

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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INVESTIGATION NO. 3254  
THE NEW YORK CENTRAL RAILROAD COMPANY  
REPORT IN RE ACCIDENT  
NEAR HARTFORD, OHIO, ON  
MAY 17, 1949

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SUMMARY

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Date: May 17, 1949

Railroad: New York Central

Location: Hartford, Ohio

Kind of accident: Rear-end collision

Trains involved: Freight : Freight

Train numbers: Extra 3105 North : Extra 2122 North

Engine numbers: 3105 : 2122

Consists: 69 cars, caboose : Caboose

Estimated speeds: Standing : 25 m. p. h.

Operation: Signal indications

Track: Double; tangent; 0.29 percent descending grade northward

Weather: Foggy

Time: 5:08 a. m.

Casualties: 1 killed

Cause: Failure to operate following train in accordance with signal indications

INTERSTATE COMMERCE COMMISSION

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INVESTIGATION NO. 3254

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

THE NEW YORK CENTRAL RAILROAD COMPANY

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July 5, 1949

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Accident near Hartford, Ohio, on May 17, 1949, caused  
by failure to operate the following train in  
accordance with signal indications.

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

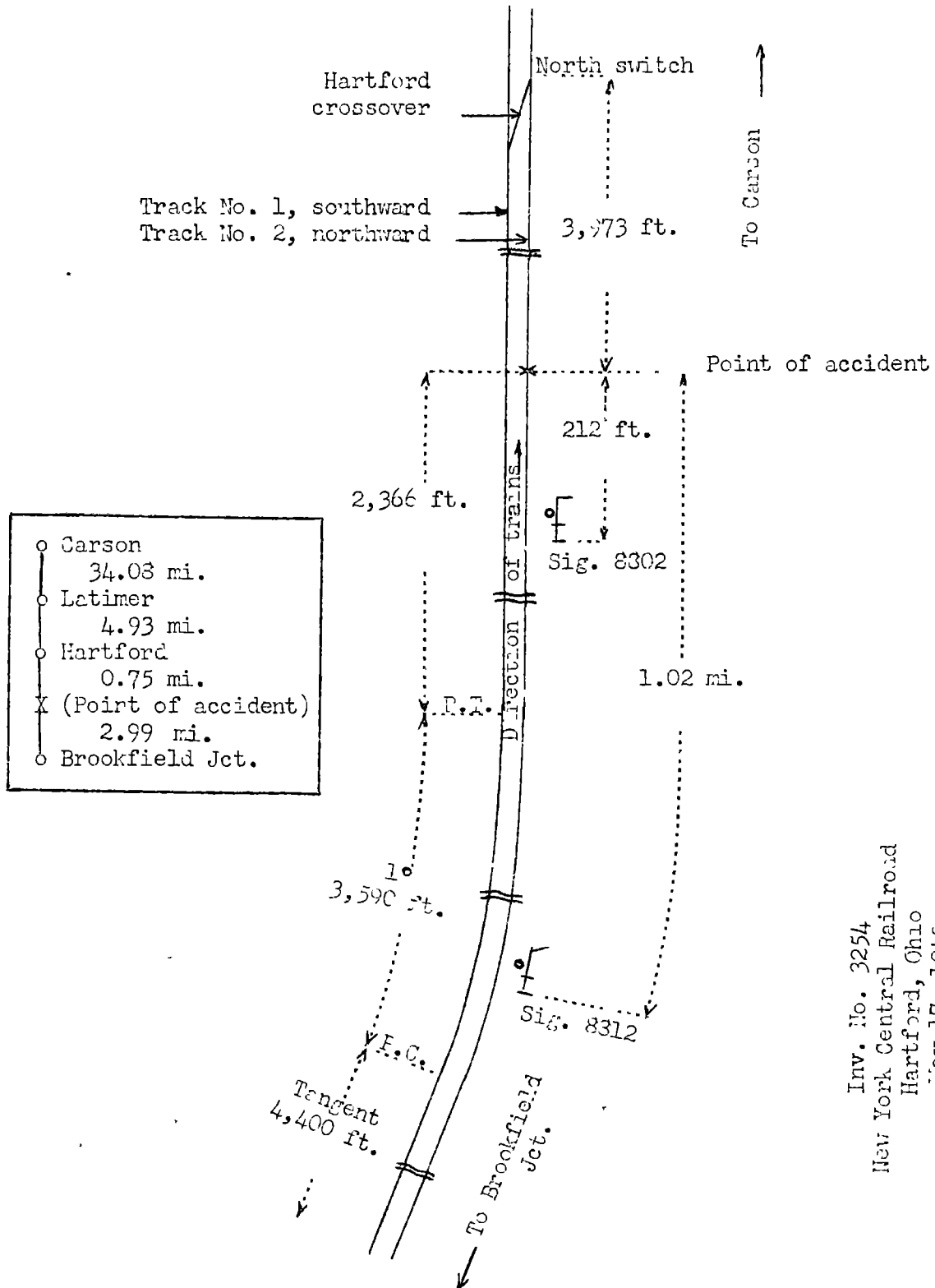
PATTERSON, Commissioner:

On May 17, 1949, there was a rear-end collision between two freight trains on the New York Central Railroad near Hartford, Ohio, which resulted in the death of one train-service employee. This accident was investigated in conjunction with a representative of the Public Utilities Commission of Ohio.

