INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 2923

THE BALTIMORE AND OHIO RAILROAD COMPANY

REPORT IN RE ACCIDENT

AT LOWELLVILLE, OHIO, ON

AUGUST 16, 1945

SUMMARY

Railroad:	Baltimore and Ohio	
Date:	August 16, 1945	
Location:	Lowellville, Ohio	
Kind of accident:	Side collision	
Trains involved:	Freight	: Freight
Train numbers:	Extra 7308 East	: Extra 6188 East
Engine numbers:	7308	: 6188
Consist:	30 cars, caboose	: 69 cars, caboose
Estimated speed:	4 m. p. h.	: 40 m. p. h.
Operation:	Signal indications	
Track:	Double; tangent; 0.03 percent ascending grade eastward	
Weather:	Dense fog	
Time:	7:54 a. m.	
Casualties:	3 injured	
Cause:	Failure to operate following train in accordance with signal indications	

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2923

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

THE BALTIMORE AND OHIO RAILROAD COMPANY

October 16, 1945.

Accident at Lowellville, Ohio, on August 16, 1945, caused by failure to operate the following train in accordance with signal indications.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On August 16, 1945, there was a side collision between two freight trains on the Baltimore and Ohio Railroad at Lowellville, Ohio, which resulted in the injury of three employees. This accident was investigated in conjunction with a representative of the Public Utilities Commission of Ohio.

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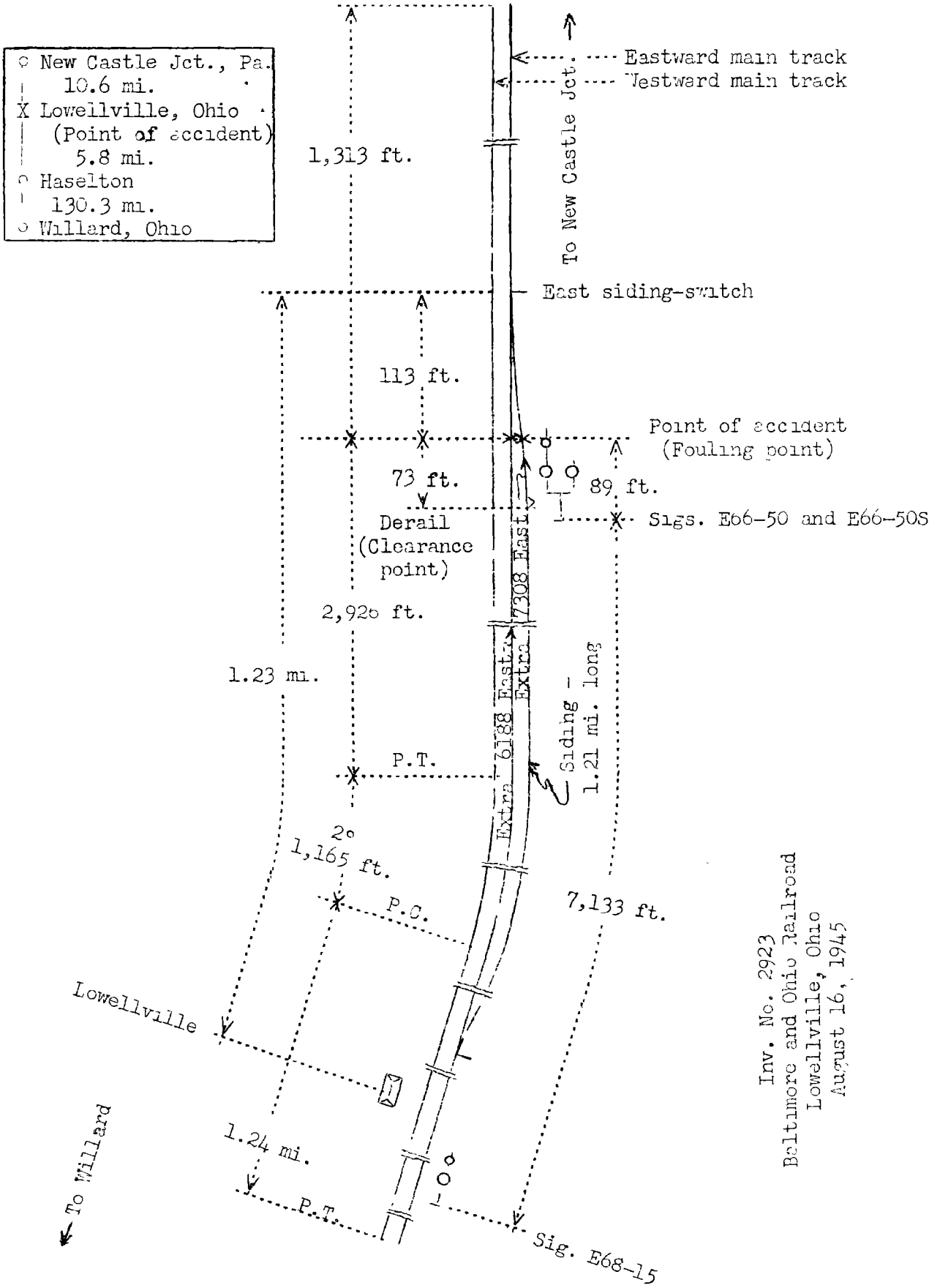
[1]Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.



