

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3322
THE BALTIMORE AND OHIO RAILROAD COMPANY
IN RE ACCIDENT
NEAR RIKER, PA., ON
APRIL 22, 1950

SUMMARY

Date: April 22, 1950

Railroad: Baltimore and Ohio

Location: Riker, Pa.

Kind of accident: Head-end collision

Trains involved: Engine : Engine and
caboose

Train numbers: Extra 4703 West : Extra 159 East

Engine numbers: 4703 : Diesel-electric
units 159-A
and 159

Consist: : Caboose

Estimated speeds: Standing : 10 m. p. h.

Operation: Timetable, train orders and manual-
block system; yard limits

Track: Single; 2°30' curve; level

Weather: Clear

Time: 1:05 a. m.

Casualties: 5 injured

Cause: Train being admitted to block occupied
by opposing train

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3322

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

THE BALTIMORE AND OHIO RAILROAD COMPANY

June 9, 1950

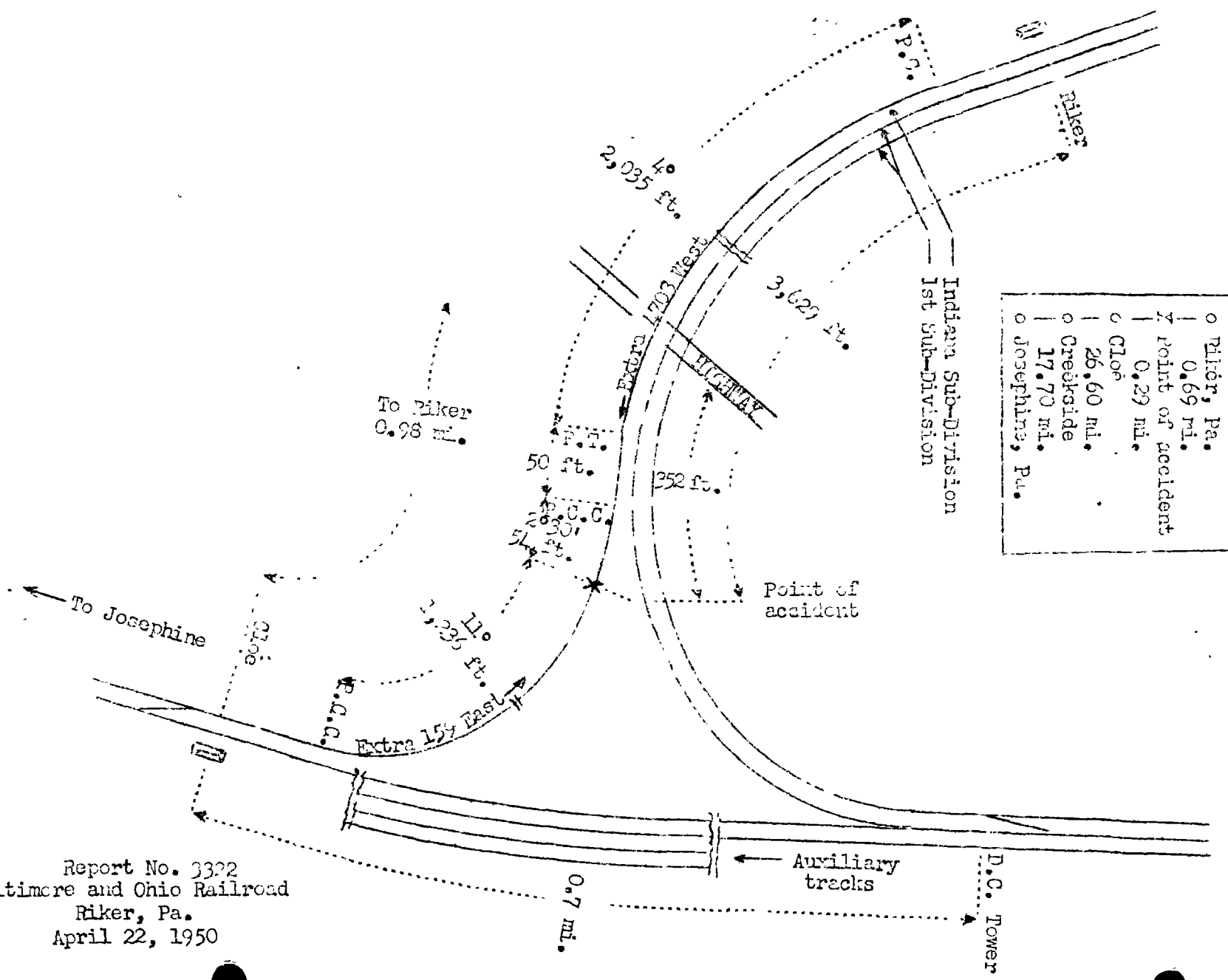
Accident near Riker, Pa., on April 22, 1950, caused by a
train being admitted to a block occupied by an
opposing train.

REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On April 22, 1950, there was a head-end collision
between an engine and an engine with a caboose on the
Baltimore and Ohio Railroad near Riker, Pa., which resulted
in the injury of five employees.

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



o	Riker, Pa.
	0.69 mi.
X	Point of accident
	0.29 mi.
o	C106
	26.60 mi.
o	Creekside
	17.70 mi.
o	Josephine, Pa.

Report No. 3322
 Baltimore and Ohio Railroad
 Riker, Pa.
 April 22, 1950

Location of Accident and Method of Operation

This accident occurred on that part of the Buffalo Division designated as the Indiana Sub-Division and extending between Riker and Josephine, Pa., 45.28 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 Cloe, 0.98 mile west of Riker, a portion of this sub-division diverges to the southeast and extends between Cloe and D. C. Tower, 0.7 mile. A double-track line of the First Sub-Division extending between Riker and D. C. Tower, 1.2 miles, parallels the Indiana Sub-Division a distance of 3,525 feet west of Riker. The accident occurred on the main track within yard limits at a point 5,829 feet west of the station at Riker. From the east there are, in succession, a 4° curve to the left 2,935 feet in length, a tangent 50 feet, and a compound curve to the right, having a maximum curvature of 11°, 54 feet to the point of accident and 1,236 feet westward. The curvature at the point of accident is 2°30'. The grade is level at the point of accident.

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

DEFINITIONS.

Restricted Speed--Proceed, prepared to stop short of train, obstruction, or anything that may require the speed of a train to be reduced.

93. * * *

On single track within yard limits the main track may be used clearing first class trains as prescribed by the rules and protecting against second class trains. Trains other than first and second class will move within yard limits prepared to stop unless the main track is seen or known to be clear.

* * *

Note--Where block signal rules are in effect "known to be clear" includes when track is known to be clear by signal indication.

315. A block record must be kept at each block station. The operator must record in ink the time each train passes his and the adjoining block station in each direction, also all crossover movements. He must record the issuance by telephone of Clearance Card Form A.

A train must not be admitted to a block which is occupied by an opposing train * * *. A train other than passenger train may be permitted to follow a train other than a passenger train into a block under "Permissive" indication; or Clearance Card Form A.

* * *

327. To permit a train or engine to enter a block or foul the main track * * *, the operator must examine the block record and if all the blocks affected are clear of approaching trains he must provide or arrange for block protection before permission is given, and until movement is complete and block clear, trains will not be admitted to the block except under a "Permissive" signal or with a Clearance Card Form A, part (A), line 3.

* * *

377. Yard engines must not enter a block without permission of the operator * * *, and the conductor must notify the nearest block station when the engine is clear of the main track * * *. Until the yard engine is reported clear of the main track or tracks to the operator, the latter must display a restricted speed indication for trains other than trains carrying passengers entering the block.

Clearance Card Form A reads in part as follows:

* * *

EXPLANATION OF USE.

(A) * * *

* * *

3. If block is clear, insert the word "clear"; if not clear, the word "occupied." (An occupied block necessitates running at restricted speed.)

Timetable special instructions read in part as follows:

4. * * *

All trains and engines moving between Cloe and Riker will get block indication on Form A before occupying this track.

* * *

The maximum authorized speed for the trains in this accident was 35 miles per hour.

Description of Accident

At Riker the crew of Extra 4703 West, a west-bound train, received copies of a Clearance Card Form A reading in part as follows:

Proceed Block is Clear to Creekside

Creekside is 27.58 miles west of Riker. This train, consisting of engine 4703 without cars, departed from Riker at 12:56 a. m. and stopped on the main track at a point 3,629 feet west of the station at Riker about 1:05 a. m. Immediately afterward it was struck by Extra 159 East.

Extra 159 East, an east-bound train, consisted of a caboose and Diesel-electric units 159-A and 159, in the order named. At Cloe the conductor received by telephone from the operator at Riker block authority to proceed but that the block was occupied to Riker. This train departed from Cloe about 1:01 a. m., and while moving at a speed of about 10 miles per hour it struck Extra 4703 West.

