

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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INVESTIGATION NO. 2895  
THE PENNSYLVANIA RAILROAD COMPANY  
REPORT IN RE ACCIDENT  
NEAR CREIGHTON, PA., ON  
JUNE 6, 1945

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SUMMARY

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Railroad: Pennsylvania  
Date: June 6, 1945  
Location: Creighton, Pa.  
Kind of accident: Side collision  
Trains involved: Freight : Freight  
Train numbers: Extra 1487 East : Extra 6940 West  
Engine numbers: 1487 : 6940  
Consist: 62 cars, caboose : 99 cars, caboose  
Estimated speed: 35 m. p. h. : 5 m. p. h.  
Operation: Movements with current of traffic  
by signal indications; movements  
against current of traffic by  
train orders and manuel-block system  
Track: Double; 1° curve; 0.17 percent  
ascending grade westward  
Weather: Foggy  
Time: 6:01 a. m.  
Casualties: 2 killed; 5 injured  
Cause: Failure to control speed of Extra  
1487 East in accordance with  
signal indications

INTERSTATE COMMERCE COMMISSION

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INVESTIGATION NO. 2895

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

THE PENNSYLVANIA RAILROAD COMPANY

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July 9, 1945.

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Accident near Creighton, Pa., on June 6, 1945, caused by  
failure to control the speed of Extra 1487 East in  
accordance with signal indications.

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REPORT OF THE COMMISSION<sup>1</sup>

PATTERSON, Commissioner:

On June 6, 1945, there was a side collision between  
two freight trains on the Pennsylvania Railroad near  
Creighton, Pa., which resulted in the death of two employ-  
ees, and the injury of five employees.

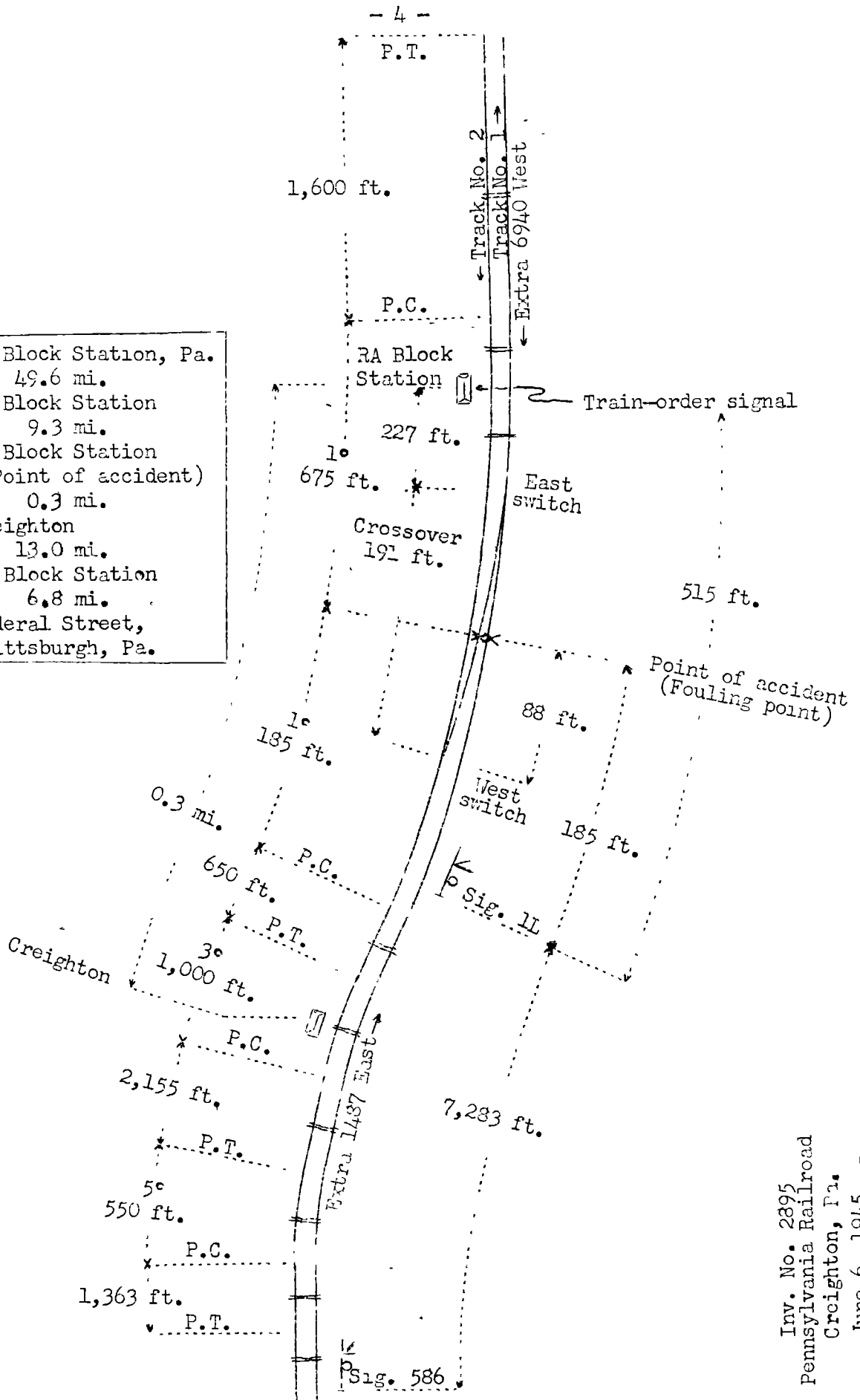
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<sup>1</sup>Under authority of section 17 (2) of the Interstate Com-  
merce Act the above-entitled proceeding was referred by the  
Commission to Commissioner Patterson for consideration and  
disposition.