Inv. No. 2923
Baltimore and Ohio Railroad
Lowellville, Ohio
August 16, 1945

Location of Accident and Method of Operation

This accident occurred on that part of the Akron Division which extends between Willard, Ohio, and New Castle Jct., Pa., 146.7 miles, a double-track line in the vicinity of the point of accident, over which trains moving with the current of traffic are operated by signal indications. At Lowellville, 136.1 miles east of Willard, a siding 1.21 miles in length parallels the main tracks on the south. The east switch of this siding is 1.23 miles east of the station. The clearance point at the east end of the siding is 186 feet west of the east siding-switch. The accident occurred at the fouling point of the eastward main track and the turnout of the east siding-switch, at a point 89 feet east of the clearance point and 113 feet west of the switch. From the west there are, in succession, a tangent 1.24 miles in length, a 2° curve to the left 1,165 feet and a tangent 2,926 feet to the point of accident and 1,313 feet eastward. At this point the grade is 0.03 percent ascending eastward.

Automatic signals E68-15 and E66-50, governing east-bound movements on the eastward main track, are, respectively, 1.37 miles and 89 feet west of the point of accident, and automatic signal E66-50S, governing movements from the siding to the eastward main track at the east switch, is 89 feet west of this point. Signal E66-50 is mounted on the left side and signal E66-50S on the right side of a bracket-mast, about 10 feet south of the south rail of the siding. These signals are of the color-position-light type, and are approach lighted. The involved aspects and corresponding indications and names of these signals are as follows:

Signal	Aspect	Indication	Name
E68-15	White light over two yellow lights in diagonal position to the right	Proceed, preparing 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.
E66-50	Two red lights in horizontal position	Stop.	Stop.
E66-50S	Two yellow lights in diagonal position to the right	Proceed at slow speed, preparing to stop at next signal * * *	Slow Approach.

A hand-operated block-type derail is located on the south rail of the siding at a point 186 feet west of the east siding-switch. The normal position of this derail is for derailing. The track circuit of the fouling section of the turnout of the east siding-switch extends 202 feet west of the switch. The controlling circuits of the automatic signals are so arranged that when the derail is placed in non-derailing position or the east siding-switch is in position for movement from the siding to the eastward main track, signal E68-15 will display proceed-preparing-to-stop-at-next-signal and signal E66-50 will display stop, and, if the block immediately east of signal E66-50S is unoccupied, signal E66-50S will display slow-approach.

Operating rules read in part as follows:

11. A train finding a fusee burning on or near its track must stop and extinguish the fusee and then proceed at restricted speed.

15. The explosion of torpedoes is a signal to be on the alert for flagman, obstruction, or train ahead. The explosion of one torpedo will indicate the same as two, but the use of two is required.

* * *

34. All members of train and engine crews will, when practicable, communicate to each other the indication of each signal affecting the movement of their train or engine.

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 fusees.

* * *

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.

When day signals cannot be plainly seen, owing to weather or other conditions, night signals must also be used.

* * *

134. * * * when a train or engine takes a siding at a point where switches are hand operated the conductor or engineman will, * * * report the train or engine into clear and will receive permission from the train dispatcher before again fouling the main track.

* * *

SPEED RESTRICTIONS.

Normal Speed--The maximum speed permitted by timetables for main track movements.

Medium Speed--One-half the normal speed, not to exceed thirty (30) miles per hour.

Slow Speed--One-quarter of the normal speed, not to exceed fifteen (15) miles per hour.

Restricted Speed--Proceed, prepared to stop short of train, obstruction, or anything that may require the speed of a train to be reduced.

509 (A). * * * when a train is stopped by an automatic block signal indicating Stop * * * a member of the crew will examine switches, if any, * * * and if such switches are found in proper position, train will proceed at restricted speed to the next signal.

513. Before a train or engine enters on or fouls a main track * * * trainmen will open the switch and wait three (3) minutes before fouling the main track.

* * *

This will not relieve employes from the duty of promptly and properly protecting the movement.

The maximum authorized speed for the freight train moving on the turnout was 10 miles per hour and for the freight train moving on the eastward main track, 45 miles per hour.

Description of Accident

Extra 7308 East, an east-bound freight train, consisting of engine 7308, 30 cars and a caboose, stopped into clear on the siding at Lowellville about 7:20 a. m. About 7:44 a. m., this train was authorized to proceed from the siding to the eastward main track. About 7:54 a. m., when it was proceeding

from the siding to the eastward main track at an estimated speed of 4 miles per hour, the twenty-third car was struck by Extra 6188 East.

Extra 6188 East, an east-bound freight train, consisting of engine 6188, 69 cars and a caboose, departed from Haselton, 5.8 miles west of Lowellville, at 7:37 a. m., passed signal E68-15, which displayed proceed-preparing-to-stop-at-next-signal, passed signal E66-50, which displayed stop, and while moving on the eastward main track at an estimated speed of 40 miles per hour it struck Extra 7308 East at a point 89 feet east of signal E66-50.

