

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3662
BALTIMORE AND OHIO RAILROAD COMPANY
IN RE ACCIDENT
NEAR IJAMSVILLE, MD., ON
NOVEMBER 4, 1955

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SUMMARY

Date: November 4, 1955

Railroad: Baltimore and Ohio

Location: Ijamsville, Md.

Kind of accident: Rear-end collision

Equipment involved: Ballast regulator : Freight train
track car

Train number: : Extra 944 East

Locomotive number: : Diesel-electric
units 943A, 943X
and 935X

Consist: : 126 cars, caboose

Estimated speeds: 5 m. p. h. : 30 m. p. h.

Operation: Signal indications

Tracks: Double; 7°45' curve; 0.69 percent
ascending grade eastward

Weather: Clear

Time: 10:01 a. m.

Casualties: 2 killed; 3 injured

Cause: Failure to provide adequate protection
for the movement of a ballast regulator
track car

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3662

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

BALTIMORE AND OHIO RAILROAD COMPANY

January 13, 1956.

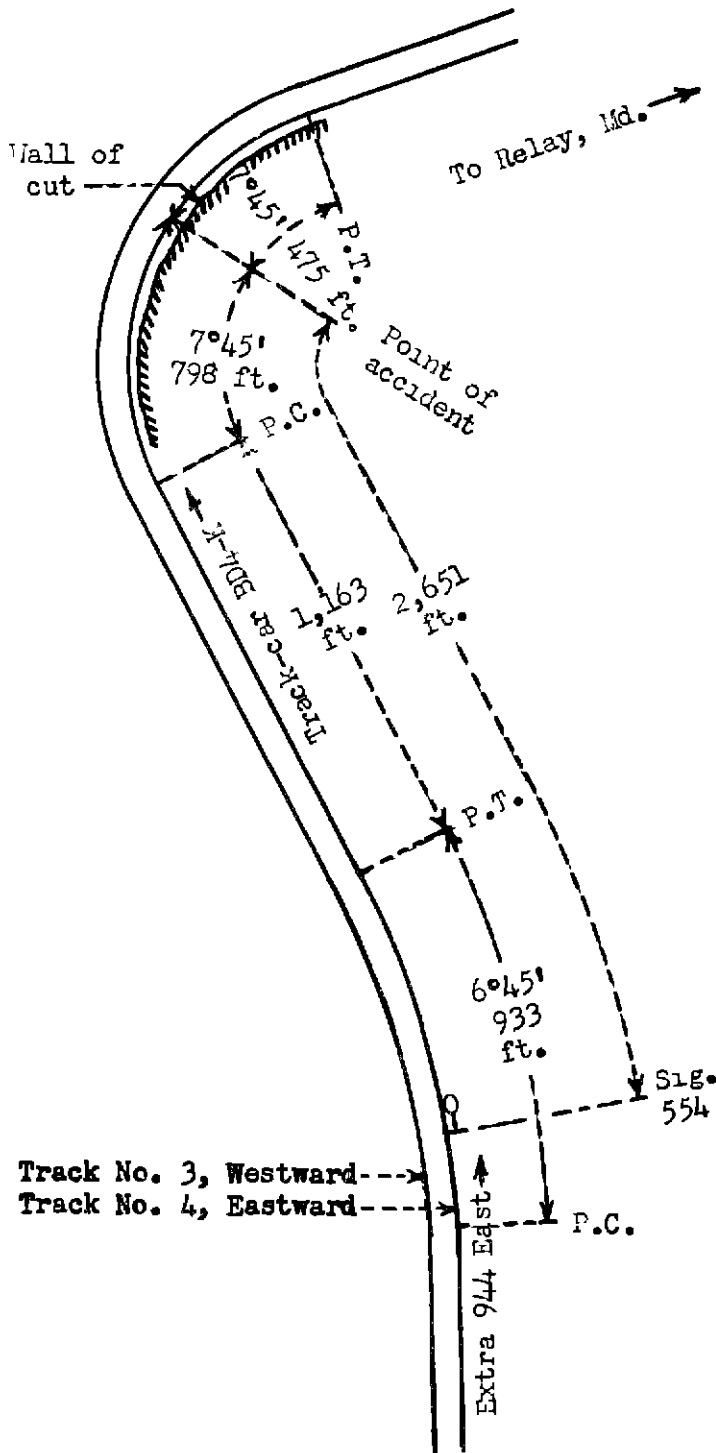
Accident near Ijamsville, Md., on November 4, 1955, caused
by failure to provide adequate protection for the
movement of a ballast regulator track car.

