INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT NO. 3368

THE BALTIMORE AND OHIO RAILROAD COMPANY
AND
THE PENNSYLVANIA RAILROAD COMPANY

IN RE ACCIDENT

AT UHRICHSVILLE, OHIO, ON

OCTOBER 4, 1950

SUMMARY

Date:	October 4, 1950	
Railroads:	Baltimore and Ohio	Pennsylvania
Location:	Uhrichsville, Ohio	
Kind of accident:	Side collision	
Trains involved	Freight	Freight
Train numbers	First 33	Extra 9471 East
Engine numbers:	7105	Diesel electric units 9471A, 9460B and 9460A
Consists:	111 cars, caboose	82 cars, caboose
Estimated speeds:	15 m. p. h.	15 m. p. h.
Operation:	Interlocking	
Tracks:	Single; tangent, 0.66 percent descending grade westward	Double, tangent, level
Weather:	Clear	
Time:	11 35 a. m.	
Casualties:	3 injured	
Cause:	Failure to operate Pennsylvania train in accordance with signal indications	

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3368

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

THE BALTIMORE AND OHIO RAILROAD COMPANY
AND
THE PENNSYLVANIA RAILROAD COMPANY

November 20, 1950

Accident at Uhrichsville, Ohio, on October 4, 1950, caused by failure to operate the Pennsylvania train in accordance with signal indications.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner.

On October 4, 1950, there was a side collision between a freight train on the Baltimore and Ohio Railroad and a freight train on the Pennsylvania Railroad at Uhrichsville, Ohio, which resulted in the injury of three train-service employees. This accident was investigated in conjunction with a representative of the Public Utilities Commission of Ohio.

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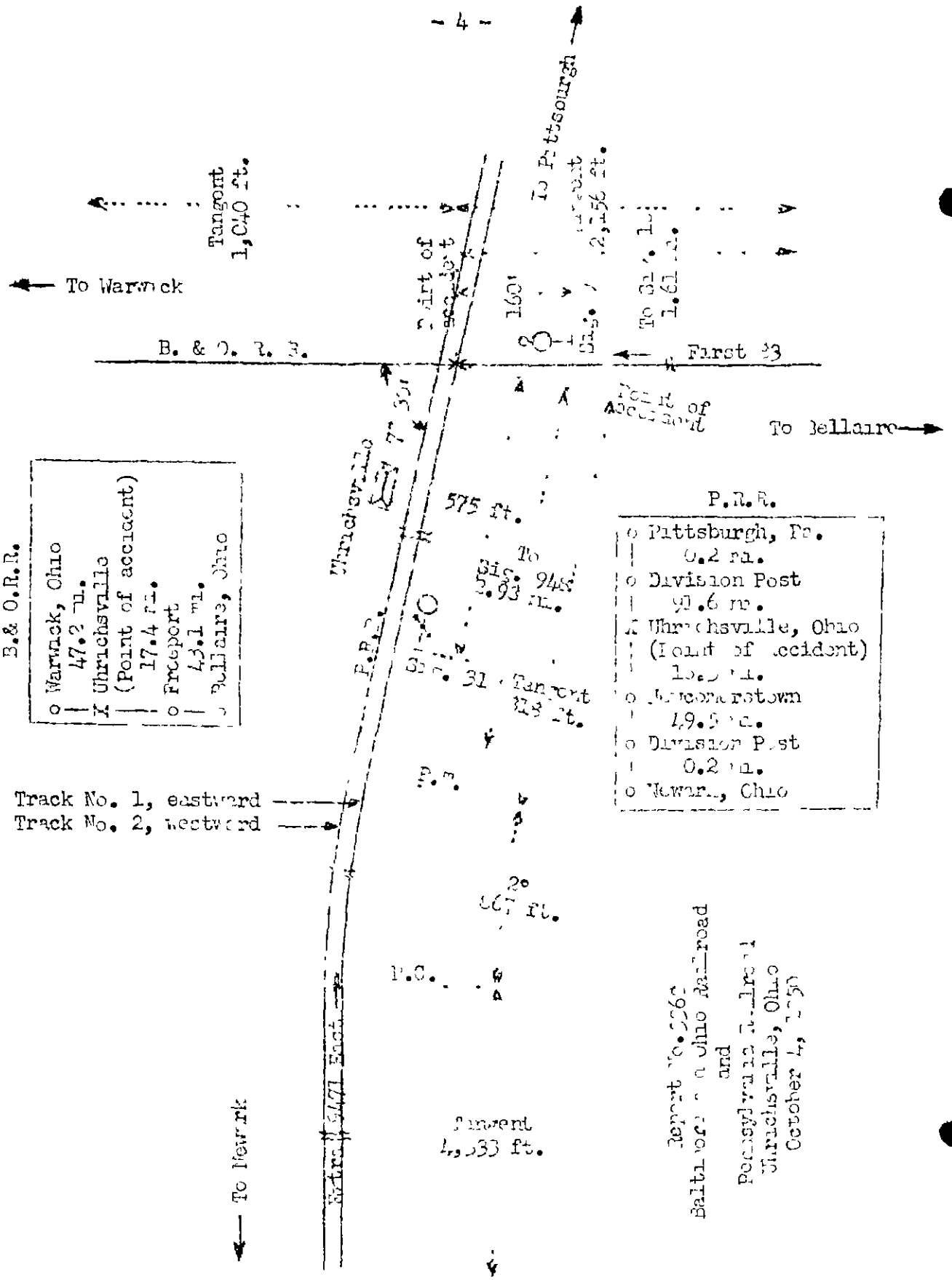
[1] Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.



