

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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REPORT NO. 3358  
THE BALTIMORE AND OHIO RAILROAD COMPANY  
IN RE ACCIDENT  
NEAR CONNELLSVILLE, PA., ON  
AUGUST 28, 1950

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SUMMARY

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Date: August 28, 1950

Railroad: Baltimore and Ohio

Location: Connellsville, Pa.

Kind of accident: Head-end collision

Trains involved: Passenger : Mail and express

Train numbers: 21 : Extra 5087 East

Engine numbers: 5000 : 5087

Consists: 6 cars : 9 cars

Speeds: 28 m. p. h. : 17 m. p. h.

Operation: Signal indications; yard limits

Tracks: Four; 2°20' curve; 0.19 percent  
descending grade westward

Weather: Clear

Time: 3:17 p. m.

Casualties: 80 injured

Cause: Train being operated against current  
of traffic without protection

INTERSTATE COMMERCE COMMISSION

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REPORT NO. 3358

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

THE BALTIMORE AND OHIO RAILROAD COMPANY

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October 25, 1950

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Accident near Connellsville, Pa., on August 28, 1950,  
caused by a train being operated against the  
current of traffic without protection.

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

PATTERSON, Commissioner:

On August 28, 1950, there was a head-end collision between a passenger train and a mail and express train on the Baltimore and Ohio Railroad near Connellsville, Pa., which resulted in the injury of 56 passengers, 6 railway-mail clerks, 4 dining-car employees, 1 train attendant, 5 employees not on duty and 10 train-service employees.

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<sup>1</sup>  
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.

Connellsville

Greene Junction, Pa.  
| 1.70 mi.  
o Connelleville  
| 0.57 mi.  
X Point of accident  
| 1.83 mi.  
o Broad Ford  
| 10.20 mi.  
o Iryton  
| 45.10 mi.  
o Hillsburgh, Pa.

Track No. 1, westward  
Track No. 2, eastward  
Track No. 3, westward  
Track No. 4, eastward

Point of accident

To Broad Ford  
crossing

To Pittsconch

Telephone No. 3258  
 344 E. 10th and Ohio Streets  
 Conneliasville, Pa.  
 August 23, 1950

Sic. E 271-26

Location of Accident and Method of Operation

This accident occurred on that part of the Pittsburgh Division extending between Connellsville and Pittsburgh, Pa., 57.8 miles. In the vicinity of the point of accident this is a 4-track line, over which trains moving with the current of traffic are operated by signal indications. At the time of the accident, movements against the current of traffic between Greene Junction and Broad Ford, located, respectively, 1.7 miles east and 2.4 miles west of Connellsville, were authorized by written instructions from the yard master at Connellsville. The main tracks from north to south are designated as No. 1, westward; No. 2, eastward; No. 3, westward; and No. 4, eastward. At Connellsville a facing-point crossover connects tracks Nos. 1 and 2. The east crossover-switch is 847 feet west of the station. At Broad Ford a trailing-point crossover connects tracks Nos. 1 and 2. The accident occurred within yard limits on track No. 2, at a point 3,012 feet west of the station at Connellsville. From the east there are, in succession, a 6° curve to the left 182 feet in length, a tangent 1,143 feet, and a 2°20' curve to the right 1,138 feet to the point of accident and 27 feet westward. From the west there are, in succession, a tangent 1,114 feet in length, a 2°24' curve to the left 534 feet, a 1°50' curve to the left 1,045 feet, a 4°50' curve to the left 800 feet, and the curve on which the accident occurred. The grade at the point of accident is 0.19 percent descending westward.

Semi-automatic signal 2L and automatic signal E 271-26, governing east-bound movements on track No. 2, are located, respectively, 1.79 miles and 4,256 feet west of the point of accident. Signal 2L is of the color-position-light type, and signal E 271-26 is of the one-arm upper-quadrant semaphore type. Aspects applicable to this investigation and the corresponding indications and names are as follows:

<u>Signal</u>	<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
2L	Two yellow lights in diagonal position to the right under white marker light	Proceed, prepared to stop at next signal, and be governed by indication displayed by that signal.  Train exceeding medium speed must at once reduce to that speed.	Approach.

E 271- 26	Horizontal	Stop, then proceed at restricted speed until entire train passes next signal.	Stop and Proceed.
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Signal 2L is controlled by the operator at Broad Ford. The controlling circuits are so arranged that when the block of signal E 271-26 is occupied and the lever controlling signal 2L is in position for that signal to display an aspect to proceed, signal 2L indicates Approach and signal E 271-26 indicates Stop and Proceed.

