

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3626
THE PENNSYLVANIA RAILROAD COMPANY
IN RE ACCIDENT
AT MAPLE, OHIO, ON
APRIL 22, 1955

SUMMARY

Date: April 22, 1956

Railroad: Pennsylvania

Location: Maple, Ohio

Kind of accident: Collision

Equipment involved: Portion of freight train : Passenger train

Train numbers: Extra 8982 East : 361

Engine numbers: Diesel-electric unit 8982 : Diesel-electric units 5769 and 5763

Consists: 19 cars, caboose : 7 cars

Estimated speeds: Standing : 35 m. p. h.

Operation: Movements with the current of traffic by signal indications; movements against the current of traffic by train orders and manual block-signal system

Tracks: Double; 0°40' curve; 0.40 percent ascending grade eastward

Weather: Clear

Time: 11 a. m.

Casualties: 28 injured

Cause: Authorizing a train to move against the current of traffic on a track which was not clear of opposing trains and admitting a train to an occupied block under clear-block authority

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3626

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

THE PENNSYLVANIA RAILROAD COMPANY

June 3, 1955

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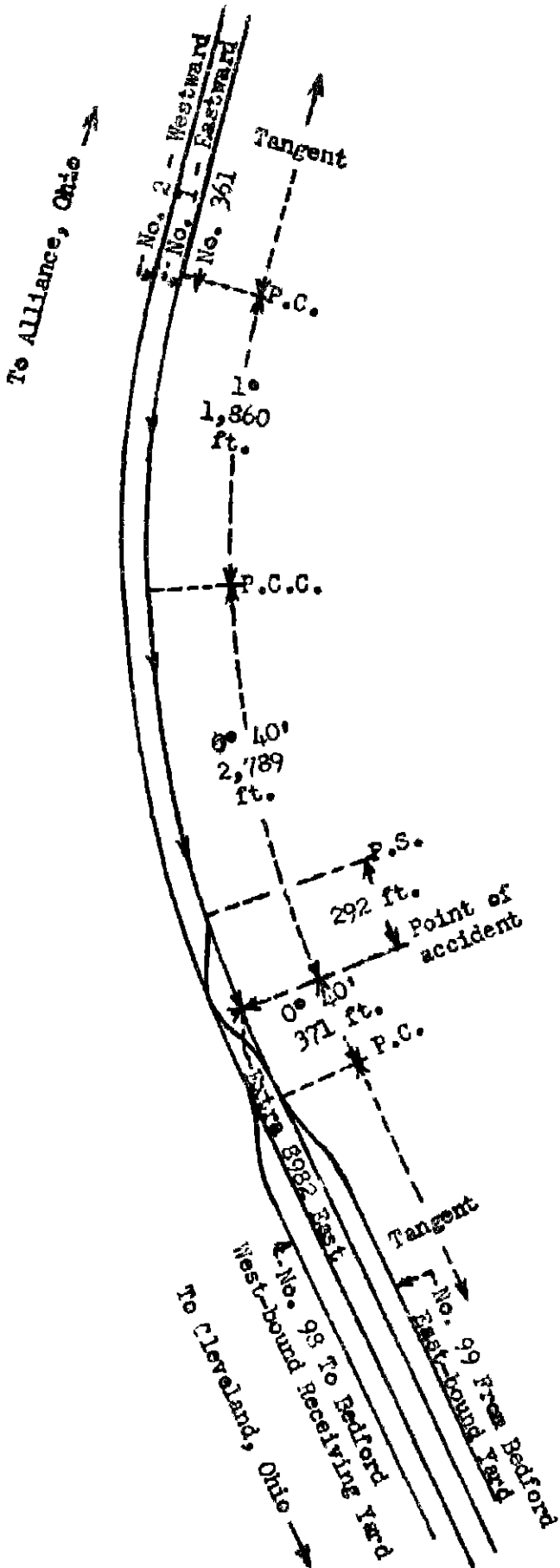
Accident at Maple, Ohio, on April 22, 1955, caused by authorizing a train to move against the current of traffic on a track which was not clear of opposing trains and admitting a train to an occupied block under clear-block authority.

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REPORT OF THE COMMISSION

CLARKE, Commissioner:

On April 22, 1955, there was a collision between a passenger train and the rear portion of a freight train on the Pennsylvania Railroad at Maple, Ohio, which resulted in the injury of 21 passengers and 7 employees. This accident was investigated in conjunction with a representative 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.