To JD Block Station →

- o JD Block Station, Pa. 49.6 mi.
- o AJ Block Station 9.3 mi.
- X RA Block Station (Point of accident) 0.3 mi.
- o Creighton 13.0 mi.
- o UY Block Station 6.8 mi.
- o Federal Street, Pittsburgh, Pa.

← To Federal Street, Pittsburgh



Inv. No. 2895  
 Pennsylvania Railroad  
 Creighton, Pa.  
 June 6, 1945

Location of Accident and Method of Operation

This accident occurred on that part of the Conemaugh Division extending westward from JD Block Station, near New Florence, to Federal Street, Pittsburgh, Pa., 79 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 and trains moving against the current of traffic are operated by train orders and a manual-block system. The main tracks from south to north are designated as No. 1, eastward, and No. 2, westward. At RA Block Station, 0.3 mile east of Creighton and 58.9 miles west of JD Block Station, a trailing-point crossover 191 feet in length connects the two main tracks. The west switch of this crossover is 418 feet west of the tower. Both switches of this crossover are hand-operated and are in the charge of the operator at RA Block Station. The accident occurred on track No. 1 at the fouling point of the crossover, which is 88 feet east of the west switch. From the east on track No. 1 there is a tangent 1,600 feet in length, which is followed by a 1° curve to the right 675 feet to the point of accident and 185 feet beyond. From the west on track No. 1 there are, in succession, a tangent 1,363 feet in length, a 5° curve to the right 550 feet, a tangent 2,155 feet, a 3° curve to the right 1,000 feet, a tangent 650 feet and the curve on which the accident occurred. The grade is 0.17 percent ascending westward.

Automatic signal 586 and semi-automatic home signal 1L, governing east-bound movements on track No. 1, are located, respectively, 7,468 feet and 185 feet west of the point of accident. These signals are of the position-light type, continuously lighted. 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>
586	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.
1L	Three white lights in horizontal position	Stop.	Stop-signal.

Home signal 1L is provided to protect movements through the crossover involved. The controlling circuits are so arranged that when the controlling lever of the home signal is placed in normal position, this signal displays stop and signal 586 displays approach.

Operating rules read in part as follows:

### DEFINITIONS

#### Block

Block--A length of track of defined limits, the use of which by trains is governed by block signals, \* \* \*

#### Stations

Block Station--A place at which manual block signals are displayed.

\* \* \*

#### Speeds

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

\* \* \*

D-71. A train is superior to another train by right \* \* \*

Right is conferred by train order; \* \* \*

\* \* \*

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.

\* \* \*

The front of the train must be protected in the same way when necessary by the fireman.

\* \* \*

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.

204. \* \* \*

Orders addressed to operators restricting the movement of trains must be respected by conductors and enginemen the same as if addressed to them.

\* \* \*

221a. When an order is to be delivered to a train at a train order office, the fixed signal must be displayed at "stop" for the track and in the direction of the approaching train and a Train-Order signal must be displayed in the place provided for the purpose.

\* \* \*

221b. When train orders are issued that restrict the superiority of train addressed at the point where they are to be delivered to the train, the fixed signal at that point must remain at "stop" until the orders are delivered.