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

93. \* \* \*

\* \* \*

Within yard limits, when necessary to make movements against the current of traffic, engines or trains will secure train order from the Train Dispatcher, or written instructions from other employe authorized by special instructions, before doing so, and will, while using same, proceed with caution.

\* \* \*

#### DEFINITIONS.

Medium Speed--One-half the normal speed, not to exceed thirty (30) miles per hour.

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

Normal Speed--The maximum speed permitted by time-tables for main track movements.

Timetable special instructions read in part as follows:

16. YARDS.

\* \* \*

Following employees are authorized to issue written instructions to yard engines and trains when necessary to make movements against the current of traffic in yards in accordance with Rule 93.

Greene Junction and Broad Ford--All tracks--Yard Master--Connellsville Switches.  
\* \* \*

The maximum authorized speed for passenger trains was 30 miles per hour.

#### Description of Accident

No. 21, a west-bound first-class passenger train, consisted of engine 5000, one mail car, one baggage car, one combination baggage-coach, two coaches, and one chair-cafe-dining car, in the order named. All cars were of all-steel construction. At Connellsville the crew received from the yard master written instructions to use track No. 2 from the crossover west of the station at Connellsville to Broad Ford. This train departed from Connellsville at 3:15 p. m., on time, and was diverted from track No. 1 to track No. 2 at the crossover west of the station. While it was moving on track No. 2 at a speed of 28 miles per hour, it collided with Extra 5087 East at a point 3,012 feet west of the station at Connellsville.

Extra 5087 East, an east-bound mail and express train, consisted of engine 5087, six express cars, one mail car, one mail and express car, and one coach, in the order named. The rear car was of all-steel construction, and the other cars were of steel-underframe construction. This train, moving on track No. 2, passed signal 2L, which indicated Approach, passed Broad Ford, the last open office, at 3:10 p. m., and stopped at signal E 271-23, which indicated Stop and Proceed. It immediately proceeded, and while moving at a speed of 17 miles per hour it collided with No. 21.

The engine truck of the engine of No. 21 was derailed, and the front of the engine was badly damaged. The first three cars were somewhat damaged, and the fourth and the sixth cars were considerably damaged. The engine of Extra 5087 East, the front wheels of the rear truck of the tender, and the front truck of the first car were derailed. This equipment stopped upright and in line with the track. The cistern of the tender was torn loose from the frame, and the first car stopped with its front end on top of the rear end of the frame of the tender. The tender and the front end of the engine were badly damaged. The first car was badly damaged, and the second, third, fifth, seventh, and ninth cars were somewhat damaged.

The engineer, the fireman, the conductor, the baggageman, and the flagman of each train, and a train attendant of No. 21 were injured.

The weather was clear at the time of the accident, which occurred at 3:17 p. m.

### Discussion

The rules of this carrier provide that movements against the current of traffic within yard limits will be authorized by train orders or by written instructions from designated employees. Timetable special instructions designated the yard master at Connellsville as the employee authorized to issue instructions for such movements between Greene Junction and Broad Ford.

On the day of the accident, the yard master at Connellsville delivered instructions to the crew of No. 21 which authorized the train to use track No. 2 from Connellsville to Broad Ford. The instructions contained the information that the movement was being protected by a flagman. It had been the practice for a flagman to protect such movements at the point where opposing trains were restricted. The yard master orally informed the conductor that the train would use track No. 2 between Broad Ford and Layton, 12.7 miles west of Connellsville, and that the crew would receive train orders for this movement at Broad Ford. No. 21 departed from Connellsville on time and was diverted from track No. 1 to track No. 2 at the crossover west of the station. As the train was approaching the point where the accident occurred, the speed was 28 miles per hour. The enginemen were maintaining a lookout ahead from their respective positions on the engine, and the members of the train crew were in various locations throughout the cars of the train. The brakes of the train had been tested and had functioned properly when used en route. Because of curvature of the track, the engineer did not observe the approach of Extra 5087 East until the front of that train was about 600 feet distant. He immediately initiated an emergency application of the brakes, but the collision occurred before the speed of the train was reduced.

