

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3629

THE BALTIMORE AND OHIO RAILROAD COMPANY
IN RE ACCIDENT
NEAR CHILLICOTHE, OHIO, ON
JUNE 1, 1955

SUMMARY

Date: June 1, 1955

Railroad: Baltimore and Ohio

Location: Chillicothe, Ohio

Kind of accident: Head-end collision

Trains involved: Locomotive : Freight

Train numbers: Extra 977 West : Extra 987
East

Engine numbers: Diesel-electric : Diesel-electric
units 977 and : units
977X : 987, 987X,
981X, and
981

Consist: : 80 cars,
caboose

Speeds: Undetermined : 15 m. p. h.

Operation: Timetable and train orders

Track: Single; 1°30' curve; 0.23
percent ascending grade
westward

Weather: Clear

Time: 2:25 a. m.

Casualties: 6 injured

Cause: Overlapping of authority of
two opposing extra trains

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3629

IN THE MATTER OF MAKING ACCIDENT INVESTIGATION REPORTS
UNDER THE ACCIDENT REPORTS ACT OF MAY 8, 1910.

THE BALTIMORE AND OHIO RAILROAD COMPANY

June 27, 1955

Accident near Chillicothe, Ohio, on June 1, 1955, caused
by overlapping of authority of two opposing extra
trains.

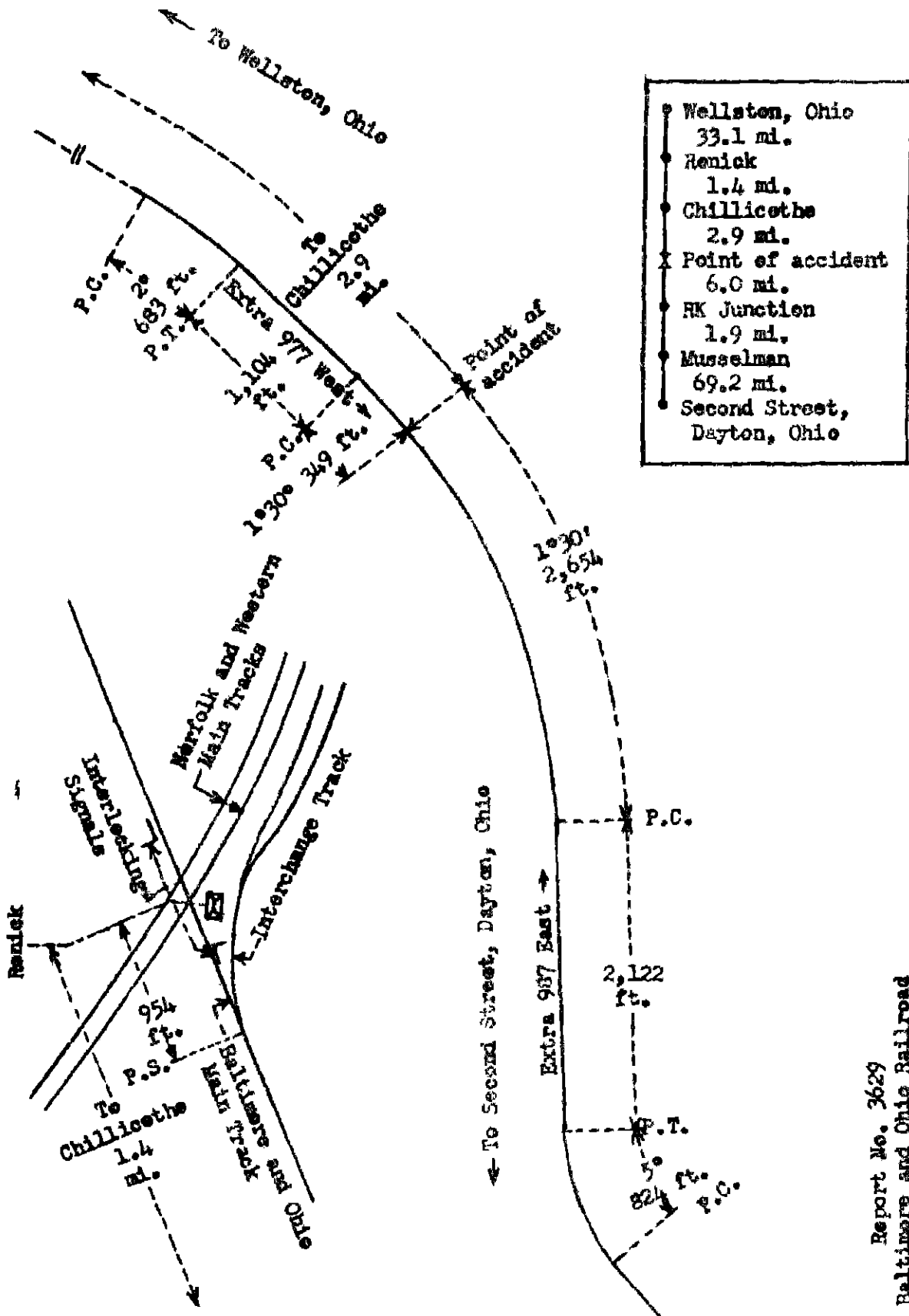
REPORT OF THE COMMISSION¹

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CLARKE, Commissioner:

On June 1, 1955, there was a head-end collision between a locomotive and a freight train on the Baltimore and Ohio Railroad near Chillicothe, Ohio, which resulted in the injury of five train-service employees and one employee not on duty. This accident was investigated in conjunction with representatives of the Public Utilities Commission of Ohio.

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.



Report No. 3629
 Baltimore and Ohio Railroad
 Near Chillicothe, Ohio
 June 1, 1955

Location of Accident and Method of Operation

This accident occurred on that part of the Toledo Division extending between Wellston and Second Street, Dayton, Ohio, 114.5 miles. In the vicinity of the point of accident this is a single-track line, over which trains are operated by timetable and train orders. There is no block system in use. At Renick, 33.1 miles west of Wellston and 1.4 miles east of Chillicothe, this line crosses a double-track line of the Norfolk and Western Railway. Movements over the crossing are governed by interlocking signals controlled from an interlocking station located in the southwest angle of the intersection. In this angle of the intersection an interchange track connects the two lines. The switch at which this track connects with the B. & O. main track is 954 feet west of the interlocking station. Yard limits on the B. & O. extend between points 2.1 miles east and 2.0 miles west of the crossing. The accident occurred on the main track at a point 2.9 miles west of Chillicothe. From the east there are, in succession, a 2° curve to the right 683 feet in length, a tangent 1,104 feet, and a 1°30' curve to the right 349 feet to the point of accident and 2,654 feet westward. From the west there are, in succession, a 5° curve to the right 824 feet in length, a tangent 2,122 feet, and the curve on which the accident occurred. The grade is 0.23 percent ascending westward at the point of accident.

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

37. * * *

Extra trains * * * must be governed by train orders with respect to opposing extra trains.

219. An operator must not repeat or give the "X" response to a train order for a train which has been cleared, or the engine of which has passed his train order signal, until he has read the order to the conductor and engineer and they have repeated it.

220. Train orders once in effect continue so until fulfilled, superseded or annulled. * * *

In the vicinity of the point of accident the maximum authorized speed for freight trains is 40 miles per hour.

Description of Accident

About 1:40 a. m. locomotive 977, coupled to the west end of a cut of 125 cars destined to the N. & W. Railway at Renick, stopped on the B. & O. main track at the interlocking signal east of the crossing at Renick. The conductor proceeded to the interlocking station, and the operator gave him copies of train order No. 401 and a Clearance Card Form A. Train order No. 401 read as follows:

Eng 977 run extra Renick to RK Jct

RK Jct. is 10.3 miles west of Renick. About 1:55 a. m. this locomotive with cars passed the train-order signal at the interlocking station and proceeded to the west switch of the interchange track. After the movement had passed the train-order signal the operator copied and repeated train order No. 402, addressed to the conductor and engineer of Extra 977 West, reading as follows:

Order 401 is annulled

This train order, which was made complete at 2:01 a. m., was not delivered. About 2:15 a. m., after the cars had been delivered to the N. & W., Extra 977 West, consisting of Diesel-electric units 977 and 977X coupled in multiple-unit control, departed west-bound from the west switch of the interchange track. While it was moving at an undetermined rate of speed it collided with Extra 987 East at a point 2.9 miles west of Chillicothe.

Extra 987 East, an east-bound freight train, consisted of Diesel-electric units 987, 987X, 981X, and 981, coupled in multiple-unit control, 80 cars, and a caboose. At Musselman, 7.9 miles west of the point of accident, members of the crew received copies of train order No. 403 reading as follows:

Eng 987 run extra RK Jet to Chillicothe

Trains between Musselman and RK Jet, are operated by signal indications. During the night there are no open offices between Musselman and Renick. Extra 987 East passed Musselman at 2:08 a. m., and while moving at a speed of 15 miles per hour it collided with Extra 977 West.

No equipment of either train was derailed. Extra 977 West was moved eastward a distance of about 200 feet by the force of the impact. The first Diesel-electric unit of each locomotive was considerably damaged, and the other units of both locomotives were slightly damaged.

The engineer and the flagman of Extra 977 West, a brakeman not on duty who was on the locomotive of Extra 977 West, and the engineer, the fireman, and the front brakeman of Extra 987 East were injured.

The weather was clear at the time of the accident, which occurred about 2:25 a. m.