Before a train order is issued to hold trains the fixed signal at the point at which the trains are held must be displayed at "stop" for the track and in the direction of the approaching train and the operating lever blocked by the standard blocking device.

Forms of Train Orders

\* \* \*

J

Holding Order

\* \* \*

(3) Hold \_\_\_\_\_ ward trains.

\* \* \*

D-R

Providing for a Movement Against the Current of Traffic

(1) No 1 Eng 461 has right over opposing trains on No 2 track C to F.

\* \* \*

D-308. When a train is turned out against the current of traffic, manual block system rules must be observed; Rule 316 or 317 to apply as may be designated by special instructions.

317. (For absolute block for opposing movements and permissive block for following movements on the same track.)

\* \* \*

Before admitting a train other than a passenger train to a block, the signalman in charge of the block station \* \* \* at the entrance of the block must know that the block is clear of opposing trains and passenger trains, and that no opposing train or no passenger train has been given permission or a signal to enter the block. Signals governing opposing movements, where provided, must display Stop-Signal, and Stop-Signals to passenger trains must be displayed. \* \* \*

A train must not be admitted to a block which is occupied by an opposing train or by a passenger train, and a passenger train must not be admitted to a block which is occupied by any train, except as provided in Rules 327, 333 or by train order.

Time-table special instructions provide that at RA Block Station trainmen are not required to comply with Rule D-152. Rule 317 is applicable for all movements against the current of traffic in the territory on which the accident occurred.

The manual block to the west of RA Block Station extends 13.0 miles to UY Block Station. The manual block to the east of RA Block Station extends 9.3 miles to AJ Block Station.

The standard blocking device provided at RA Block Station for blocking the controlling lever of signal 1L is a cotter key, to which is attached a red tag for identification purposes.

The train-order signal used at RA Block Station for east-bound trains is a metallic banner painted yellow. It is not a fixed signal. At night a lighted yellow lantern is attached to the banner. When there is a train order for delivery to an east-bound train, the signal is displayed from the south wall of the block station, which is 25 feet north of track No. 1.

The maximum authorized speeds for freight trains moving with the current of traffic, against the current of traffic, and through the crossover at RA Block Station are, respectively, 45, 40 and 10 miles per hour.



Description of Accident

Train order No. 201, Form 19, addressed to the operator at RA Block Station, was made complete at 5:34 a. m., and read as follows:

Hold all Eastward Trains

Train order No. 202, Form 19, addressed to Extra 6940 West at AJ Block Station and to the operators at AJ Block Station and RA Block Station, was made complete at 5:36 a. m., and read as follows:

Extra 6940 West has right over  
opposing trains on No. 1 track  
AJ to RA

Extra 6940 West, a west-bound freight train, consisted of engine 6940, 99 cars and a caboose. At AJ Block Station, the last open office east of RA Block Station, the crew of this train received copies of train order No. 202 and manual-block authority to proceed on track No. 1 to RA Block Station as though a clear indication was displayed. This train departed from AJ Block Station at 5:46 a. m., passed RA Block Station, where the operator gave a proceed lantern signal to indicate that the crossover was lined for movement to track No. 2, entered the crossover, and while it was moving at an estimated speed of 5 miles per hour the tender of engine 6940 was struck by Extra 1487 East.

Extra 1487 East, an east-bound freight train, consisted of engine 1487, 62 cars and a caboose. This train, moving on track No. 1, departed from UY Block Station, the last open office, at 5:38 a. m., passed automatic signal 586, which displayed approach, passed home signal 1L, which displayed stop, and while moving at an estimated speed of 35 miles per hour it collided with Extra 6940 at a point 330 feet west of the train-order signal at RA Block Station, at the fouling point of track No. 1 and the crossover.

The trailer-truck of engine 6940 was derailed. The tender was derailed and stopped on its right side north of track No. 2. The first 3 cars of Extra 6940 were derailed and stopped in various positions across the tracks. The engine of Extra 1487 East was derailed and stopped on its right side south of track No. 1 and at right angles to it, about opposite the point of collision. The first 11 cars of Extra 1487 were derailed. Both engines, the first 3 cars of Extra 6940 and the first 9 cars of Extra 1487 were badly damaged.

There was a dense fog at the time of the accident, which occurred about 6:01 a. m.