As Extra 5087 East was approaching Broad Ford, the enginemen were in their respective positions on the engine, and the members of the train crew were in the rear car. The brakes of this train had been tested and had functioned properly when used en route. The crew had received no train order or instruction which restricted their authority to proceed on track No. 2. Signal 2L indicated Approach and signal E 271-26 indicated Stop and Proceed. After the train



stopped at signal E 271-26, it immediately proceeded. After the engine entered the curve on which the accident occurred, the track ahead was not visible from the right side of the engine cab, and the engineer instructed the fireman to watch for a flagman or a preceding train. The fireman first observed No. 21 when that train was about 300 feet distant. He called a warning to the engineer, who immediately initiated an emergency application of the brakes. According to the tape of the speed recording device, the speed of the train was 17 miles per hour when the collision occurred.

The train dispatcher said that about 2:35 p. m. he informed the operator at Broad Ford that No. 21 was to be operated on track No. 2 from Broad Ford to Layton, because a west-bound freight train was disabled on track No. 1 between those stations. The delay involved in backing No. 21 from track No. 1 to track No. 2 at Broad Ford would be avoided if the train was operated on track No. 2 from Connellsville to Broad Ford, and he instructed the operator to notify the yard master at Connellsville that there was a possibility that this movement would be made. A short time later it became apparent that Extra 5087 East could proceed from Layton to Broad Ford on track No. 2 and arrive at Broad Ford before No. 21 arrived. About 2:50 p. m. the dispatcher instructed the operator at Broad Ford to arrange for No. 21 to cross over from track No. 1 to track No. 2 at that point after Extra 5087 East had passed.

The first trick operator at Broad Ford said that about 2:40 p. m. he informed the yard master by telephone that No. 21 was to use track No. 2 between Broad Ford and Layton. He also informed the yard master that there was a possibility that the train dispatcher would hold Extra 5087 East at Layton until No. 21 arrived. In that event, No. 21 could use track No. 2 from Connellsville to Broad Ford and avoid the delay incurred in crossing from track No. 1 to track No. 2 at Broad Ford. He said the yard master informed him that Extra 5501-6141-6146 West would soon leave Connellsville, and if it was decided to operate No. 21 on track No. 2 from Connellsville to Broad Ford the flagman of this crew would be used at Broad Ford to protect the movement. The operator said that after the train dispatcher instructed him to arrange for No. 21 to cross over from track No. 1 to track No. 2 at Broad Ford he had no further conversation with the yard master. He said he assumed that since definite arrangements had not been made to operate No. 21 from Connellsville on track No. 2, the train would be operated on track No. 1. When the second trick operator reported for duty several minutes before 3 p. m.,

the first trick operator explained to him that No. 21 was to cross over from track No. 1 to track No. 2 at Broad Ford after Extra 5087 East arrived at that station. Extra 5501-6141-6146 West arrived at Broad Ford at 3:03 p. m. Before Extra 5087 East passed Broad Ford the first trick operator mentioned to the flagman that the yard master had considered using him to protect a movement against the current of traffic but the arrangement had been cancelled.

The yard master said the operator at Broad Ford called him about 2:35 p. m. and informed him that No. 21 would use track No. 2 from Broad Ford to Layton and that Extra 5087 East would be held at Layton until No. 21 arrived at that point. After some discussion it was agreed that No. 21 would use track No. 1 from Connellsville to Broad Ford, because it would be necessary to provide a flagman at Broad Ford if the train used track No. 2. He said he was called by telephone about 2:58 p. m. by a person who did not identify himself, but the yard master said he identified the voice as being that of the first trick operator at Broad Ford. He said the operator informed him that the train dispatcher desired that No. 21 be operated on track No. 2 from Connellsville to Broad Ford even though it was necessary to provide a flagman to protect the movement. The operator suggested that a member of the crew of Extra 5501-6141-6146 West be used as flagman. The yard master instructed him to use the flagman of the crew of that train to protect the movement of No. 21. The yard master did not inquire whether Extra 5501-6141-6146 West had arrived at Broad Ford, because he assumed that the operator would not have suggested using a member of the crew unless the train had arrived. He then prepared the written instructions which later were delivered to the crew of No. 21 and read them to the operator, and the operator acknowledged his understanding of them. The yard master did not require the operator to repeat these instructions and he did not issue definite instructions to the flagman.

As a result of misunderstanding among the employees handling the movements in question, No. 21 was permitted to move against the current of traffic without provision being made to hold Extra 5087 East at Broad Ford. After the accident occurred, the method of authorizing movements against the current of traffic between Greene Junction and Broad Ford by written instructions from the yard master at Connellsville has been discontinued. Such movements now are authorized only by train order.

Cause

It is found that this accident was caused by a train being operated against the current of traffic without protection.

Dated at Washington, D. C., this twenty-fifth day of October, 1950.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,  
Secretary.