

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 3014
THE PENNSYLVANIA RAILROAD COMPANY
REPORT IN RE ACCIDENT
NEAR DETOUR, OHIO, ON
AUGUST 17, 1946

SUMMARY

Railroad: Pennsylvania
Date: August 17, 1946
Location: Detour, Ohio
Kind of accident: Side collision
Equipment involved: Engine with cars : Freight train
Train number: : Extra 4429 East
Engine numbers: 7086 : 4429-9706
Consists: 17 cars : 119 cars, caboose
Estimated speeds: Standing : 10 m. p. h.
Operation: Signal indications
Tracks: Double; tangent; grade
practically level
Weather: Clear
Time: 10:53 a. m.
Casualties: 1 killed; 2 injured
Cause: Switching movement fouling main
track in front of approaching
train

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3014

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

THE PENNSYLVANIA RAILROAD COMPANY

October 10, 1946.

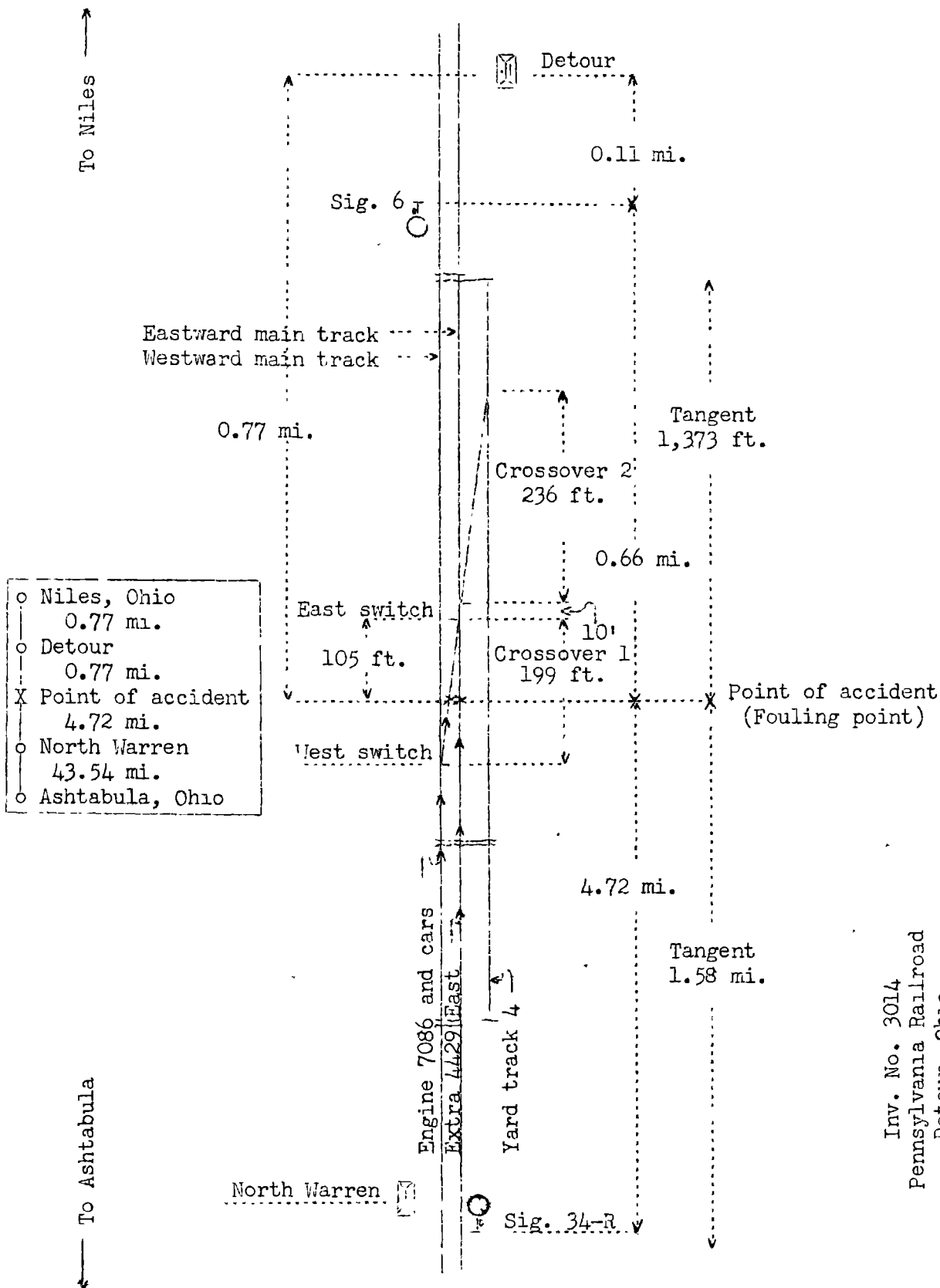
Accident near Detour, Ohio, on August 17, 1946, caused
by a switching movement fouling main track in front
of an approaching train.

REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On August 17, 1946, there was a side collision between an engine pushing cars and a freight train on the Pennsylvania Railroad near Detour, Ohio, which resulted in the death of one employee, and the injury of two employees. This accident was investigated in conjunction with a representative of the Public Utilities Commission of Ohio.

