

INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT NO. 3748

THE CHICAGO, ROCK ISLAND AND PACIFIC
RAILROAD COMPANY
AND
CHICAGO, BURLINGTON & QUINCY
RAILROAD COMPANY

IN RE ACCIDENT

NEAR CENTERVILLE, IOWA, ON

APRIL 8, 1957

- 2 -

SUMMARY

Date: April 8, 1957

Railroads: Chicago, Rock Island and Pacific : Chicago, Burlington & Quincy

Location: Centerville, Iowa

Kind of accident: Side collision

Trains involved: Freight : Mixed

Train numbers: Extra 76 West : 95

Locomotive numbers: Diesel-electric units 76, 100B, and 42 : Diesel-electric unit 9246

Consists: 91 cars, cabooses : 2 cars

Estimated speeds: 32 m. p. h. : 20 m. p. h.

Operation: Interlocking

Tracks: Single; tangent; 0.29 percent ascending grade westward : Single; tangent; 1.20 percent ascending grade westward

Weather: Light snow

Time: 2:35 a. m.

Casualties: 3 injured

Cause: Failure to operate C.B.& Q. train in accordance with signal indications

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3748

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

THE CHICAGO, ROCK ISLAND AND PACIFIC RAILROAD COMPANY
AND
CHICAGO, BURLINGTON & QUINCY RAILROAD COMPANY

June 19, 1957

Accident near Centerville, Iowa, on April 8, 1957, caused by
failure to operate the C.B. & Q. train in accordance
with signal indications.

REPORT OF THE COMMISSION¹

TUGGLE, Commissioner:

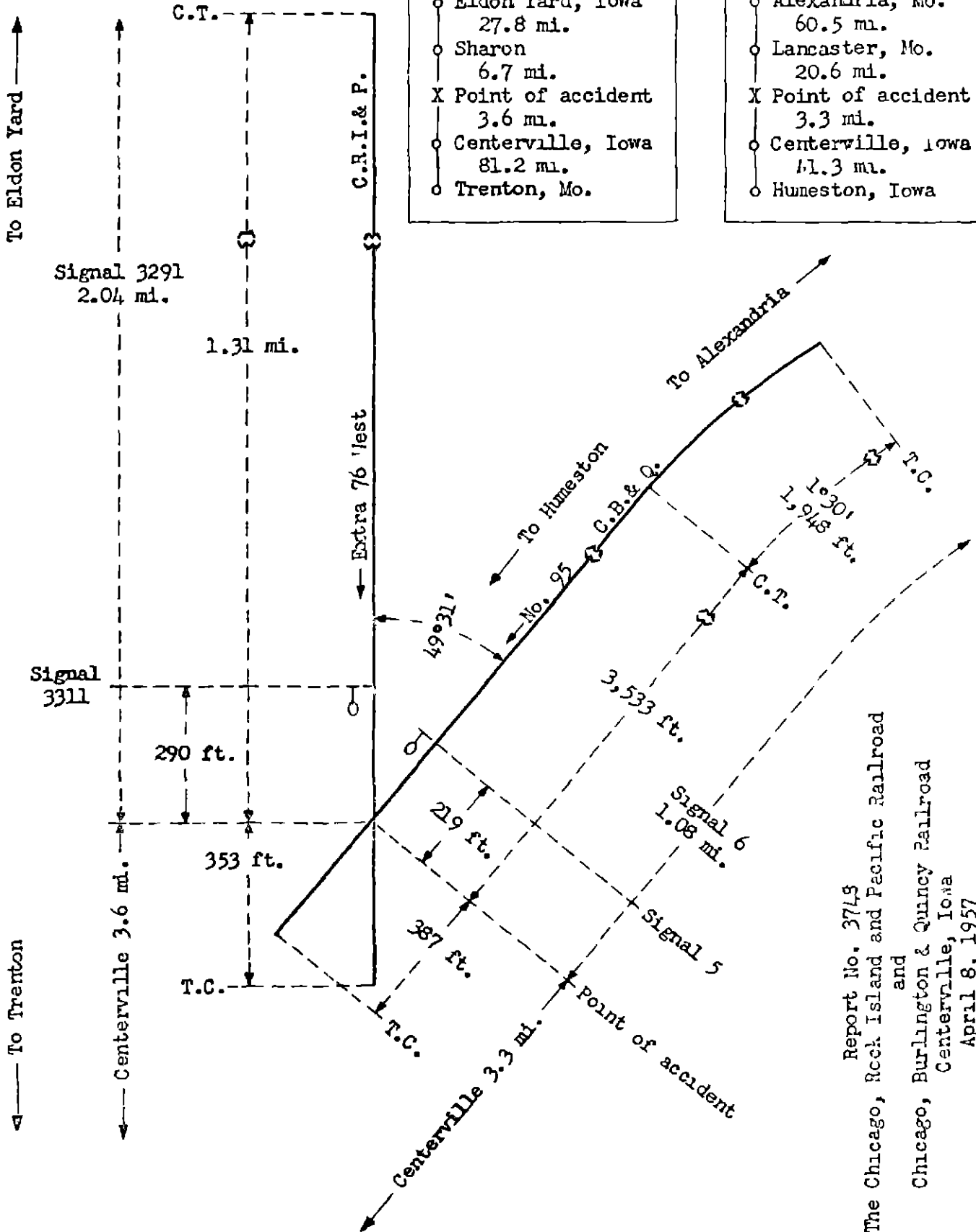
On April 8, 1957, there was a side collision between a freight train on the Chicago, Rock Island and Pacific Railroad and a mixed train on the Chicago, Burlington & Quincy Railroad near Centerville, Iowa, which resulted in the injury of three train-service employees. This accident was investigated in conjunction with representatives of the Iowa State Commerce Commission.

