

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3354
THE PENNSYLVANIA RAILROAD COMPANY
IN RE ACCIDENT
NEAR BOYNE FALLS, MICH., ON
AUGUST 26, 1950

SUMMARY

Date: August 26, 1950

Railroad: Pennsylvania

Location: Boyne Falls, Mich.

Kind of accident: Head-end collision

Trains involved: Freight : Passenger

Train numbers: Extra 9260 South : 509

Engine numbers: Diesel-electric : Diesel-electric
unit 9260 unit 5367A

Consists: 18 cars, caboose : 2 cars

Estimated speeds: 6 m. p. h. : 42 m. p. h.

Operation: Timetable, train orders and
manual-block system

Track: Single; 5°08' curve; 1.41 percent
ascending grade southward

Weather: Clear

Time: 1:30 p. m.

Casualties: 14 injured

Cause: Inferior train occupying main track
on time of opposing superior
train without protection

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3364

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

THE PENNSYLVANIA RAILROAD COMPANY

October 17, 1950

Accident near Boyne Falls, Mich., on August 26, 1950,
caused by an inferior train occupying the main
track on the time of an opposing superior train
without protection.

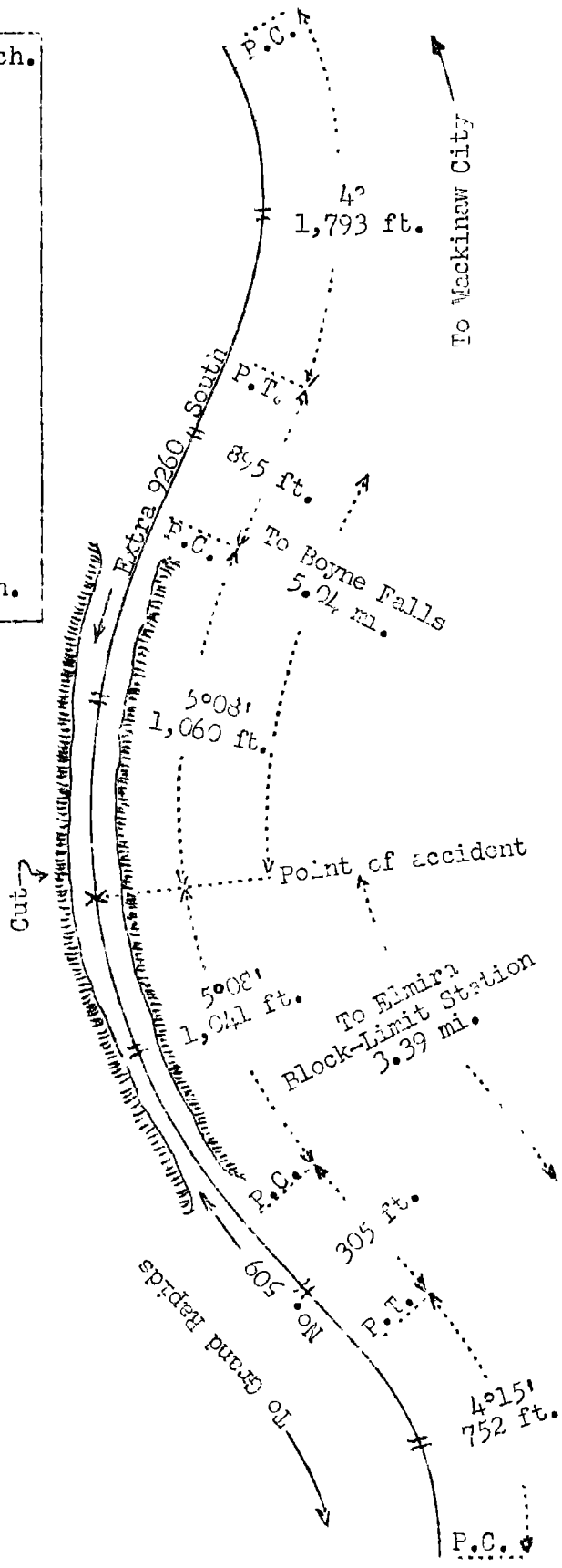
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REPORT OF THE COMMISSION

PATTERSON, Commissioner:

On August 26, 1950, there was a head-end collision
between a freight train and a passenger train on the
Pennsylvania Railroad near Boyne Falls, Mich., which
resulted in the injury of six passengers, two railway-mail
clerks, one trainmaster and five train-service 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.