The engineer and the fireman of Extra 1487 were killed. The engineer, the fireman and a special-duty engineer of Extra 6940, and the conductor and the front brakeman of Extra 1487 were injured.

### Discussion

Train order No. 201, which was addressed to the operator at RA Block Station and sent to that office at 5:34 a. m., required the operator to hold all east-bound trains from passing his station. Order No. 202, which was addressed to Extra 6940 West and to the operators at AJ Block Station and RA Block Station was sent to these stations at 5:36 a. m. Under the rules, order No. 201 required the operator at RA Block Station to place signal 1L in position to display stop and to apply a blocking device to the controlling lever. Order No. 202, which authorized the movement of Extra 6940 West to proceed against the current of traffic on track No. 1 from AJ Block Station to RA Block Station, required each of these operators to display his train-order signal in the proper direction. Trains moving toward a train-order signal must not pass the signal unless authorized to do so by train order or by clearance card. In addition, manual-block rules provide that opposing trains must not be permitted to occupy the same block simultaneously.

The investigation disclosed that after the operator at AJ Block Station had arranged with the operator at RA Block Station for block authority for Extra 6940 West on track No. 1 from AJ Block Station to RA Block Station, the operator at RA Block Station lined the crossover about 5:40 a. m. for that train to move from track No. 1 to track No. 2. Extra 6940 West received copies of train order No. 202 at AJ Block Station, and after the crew had received clear-block authority the train departed westward on track No. 1 at 5:46 a. m. As this train was approaching RA Block Station the speed was about 5 miles per hour. The engineer and a special-duty engineer were maintaining a lookout ahead. A dense fog restricted visibility to about 200 feet. When the engine was in the vicinity of RA Block Station, the operator gave proceed signals with a lighted white lantern as information that the crossover was lined for the train to enter track No. 2. Extra 6940 proceeded beyond RA Block Station, and the first that any member of the crew was aware of anything being wrong was when their train was struck by Extra 1487 at the fouling point of the crossover.

As Extra 1487 East was approaching RA Block Station the speed was about 35 miles per hour. The conductor and the flagman were in the caboose at the rear of the train, and the front brakeman was in the brakeman's booth on the rear of the tender. The speed was not reduced and no application of the air brakes was felt. The first that any surviving member of the crew of

this train was aware of anything being wrong was when the accident occurred. Soon after the accident, signals 586 and 1L were observed to be displaying proper restrictive indications, and when tested these signals functioned as intended. Apparently signal 586 displayed approach and signal 1L displayed stop for Extra 1487. The brakes of this train had been tested and functioned properly en route. Both engineers were killed in the accident; therefore, it could not be determined why the speed of this train was not controlled in accordance with signal indications.

Under the rules of this carrier, restricting orders can be placed at the point of restriction without any special precaution being taken except to display at stop the signals provided for that purpose. In the case at RA Block Station, the signals provided for the manual-blocking of east-bound trains and the handling of train orders affecting east-bound trains were signal 1L and the eastward train-order signal. These signals were displayed in accordance with the rules governing the movement of the trains involved. Although signal 1L was the manual-block signal for holding Extra 1487 East clear of the block extending eastward from RA Block Station, this signal was located 515 feet west of the train-order signal. This train passed the home signal and collided with the opposing train 330 feet west of the train-order signal. In permitting Extra 6940 West to proceed beyond RA Block Station to enter the crossover, it occupied the block extending westward from this station, which block was already occupied by Extra 1487, an opposing train. However, the rules permitted Extra 6940 to make this movement and thence through the crossover under the protection of the home signals on each side of the crossover, although its train-order authority to operate on track No. 1 ended at RA Block Station.

A dense fog prevailed at the time of the accident, and it was difficult to see wayside signal indications from an engine. A cab-signal system provides for the display of signal indications in front of the engineers in the cab of the locomotive. All the engines which are operated over the territory in question are provided with cab-signal equipment, and the cab-signal system is in use between AJ Block Station and JD Block Station, respectively, 9.3 and 58.9 miles east of RA Block Station. If the cab-signal system had been in use in the territory on which this accident occurred, the engine crew of Extra 1487 would have received audible warning signals and visual restrictive signal indications in the cab of their engine when the train was passing both signal 586 and signal 1L, and it is probable that this accident would have been prevented.

#### Cause

It is found that this accident was caused by failure to control the speed of Extra 1487 East in accordance with signal indications.

Dated at Washington, D. C., this ninth  
day of July, 1945.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,  
Secretary.