The left No. 1 driving wheel of engine 4703 was derailed, and the front end of the engine was somewhat damaged. The front end of Diesel-electric unit 159-A was somewhat damaged. The caboose of Extra 159 East was destroyed.

The engineer, the fireman, the conductor, the front brakeman, and the flagman of Extra 159 East were injured.

The weather was clear at the time of the accident, which occurred about 1:05 a. m.

Discussion

The rules of this carrier require that the crew of a train or an engine moving between Cloe and Riker must obtain Clearance Card Form A before the main track is occupied. The track between these points is within yard limits, and movements not authorized by timetable or train order, such as yard movements, may be made after permission is received from the operator. A train may be permitted to enter a block which is occupied by a preceding train, other than a passenger train, but a train must not be admitted to

a block which is occupied by an opposing train. The station at Cloe is unattended, and the crews of trains and engines entering the block at that point obtain block authority by telephone from the operator at Riker. Because there are frequent switching movements on the main track at Riker, it is a practice for the operator, when issuing block authority for a train to enter the block at Cloe, to indicate that the block is occupied, even though the block is clear at the time the block authority is issued. The superintendent indicated that, because of a steep grade in the territory where the accident occurred, trains were blocked manually within the yard limits between Riker and Cloe in order to give information to the crews so that higher speed could be maintained for preventing the stalling of heavy trains.

At 12:53 a. m., after obtaining control of the block between Riker and Creekside, the operator at Riker issued to Extra 4703 West Clearance Card Form A, which indicated that the block was clear. Extra 4703 West then departed westward from Riker. As this train was approaching the point where the accident occurred, the speed was about 10 miles per hour. The engineer and the fireman were maintaining a lookout ahead from their respective positions in the cab, and the flagman was on the deck of the engine. The headlight was lighted brightly. The brakes of the engine had been tested and had functioned properly when used. The grade-crossing engine-whistle signal was sounded for a grade crossing located 352 feet east of the point of accident and was completed as the engine reached the crossing. When the engine was in the vicinity of this crossing, the engineer observed the lights on the side of the first Diesel-electric unit of Extra 159 East, and soon afterward he observed that the Diesel-electric unit was pushing a caboose. He had received a clear-block authority, and he assumed that the Diesel-electric unit was moving on the track between Cloe and D. C. Tower. When he became aware that the opposing train was moving toward Riker, he initiated an emergency brake application. The collision occurred immediately after the engine stopped.

Extra 159 East arrived at D. C. Tower from the 1st Sub-Division about 12:20 a. m., and the crew performed switching on auxiliary tracks between D. C. Tower and Cloe. After the switching was completed, the conductor received block authority by telephone to proceed from Cloe to Riker. This authority contained the information that the block was occupied. He informed the other members of the crew that the block was occupied. The train then entered the block and proceeded eastward. As the train was approaching

the point where the accident occurred, the front brakeman was on the front platform of the caboose, the conductor and the flagman were in the caboose, and the engineer and the fireman were in the control compartment at the front of the first Diesel-electric unit. The headlight was not lighted, and there was no light at the front of the caboose, except a white lantern carried by the front brakeman. After the train entered the curve on which the accident occurred, the cupola of the caboose obstructed the engineer's view of the track ahead. Soon after this train entered the curve, the front brakeman and the fireman observed the headlight of a train approaching from the east, but, since they did not expect to meet an opposing train in the block, they assumed that the approaching train was moving on the double-track line of the 1st Sub-Division. When they became aware that the opposing train was moving on the Indiana Sub-Division, the front brakeman did not have sufficient time to take any action to stop the train. The fireman called a warning to the engineer, who immediately initiated an emergency brake application. According to the tape of the speed recording device, the speed of the train was 22 miles per hour when the brakes were applied. The members of the crew estimated that the speed had been reduced to 10 miles per hour when the collision occurred.

At 12:53 a. m. the operator at Riker arranged with the operator at Creekside for control of the block for the movement of Extra 4703 West between Riker and Creekside. He then issued to Extra 4703 West Clearance Card Form A, which indicated that the block was clear. At 12:59 a. m. the conductor of Extra 159 East communicated by telephone at Cloe with the operator at Riker, and requested permission for his train to enter the block at Cloe for movement to Riker. Without examining the block record, the operator granted block authority which indicated that the block was occupied. However, he was not aware that he had admitted Extra 159 East to a block which was occupied by an opposing train until after the collision occurred. He was unable to explain his failure to examine the block record before granting this block authority.

Cause

It is found that this accident was caused by a train being admitted to a block occupied by an opposing train.

Dated at Washington, D. C., this ninth day of June, 1950.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.