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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. 3254  
New York Central Railroad  
Hartford, Ohio  
May 17, 1949

### Location of Accident and Method of Operation

This accident occurred on that portion of the Erie Division extending between Brookfield Jct. and Carson, Ohio, 42.75 miles, a double-track line, over which trains moving with the current of traffic are operated by signal indications. The main tracks from west to east are designated as No. 1, southward, and No. 2, northward. At Hartford, 3.74 miles north of Brookfield Jct., a trailing-point crossover connects tracks Nos. 1 and 2. The accident occurred on track No. 2 at a point 2.98 miles north of Brookfield Jct. and 3,973 feet south of the north switch of the crossover at Hartford. From the south there are, in succession, a tangent 4,400 feet in length, a 1° curve to the left 3,590 feet and a tangent 2,366 feet to the point of accident and a considerable distance northward. At the point of accident the grade is 0.29 percent descending northward.

Automatic signals 8812 and 8802, governing northward movements on the northward main track, are located, respectively, 1.02 miles and 212 feet south of the point of accident. These signals are of the one-arm, upper-quadrant, semaphore type and are provided with marker lights. They display three aspects, and are approach lighted. The involved night aspects and corresponding indications of these signals are as follows:

<u>Signal</u>	<u>Aspect</u>	<u>Indication</u>
8812	Yellow over red marker light	PROCEED PREPARING TO STOP AT NEXT SIGNAL. TRAIN EXCEEDING MEDIUM SPEED MUST AT ONCE REDUCE TO THAT SPEED. REDUCTION TO MEDIUM SPEED MUST COMMENCE BEFORE PASSING SIGNAL AND BE COMPLETED BEFORE ACCEPTING A MORE FAVORABLE INDICATION.
8802	Red over red marker light	STOP, THEN PROCEED AT RESTRICTED SPEED.

The controlling circuits of these signals are so arranged that when the block of signal 8802 is occupied that signal indicates Stop-then-proceed-at-restricted-speed, and signal 8812 indicates Proceed-preparing-to-stop-at-next-signal.

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

### DEFINITIONS

Medium Speed.--A speed not exceeding thirty miles per hour.

Slow Speed.--A speed not exceeding fifteen miles per hour.

Restricted Speed.--A speed not exceeding that which will enable a train to stop short of train ahead, obstruction, or switch not properly lined, look out for broken rail, and not exceeding slow speed.

#### 14. Engine Whistle Signals.

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

Sound	Indication
(d) — — — —	Flagman may return from west or south

\* \* \*

34. The engineman and fireman must, and when practicable the trainmen will, communicate to each other the indication of all signals affecting the movement of their train.

35. The following signals will be used by flagmen:

\* \* \*

Night signals--A red light,  
A white light,  
Torpedoes,  
Fusees.

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 fusees. When recalled and safety to the train will permit, he may return.

When the conditions require, he will leave the torpedoes and a lighted fusee.

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Note.--When trains are operating under Automatic Block System Rules, the requirements of Rule 99, in so far as protecting against following trains is concerned, will have been complied with when full protection is afforded against trains moving at Restricted Speed.

The maximum authorized speed for the train involved was 40 miles per hour.

#### Description of Accident

Extra 3105 North, a north-bound freight train, consisted of engine 3105, 69 cars and a caboose. This train entered the Erie Division at Youngstown at 4:11 a. m., passed Brookfield Jct., the last open office, 3.74 miles south of Hartford, at 4:40 a. m., and stopped about 4:50 a. m., on the northward main track, with the rear end 2.98 miles north of Brookfield Jct., and 212 feet north of signal 8802. About 15 minutes later the rear end was struck by Extra 2122 North.

Extra 2122 North, a north-bound freight train, consisting of engine 2122 and a caboose, entered the Erie Division at Youngstown at 4:45 a. m., passed Brookfield Jct. at 5:03 a. m., passed signal 8812, which under the circumstances should have indicated Proceed-preparing-to-stop-at-next-signal, passed signal 8802, which indicated Stop-then-proceed, and while moving at a speed of 25 miles per hour, as indicated by the tape of the speed-recording device, it struck the rear end of Extra 3105 North.

Extra 2122 North stopped with the front end of the engine 64 feet north of the point of accident. The caboose of Extra 3105 North was derailed and was telescoped by the sixty-ninth car, which, in turn, was telescoped by the sixty-eighth car. The rear wheels of the rear truck of the sixty-eighth car were derailed, and the rear end of the car was badly damaged. The caboose and the sixty-ninth car were destroyed. The front end of engine 2122 was considerably damaged.

The conductor of Extra 3105 North was killed.

Day was breaking and there was a dense fog at the time of the accident, which occurred about 5:08 a. m.