The engine and 20 cars of Extra 6188 and 5 cars of Extra 7308 were derailed, and were badly damaged.

There was a dense fog at the time of the accident, which occurred about 7:54 a. m.

The engineer, the fireman and the front brakeman of Extra 6188 were injured.

In tests after the accident the automatic block-signal system functioned properly.

Discussion

In compliance with instructions issued by the train dispatcher, Extra 7308 East entered the siding at Lowellville about 7:20 a. m. to permit No. 8, an east-bound passenger train, to pass. No. 8 passed Lowellville about 7:35 a. m. About 7:44 a. m., the engineer of Extra 7308 East received authority by telephone for his train to proceed from the siding to the eastward main track. The front brakeman placed the derail at the east end of the siding in non-derailing position about 7:45 a. m., and then opened the east siding-switch. About 9 minutes later, after Extra 7308 had moved westward on the siding and had passed signal E66-50S, which displayed proceed-at-slow-speed, this train was proceeding from the siding to the eastward main track when the twenty-third car was struck by Extra 6188 East.

The engineer of Extra 7308 East said that he did not sound the whistle signal for the flagman to provide protection, but did sound two long blasts of the whistle to indicate to the conductor and the flagman, who were at the rear of the train, that the train was ready to proceed. The conductor and the flagman said that when they heard the whistle signal sounded the flagman turned the marker lamps to display red to the rear. When the train started, the flagman placed two torpedoes on the south rail of the eastward main track and a lighted 5-minute fusee between the rails of the eastward main track at a point

about 1,850 feet west of the east siding-switch. The fireman said he placed two lighted 5-minute fusees on the eastward main track about 150 feet west of the clearance point. All members of this crew said that the engine entered the west end of the fouling section of the turnout of the east siding-switch at 7:48 a. m. Because dense fog restricted visibility to a distance of about 500 feet, the engineer was unable to see the rear portion of the train, and he operated the train at a slow rate of speed so that the flagman could restore the derail to derailing position and the switch to normal position, then board the caboose. When the caboose was about 350 feet west of the clearance point the conductor and the flagman heard the approaching train. They immediately alighted, ran westward and were giving stop signals with lighted fusees when the engine of Extra 6188 passed them. The conductor of Extra 7308 said there was no member of the crew of Extra 6188 on the right side of the engine cab, but one person was at the rear of the cab facing the tender and another person standing near the right seat looking upward toward the roof of the cab.

As Extra 6188 East was approaching Signal E68-15, located 1.37 miles west of the point of accident, the speed was about 40 miles per hour. The engineer was seated in his usual position on the right side of the cab and the fireman and the front brakeman were seated on the left side, and these employees said that they were maintaining a lookout ahead. They stated that signal E68-15 displayed proceed, and that they called the indication. The engineer said that soon after the engine passed signal E68-15 he sounded the whistle signal in the immediate vicinity of a highway grade crossing, and then entered the coal compartment of the tender and remained there until immediately prior to the collision. The fireman and the front brakeman said they did not see any lighted fusees, Extra 7308 or the stop indication displayed by signal E66-50 prior to the collision. They heard the explosion of torpedoes when their engine was about 1,850 feet west of the east siding-switch, but they did not warn the engineer or take any other action in response to this signal.

The controlling circuits of the automatic block-signal system are so arranged that when the derail at the east end of the siding at Lowellville is placed in non-derailing position or the east siding-switch is placed in position for movement from the siding to the eastward main track, signal E68-15 will display proceed-preparing-to-stop-at-next-signal and signal E66-50 will display stop. The evidence indicates that, as a result of the derail being placed in non-derailing position not later than 7:45 a. m., signal E68-15 was displaying proceed-preparing-to-stop-at-next-signal, and signal E66-50 was displaying stop during an interval of not less than 9 minutes prior to the occurrence of the accident. The tonnage of the train of Extra 6188 was 5,485 tons, and this was approximately full tonnage for the engine in this territory. After this train stopped at Haselton, 5.66 miles west of signal E68-15, it

departed at 7:37 a. m., and the accident occurred at 7:54 a. m. Based on the elapsed time of 17 minutes consumed by Extra 6188 in proceeding from Haselton to the point of accident, a distance of approximately 7 miles, the average speed was about 25 miles per hour. Therefore, this train had proceeded a distance of not more than 3.4 miles eastward from Haselton and had reached a point not less than 2.26 miles west of signal E68-15 when this signal began to display proceed-preparing-to-stop-at-next-signal. This indication required the speed of Extra 6188 to be not in excess of 22.5 miles per hour until the train reached signal E66-50, and to be so controlled that the train could be stopped short of that signal. However, Extra 6188 was moving at a speed of about 40 miles per hour when it passed signal E66-50 and struck Extra 7308. In tests after the accident the signals functioned properly.

Cause

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

Dated at Washington, D. C., this sixteenth day of October, 1945.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.