- Mackinaw City, Mich.
34.90 mi.
- Petoskey
1.80 mi.
- Formans
14.00 mi.
- Boyne Falls
5.04 mi.
- X Point of accident
3.86 mi.
- Elmira
15.20 mi.
- Mancelona
21.50 mi.
- South Boardman
31.60 mi.
- Cadillac
97.80 mi.
- Grand Rapids, Mich.



Report No. 3354
 Pennsylvania Railroad
 Boyne Falls, Mich.
 August 26, 1950

Location of Accident and Method of Operation

This accident occurred on that part of the Fort Wayne Division extending between Mackinaw City and Grand Rapids, Mich., 225.7 miles. This is a single-track line, over which trains are operated by timetable, train orders and a manual-block system. The accident occurred on the main track at a point 55.74 miles south of Mackinaw City and 5.04 miles south of the station at Boyne Falls. From the north there are, in succession, a 4° curve to the right 1,793 feet in length, a tangent 895 feet and a 5°08' curve to the left 1,060 feet to the point of accident and 1,041 feet southward. From the south there are, in succession, a 4°15' curve to the left 752 feet in length, a tangent 305 feet and the curve on which the accident occurred. The grade for south-bound trains is 1.41 percent ascending throughout a distance of 6.12 miles north of the point of accident. The grade for north-bound trains is 1.41 percent descending throughout a distance of 2.81 miles south of the point of accident.

The block in which the accident occurred extended between the block-limit station at Boyne Falls and the block-limit station at Elmira, located, respectively, 5.04 miles north and 5.86 miles south of the point of accident. When the accident occurred these block-limit stations were controlled by the operator at Cadillac, 72.16 miles south of the point of accident. Because of track curvature and vegetation adjacent to the track the view of the point of accident from the cab of a south-bound engine is restricted to a distance of 438 feet, and from the cab of a north-bound engine it is restricted to 396 feet.

The carrier's operating rules applicable to this investigation read in part as follows:

5. * * *

The time applies at the switch where an opposing train clears * * *

* * *

35. The following signals will be used by flagmen:

Day signals--A red flag, torpedoes and fuses.

* * *

73. Extra trains are inferior to regular trains.

S-87. An inferior train must keep out of the way of opposing superior trains and failing to clear the main track by the time required by rule must be protected as prescribed by Rule 99.

Extra trains must clear the time of opposing regular trains not less than five minutes unless otherwise provided * * *

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 * * *

* * *

The front of the train must be protected in the same way when necessary by the fireman.

* * *

Manual Block System

305. Block signals govern the use of the blocks, but unless otherwise provided, do not supersede the superiority of trains, nor dispense with the use and the observance of other signals whenever and wherever they may be required.

At a block-limit station trains will be governed in their use of the block by instructions of the signalman in charge of the block-limit station as indicated on the time-table.

315. A block record must be maintained for each block station and block-limit station.

317. (For absolute block for opposing movements and permissive block for following movements on the same track.)

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. The signalman in charge of a block-limit station may give a train at that block-limit station verbal permission to enter one block. The signalman, when authorized by the superintendent, will issue Clearance Card (Form K) to a train to pass one or more block-limit stations as though Clear-block signal were displayed.

Before admitting a train other than a passenger train to a block, 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 opposing trains and passenger trains, and that no opposing train or no passenger train has been given permission or a signal to enter the block. Signals governing opposing movements, where provided, must display Stop-signal, and Stop-signals to passenger trains must be displayed. * * *

Except as provided * * * a train must not be admitted to a block which is occupied by an opposing train or by a passenger train, and a passenger train must not be admitted to a block which is occupied by any train.