#### Discussion

Extra 3105 North stopped on track No. 2 about 4:50 a. m., with the rear end standing 212 feet north of signal 8802. Two helper engines, which were coupled ahead of engine 3105, were detached. These engines then proceeded northward to a

point north of the north switch of the crossover at Hartford to await the passage of a south-bound train on track No. 1, before they moved from track No. 2 to track No. 1. The engineer, the fireman and the front brakeman of Extra 3105 North were in the cab of the engine. When the train stopped, the flagman proceeded southward with flagging equipment to provide protection. The conductor remained in the caboose. As the flagman proceeded southward he observed that the marker lamps on the caboose were lighted, and they displayed red to the rear. When he had reached a point about 750 feet south of the caboose he heard the engine whistle of a south-bound train sounded. He then proceeded toward the caboose of his train but did not leave torpedoes or a lighted fusee. When the engine of the south-bound train, moving on track No. 1, passed him, he was standing about 250 feet south of his caboose. After exchanging signals with the fireman and the front brakeman of the south-bound train, he walked about 100 feet southward. When about 30 cars of the south-bound train had passed, he heard the engine-whistle signal sounded to recall him from the south. He said that he then lighted a red fusee and dropped it on the track. Immediately afterward he saw the reflection of the headlight of a train approaching from the south on track No. 2, at a distance of about 900 feet, and he picked up the lighted fusee and gave stop signals. These signals were not acknowledged. When he realized that the approaching train was moving at a speed too high to be stopped short of Extra 3105 North, he proceeded toward his caboose in an attempt to warn the conductor of the approaching train.

Extra 2122 North passed signal 8812 at a speed of about 40 miles per hour. The engineer and the fireman were in the cab of the engine, and the other members of the crew were in the caboose. The headlight was lighted brightly. The brakes of this train had functioned properly when used en route. The engineer said that signal 8812 indicated Proceed, therefore, he made no brake application after his train passed that signal. The fireman said that the engineer called the Proceed indication of the signal. The fireman said that he did not see the signal, because of dense fog and because the view of the signal from the left side of the cab was obstructed by the boiler when the engine was closely approaching the signal. The engineer said that the fog was very dense, and that he could not distinguish signal aspects until he was closely approaching them. When engine 2122 was about 150 feet south of signal 8802, the engineer observed that the aspect was red, and he placed the



brake valve in emergency position. Immediately afterward he saw the rear end of Extra 3105 North. He said that the flagman was standing near the rear end of the caboose and giving stop signals with a red flag. The flagman said that he did not have a red flag in his possession at that time. The engineer did not see lighted markers on the rear of the caboose or a lighted fusee.

The conductor of Extra 2122 North said that, when he alighted from his caboose after the accident, the flagman of Extra 3105 North was standing adjacent to the rear steps of the caboose of Extra 2122 North. The flagman was holding a lighted red fusee, and there was a lighted red and a lighted white lantern on the ground nearby. None of the members of the crew of Extra 3105 North who were in the caboose saw the aspects displayed by signals 8812 and 8802.

The fireman and the front brakeman of the south-bound train which was passing Extra 3105 North when the accident occurred said that when their engine passed the caboose of Extra 3105 North the flagman of that train was standing about 250 feet south of the caboose and that he had in his possession a lighted red and a lighted white lantern.

About 2 hours 30 minutes after the accident occurred, Extra 2122 North proceeded southward on track No. 2 against the current of traffic. The engineer said that as he approached signal 8812 he reduced the speed of the engine in order to observe the aspect of the signal. He said that as he approached the signal from the north the semaphore blade was in position to indicate Stop-then-proceed. When the engine passed the signal, he said the aspect changed from red to yellow to green, then from green to yellow to red, then again from red to yellow to green, and then from green to yellow. He immediately called to the fireman to observe the signal. The fireman said that when he observed the signal from the right gangway it was displaying a yellow aspect. He was uncertain whether the semaphore arm had been moving from a vertical or a horizontal position to the diagonal position. The signal supervisor said that, after he was notified of the accident, he proceeded to the scene of the collision in an automobile. He had reached a road crossing about 200 feet south of signal 8812 as Extra 2122 North was approaching this signal from the north. He said that he observed the signal as the train passed it and the signal blade moved only from the horizontal position to the 45-degree position. Tests of the automatic block-signal system were begun by forces of the carrier about three hours after the accident occurred. These tests indicated that signals 8812 and 8802 were functioning properly when Extra 2122 North passed them.

Under the flagging rules of this carrier, "full protection" in automatic block-signal territory consists of providing protection only for stopping a following train which is being operated so that it can be stopped short of a preceding train or an obstruction, regardless of track curvature, gradient or weather conditions. The signal rules of the carrier require that a train receiving an aspect indicating Proceed-preparing-to-stop-at-next-signal must be so operated that it can be stopped short of the next signal. Also, a train must stop at a signal indicating Stop-then-proceed, then it may proceed into the block, but the speed must be so controlled that the train can be stopped short of a preceding train.

Cause

It is found that this accident was caused by failure to operate the following train in accordance with signal indications.

Dated at Washington, D. C., this fifth day of July, 1949.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,  
Secretary.