REPORT OF THE COMMISSION¹

CLARKE, Commissioner:

On November 4, 1955, there was a rear-end collision between a ballast regulator track car and a freight train on the Baltimore and Ohio Railroad near Ijamsville, Md., which resulted in the death of one maintenance-of-way employee and one train-service employee, and the injury of two maintenance-of-way employees and one train-service employee.

¹ Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Clarke for consideration and disposition.



○	Relay, Md.	39.5 ma.
○	Monrovia	3.5 ma.
○	Ijansville	1.4 ma.
X	Point of accident	1.7 ma.
○	Reels Mill	1.3 ma.
○	Frederick Jct.	10.6 ma.
○	Point of Rocks, Md.	

← To Point of Rocks, Md.

Report No. 3662
 Baltimore and Ohio Railroad
 Near Ijansville, Md.
 November 4, 1955

Location of Accident and Method of Operation

This accident occurred on that part of the Baltimore Division extending between Point of Rocks and Relay, Md., 58.0 miles, a double-track line, over which trains moving with the current of traffic are operated by signal indications. The main tracks from north to south are designated as No. 3, westward, and No. 4, eastward. The accident occurred on track No. 4 at a point 13.6 miles east of Point of Rocks and 1.4 miles west of Ijamsville. From the west there are, in succession, a $6^{\circ}45'$ curve to the left 933 feet in length, a tangent 1,163 feet, and a $7^{\circ}45'$ curve to the right 798 feet to the point of accident and 475 feet eastward. The grade is 0.69 percent ascending eastward at the point of accident.

Between points 652 feet west and 515 feet east of the point of accident the tracks are laid in a cut. The south wall of the cut rises to a height of approximately 25 feet.

Automatic signal 554, governing east-bound movements on track No. 4, is located 2,651 feet west of the point of accident.

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

SIGNALS

31. The explosion of torpedoes is a signal to be on the alert for flagmen, obstruction or train ahead. * * *

* * *

32. A train finding a fusee burning on or near its track must stop and extinguish the fusee. It may then proceed at restricted speed.

PROTECTION OF TRAINS

99. When a train is moving under circumstances in which it may be overtaken by another train, the flagman must take action to insure full protection. By night, or by day when the view is obscured, lighted fusees must be thrown off at proper intervals.

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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 on the rail, and when necessary, displaying lighted fuses in addition.

When signal has been given recalling the flagman * * * and safety to the train will permit, he may return, leaving the torpedoes and a lighted fusee.

* * *

TRACK CAR OPERATION

110. * * *

Track car operators must secure Form 1089-D from telegraph operator for the movement of all track cars on main tracks. * * * When additional information is secured on train movements, a new Form 1089-D must be obtained.

Track car operator must give the telegraph operator his track car number, direction he is to move, points between which movement is to be made and the time required to make the movement.

Train Dispatcher will furnish telegraph operator complete line-up of movement of all trains, number of line-up, track to which line-up applies and time it expires. Operator will record this information in Part I on Form 1089-D as it is received and repeat it to the Train Dispatcher. The telegraph operator will then fill in Part II, showing information as to the movement of track cars known to be operating between his station and next open train order station at the time line-up is issued. * * *

When the track car operator receives Form 1089-D by telephone, he must repeat the information to the telegraph operator. The track car operator must read aloud to all persons on the track car the information received on Form 1089-D.

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On two or more main tracks, movements against current of traffic will not be made on a track for which a line-up has been issued until line-up has expired or track car operator notified.

Information will be included in the line-up which will indicate to track car operators when certain trains may run faster than usual due to light tonnage, special equipment or other reasons.

When information cannot be obtained as to train movements, track car must be operated under flag protection.

* * *

Track cars must clear the main track ten minutes before scheduled trains are due. Track car operators must use good judgment in clearing other trains shown on the line-up. Track car must clear the main track before the time limit on line-up expires. * * *

* * *

Telegraph operators will keep a complete record on their block sheets of all track car movements. Such track cars will be considered "in the block" between any two open stations until reported clear, or the line-up expires. * * *

* * *

These rules do not relieve track car operators from protecting track cars in accordance with Rule 99.

* * *

Instructions governing the Maintenance of Way Department read in part as follows

90. (a) Track cars include motor cars * * * and other apparatus contained on cars or trucks that may be moved manually to and from the track.

* * *

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In the vicinity of the point of accident the maximum authorized speeds are 30 miles per hour for freight trains and 20 miles per hour for track cars.

