

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

---

INVESTIGATION NO. 3267  
THE NEW YORK CENTRAL RAILROAD COMPANY  
REPORT IN RE ACCIDENT  
NEAR PHILADELPHIA, N. Y., ON  
JULY 22, 1949

---

SUMMARY

---  
Date: July 22, 1949  
Railroad: New York Central  
Location: Philadelphia, N. Y.  
Kind of accident: Head-end collision  
Equipment involved: Track motor-car : Passenger train  
4166 and trailer  
Train number: : 59  
Engine number: : Diesel-electric  
unit 9301  
Consist: : 4 cars  
Estimated speeds: 15 m. p. h. : 55 m. p. h.  
Operation: Timetable, train orders and manual-  
block system  
Track: Single; 1° curve; 0.78 percent  
descending grade northward  
Weather: Clear  
Time: 8:06 a. m.  
Casualties: 1 killed  
Cause: Train being admitted under clear-  
block authority to block occupied  
by an opposing track motor-car

INTERSTATE COMMERCE COMMISSION

---

INVESTIGATION NO. 3267

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

THE NEW YORK CENTRAL RAILROAD COMPANY

---

October 10, 1949

---

Accident near Philadelphia, N. Y., on July 22, 1949,  
caused by a train being admitted under clear-  
block authority to a block occupied by an  
opposing track motor-car.

---

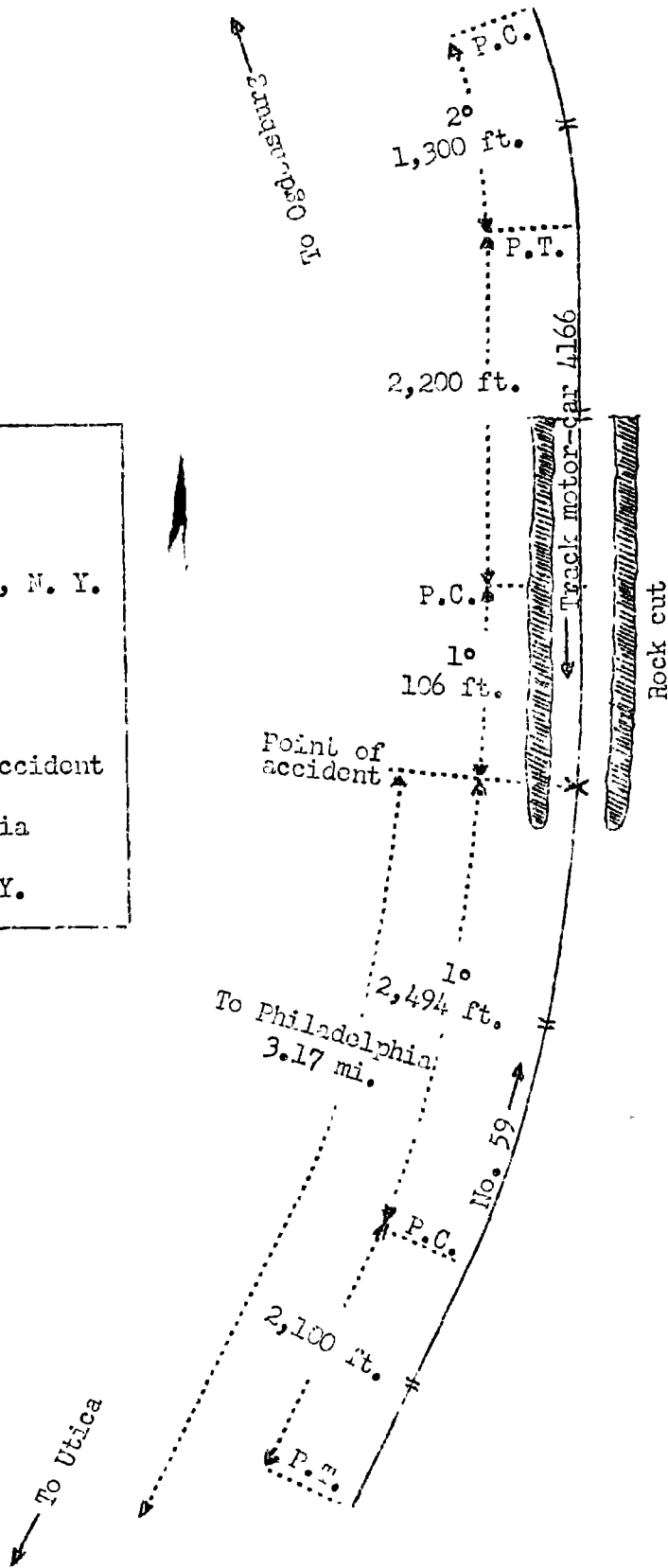
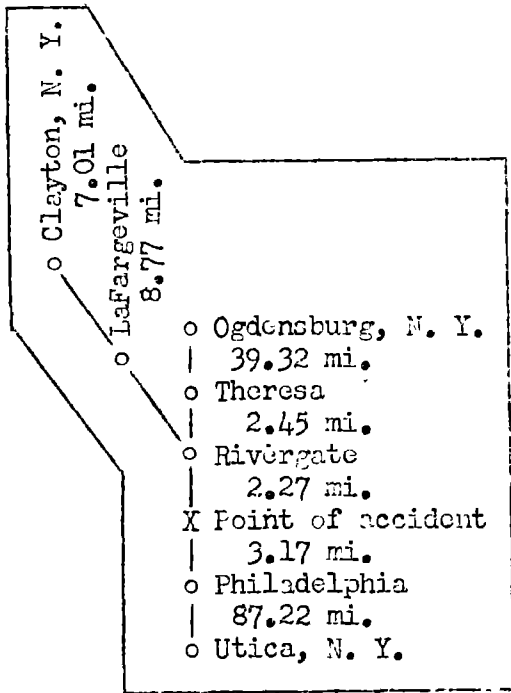
REPORT OF THE COMMISSION <sup>1</sup>

