

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 3049
THE PENNSYLVANIA RAILROAD COMPANY
REPORT IN RE ACCIDENT
NEAR DERRY, PA., ON
DECEMBER 17, 1946

SUMMARY

Railroad: Pennsylvania

Date: December 17, 1946

Location: Derry, Pa.

Kind of accident: Rear-end collision

Trains involved: Freight : Engine

Train numbers: Extra 4658 West : Extra 262 West

Engine numbers: 4658 : 262

Consist: 31 cars, caboose :

Estimated speeds: Standing : 25 m. p. h.

Operation: Signal indications

Tracks: Four; 2° curve; 0.98 percent descending grade westward

Weather: Clear

Time: 2:28 p. m.

Casualties: 1 killed; 2 injured

Cause: Failure to operate following train in accordance with signal indications

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO 3049

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

THE PENNSYLVANIA RAILROAD COMPANY

January 31, 1947.

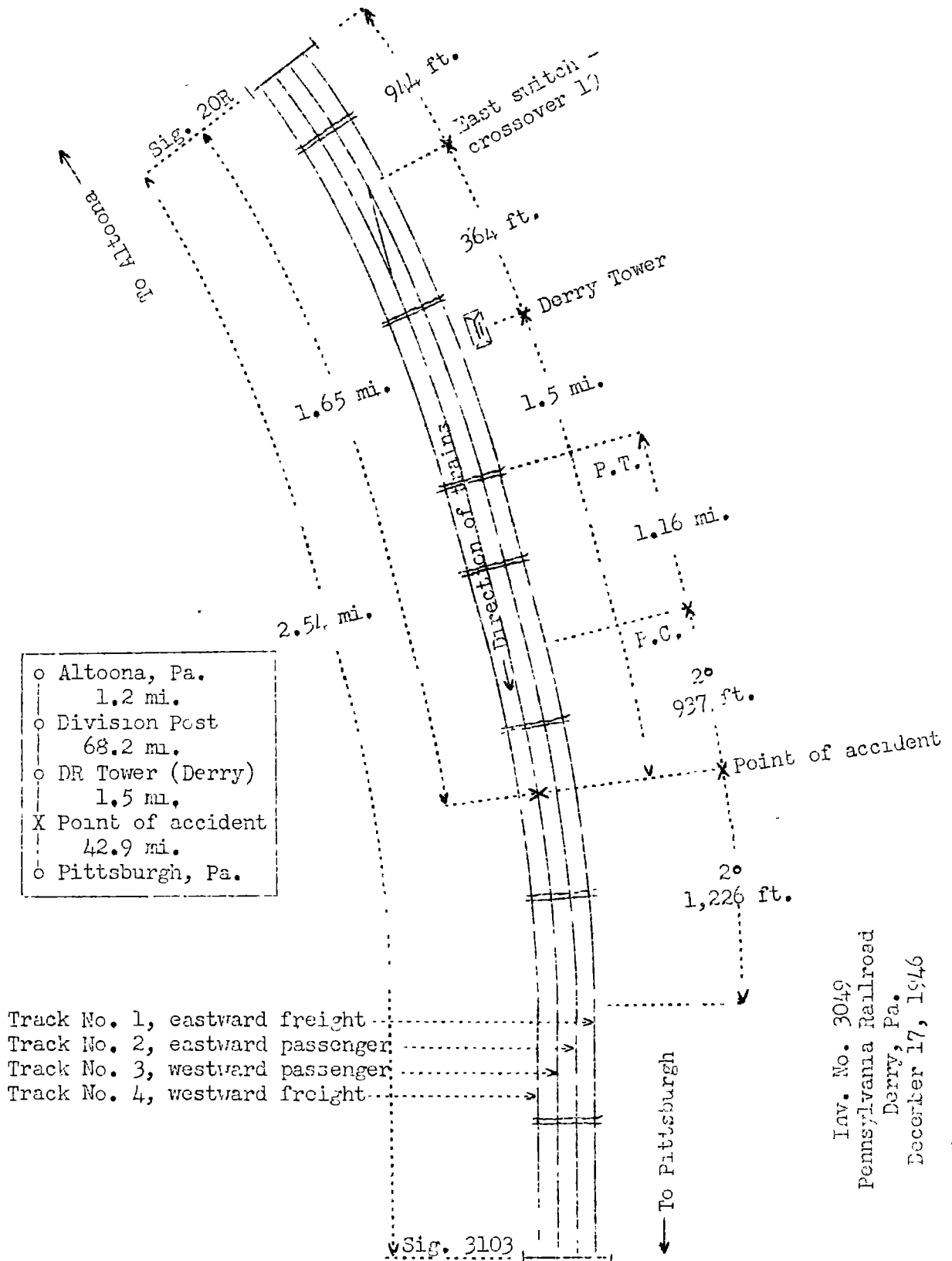
Accident near Derry, Pa., on December 17, 1946, caused
by failure to operate the following train in
accordance with signal indications.

REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On December 17, 1946, there was a rear-end collision between a freight train and an engine on the Pennsylvania Railroad near Derry, Pa., which resulted in the death of one train-service employee and the injury of two train-service 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.



Inv. No. 3049
 Pennsylvania Railroad
 Derry, Pa.
 December 17, 1946

Location of Accident and Method of Operation

This accident occurred on that part of the Pittsburgh Division extending between Division Post, near Altoona, and Pittsburgh, Pa., 112.6 miles. In the vicinity of the point of accident this is a four-track line. The main tracks from south to north are designated as No. 1, eastward freight; No. 2, eastward passenger; No. 3, westward passenger; and No. 4 westward freight. Trains moving with the current of traffic on tracks Nos. 1, 2, 3 and 4 are operated by automatic block-signal and cab-signal indications. The accident occurred on track No. 3, at a point 70.9 miles west of Altoona and 1.5 miles west of the tower at Derry. From the east on track No. 3 there is a tangent 1.16 miles in length, which is followed by a 2° curve to the right 937 feet to the point of accident and 1,226 feet westward. The grade for west-bound trains varies between 0.95 percent and 0.93 percent descending throughout a distance of 1.53 miles immediately east of the point of accident, where it is 0.93 percent descending.

Within interlocking limits at Derry, west-bound movements from track No. 2 to track No. 3 are made through crossover 19. The east switch of this crossover is 364 feet east of the tower.

Home signal 20R is 944 feet east of the east switch of crossover 19 and 1.65 miles east of the point of accident. It is a dwarf signal governing west-bound movements from track No. 2 through crossover 19 thence westward on track No. 3 to automatic signal 3103, 2.54 miles westward. Signal 20R is of the two-indication, position-light type, and is controlled from the tower at Derry. The cab signals are of the four-indication, position-light type. The involved aspects and corresponding indications and names of these signals are as follows:

<u>Signal</u>	<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
20R and cab signal	Two white lights in diagonal position to the left	Proceed at Restricted speed.	Restricting.

The controlling circuits are so arranged that when a west-bound train is occupying track No. 3 in the block extending from a point 2,296 feet west of signal 20R to signal 3103, and the switches of crossover 19 are lined for a west-bound movement to proceed from track No. 2 to track No. 3, signal 20R and the cab signals of a following train will display proceed-at-restricted-speed.

Operating rules read in part as follows:

DEFINITIONS

* * *

Cab Signal--A signal located in engineman's compartment or cab indicating a condition affecting the movement of a train or engine.

* * *

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

* * *

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.

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

15. TORPEDOES

The explosion of two torpedoes is a signal to proceed at Reduced speed. The explosion of one torpedo will indicate the same as two but the use of two is required.

* * *

35. The following signals will be used by flagmen:

Day signals--A red flag, torpedoes and fusees.

* * *

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.

* * *

Note--When trains are operating under Automatic Block System Rules, the requirements of Rule 99, in so far as protecting against following trains is concerned, will have been complied with when full protection is afforded against trains moving at Restricted speed.