1

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

C.R.I. & P.	
○ Eldon Yard, Iowa	27.8 mi.
○ Sharon	6.7 mi.
X Point of accident	3.6 mi.
○ Centerville, Iowa	81.2 mi.
○ Trenton, Mo.	

C.B. & Q.	
○ Alexandria, Mo.	60.5 mi.
○ Lancaster, Mo.	20.6 mi.
X Point of accident	3.3 mi.
○ Centerville, Iowa	41.3 mi.
○ Humeston, Iowa	



Report No. 3749
 The Chicago, Rock Island and Pacific Railroad
 and
 Chicago, Burlington & Quincy Railroad
 Centerville, Iowa
 April 8, 1957

Location of Accident and Method of Operation

This accident occurred at the intersection of the Chicago, Rock Island and Pacific Railroad and the Chicago, Burlington & Quincy Railroad near Centerville, Iowa. The crossing is located on that part of the Des Moines Division of the C.R.I. & P. extending between Eldon Yard, Iowa, and Trenton, Mo., 119.3 miles, and on that part of the Hannibal Division of the C.B. & Q. extending between Alexandria, Mo., and Humeston, Iowa., 125.7 miles. The crossing is 34.5 miles west of Eldon Yard and 3.6 miles east of the C.R.I. & P. station at Centerville, and 81.1 miles west of Alexandria and 3.3 miles east of the C.B. & Q. station at Centerville. In the vicinity of the point of accident the C.R.I. & P. extends from east to west, and the C.B. & Q. extends from southeast to northwest. The tracks intersect at an angle of $49^{\circ}31'$. A west-bound C.B. & Q. train by timetable direction moves toward the northwest by compass direction. Timetable directions on both lines are east and west, and these directions are used in this report. In the vicinity of the point of accident the C.R.I. & P. is a single-track line, over which trains are operated by signal indications. The track is tangent throughout a distance of 1.31 miles immediately east of the point of accident and 353 feet westward. The grade is 0.29 percent ascending westward at the crossing. In the vicinity of the point of accident the C.B. & Q. is a single-track line, over which trains are operated by timetable, train orders, and a manual block-signal system for following movements only. From the east there is a $1^{\circ}30'$ curve to the left 1,948 feet in length and a tangent 3,533 feet to the point of accident and 387 feet westward. The grade for west-bound trains varies between 0.60 percent and 1.85 percent ascending throughout a distance of 1 mile immediately east of the crossing, and it is 1.20 percent ascending at the crossing.