PATTERSON, Commissioner:

On July 22, 1949, there was a head-end collision between a track motor-car and a passenger train on the New York Central Railroad near Philadelphia, N. Y., which resulted in the death of one maintenance-of-way employe.

---

<sup>1</sup>  
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. 3267  
 New York Central Railroad  
 Philadelphia, N. Y.  
 July 22, 1949

Location of Accident and Method of Operation

This accident occurred on that part of the St. Lawrence Division extending between Utica and Ogdensburg, N. Y., 134.43 miles. A part of this division diverges at Rivergate, 92.66 miles north of Utica, and extends northward to Clayton, N. Y., 15.78 miles. In the vicinity of the point of accident this is a single-track line, over which trains are operated by timetable, train orders and a manual-block system. The accident occurred on the main track at a point 90.39 miles north of Utica and 3.17 miles north of the station at Philadelphia. From the south there are, in succession, a tangent, 2,100 feet in length, and a 1° curve to the left 2,494 feet to the point of accident and 106 feet northward. From the north there are, in succession, a 2° curve to the right 1,300 feet in length, a tangent 2,200 feet, and the curve on which the accident occurred. The grade is 0.78 percent descending northward. The accident occurred near the south end of a rock cut about 400 feet in length. The walls of the cut rise to a maximum height of 14 feet above the level of the track.

Block stations in the vicinity of the point of accident are located at Philadelphia, 5.44 miles south of Rivergate; at LaFargeville, 8.77 miles north of Rivergate on the Rivergate-Clayton line; at Clayton; and at Theresa, 2.45 miles north of Rivergate on the Utica-Ogdensburg line. The block station at Philadelphia is open continuously, the block station at Theresa is open between the hours of 7 a. m. and 4 p. m., the block station at LaFargeville between the hours of 7:30 a. m. and 4:30 p. m., and the block station at Clayton between the hours of 7 a. m. and 5 p. m.

This carrier's operating rules read in part as follows:

SIGNAL DEFINITIONS.

MANUAL BLOCK SYSTEM.--A series of consecutive blocks, governed by block signals operated manually, upon information by telegraph, telephone or other means of communication.

BLOCK.--A length of track of defined limits, the use of which by trains is governed by block signals.

CLEAR BLOCK.--A block not occupied,

BLOCK STATION.--A place from which block signals are operated.

BLOCK SIGNAL.--A fixed signal at the entrance of a block to govern trains entering and using that block.

305. Block signals govern the use of the blocks,  
\* \* \*

315. A block record must be kept at each block station.

316. Communicating Code.

1.--Display Stop-indication.

\* \* \*

2.--Block clear.

\* \* \*

5.--Block is not clear of train other than passenger.

56.--Block is not clear of passenger train.

\* \* \*

Note to Rule 316.--When telephone is used the code will be used without the numerals.

