

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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INVESTIGATION NO. 2609  
THE CHESAPEAKE AND OHIO RAILWAY COMPANY  
REPORT IN RE ACCIDENT  
NEAR ROCKAWAY, VA., ON  
JULY 31, 1942

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## SUMMARY

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Railroad: Chesapeake and Ohio  
Date: July 31, 1942  
Location: Rockaway, Va.  
Kind of accident: Head-end collision  
Trains involved: Freight : Mixed  
Train numbers: Third 402 : 403  
Engine numbers: 1546-1216 : 2335  
Consist: 72 cars, caboose : 11 cars, caboose,  
baggage-coach  
Speed: 30 m. p. h. : 6 m. p. h.  
Operation: Timetable, train orders and  
a manual-block system  
Track: Single; 6° curve; 0.6 percent  
ascending grade eastward  
Weather: Clear  
Time: 4:20 p. m.  
Casualties: 4 killed; 3 injured  
Cause: Accident caused by failure  
to obey meet order

INTERSTATE COMMERCE COMMISSION

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INVESTIGATION NO. 2609

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

THE CHESAPEAKE AND OHIO RAILWAY COMPANY

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September 9, 1942.

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Accident near Rockaway, Va., on July 31, 1942, caused by  
failure to obey a meet order.

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

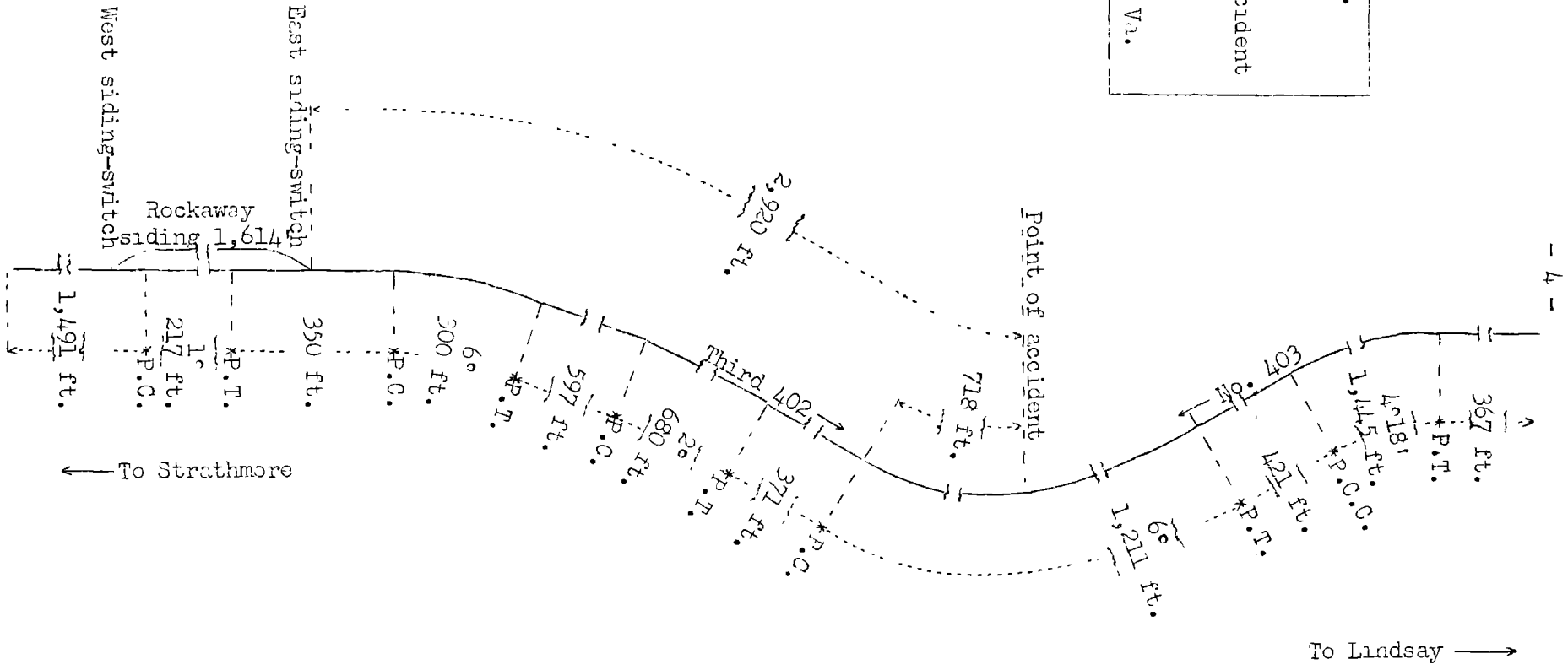
PATTERSON, Commissioner:

On July 31, 1942, there was a head-end collision between a freight train and a mixed train on the Chesapeake and Ohio Railway near Rockaway, Va., which resulted in the death of four employes and the injury of one passenger and two employes.