Discussion

The rules of this carrier provide that extra trains will be governed by train orders with respect to opposing extra trains. An operator must not repeat a train order for a train which has been cleared, or the engine of which has passed his train-order signal, until he has read the order to the conductor and engineer and they have repeated it.

Train order No. 401, which was issued at 1:06 a. m., authorized the movement of Extra 977 West from Renick to RK Jct. At 2:01 a. m., after this train had been cleared and had passed the train-order signal at the interlocking station at Renick, train order No. 402, which annulled train order No. 401, was issued. However, this train order was not delivered to members of the crew of Extra 977 West. At 2:02 a. m., train order No. 403, which authorized the movement of Extra 987 East from RK Jct. to Chillicothe, was issued. This resulted in an overlapping of authority of the two trains.

Extra 977 East arrived at Chillicothe from Dayton at 8:55 p. m., May 31, and the crew then engaged in switching operations in the vicinity of Chillicothe and Renick. The crew was instructed that after the switching was completed the conductor and one brakeman were to go off duty and the locomotive was to return to Dayton. The delivery of 125 cars to the N. & W. was the last switching movement which was made. Before the locomotive passed the interlocking station at Renick with these cars the conductor received copies of train order No. 401 and a Clearance Card Form A from the operator, and he left the interlocking station and delivered copies to the engineer as the locomotive passed. None of the members of the crew returned to the interlocking station. After the cars were delivered the conductor and one brakeman went off duty. These employees boarded the locomotive in the vicinity of the west switch of the interchange track, and the locomotive then departed west-bound en route to Dayton.

Because of track curvature and vegetation adjacent to the track the view of the track ahead from the control compartment of a locomotive approaching the point of accident from either direction is materially restricted. The employees on the locomotive of each train said that each engineer made an emergency application of the brakes immediately after he became aware that an opposing train was approaching. The headlight of each train was lighted brightly. According to the tape of the speed recording device, Extra 977 West approached the point of accident at a speed of 19 miles per hour. Because of fluctuation of the recording pencil as a result of the impact, the amount of deceleration prior to the time of the impact could not be determined. The speed of Extra 987 East had been reduced from 20 to 15 miles per hour when the collision occurred.

The operator at Renick said that after issuing train order No. 401 the train dispatcher informed him that there would be no other train orders for Extra 977 West. When the conductor entered the interlocking station the operator gave him copies of the order and a Clearance Card Form A. While the cars were being placed on the interchange track the dispatcher called and inquired as to the location of the locomotive. The operator said he told the dispatcher that the crew was making the delivery to the N. & W. and that train order No. 401 and a Clearance Card Form A had been delivered. The dispatcher then asked him if he could deliver another train order to the crew. He said he told the dispatcher that he did not know whether the locomotive would return to the interlocking station but he would deliver another order if he could. The dispatcher then issued order No. 402, the operator repeated the order, and the dispatcher made the order complete. The operator understood that the order was issued for the purpose of holding Extra 977 West at Renick until an east-bound extra arrived, but it did not occur to him that the east-bound extra might be authorized before order No. 402 was delivered to the crew of Extra 977 West. After he received the order he became engaged in other duties and made no attempt to attract the attention of the crew. The operator had been employed by the N. & W. during a period of about 3-1/2 years and had been assigned at Renick during a period of about 15 months. He said that he had been examined on the operating rules of the B. & O. but until after the accident occurred he was not aware that he was not permitted, under the rules, to repeat a train order for a train which had been cleared until after he had read the order to the conductor and the engineer and they had repeated it to him.

The train dispatcher said that when he talked with the operator at Renick the operator told him that the crew of Extra 977 West was still engaged in switching operations and that order No. 401 had been delivered. The dispatcher understood that at this time the locomotive was east of the interlocking station. He said he asked the operator if he could deliver another order to the crew and the operator replied that he could. The dispatcher understood the provisions of rule No. 219, but he did not ask the operator whether a Clearance Card Form A had been delivered with order No. 401. He issued order No. 402 and instructed the

operator not to permit Extra 977 West to pass the interlocking until after the crew had been directed to clear the main track for an east-bound train. He then issued train order No. 403 to Extra 987 East at Musselman. He said that about 10 minutes later the operator at Renick told him that the crew of Extra 977 West had not yet called. The dispatcher still thought that the locomotive was east of the interlocking, and he told the operator that the crew should call him or return to the interlocking station within a short time. Until after the accident occurred the dispatcher was not aware that Extra 977 West had departed from Renick.

Cause

This accident was caused by overlapping of authority of two opposing extra trains.

Dated at Washington, D. C., this twenty-seventh day of June, 1955.

By the Commission, Commissioner Clarke.

(SEAL)

HAROLD D. McCOY,
Secretary.