Description of Accident

Ballast regulator track car BD4-K, occupied by the operator and two sectionmen, departed east-bound on track No. 3 from Frederick Jet., 10.6 miles east of Point of Rocks and the last open office, at 8:31 a. m. It crossed from track No. 3 to track No. 4 at Reels Mill, 1.3 miles east of Frederick Jet. While it was moving eastward on track No. 4 at a speed of about 5 miles per hour it was struck by Extra 944 East at a point 1.7 miles east of Reels Mill and 1.4 miles west of Ijensville.

Extra 944 East, an east-bound freight train, consisted of Diesel-electric units 943A, 943X, and 935X, coupled in multiple-unit control, 126 cars, a caboose, and helper Diesel-electric units 289, 368X, and 973, coupled in multiple-unit control. This train passed Frederick Jet. at 9:56 a. m., passed signal 554, which indicated Proceed, and while moving at a speed of about 30 miles per hour it struck ballast regulator track car BD4-K.

The ballast regulator track car was demolished. The road locomotive and the first 26 cars of Extra 944 East were derailed. The locomotive and the first four cars stopped upright and in line with the track. The front of the locomotive was 1,434 feet east of the point of collision. The other derailed cars stopped in various positions on or near the track. The first Diesel-electric unit was somewhat damaged. The second and third units were slightly damaged. Six of the derailed cars were destroyed, and the other derailed cars were considerably damaged.

The operator of the ballast regulator track car and the fireman of Extra 944 East were killed. The two sectionmen with the track car and the front brakeman of Extra 944 East were injured.

The weather was clear at the time of the accident, which occurred about 10:01 a. m.

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The track car involved was a ballast regulator, scarifier and plow. It was powered by a 100-horsepower gasoline engine and was equipped with a transmission providing four speeds in either direction. It could be operated at speeds of from 1/2 to 21 miles per hour. The car was 10 feet in length, and the wheelbase was 5 feet. It was equipped with a ballast regulating and reclaiming wing on each side and with a V-type plow. A hydraulic control system was provided for raising and lowering the wings, and also for horizontal adjustment of the wings. With the wings and plow in travel position the over-all length of the machine was 11 feet 6 inches, the width was 10 feet, and the height was 7 feet 6 inches. With the wings and plow in operating position the length was 15 feet 9 inches, and the width was a maximum of 16 feet. The weight was 9,100 pounds. The car was equipped with a set-off turntable which enabled two men to set the car off the track under power at any motor-car set-off. The car was insulated to prevent the shunting of track circuits.

During the 30-day period preceding the day of the accident the average daily movement in the vicinity of the point of accident was 9.6 east-bound trains and 16.7 west-bound trains.

Discussion

Before ballast regulator track car BD4-K departed from Frederick Jet, the operator secured a line-up for the movement of the car to Reels Mill on track No. 3. This line-up was issued at 8:30 a. m. and expired at 8:45 a. m., and contained the information that there were no trains in the district on track No. 3. The car was operated on track No. 3 to Reels Mill in order to pass a west-bound freight train which was then standing on track No. 4. At Reels Mill the operator of the car obtained a second line-up from the operator at Frederick Jet. This line-up was for the movement of the car from Reels Mill to Manovic, 3.6 miles east of Reels Mill, on track No. 4. It was issued by the train dispatcher at 8:42 a. m. and expired at 11:01 a. m., and contained the information that an extra east was called at Brunswick, 6.9 miles west of Point of Rocks, at 6:50 a. m. The operator of the car read this line-up to the two sectionmen. These employees then boarded the car and proceeded eastward. One of the sectionmen alighted near signal 554 with flagging equipment and remained in that vicinity to protect the car while maintenance work was performed east of the signal. About 9:20 a. m. the car returned to the vicinity of the flagman. The sectionman who was accompanying the car

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informed the flagman that it would be necessary to go to Ijamsville to obtain additional tools, and that the car would then return to the point at which maintenance work was being performed. The flagman remained in the vicinity of the signal while this trip was made and maintenance work was resumed. About 9:50 a. m., the car again returned to the flagman, and the operator instructed the flagman to board the car. The flagman left two torpedoes on the rail, but he did not leave a fusee. After the flagman boarded the car, the car proceeded eastward. The sectionmen said that there was no mention of the train shown on the line-up which had been received at Reels Mill. The sectionman who was assisting the operator of the car said that the operator did not mention his plan, but he gained the impression that the operator intended to proceed to Ijamsville and clear track No. 4 for the train. As the car moved eastward the operator asked one of the sectionmen what time it was. The sectionmen told him that it was 10 a. m. The operator then remarked that there was a small amount of maintenance work to be completed at that point, and he reduced the speed of the car and lowered one of the wings. The car was struck by Extra 944 East soon after the wing was lowered. The surviving occupants of the car said that because of the noise of the car they did not hear Extra 944 East approaching. One of these employees saw the train and jumped from the car immediately before the collision occurred.