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<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.

|   |                   |
|---|-------------------|
| ○ | Lindsay, Va.      |
|   | 10.2 mi.          |
| ○ | Troy              |
|   | 7.85 mi.          |
| X | Point of accident |
|   | 0.55 mi.          |
| ○ | Rockaway          |
|   | 10.7 mi.          |
| ○ | Strathmore, Va.   |



Inv-2609  
 Chesapeake and Ohio Railway  
 Rockaway, Va.  
 July 31, 1942

Location of Accident and Method of Operation

This accident occurred on that part of the Richmond Division designated as the Virginia Air Line Sub-Division and extending between Lindsay and Strathmore, Va., a distance of 29.3 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. At Rockaway a siding 1,614 feet in length parallels the main track on the north. The accident occurred on the main track at a point 2,920 feet east of the east siding-switch. As the point of accident is approached from the west there are, in succession, a tangent 1,491 feet in length, a 1° curve to the left 217 feet, a tangent 350 feet, a 6° curve to the right 300 feet, a tangent 597 feet, a 2° curve to the right 680 feet, a tangent 371 feet, and a 6° curve to the left 718 feet to the point of accident and 493 feet beyond. As the point of accident is approached from the east there are, in succession, a tangent 367 feet in length, a compound curve to the left 1,445 feet, the maximum curvature of which is 4°18', a tangent 421 feet, and the curve on which the accident occurred. The grade for east-bound trains is 0.09 percent descending a distance of 6,420 feet and then is 0.60 percent ascending 251 feet to the point of accident. The grade for west-bound trains is 0.60 percent descending 1,999 feet to the point of accident.

Operating rules read in part as follows:

14 (a). Engine and Motor Car Whistle Signals

Note.--The signals prescribed are illustrated by "o" for snort sounds; "\_\_\_" for longer sounds. \* \* \*

\* \* \*

(n) \_\_\_ o      Approaching meeting or waiting points. See Rule 90 (a).

\* \* \*

S-90 (a). \* \* \*

Train must stop clear of the switch used by the train to be met in going on the siding.

\* \* \*

The enginemen of each train will give signal 14 (n) at least one mile before reaching a meeting or waiting point.

\* \* \*

Should the engineman fail to give signal 14 (n) as herein prescribed, the conductor must take immediate action to stop the train.

Note.-- On trains of 25 or more cars, the conductor may delegate the head brakeman to take necessary action.

210. When a "31" train order has been transmitted \* \* \*.

Those to whom the order is addressed, except enginemen, must read it to the operator and then sign it, \* \* \*. The copy for each engineman must be delivered to him personally by the conductor; the engineman will then read the order to the conductor before proceeding.

Enginemen must show train orders to firemen and when practicable to forward trainmen. Conductors must show train orders when practicable to trainmen.

317-C(a). When trains, authorized \* \* \* to meet \* \* \* opposing trains at a point intermediate to open block stations, the block signal at each station controlling the block will be displayed at "stop," and the operator will, when authorized by the train dispatcher, deliver Clearance Form B (a) and, when on train order authority, copy of train order to the conductor and engineman of each train before being admitted to the block, in addition to any other form required by the rules.

\* \* \*

When trains enter a block occupied by opposing train or trains on train order authority, the engineman of the superior train will approach the meeting or waiting point \* \* \* in accordance with Rule S-90 (a).

365. When a train takes a siding or otherwise clears the main track, it must not again enter the block or foul the main track without the permission of the operator.

\* \* \*

Enginemen

\* \* \*

When a train has more than one engine the requirements of the rules apply alike to the engineman of each engine. But the use of the engine-bell and whistle, and the air brake (except in emergency), will be limited to the leading engine.

Clearance Form B (a) reads as follows:

B

THE CHESAPEAKE AND OHIO RAILWAY COMPANY

B

Clearance Form B (a)

Block Station.....; .....M.,.....19.....

To Conductor and Engineman, train.....on.....track:

This Form is authority to pass Stop-Signal for....track. Signal indicates stop on account of.....