●	Alliance, Ohio	29.9 mi.
●	Hudson	8.6 mi.
●	Plant of Ford Motor Company	4.8 mi.
X	Maple (Point of accident)	5.7 mi.
●	Harvard	0.9 mi.
●	Erie Crossing	3.1 mi.
●	Cleveland, Ohio	

Report No. 3626
 Pennsylvania Railroad
 Maple, Ohio
 April 22, 1955

Location of Accident and Method of Operation

This accident occurred on that part of the Lake Division extending between Cleveland and Alliance, Ohio, 53.0 miles, a double-track line, over which trains moving with the current of traffic are operated by signal indications and trains moving against the current of traffic are operated by train orders and a manual block-signal system. The main tracks from south to north are designated as No. 1, eastward, and No. 2, westward. At Maple, 9.7 miles east of Cleveland, a trailing-point crossover connects the two main tracks. West of Maple the tracks of Bedford East-bound Yard parallel track No. 1 on the south, and the tracks of Bedford West-bound Receiving Yard parallel track No. 2 on the north. A running track in the east-bound yard designated as track No. 99 connects with track No. 1 a short distance west of the trailing-point crossover at Maple, and a running track in the west-bound receiving yard designated as track No. 98 connects with track No. 2 at a point opposite the east switch of track No. 99. Both of these switches are trailing-point for east-bound movements. The accident occurred on track No. 1 at a point 292 feet west of the east switch of the trailing-point crossover at Maple. From the west on track No. 1 there is a tangent several thousand feet in length and a 0°40' curve to the right 371 feet to the point of accident and 2,789 feet eastward. From the east there is a 1° curve to the left 1,860 feet in length and the curve on which the accident occurred. The grade is 0.40 percent ascending eastward at the point of accident.

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

Forms of Train Orders

D-R

Providing for a Movement Against the Current
of Traffic

- (1) No 1 Eng 461 has right over opposing trains on
No 2 track C to F.

* * *

A train must not be moved against the current of traffic until holding orders have been issued and the track on which it is to run has been cleared of opposing trains.

* * *

Manual Block Signal System

D-308. When a train is turned out against the current of traffic, manual block signal system rules must be observed; * * *

317. * * *

Before admitting a train to a block under Clear-block signal, the signalman in charge of the block station or block-limit station at the entrance of the block must know that the block is clear of all trains and that no other train has been given permission or a signal to enter the block. Signals governing opposing movements, where provided, must display Stop-signal. The signalman will then display a Clear-block signal for the train to be admitted to the block. * * *

* * *

Automatic Block Signal System

502. A train or engine must not enter a block at a hand-operated switch or crossover nor foul the main track without permission of the signalman * * *

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505. When a train or engine clears the main track at a hand-operated switch or crossover and the switches have been restored to normal position, it must be reported clear to the signalman by the conductor, engineer, or member of their crew when authorized by the conductor or engineman.

* * *

The maximum authorized speed for freight trains in the vicinity of the point of accident is 50 miles per hour. The maximum authorized speed for passenger trains when moving against the current of traffic is 50 miles per hour.

Description of Accident

Extra 8982 East, an east-bound freight train, consisted of Diesel-electric unit 8982, 19 loaded cars, and a caboose. This train entered track No. 1 and passed Erie Crossing, 6.6 miles west of Maple, at 9:26 a. m. It passed Harvard, 5.7 miles west of Maple and the last open office, at 9:36 a. m. and stopped on track No. 1 at Maple about 10:10 a. m. with the front end of the first car 292 feet west of the east switch of the trailing-point crossover. The locomotive was detached and entered the west-bound receiving yard via the crossover and track No. 98. About 50 minutes later the front end of the portion of the train which was standing on track No. 1 was struck by No. 361.

No. 361, a west-bound first-class passenger train, consisted of Diesel-electric units 5769 and 5763, coupled in multiple-unit control, one express car, one storage mail car, one parlor car, one coach, and one combination passenger-baggage car, in the order named. At Hudson, 13.4 miles east of Maple, the members of the crew received copies of train order No. 101 reading as follows:

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No 361 Eng 5769 has right over
opposing trains on No 1 track
Hudson to Harvard

The crew also received clear-block authority on track No. 1 from Hudson to Harvard. This train departed from Hudson on track No. 1 at 10:43 a. m., 17 minutes late, and while moving at a speed of about 35 miles per hour it struck the portion of the train of Extra 8982 East which was standing on track No. 1.

