box instead of the telephone booth, and was not aware of the mistaken identity until the fireman informed him that the engine was entering the turnout. He immediately moved the brake valve to the emergency position, but the collision occurred before the brakes became effective. The brakes of this train had been tested and had functioned properly en route. He said that he intended to stop with his engine short of the clearance point, if Extra 6493 North was not clear of the south siding-switch.

A red reflector-type disc, dependent upon exterior illumination, is mounted on the north side of the pole upon which the telephone booth is mounted as a marker for the clearance point. This disc had been in use about 3 years prior to the accident, but crews of trains had not been notified of its installation. The engineer said that he was not aware of the installation of the disc, although he had been on trains using the siding a considerable number of times during the past 3 years and did not observe it on the night in question. The clearance point at the north end of the siding is distinctly marked by a lighted switch-lamp operating in conjunction with a hand-operated derail. There is no derail at the south end of the siding, as this turnout is provided with a spring-switch. The engineer said that if a distinctive sign or signal bearing a night aspect had been provided to mark the clearance point at the south end of the siding the accident probably would not have occurred.

Cause

It is found that this accident was caused by failure properly to control speed of train moving on siding and approaching clearance point.

Dated at Washington, D. C., this twenty-second day of November, 1948.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.