TRAINS IN BLOCK

West Bound

East Bound

| Train No. | Entered (or expected to enter) Block |
|-----------|--------------------------------------|
|           | M                                    |
|           | M                                    |
|           | M                                    |

| Train No. | Entered (or expected to enter) Block |
|-----------|--------------------------------------|
|           | M                                    |
|           | M                                    |
|           | M                                    |

.....Operator.

Conductor and engineman receiving this form properly filled out and signed by the operator, will, when following a train in block, proceed at restricted speed.

When this form is used on account of failure of means of communication, it must be delivered to the operator at next block station in advance, and the engineman must personally obtain from the operator permission to proceed.

Time-table general instructions read in part as follows:

SINGLE TRACK.--Eastward trains are superior to Westward trains of the same class ( \* \* \* ).

\* \* \*

On main tracks not covered by other block systems, manual block will be operated.

\* \* \*

The block involved extends between Strathmore and Troy, a distance of 19.1 miles.

In the vicinity of the point of accident the maximum authorized speed for the trains involved is 35 miles per hour.

Description of Accident

Third 402, an east-bound third-class freight train, consisted of engine 1546, 72 loaded cars, engine 1216 and a caboose, in the order named. At Strathmore, 10.7 miles west of Rockaway and the last open office, the crew received a clearance Form A and a clearance Form B (a), together with copies of two train orders, of which one was train order No. 66, Form 31, reading in part as follows:

Third 402 meet \* \* \*  
No 403 at Rockaway

The clearance Form B (a) authorized Third 402 to proceed expecting to meet No. 403 at Rockaway. Third 402 departed from Strathmore at 3:46 p. m., according to the dispatcher's record of movement of trains, 7 hours 46 minutes late, passed the fouling point of the east siding-switch at Rockaway, where it was required to wait unless No. 403 was on the siding, and while moving at an estimated speed of 30 miles per hour it collided with No. 403 at a point 2,920 feet east of the east siding-switch.

No. 403, a west-bound third-class mixed train, consisted of engine 2335, a caboose, five loaded and six empty cars and one baggage-coach, in the order named. At Troy, 8.4 miles east of Rockaway and the last open office, the crew received a clearance Form A, a clearance Form B (a) and copies of train order No. 66, Form 19, previously quoted. The clearance Form B (a) authorized No. 403 to proceed expecting to meet Third 402 at Rockaway. No. 403 departed from Troy at 3:45 p. m., according to the dispatcher's record of movement of trains, 1 hour 13 minutes late, and while moving at an estimated speed of 6 miles per hour it collided with Third 402.

The brakes of both trains had functioned properly at all points where used en route. There was no condition of either engine that obscured the vision or distracted the attention of the employees who were on the engine. From an engine moving in either direction, in the vicinity of the point of accident, the view of a train approaching from the opposite direction is restricted to a distance of 900 feet, because of vegetation on the north side of the track and track curvature.

The force of the impact tore the boilers of engines 1546 and 2335 from their frames. Engine 1546 was derailed to the



south and stopped, badly damaged, on its right side, at an angle of about 45 degrees to the track and with its front end at the foot of a 17-foot fill. The first to the twenty-first cars, inclusive, and the thirty-first to the fifty-third cars, inclusive, of Third 402, were derailed and stopped, badly damaged, in various positions across the track and on each side of it. The boiler of engine 2335 stopped on its left side at the foot of the fill, with its front end opposite the point of accident and 70 feet south of the track. The driving-wheel assembly, the engine frame and the tender remained on the roadbed in line with the track. The caboose of No. 403 buckled to the south side of the track and was crushed inward on its right side by the first car. The first to the sixth cars, inclusive, were derailed. The first car stopped upright and diagonally across the track. The third car stopped on its right side, north of the track and parallel to it. The other derailed cars remained upright on the roadbed.

The weather was clear at the time of the accident, which occurred about 4:20 p. m.

The employees killed were the engineer and the fireman of Third 402 and the conductor and the fireman of No. 403. The employees injured were the engineer of No. 403 and the front brakeman of Third 402.

#### Data

During the 30-day period preceding the day of the accident, the average daily movement in the vicinity of the point of accident was 10.6 trains.

#### Discussion

The rules governing operation on the line involved provide that at meeting points the superior train must stop clear of the switch to be used by the train that enters the siding. The engineer of each train must sound the meeting-point whistle signal at a point not less than one mile from the meeting point. If an engineer fails to sound the meeting-point signal, the conductor must take immediate action to stop the train. In manual-block territory trains authorized to meet at an intermediate siding may enter the block and proceed to the meeting point under authority of clearance Form B (a).