361b. Unless otherwise provided, trains must stop at block-limit stations and the conductor or engineman must communicate with the signalman in charge as to the condition of the next block. After clearing a block at a block-limit station the conductor, engineman or member of their crew when authorized by the conductor or engineman, must report clear unless otherwise provided.

365b. Inferior trains in clearing superior trains as required by the rules must in addition clear the block for regular passenger trains.

The maximum authorized speed for the trains involved in this accident was 40 miles per hour.

Description of Accident

Extra 9260 South, a south-bound freight train, consisted of Diesel-electric unit 9260, 18 cars and a caboose. At Petoskey, 20.84 miles north of the point of accident, the crew received copies of train order No. 239 reading in part as follows:

ENG 9260 RUN EXTRA FORMANS TO MANCELONA
NO 509 HAS ENG 5876

The crew also received a Clear-block indication between Formans and Boyne Falls. Formans, Boyne Falls, and Mancelona are, respectively, 1.8 miles, 15.8 miles and 39.9 miles south of Petoskey. Yard limits extend between Petoskey and Formans, and there is a block-limit station at Formans. Extra 9260 South departed from Petoskey at 12:25 p. m., passed Formans block-limit station and stopped at Boyne Falls about 12:43 p. m. The conductor obtained by telephone from the operator at Cadillac a Clear-block indication from Boyne Falls to Elmira, which is 8.9 miles south of Boyne Falls. This train departed from Boyne Falls at 12:55 p. m. and, about 35 minutes later while moving at an estimated speed of 6 miles per hour, it collided with No. 509.

No. 509, a north-bound first-class passenger train, consisted of Diesel-electric unit 5867A, one mail-baggage car and one coach, in the order named. Both cars were of all-steel construction. This train departed from Cadillac, the last open office, 72.16 miles south of the point of accident, at 11:55 a. m., 10 minutes late, and stopped at Elmira about 1:23 p. m. The engineer communicated by telephone with the operator at Petoskey and received a Clear-block indication to proceed through the block extending between Elmira and Boyne Falls. No. 509 departed from Elmira at 1:25 p. m., 2 minutes late, and while moving at a speed of 42 miles per hour it collided with Extra 9260 South.

Extra 9260 South stopped with the front of the Diesel-electric unit against the front end of the Diesel-electric unit of No. 509. The rear truck of the first car was derailed and it stopped in line with the track. The second to the fifth cars, inclusive, were derailed and stopped in various positions west of the track. The Diesel-electric unit and the fifth car were considerably damaged. The first car was slightly damaged and the second, third and fourth

cars, inclusive, were badly damaged. The front and the rear wheels of the front truck of the Diesel-electric unit of No. 509 were derailed. This was a 6-wheel truck. The Diesel-electric unit was badly damaged. The first car was considerably damaged and the second car was somewhat damaged.

The engineer, the fireman and the front brakeman of Extra 9260 South, and the engineer and the fireman of No. 509 were injured.

The weather was clear at the time of the accident, which occurred about 1:30 p. m.

During the 30-day period preceding the day of the accident, the average daily movement in the vicinity of the point of accident was 6.2 trains.

Discussion

The rules of this carrier provide that an inferior train must keep out of the way of opposing superior trains, unless the crew furnishes protection in accordance with the provisions of Rule 99. Extra trains must clear the time of opposing regular trains not less than 5 minutes. Block signals govern the use of the blocks but do not supersede the superiority of trains. When so authorized by the dispatcher, an operator may issue Clearance Card Form K to a train to pass one or more block-limit stations as though a Clear-block signal were displayed. The operator in charge of a block-limit station may orally give a train at such station permission to enter one block. Inferior trains must clear the block for regular passenger trains. At block-limit stations trains are governed in the use of the block by instructions of the operator in charge of the block-limit station as indicated in the timetable. A train must be reported clear to the operator in charge of the block after it has cleared that block at a block-limit station. A block record must be maintained for each block station and block-limit station. On the day of the accident, all stations between Cadillac and Petoskey were block-limit stations. The operator at Petoskey had control of the block-limit station at Formans, the first station south of Petoskey, and the operator at Cadillac had control of the other stations. The accident occurred in the block extending between Boyne Falls and Elmira, and both stations were controlled by the operator at Cadillac.