296. Cab signal indications do not supersede fixed signal indications except when cab signal changes to a more restrictive or a more favorable indication after passing a fixed signal.

501a. Interlocking home signals governing the use of routes leading to a block will in addition govern the use of the block in direction for which traffic has been established for a train to the next block signal.

The maximum authorized speed for the following train was 50 miles per hour.

Description of Accident

Extra 4658 West, a west-bound freight train, consisting of engine 4658, 81 cars and a caboose, passed the tower at Derry, the last open office, at 2:17 p. m. and stopped on track No. 3 about 2:21 p. m. at signal 3103, which displayed stop. About 7 minutes later the rear end of Extra 4658 West was struck by Extra 262 West.

Extra 262 West, a west-bound engine moving on track No. 2, passed signal 20R, which displayed proceed-at-restricted-speed, proceeded through crossover 19 to track No. 3, passed the tower at Derry at 2:25 p. m. and while moving at an estimated speed of 25 miles per hour it collided with Extra 4658 West.

The caboose of Extra 4658 West was demolished. The sixty-ninth to the seventy-first cars, inclusive, and the seventy-eighth to eighty-first cars, inclusive, of Extra 4658 West, and the engine of Extra 262 West were derailed and damaged.

The conductor of Extra 4658 West was killed. The engineer and the fireman of Extra 262 West were injured.

The weather was clear at the time of the accident, which occurred about 2:28 p. m.

Discussion

Extra 4658 West passed the tower at Derry at 2:17 p. m. and stopped on track No. 3 about 2:21 p. m. with the engine just east of signal 3103, which was displaying stop. About 2:23 p. m. the leverman at Derry lined the route for Extra 262 West to proceed from track No. through crossover 19 to track No. 3. Signal 20R displayed proceed-at-restricted-speed for Extra 262 West. This train departed from Derry about 2:25 p. m. and was moving at a speed of about 25 miles per hour when it struck the rear end of Extra 4658 West.

When Extra 4658 West stopped, the flagman proceeded eastward to provide flag protection. He placed a lighted 5-minute fusee on track No. 3 at a point 663 feet east of the rear of his train, then proceeded westward and placed two torpedoes on the north rail of track No. 3 about 200 feet east of the rear of his train. The flagman was in the vicinity of the location of the torpedoes when he saw Extra 262 West approaching, and immediately gave stop signals with a lighted fusee and a red flag. These signals were not acknowledged. He thought Extra 262 West was moving at a speed of about 40 miles per hour and that the brakes of the engine had not been applied when the engine passed him.

Extra 262 West was authorized to proceed from track No. 2 through crossover 19 thence westward on track No. 3 under a proceed-at-restricted-speed indication displayed by signal 20R, and the cab signals on each side in the front of the cab of the engine displayed the same indication during the movement through the interlocking limits at Derry and throughout the territory westward to the point of accident. The engine-men of Extra 262 West were the only employees assigned to this train. They understood that the indications displayed by signal 20R and the cab signals required their train to be operated at a speed not in excess of 15 miles per hour and to be so controlled that the train could be stopped short of a preceding train. As Extra 262 West was approaching the point where the accident occurred the engineer was maintaining a lookout ahead. He thought the speed of his engine was about 25 miles per hour when he saw the rear end of the preceding train and stop signals being given with a lighted fusee a few hundred feet distant. Then he moved the brake valve to emergency position, but this action was not taken soon enough to stop Extra 262 West short of the preceding train. The fireman was in the coal compartment in the tender until just before the collision occurred. After the accident there was no condition found that would prevent proper application of the brakes of engine 262.

Because of an embankment on the inside of the curve on which the accident occurred, the view of the track ahead from the engine of a west-bound train is materially restricted.

Under the flagging rules of this railroad, "full protection" in automatic block-signal territory consists of providing flag protection a distance sufficient only for stopping a following train which is being operated under a proceed-at-restricted-speed indication. A train operating under this indication must not exceed a speed of 15 miles per hour, and the train must be so operated that it can be stopped short of a preceding train or an obstruction.

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 thirty-first day of January, 1947.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.