¹Under 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.



Location of Accident and Method of Operation

This accident occurred on that part of the Erie and Ashtabula Division extending between Ashtabula and Detour, near Niles, Ohio, 49.03 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 manual block-signal indications. There are no time-table schedules in effect. The east end of a classification yard which parallels the main tracks on the south is about 0.75 mile west of Detour. A trailing-point crossover 199 feet in length, designated as crossover 1, connects the eastward and the westward main tracks at a point 0.77 mile west of the tower at Detour. A facing-point crossover 236 feet in length, designated as crossover 2, connects the eastward main track and yard track No. 4. The east switch of crossover 1 is 10 feet west of the west switch of crossover 2. Movements from the westward main track to the classification yard are made through crossovers 1 and 2. The accident occurred at the fouling point of crossover 1 and the eastward main track, at a point 105 feet west of the east switch. The main tracks are tangent throughout a distance of 1.58 miles immediately west of the point of accident and 1,373 feet eastward. The grade is practically level.

Manual-block signal 6, located 0.11 mile west of the tower at Detour and 0.66 mile east of the point of accident, governs entry of west-bound movements to the block on the westward main track. This block extends to North Warren, 5.49 miles west of Detour. Manual-block signal 34-R, located near the tower at North Warren, governs entry of east-bound movements to the block on the eastward main track. This block extends to a point 0.11 mile west of Detour. Signal 6 is controlled from the tower at Detour, and signal 34-R is controlled from the tower at North Warren. These signals are of the position-light type, and the involved aspects and corresponding indications and names are as follows:

<u>Signal</u>	<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
6 and 34-R	Three white lights in diagonal position to the left	Block occupied; * * * for trains other than passenger trains, proceed at Reduced speed, but not exceeding thirty miles per hour.	Permissive-block.

The switches of crossovers 1 and 2 are hand-operated. The switchstands are of the low-stand type, and each switchstand is provided with two targets. The centers of the targets are 16 inches above the level of the tops of the ties. The switchstand of the east switch of crossover 1 is between the main tracks and about 4 feet north of the north rail of the eastward main track. The switchstand of the west switch of crossover 2 is about 4 feet south of the south rail of the eastward main track. When

these switches are in normal position, white targets are displayed at right angles to the main tracks. When the switches are lined for movement through the crossovers, red targets are displayed at right angles to the main tracks.

Operating rules 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.

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

* * *

7. Employees whose duties may require them to give signals must provide themselves with the proper appliances and keep them in good order and ready for immediate use.

8. Flags of the prescribed color must be used by day * * *.

14. ENGINE WHISTLE SIGNALS

Note--The signals prescribed are illustrated by "o" for short sounds; * * *. The sound of the whistle should be distinct with intensity and duration proportionate to the distance signal is to be conveyed.

SOUND

INDICATION

* * *

(g) o o Answer to any signal not otherwise provided for.

* * *

29. When a signal, except a fixed signal, is given to stop a train, it must be acknowledged as prescribed by Rule 14(g) * * *.

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 fuses.

* * *

D-152. When a train crosses over to or obstructs another track, unless otherwise provided, it must first be protected as prescribed by Rule 99.

327. To permit a train to enter a block or foul the main track or to cross from one main track to another, the signalman must first obtain control of the block to be used. * * *

* * *

Before permitting a train other than a passenger train to cross from one main track to another, the signalman must know that all blocks to be used are clear of approaching trains which had been admitted to the blocks under a Clear-block signal.

* * *

The maximum authorized speed for freight trains is 20 miles per hour.

Description of Accident

Extra 7086 West, a west-bound freight train, consisted of engine 7086, a caboose and 42 cars, in the order named. At 10:38 a. m. this train entered the block at signal 6 at Detour under a permissive-block indication, and about 10:45 a. m. stopped on the westward main track in the vicinity of the east switch of crossover 1. About 8 minutes later, the engine in backward motion was pushing the caboose and 17 cars in a movement from the westward to the eastward main track through crossover 1 thence to yard track No. 4 through crossover 2. The movement had just stopped with the leading two cars, the sixteenth and seventeenth, on crossover 1 when the sixteenth car was struck by Extra 4429 East at the fouling point of the eastward main track and crossover 1.

Extra 4429 East, an east-bound freight train, consisting of engines 4429 and 9706, 119 cars loaded with iron ore, and a caboose, entered the block at signal 34-R at North Warren under a permissive-block indication at 10:34 a. m., and was moving on the eastward main track at an estimated speed of 10 miles per

hour when the first engine struck the sixteenth car of the cut of cars being pushed by engine 7086.

The fifteenth and sixteenth cars of the cut of cars being pushed by engine 7086 were overturned to the north of crossover 1. The first engine of Extra 4429 East was derailed and stopped on its right side and parallel to the eastward main track, with the front end 87 feet east of the point of collision. The tender, remaining coupled to the engine, stopped upright, across the eastward main track and at an angle of about 70 degrees to the engine. The second engine was derailed and stopped upright, across the eastward main track and at an angle of 35 degrees to it. The tender of the second engine stopped across the eastward main track and at right angles to the engine. The first three cars of Extra 4429 East were derailed. The derailed equipment was considerably damaged.