The first car of Extra 8982 East was demolished, and the rear truck of the fourth car was derailed. The second and the fourth cars were badly damaged, and the third car was slightly damaged. The front truck of the first Diesel-electric unit of No. 361 was derailed. This unit stopped upright and approximately in line with the track. It was considerably damaged. The first, fourth, fifth, and sixth cars were slightly damaged.

The engineer, the fireman, the conductor, the brakeman-ticket collector, and the flagman of No. 361 were injured.

The weather was clear at the time of the accident, which occurred about 11 a. m.

Discussion

At the time the accident occurred track No. 2 between Hudson and Harvard was occupied by a power tamping machine. No. 361 was being operated over track No. 1 between these stations so that it would not be necessary for the maintenance-of-way force to clear track No. 2. The investigation disclosed that the accident occurred as a result of a misunderstanding between the employees involved as to the movements which were to be made by Extra 8982 East at Maple, but these employees were not in agreement in their recollections of the conversations which took place concerning these movements.

According to the statements of the conductor of Extra 8982 East, before his train entered track No. 1 he called the operator at Erie Crossing and requested permission to proceed to a plant of the Ford Motor Company, located 4.8 miles east of Maple, on track No. 1. He told the operator that there were 19 cars in his train and that these cars would be left on track No. 1 at Maple while 12 additional cars were added. The train then departed east-bound on track No. 1. When it stopped at Maple the flagman proceeded westward to provide protection. The conductor called the operator at Hudson and requested permission to occupy track No. 2 in order to enter the west-bound receiving yard via track No. 98. After he secured this permission the locomotive was moved into the yard

and the switches were restored to normal position. The conductor then called the operator at Hudson and reported that the 8982 was clear of track No. 2 at Maple. He told the operator that the movement into the yard was to be made with the locomotive only, but he did not mention that a portion of the train was being left on track No. 1. He assumed that since he did not report the train clear of track No. 1 it would be understood that the rear portion of the train was still occupying that track. The conductor and the front brakeman accompanied the locomotive into the yard. The collision occurred before the locomotive returned to Maple.

According to the statements of the operator at Erie Crossing, when he talked with the conductor of Extra 8982 East the conductor told him that the train consisted of 19 cars for the plant of the Ford Motor Company and that 12 cars for the same destination would be added to the train at Maple. The conductor did not tell him that he planned to leave the 19 cars on track No. 1 at Maple. The operator gave the information which he received from the conductor to the train dispatcher and also to the operator at Harvard. There was no mention of the manner in which the movements were to be made at Maple.

According to the statements of the operator at Harvard, the operator at Erie Crossing told him that Extra 8982 East consisted of 19 cars for Maple and would pick up 12 cars at Maple for the plant of the Ford Motor Company. Since the train was destined to a point west of Hudson, the operator at Harvard did not notify the operator at Hudson of the movements which were to be made. About 45 minutes after the train passed Harvard the dispatcher called the operator and informed him that Extra 8982 East was reported clear of track No. 1 at 10:18 a. m. The dispatcher did not say whether the locomotive only or the entire train was clear of the track, but the operator assumed that since the track was reported clear the entire train was clear. The operator at Hudson also told the operator at Harvard that Extra 8982 East was clear of tracks Nos. 1 and 2 at 10:18 a. m. The operator at Harvard then told the dispatcher that track No. 1 between Harvard and Hudson was clear

with the exception of Extra 9581 East, which had passed Harvard at 9:26 a. m. The dispatcher gave him the time that Extra 9581 East had passed Hudson. He then issued train orders Nos. 116 and 117. Train order No. 116, which was addressed to the operator at Harvard, was issued at 10:24 a. m. This order read as follows:

Hold all eastward trains clear of No 1 track
between Harvard and Hudson

Train order No. 117, which was addressed to all eastward trains on No. 1 track at Harvard and to No. 361 at Hudson, was also issued at 10:24 a. m. After these orders were issued, the operator at Hudson reported to the operator at Harvard that Extra 9581 East had passed Hudson at 9:55 a. m. and that the 8982 had cleared track No. 1 at 10:18 a. m. He then asked the operator at Harvard for block authority for No. 361 on track No. 1. According to the station record of train movements at Harvard, clear-block authority was given for the movement of No. 361 on track No. 1 at 10:34 a. m.