Extra 9260 South departed from Petoskey at 12:25 p. m., and arrived at Boyne Falls about 12:40 p. m. Switching was to be performed south of the block-limit station, and the conductor communicated by telephone with the operator at Cadillac for use of the block extending between Boyne Falls and Elmira. The operator at Cadillac informed the conductor that No. 509 was on time and that it had been granted block authority from South Boardman to Elmira. This authority covered the block extending between South Boardman and Mancelona and the one extending between Mancelona and Elmira. The conductor informed the operator that he would again communicate with him if insufficient time remained for his train to proceed to Elmira and clear the schedule time of No. 509. At 12:43 p. m. the operator at Cadillac granted Clear-block authority from Boyne Falls to Elmira to Extra 9260 South. Neither the operator at Cadillac nor any member of the crew of Extra 9260 South reported to the operator at Petoskey that the train was clear of the block at Boyne Falls. After 12 cars were added to the train south of the station Extra 9260 South departed from Boyne Falls about 12:55 p. m. As the train was approaching the point where the accident occurred, the enginemen, the front brakeman, and a trainmaster were in the control compartment of the Diesel-electric unit. The conductor and the flagman were in the caboose. The speed on the ascending grade was about 10 miles per hour. The fireman first saw No. 509 at a distance of about 200 feet and called a warning. The engineer initiated an emergency brake application but the collision occurred immediately afterward.

At Cadillac the crew of No. 509 received Clearance Card Form K, which authorized that train to pass block-limit stations between Cadillac and South Boardman as though Clear-block signal were displayed. At South Boardman the conductor communicated by telephone with the operator at Cadillac, who orally granted Clear-block authority between South Boardman and Elmira at 12:45 p. m. After the train stopped at Elmira, the engineer communicated by telephone with the operator at Petoskey and requested block authority to proceed northward. Without consulting with the operator at Cadillac, who controlled the block-limit stations at Elmira and Boyne Falls; the operator at Petoskey granted Clear-block authority to No. 509 between Elmira and Boyne Falls. No. 509 departed from Elmira at 1:25 p. m., 2 minutes late. As this train was approaching the point where the accident occurred the enginemen were maintaining a lookout ahead from the control compartment of the Diesel-electric unit and the other members of the crew were riding in the cars of the train. The speed was about 45 miles per hour. The enginemen first saw Extra 9260 South about 200 feet distant. An emergency application of the brakes was initiated immediately, but the speed of the train was not materially reduced before the collision occurred.

The investigation disclosed that the engineer of No. 509 communicated with the operator at Petoskey to obtain block authority instead of communicating with the operator at Cadillac, who controlled the block in which the accident occurred, and that this manner of obtaining block authority was a common practice. The operator at Petoskey failed to communicate with the operator at Cadillac to ascertain if the block was clear before granting block authority to No. 509. He said that because Extra 9260 South had not been reported clear of the block extending between Formans and Boyne Falls he assumed that it had not arrived at Boyne Falls and that it would not proceed south of Boyne Falls before No. 509 arrived. As a result, opposing trains were granted Clear-block authority in the same block.

Under the rules, Extra 9260 South was required to be into clear at Elmira not later than 1:18 p. m. if it proceeded to that station to meet No. 509. The members of the crew of Extra 9260 South and the trainmaster, who was in the control compartment of the Diesel-electric unit, were aware that No. 509 was due to leave Elmira at 1:25 p. m., 7 minutes before the accident occurred. Both the engineer and the conductor of Extra 9260 South said that because they had Clear-block authority to Elmira they thought the opposing train would be held at Elmira until Extra 9260 South arrived at that station. However, according to the carrier's rules, block-signal indications do not supersede the superiority of trains in this territory. The trainmaster was too severely injured to be questioned in this investigation.

Cause

It is found that this accident was caused by an inferior train occupying the main track on the time of an opposing superior train without protection.

Dated at Washington, D. C., this seventeenth day of October, 1950.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,

Secretary.