The crew of Extra 944 East reported for duty at Brunswick at 6:50 a. m., and the train departed from that point at 9:25 a. m. As this train was approaching the point where the accident occurred the engineer and the front brakeman were maintaining a lookout ahead from the control compartment of the first Diesel-electric unit. The other members of the crew were at the rear of the train. The surviving employees on the locomotive said that two torpedoes were exploded in the vicinity of signal 554. Because of curvature of the track and the wall of the cut, the view of the track ahead in the immediate vicinity of the point of accident was restricted to a distance of approximately 200 feet. These employees said that the engineer made an emergency application of the brakes immediately after the track car became visible to them. The collision occurred before the speed of the train had been materially reduced. According to the tape of the speed-recording device, the speed was approximately 30 miles per hour when the brake application became effective.

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The investigation disclosed that in the operation of the track car involved it had been a practice to clear the main track before the arrival of trains. During the 5-month period preceding the day of the accident, the sectionman who was acting as flagman for the car on the day of the accident had acted in this capacity during intermittent periods aggregating between 5 and 6 weeks. During this time it had been necessary for him to stop only one train. This train had performed local switching en route and was shown in the line-up held by the operator of the car as having passed a station 32.6 miles distant about 4 hours before it was stopped by the sectionman. On the day of the accident the operator of the car read the line-up which he received at Reels Mill to the two sectionmen, but he did not tell them the time that he expected the train to pass Reels Mill. A short time before the accident occurred the operator of the car recalled the flagman and started the car toward Ijamsville and then, after asking the time, he reduced the speed of the car and lowered one of the wings without flag protection. From this it appears that he planned to clear Extra 944 East and considered there was sufficient time to perform additional maintenance work while he was en route to Ijamsville. However, it could not be determined that he had received any information concerning the train except that which was included in the line-up. The operator at Frederick Jet. said that when he gave the line-up to the operator of the car at Reels Mill he may have informed him that Extra 944 East had not departed from Brunswick, but he said he was certain that he did not tell the operator of the car the time the train was expected to leave Brunswick. He said that after he talked with the operator of the car when he gave him the line-up he had no further conversation with him. A telephone at Ijamsville was available to the operator of the car, but the sectionman who accompanied the car to that station said that the telephone was not used. This telephone is on a circuit which connects the offices at Frederick Jet., Manrovia, Mt. Airy, and five additional booth telephones. Mt. Airy is 7.1 miles east of Manrovia. The operator at each of the latter stations said that he had no communication with any of the employees with the car on the day of the accident. On the day of the accident Extra 944 East departed from Brunswick 2 hours 35 minutes after the crew went on duty. During the 15-day period preceding the day of the accident 126 east-bound freight trains via Frederick Jet. departed from Brunswick. The time consumed by brake tests and other terminal delays between the times the crews of these trains went on duty and the times the trains departed ranged from 16 minutes to 5 hours 18 minutes. Of these trains, 111 consumed less than 2 hours 35 minutes after the crew went on duty and before the train departed, and 15 consumed more than 2 hours 35 minutes. The average time was 1 hour 10 minutes.

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On this line ballast regulator track cars of the type involved in this accident are operated under the rules governing the operation of track cars. These rules require the operators of track cars to secure line-ups of train movements, if possible, before occupying the main track. The operators of track cars are required to clear regular trains 10 minutes and to use their judgment as to the time other trains are to be cleared. Operators at open offices are required to keep a record on their block sheets of the movements of track cars between offices, and such cars are considered as being in the block until they are reported clear of the main track or the line-up in which they are being operated has expired. At the time Extra 944 East passed Frederick Jet., both the operator at Frederick Jet. and the operator at Manrovia were aware that track car BD4-K had not been reported clear of the main track. In this vicinity facilities are available for providing block protection for the movement of track cars, but these facilities are not used for that purpose.

During the past 10 years the Commission has investigated 63 collisions, including the present case, in which track motor-cars were involved. These accidents resulted in the deaths of 91 persons and the injury of 182 persons.

Cause

This accident was caused by failure to provide adequate protection for the movement of a ballast regulator track car.

Dated at Washington, D. C., this thirteenth day of January, 1956.

By the Commission, Commissioner Clarke.

(SEAL)

HAROLD D. MCCOY,

Secretary.