The crews of both trains involved held copies of train order No. 66, which established Rockaway as the meeting point between Third 402, an east-bound third-class train, and No. 403, a west-bound third-class train. In addition, the crews of both trains held copies of clearance Form B (a) which authorized their trains to enter the block and to proceed to the meeting point at Rockaway. Third 402 was superior by direction and was required to stop short of the fouling point of the east siding-switch at Rockaway unless No. 403 was into clear on the siding.

As No. 403 was approaching the point where the accident occurred, the speed was about 20 miles per hour. The enginemen were maintaining a lookout ahead. At a point about 1 mile east of Rockaway the engineer sounded the meeting-point whistle signal and made a service brake-pipe reduction to reduce speed in preparation for his train to enter the siding at the east switch. The enginemen's view of the track ahead was restricted because of vegetation on the north side of the track and track curvature. When the engine reached a point about 500 feet east of the point where the accident occurred the engineer saw the engine of Third 402, and immediately moved the brake valve to emergency position. The speed of No. 403 was about 6 miles per hour when the enginemen jumped off just before the collision occurred.

About 2:40 p. m. the operator at Strathmore delivered copies of train order No. 66 and a clearance Form B (a) to the engineer of engine 1546 of Third 402, and the engineer read the order to the operator. About 3:30 p. m. the operator delivered copies of the order and clearance Form B (a) to the conductor, who read the order to the operator. The conductor said that before his train departed from Strathmore he went to engine 1546, and the engineer read and understood the provisions of the order. The conductor then delivered copies of the order and clearance Form B (a) to the engineer of engine 1216. The flagman read the copy of the order held by the conductor. The front brakeman said that soon after his train departed from Strathmore he asked the engineer of engine 1546 for permission to read the orders. The engineer replied that he was busy and the front brakeman did not insist that he be permitted to see the orders. The front brakeman said that he was not aware that his train was to meet No. 403 at Rockaway. It could not be determined whether the fireman of engine 1546 understood the provisions of order No. 66, as he was killed in the accident. As Third 402 was approaching Rockaway the speed was about 35 miles per hour and the front brakeman was in the gangway of engine 1546, the fireman was in the tender pulling down coal and the engineer was tending the fire. The first the front brakeman was aware of anything being wrong was when the brakes became applied in emergency just before the collision occurred. Why the engineer failed to take action to stop his train short of the fouling point of the east siding-switch could not be determined, as he was killed in the accident. The conductor and the flagman, who were in the caboose, and the enginemen of engine 1216, which was coupled immediately ahead of the caboose, understood that their train was required to stop clear of the fouling point of the east siding-switch unless No. 403 was into clear on the siding. As their train was approaching Rockaway they did not hear the meeting-point signal sounded by the engine whistle of engine 1546. They said that an engine whistle could not be heard at the rear of a long freight train in the territory involved. Third 402 consisted of 72 cars. They were expecting the engineer of engine 1546 to stop his engine west of the fouling point of the east siding-switch, if No. 403 was not on the

siding. Their view of the siding was restricted because of track curvature. When the caboose passed the west siding-switch they observed that No. 403 was not on the siding, and the conductor opened the brake-valve on the caboose. The speed of Train 402 was about 30 miles per hour when the collision occurred. The rules provide that on trains of more than 25 cars the conductor may delegate the front brakeman to take necessary action should the engineer fail to control the speed of the train at meeting points; however, the conductor is not required to do so. Had the front brakeman known the provisions of order No. 66 and had the conductor instructed the front brakeman to take necessary action should the engineer fail to act, it is probable this accident would have been averted.

Under the manual-block rules in effect on the territory involved, opposing movements within a block are authorized by the issuance of a clearance form which contains information that the trains are to meet at an intermediate siding. The train that enters the siding at the meeting point is required to obtain authority to re-enter the block, but the train that holds the main track at the meeting point may proceed without further block authority after the train to be met has entered the siding. In the instant case, had the rules required that block authority could be given only to the meeting point, this accident probably would have been averted. If an adequate block system had been in use on the line involved this accident would not have occurred. After the occurrence of this accident, the carrier filed an application for approval by the Commission of installation of an automatic block-signal system on the line involved.

Cause

It is found that this accident was caused by failure to obey a meet order.

Dated at Washington, D. C., this ninth day of September, 1942.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,  
Secretary.