317-A. To admit a train to a block, the signalman must examine the block record, and, if the block is clear, give "1 for \_\_\_\_\_," to the next block station in advance. The signalman receiving this signal, if the block is clear, must display the Stop-indication to opposing trains, and reply "2 for \_\_\_\_\_." If the block is not clear, he must reply "5 of \_\_\_\_\_," or "56 of \_\_\_\_\_." The signalman at the entrance of the block must then display the proper signal indication.

\* \* \*

Rules governing the operation of track motor-cars on the St. Lawrence Division read in part as follows:

Manual Block System Territory

2. The movement of track motor cars will be authorized by Signalman with Motor Car Permit Form M. \* \* \*

5. Track motor cars must not pass an open block station without Motor Car Permit Form M.

9. Track motor cars must not be admitted to a block which is occupied by an opposing train \* \* \* unless movements do not involve the same portion of the block.

12. Movement of track motor cars must be recorded by Signalman on block record showing track motor car number, time and station, or mile post limits. \* \* \*

17. Before issuing Motor Car Permit Form M, Signalman must ascertain limits track motor car is to travel and communicate with next Block Station in advance for control of block. Signalman at Signal Station in advance and in the rear must protect movement by displaying Stop signals until track motor car is reported clear.

This carrier's Motor Car Permit Form M reads as follows:

THE NEW YORK CENTRAL RAILROAD COMPANY

MOTOR CAR PERMIT FORM M

\_\_\_\_\_  
Issuing Station

\_\_\_\_\_  
Time

\_\_\_\_\_  
Date

To Operator \_\_\_\_\_ of Track Motor Car No. \_\_\_\_\_  
Name

At \_\_\_\_\_  
Station or Mile Post

You are authorized to use \_\_\_\_\_ track

From \_\_\_\_\_ To \_\_\_\_\_

or

Between \_\_\_\_\_ And \_\_\_\_\_

until \_\_\_\_\_ M.

Information regarding other track motor cars in block \_\_\_\_\_

Track Motor Car Operators must remove motor car immediately upon arrival at destination and report clear to Signalman. If any unusual delay occurs en-route remove motor car from track and report to Signalman promptly.

\_\_\_\_\_  
Signalman.

The maximum authorized speed was 55 miles per hour for the train involved and 15 miles per hour for the track motor-car.

### Description of Accident

Track motor-car 4166, pulling a trailer and occupied by a maintenance-of-way section foreman and two sectionmen, departed south-bound from Clayton at 7:15 a. m. en route to Philadelphia. At LaFargeville the section foreman obtained from the operator a Motor Car Permit Form M authorizing the movement of the track motor-car from LaFargeville to Philadelphia. The track motor-car departed from LaFargeville at 7:37 a. m., and while moving at an estimated speed of 15 miles per hour it collided with No. 59 at a point 3.17 miles north of Philadelphia.

No. 59, a north-bound first-class passenger train, was scheduled between Utica and Ogdensburg. This train consisted of Diesel-electric unit 8301, one mail car, one baggage car, one coach, and one sleeping car, in the order named. At Philadelphia the crew received copies of Clearance Form A reading "Block Clear." The train departed from Philadelphia at 8 a. m., 1 hour 6 minutes late, and while moving at a speed of 55 miles per hour it collided with track motor-car 4166.

The track motor-car and the trailer were demolished. The Diesel-electric unit of No. 59 was slightly damaged.

The employee killed was a sectionman, who was on the track motor-car.

The weather was clear at the time of the accident, which occurred at 8:06 a. m.

Track motor-car 4166 was of the 4-wheel type, equipped with 4-wheel brakes, and was powered by a single-cylinder, 8-13 horse-power gasoline motor. It was constructed with a bolted steel frame and a wooden deck. The weight of the motor-car was 929 pounds.

### Discussion

In the vicinity of the point of accident trains are operated by timetable and train orders and manual-block system rules, and the movements of track motor-cars are authorized by Motor Car Permit Form M. After the block stations at Clayton and Theresa are opened at 7 a. m., the



block in which the accident occurred extends from Clayton to Rivergate and from Theresa to Philadelphia. After the block station at LaFargeville is opened at 7:30 a. m., the block extends from LaFargeville to Rivergate and from Theresa to Philadelphia.