Report No. 2362
Baltimore and Ohio Railroad
and
Pennsylvania Railroad
Uhrichsville, Ohio
October 4, 1950

Location of Accident and Method of Operation

This accident occurred at the intersection of the Baltimore and Ohio Railroad, hereinafter referred to as the B.& O., and the Pennsylvania Railroad, hereinafter referred to as the P.R.R., at Uhrichsville, Ohio. The crossing is located on that part of the Wheeling Division of the B.& O. extending between Bellaire and Warwick, Ohio, 107.7 miles, and on that part of the Panhandle Division of the P.R.R. extending between Division Post, near Newark, Ohio, and Division Post, near Pittsburgh, Pa., 157.4 miles. Uhrichsville is 60.5 miles west of Bellaire and 66 miles east of Newark. The B.& O. line extends southeast and northwest. The P.R.R. line extends east and west and intersects the B.& O. line at an angle of 78°30'. Timetable directions on both lines are eastward and westward, and are used in this report. In the vicinity of the point of accident the B.& O. is a single-track line, over which trains are operated by timetable and train orders, and a manual-block system for trains following passenger trains. The track is tangent throughout a distance of 8,156 feet immediately east of the point of accident, and 1,040 feet westward. From the east the grade is level 1,800 feet, then 0.66 percent descending 900 feet to the point of accident. In the vicinity of the point of accident the P.R.R. is a double-track line, over which trains moving with the current of traffic are operated by automatic block-signal and cab-signal indications. From south to north the main tracks are designated as No. 1, eastward, and No. 2, westward. From the west there are, in succession, a tangent 4,333 feet in length, a 2° curve to the right 867 feet, and a tangent 818 feet to the point of accident. From the west the grade is, successively, 0.71 percent ascending 4,400 feet, 0.60 percent descending 3,600 feet, 0.04 percent descending 5,100 feet, and level 125 feet to the point of accident and a considerable distance eastward.

Movements over the crossing are governed by interlocking signals. Semi-automatic signals 10 and 9, governing westbound movements on the B.& O., are located, respectively, 1.61 miles and 160 feet east of the crossing. These signals are of the color-position-light type. Signal 10 displays four aspects, and signal 9 displays three aspects. Automatic signal 948 and semi-automatic signal 31, governing east-bound movements on track No. 1 on the P.R.R., are located, respectively, 2.98 miles and 575 feet west of the crossing. These signals are of the position-light type. Signal 948 is approach-lighted and displays three aspects. Signal 31 is continuously lighted and displays five aspects. Aspects applicable to this investigation and the corresponding indications and names are as follows.

Signal	Aspect	Indication	Name
10	Two yellow lights in diagonal position to the right under white marker light.	Proceed, prepared to stop at next signal, and be governed by indication displayed by that signal. Train exceeding medium speed must at once reduce to that speed.	Approach.
9	Two green lights in vertical position under white marker light.	Proceed.	Clear.
948	Three amber lights in diagonal position to the right.	Proceed prepared to stop at next signal. Train exceeding Medium speed must at once reduce to that speed.	Approach.
31	Three amber lights in horizontal position.	Stop.	Stop-signal.

The cab signals of the P.R.R. are of the continuous-inductive, four-indication, position-light type. The cab signals on each Diesel-electric locomotive are so arranged that the aspects may be observed by the engineer and the fireman from their accustomed positions in the control compartment. The aspects applicable to this investigation and the corresponding indications and names are as follows:

Aspect	Indication	Name
Three white lights in diagonal position to the right.	Proceed prepared to stop at next signal. Train exceeding Medium speed must at once reduce to that speed.	Approach.

Two white lights in diagonal position to the left.	Proceed at Restricted speed.	Restricting.

The aspects of the cab signals correspond with the aspects displayed by the roadway signals, except that the cab signal indicates Restricting when the train enters a block at a roadway signal indicating Stop. The circuits are so arranged that if the indication of signal 31 is less favorable than Approach the cab signal will indicate Restricting at a point 1,173 feet west of signal 31. When the cab signal changes to a more restrictive indication, a warning whistle in the cab sounds until an acknowledging pedal is operated.