According to the statements of the operator at Hudson, the conductor of Extra 8982 East called him on the telephone at 10:12 a. m. and requested permission to occupy track No. 2 at Maple in order to cross over into the west-bound receiving yard. The operator gave him this permission, and several minutes later the conductor called and reported that engine 8982 was clear of track No. 2 at 10:18 a. m. The operator did not inquire whether the movement was made with a locomotive only or with a locomotive with cars, and the conductor did not volunteer this information. A short time later the train dispatcher inquired whether a locomotive had crossed over at Maple recently. The operator gave him the times that the conductor of Extra 8982 East had requested permission to occupy track No. 2 and had reported clear of that track. The dispatcher then called the operator at Harvard and told him that the 8982 had cleared at Maple. The operator at Hudson interrupted and said that the conductor had reported clear of track No. 2. Neither the dispatcher nor the operator at Harvard replied to him. The dispatcher asked the operator at Harvard if track No. 1 between Harvard and Hudson was clear, and after

ascertaining the time that Extra 9581 East had passed Hudson the operator at Harvard replied that the track was clear. After the dispatcher issued train orders Nos. 116 and 117 the operator at Hudson called the operator at Harvard, told him that Extra 9581 East, the last east-bound train which had been reported to him, had passed Hudson at 9:55 a. m., and asked whether track No. 1 was clear. The operator at Harvard replied that it was. The operator at Hudson then asked for block authority for No. 361 on track No. 1, and the operator at Harvard replied that the block was clear. Extra 8982 East was not mentioned during this conversation between the operators.

According to the statements of the train dispatcher, before Extra 8982 East passed Erie Crossing the operator at that point reported to him that there were 19 cars in the train and that 10 or 12 cars for the plant of the Ford Motor Company would be added to the train at Maple. The destination of the 19 cars was not mentioned. The times that the train passed Erie Crossing and Harvard were reported by the operators. About 10:20 a. m. the operator at Hudson reported that the 8982 was clear of track No. 2 at Maple at 10:18 a. m. The dispatcher then asked the operator at Harvard if track No. 1 was cleared as a result of this movement. The operator replied that he did not have a report of the time that Extra 9581 East had passed Hudson. The operator at Hudson gave him this time, and both operators then told the dispatcher that track No. 1 was clear. The dispatcher did not inquire as to whether the movement of locomotive 8982 into the yard was made with the locomotive only or with the entire train, and he did not recall that the operator at Hudson had emphasized that he was only reporting the movement clear of track No. 2. After the dispatcher was satisfied that track No. 1 was clear, he arranged to operate No. 361 over that track so that it would not be necessary for the maintenance-of-way force to clear track No. 2.

As No. 361 was approaching the point where the accident occurred the enginemen were maintaining a lookout ahead from their positions in the control compartment at the front of the locomotive. The members of the train crew were in various

locations in the train. The enginemen said that they saw the train of Extra 8982 East at a distance of 1,500 to 2,000 feet. Because of curvature of the track these employees could not determine which track the cars were occupying until the locomotive reached a point which the engineer thought was about 1,000 feet east of the east car. The engineer then made an emergency application of the brakes. According to the tape of the speed-recording device, the speed was about 50 miles per hour when the brake application became effective and about 35 miles per hour when the collision occurred.

Because of the conflict in the statements of the employees involved, the exact conversations which took place concerning the movement of Extra 8982 East were not determined during this investigation. Ordinarily when a movement is made from track No. 1 to track No. 98 at Maple a member of the crew obtains permission to occupy track No. 2 from the operator at Hudson and reports to the operator after track No. 2 is cleared. If the movement clears track No. 1, a member of the crew reports to the operator at Harvard. When a movement is made from track No. 99 to track No. 98 a member of the crew obtains permission to occupy track No. 1 from the operator at Harvard and permission to occupy track No. 2 from the operator at Hudson. He reports to each operator after each track is cleared. In the instant case the operator at Hudson did not know whether the movement to track No. 98 was being made from track No. 99 or from track No. 1, and he did not know what arrangements the crew had made to occupy track No. 1 or to clear that track. As a result of the conversations between the two operators and the dispatcher after the locomotive entered the yard, each of these employees thought that the other employees had knowledge that track No. 1 was clear. The possibility that a portion of the train may have been left on track No. 1 was not discussed.

As a result of misunderstandings disclosed by these conflicting statements, the passenger train was permitted to move against the current of traffic when the track on which it was run had not been cleared of opposing trains, and it was permitted to enter a block under clear-block authority when the block was occupied by the rear portion of the opposing train.

Cause

This accident was caused by authorizing a train to move against the current of traffic on a track which was not clear of opposing trains and admitting a train to an occupied block under clear-block authority.

Dated at Washington, D. C., this third day of June, 1955.

By the Commission, Commissioner Clarke.

(SEAL)

HAROLD D. McCOY,
Secretary.