At 7:10 a. m. on the day of the accident the operator at Clayton, after arranging with the operator at Philadelphia for control of that portion of the block extending between Clayton and LaFargeville for the movement of track motor-car 4166, issued Motor Car Permit Form M authorizing movement of the motor-car from Clayton to LaFargeville. At 7:36 a. m., after track motor-car 4166 arrived at LaFargeville, the operator at LaFargeville arranged with the operator at Philadelphia for control of the block for the movement of this track motor-car from LaFargeville to Philadelphia, and issued Motor Car Permit Form M authorizing the movement. However, he did not arrange for control of the block with the operator at Theresa. The operator at Philadelphia recorded in proper form on the block record at that station the communicating code numerals used and the time given. At 7:38 a. m., without examining the block record, the operator at Philadelphia called the operator at Theresa and requested control of the block for the movement of No. 59 from Philadelphia to Theresa. He did not arrange for control of the block with the operator at LaFargeville. Then the operator at Theresa replied, "Block clear for No. 59," and the operator at Philadelphia issued Clearance Form A to No. 59 reading "Block Clear."

When the section foreman obtained Motor Car Permit Form M from the operator at LaFargeville, track motor-car 4166 departed southward. As the track motor-car was approaching the point where the accident occurred the speed was about 15 miles per hour. The section foreman was not aware that the block was occupied by an opposing train. Because the range of vision in the immediate vicinity of the point where the accident occurred was restricted by curvature of the track and by the wall of the cut, the occupants of the track motor-car did not observe No. 59 until it was about 100 feet distant. The foreman and one sectionman jumped from the track motor-car just before the collision occurred.

As No. 59 was approaching the point where the accident occurred the speed was 55 miles per hour, as indicated by the tape of the speed-recording device. The enginemen were maintaining a lookout ahead from the control compartment of the Diesel-electric unit, and the members of the train crew

were in various locations throughout the train. The brakes of this train had been tested and had functioned properly when used en route. The members of the crew were not aware that the block was occupied by an opposing track motor-car. The fireman first observed track motor-car 4166 when it was immediately in front of the Diesel-electric unit. He called a warning to the engineer, who placed the brake valve in emergency position.

The investigation disclosed that for many years it had been the practice of the operators at Philadelphia, Theresa, and LaFargeville to admit trains and track motor-cars to the block extending between these three stations after arranging for control of the block with only one of the other two operators. The operator at LaFargeville was not called when the other two operators were arranging for control of the block for movements in either direction between Philadelphia and Theresa and, therefore, did not record such movements on the block record at LaFargeville. The operator at Theresa was not called when the other two operators were arranging for control of the block for movements in either direction between Philadelphia and LaFargeville, and likewise did not record such movements on the block record at Theresa. The operator at Philadelphia was not consulted when the operators at LaFargeville and Theresa were arranging for block control between LaFargeville and Theresa. Each of the operators involved said that he could not recall having been criticized for this practice by an officer of the carrier, and that prior to the time of the accident he had not been instructed to do otherwise. These operators had been examined on the operating rules of this carrier and had been instructed on the rules governing the operation of track motor-cars. They had attended classes at which manual-block system rules were discussed. Usually, a manual block has only two entrances, but the one in question has three entrances. However, these operators had not been instructed in the application of the rules with respect to the procedure to follow in handling block authority in the block in which the accident occurred.

In the instant case the operator at LaFargeville admitted track motor-car 4166 to the block without arranging for control of the block with the operator at Theresa. The latter was not aware that the block was to be occupied by the track motor-car, and, when the operator at Philadelphia requested the operator at Theresa to grant control of the block for No. 59, the block record at Theresa indicated that the block was unoccupied, and he granted control to the

operator at Philadelphia. The operator at Philadelphia admitted No. 59 to the block after arranging for control of the block with the operator at Theresa, but without arranging for control of the block with the operator at LaFargeville, who had already admitted the track motor-car to the block. The operator at Philadelphia was unable to explain his failure to examine the block record before he admitted No. 59 to the block. If he had requested control of the block for the movement of No. 59 from the operator at LaFargeville in addition to the operator at Theresa, the operator at LaFargeville could not, under the rules, have given control of the block while it was occupied by track motor-car 4166. If the operator at Theresa had recorded the movement of track motor-car 4166 on the block record for that station, he could not, under the rules, have given the operator at Philadelphia control of the block for the movement of No. 59.

Since the occurrence of this accident, the carrier requires the operator at each of the block stations involved to arrange for control of the block with the operators at the block stations at the other two entrances to the block before a train or a track motor-car is admitted to the block. This results in the three operators having a block record of each movement that enters and moves through any portion of the block, and also in furnishing necessary information for use of these operators in checking one another as to the condition of the block.

Cause

It is found that this accident was caused by a train being admitted to a block occupied by an opposing track motor-car.

Dated at Washington, D. C., this tenth day of October, 1949.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,  
Secretary.