The weather was clear at the time of the accident, which occurred about 10:53 a. m.

The fireman of the second engine of Extra 4429 East was killed. The conductor of Extra 4429 East and the engineer of the second engine of that train were injured.

Discussion

Extra 7086 West entered the block at Detour on the westward main track and Extra 4429 East entered the block at North Warren on the eastward main track under permissive block-signal indications. Extra 7086 West stopped on the westward main track in the vicinity of crossover 1 to set out cars, and the conductor obtained authority by telephone from the operator at North Warren for his engine to move 17 cars from the westward main track through crossover 1 to the eastward main track thence through crossover 2 to yard track No. 4. The operator at North Warren informed the conductor of Extra 7086 West that Extra 4429 East had entered the block and was moving under authority of a permissive-block indication. The operator at Detour informed the conductor of Extra 7086 West that he thought Extra 4429 East would stop in the vicinity of crossover 1 to set out cars. No instruction had been issued to the crew of Extra 4429 East to set out cars at this point. Engine 7086 was pushing 17 cars from the westward main track through crossover 1 to the eastward main track and this movement had just stopped with the sixteenth and seventeenth cars standing on crossover 1 when the sixteenth car was struck by Extra 4429 East.

As Extra 4429 East was approaching the point where the accident occurred the speed was about 12 miles per hour. Both engineers were maintaining a lookout ahead, and the fireman of the first engine was tending the fire. The conductor and the front brakeman were in the brakeman's booth on the tender of the second engine. The brakes of this train, which were in the

charge of the engineer of the first engine, had been tested and had functioned properly en route. When the first engine was about 1 mile west of crossover 1, the engineer of the second engine sounded two short blasts of the engine whistle as a signal to the engineer of the first engine to close the throttle and to permit the train to drift. When the first engine was about 3,000 feet west of crossover 1, the engineer of that engine saw a person who was giving stop signals from the vicinity of the east switch of crossover 1 by swinging a hat in an arc over his head. Then the engineer of the first engine saw the cars and engine 7086 on the westward main track. He thought the signals were being directed to the members of the crew of engine 7086, and he sounded two long and two short blasts on the engine whistle to warn the crew of engine 7086 that Extra 4429 East was approaching. No further hand signal was seen by the employees on the engines of Extra 4429 East until the first engine was about 400 feet west of crossover 1, then the engineer of the first engine saw the front brakeman of engine 7086 line the west switch of crossover 2 for entry to yard track No. 4 and give hand signals for Extra 4429 East to stop clear of the crossover. At that time, the engineer of engine 4429 saw the cars which were being pushed by engine 7086 enter crossover 1, and he immediately moved the brake valve to emergency position and opened the sander valve. The speed of Extra 4429 was about 10 miles per hour when the collision occurred. The engineers of Extra 4429 understood that the permissive block-signal indication, under which their train was moving, required the train to be so operated that it could be stopped short of a train or an obstruction. They said that if stop signals had been given with a red flag by the member of the crew of engine 7086 to protect the crossover movement, there would have been no question as to whether the signal given by that employee was intended to stop Extra 4429 short of crossover 1 and that their train would have been stopped short of the crossover if a red flag had been used in accordance with the rules.

The conductor of Extra 7086 said that before the crossover movement was started he instructed the front brakeman to line the switches of crossover 1 and to provide flag protection against Extra 4429 East, which was approaching about 3,000 feet distant. The conductor lined the east switch of crossover 2, then returned to the telephone, located 241 feet east of the east switch of crossover 1, and was conversing by telephone with the yardmaster when the accident occurred. The flagman was providing protection against westward movements. The front brakeman said that when the conductor instructed him to line the switches of crossover 1 for movement to the eastward main track, he swung his hat, which was a silver-colored sun-helmet, over his head and crosswise the eastward main track, from a location adjacent to crossover 1, as flagging signals to Extra 4429 East. He heard two short blasts of an engine whistle and assumed that the engineer of Extra 4429 East was acknowledging the flagging signals. Then he lined both switches of crossover

1 and gave hand signals for his engine to push the cut of cars through crossover 1. The front brakeman said he was lining the west switch of crossover 2 for the intended movement when he observed that Extra 4429 East was not preparing to stop short of crossover 1. He immediately ran toward that train and was giving stop signals by hand when the engines passed him. The fireman of engine 7086, who was seated on the south side of the engine, was relaying signals to his engineer. The fireman gave signals for the engineer to start the movement through the crossover. Then, when he saw that Extra 4429 was not stopping short of crossover 1, he called a warning to his engineer. Engine 7086 had just stopped when the collision occurred. The front brakeman said that, because the flagman was using the red flag of the flagging equipment provided in their caboose, he used his hat to give flagging signals to Extra 4429. There was a red flag and an ample supply of fusees on engine 7086, but the front brakeman made no attempt to use this flagging equipment.

Cause

It is found that this accident was caused by a switching movement fouling main track in front of an approaching train.

Dated at Washington, D. C., this tenth
day of October, 1946.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.