Uhrichsville interlocking is provided with approach, indication, and route locking. The controlling circuits and the mechanical locking are so arranged that, when the route is lined for a B.& O. train to move over the crossing, signal 948 indicates Approach and signal 31 indicates Stop.

Operating rules of the P.R.R. read in part as follows:

DEFINITIONS

Medium Speed--Not exceeding one-half the speed authorized for passenger trains but not exceeding 30 miles per hour.

Restricted Speed--Not exceeding 15 miles per hour prepared to stop short of train, obstruction or switch not properly lined and to look out for broken rail.

98. Trains must approach * * * railroad crossings at grade * * * prepared to stop unless * * * signals indicate proceed, and track is clear. * * *

514. When cab signal indication changes to Restricting, a train or engine must reduce speed at once to not exceeding Restricted speed.

663. A train or engine must stop clear of an interlocking signal indicating Stop. * * *

The maximum authorized speeds were 50 miles per hour for the P.R.R. train and 30 miles per hour for the B.& O. train.

Description of Accident

First 83, a west-bound third-class B.& O. freight train, consisted of engine 7105, 111 cars and a caboose. This train passed Freeport, the last open office, 17.4 miles east of Uhrichsville, at 9:37 a. m., 37 minutes late, passed signal 10, which indicated Approach, passed signal 9, which indicated Proceed, and while it was moving over the crossing at a speed of about 15 miles per hour the 108th car was struck by Extra 9471 East.

Extra 9471 East, an east-bound P.R.R. freight train, consisted of Diesel-electric units 9471A, 9460B and 9460A, coupled in multiple-unit control, 52 cars and a caboose. This train passed Newcomerstown, the last open office, 16.3 miles west of Uhrichsville, at 11:17 a. m., passed signal 948, which indicated Approach, passed the point where the indication of the cab signal changed from Approach to Restricting, passed signal 31, which indicated Stop, and while moving at a speed of about 15 miles per hour it struck the 108th car of First 83.

The 108th and the 109th cars of First 83 were demolished. The front truck of the 110th car was derailed, and the car was somewhat damaged. The Diesel-electric units, the first 12 cars, and the front truck of the thirteenth car of Extra 9471 East were derailed. The Diesel-electric units remained coupled and stopped upright and in line with the track, with the front end of the first unit 567 feet east of the point of accident. They were badly damaged. The twelfth and the thirteenth cars were slightly damaged, and the other derailed cars were badly damaged.

The engineer, the fireman, and the front brakeman of Extra 9471 East were injured.

The weather was clear at the time of the accident, which occurred at 11:35 a. m.

Discussion

The operator at Uhrichsville lined the route for First 83 to proceed through the interlocking immediately after the engine of that train passed signal 10. The train was moving over the crossing at a speed of about 15 miles per hour when the 108th car was struck by Extra 9471 East.

As Extra 9471 East was approaching Uhrichsville the enginemen were maintaining a lookout ahead from their positions in the control compartment at the front of the first Diesel-electric unit, the front brakeman was to the rear of the control compartment, and the conductor and the flagman were in the caboose. The brakes of this train, all of which were AB-type, had been tested at Columbus, Ohio, 99.1 miles west of Uhrichsville, and had functioned properly when used en route. Signal 948 indicated Approach, and the enginemen called the indication. When the front of the train passed the signal, the indication of the cab signal changed to Approach. The engineer said that the speed of the train was about 40 miles per hour, but, because the train was moving on an ascending grade, he did not consider it necessary to take action to reduce the speed immediately. When the front of the train was about 2,700 feet west of signal 31, the engineer initiated a service application of the brakes. A short time later he became aware that a service application would not stop the train short of signal 31, and he then placed the brake valve in emergency position. He thought that the speed of the train at that time was about 30 miles per hour. The fireman said he did not notice the location of the train when the first brake application was made. He first became aware that the speed of the train was not being properly controlled and called a warning to the engineer about the same time that the engineer initiated the emergency application of the brakes. Because of curvature of the track and vegetation along the south side of the track, the view of signal 31 from the cab of an east-bound engine is restricted to a distance of about 950 feet. The enginemen said that the indication of the cab signal changed from Approach to Restricting when the engine was about 1,200 feet west of signal 31, and that signal 31 indicated Stop when it first became visible to them.

The rules of the P.R.R. require that when a train passes a signal which indicates Approach the speed of the train must be reduced at once to not exceeding 30 miles per hour and be so controlled that the train can be stopped short of the next signal. The enginemen of Extra 9471 East understood these requirements, but action was not taken in time to reduce the speed of the train so that it could be stopped short of the next signal.

Cause

It is found that this accident was caused by failure to operate the P.R.R. train in accordance with signal indications.

Dated at Washington, D. C., this twentieth day of November, 1950.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,

Secretary.