Movements over the crossing are governed by interlocking signals. Automatic signal 3291 and semi-automatic signal 3311, governing west-bound movements on the C.R.I. & P., are located, respectively, 2.04 miles and 290 feet east of the crossing. Automatic signal 6 and semi-automatic signal 5, governing west-bound movements on the C.B. & Q., are located, respectively, 1.08 miles and 219 feet east of the crossing. These signals are of the searchlight type. Signals 3291 and 6 are approach lighted, and signals 3311 and 5 are continuously lighted. The aspects applicable to this investigation and the corresponding indications and names are as follows:

- 6 -

<u>Signal</u>	<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
3291	Green	Proceed.	CLEAR
3311	Green-over-red	Proceed.	CLEAR
6	Yellow	Approach next signal prepared to stop.	APPROACH
5	Red	Stop. * * *	STOP

The signals on the C.R.I. & P. form part of a traffic-control system which extends over the subdivision. The control machine is located at Trenton. The position of a two-position traffic selection lever on the control machine determines on which line a route can be obtained over the crossing east of Centerville. With the exception of this feature, the interlocking at the crossing is automatic. Approach, indication, and time locking are provided. The signals governing movements over the crossing normally indicate Stop. A signal will display an aspect to proceed only when a train has entered the approach clearing section of the signal, the traffic selection lever is positioned for movement on that line, signals governing conflicting movements are displaying their most restrictive aspects, the track within interlocking limits is unoccupied, and, on the C.R.I. & P., the block of the signal is unoccupied. When signal 5 indicates Stop, signal 6 indicates Approach-next-signal-prepared-to-stop. The approach clearing section for signal 3311 extends 3.07 miles eastward from the signal, and the approach clearing section for signal 5 extends 1.53 miles eastward from that signal.

Operating rules of the C.B. & Q. read in part as follows:

34. All members of engine and train crews must, when practicable, communicate to each other by its name the indication of each signal affecting the movement of their train or engine.

The maximum authorized speeds in the vicinity of the point of the accident were 50 miles per hour for the C.R.I. & P. train and 25 miles per hour for the C.B. & Q. train.

- 7 -

Description of Accident

Extra 76 West, a west-bound C.R.I. & P. freight train, consisted of Diesel-electric units 76, 100B, and 42, coupled in multiple-unit control, 91 cars, and a caboose. This train departed from Sharon, 6.7 miles east of the point of accident, at 2:19 a. m., as recorded by the traingraph. It passed signal 3291, which indicated Proceed, passed signal 3311, which indicated Proceed, and while moving over the crossing east of Centerville at a speed of 32 miles per hour the forty-ninth car was struck by C.B. & Q. No. 95.

No. 95, a west-bound second-class C.B. & Q. mixed train, consisted of Diesel-electric unit 9246, one freight car, and one combination passenger-baggage car, in the order named. This train left Lancaster, Mo., 20.6 miles east of the point of the accident, the last station at which work was performed, at 1:34 a. m., 9 minutes late, according to the conductor's delay report. It passed signal 6, which indicated Approach-next-signal-prepared-to-stop, passed signal 5, which should have indicated Stop, and while moving at an estimated speed of 20 miles per hour it struck the forty-ninth car of C.R.I. & P. Extra 76 West.

The forty-ninth to the fifth-eighth cars, inclusive, of Extra 76 West were derailed and stopped in various positions on or near the track. The forty-ninth to the fifty-sixth cars, inclusive, were heavily damaged, and the fifty-seventh and fifty-eighth cars were slightly damaged. The locomotive of No. 95 was derailed and stopped 110 feet west of the crossing with the rear end on the track structure of the C.R.I. & P. track. The freight car and the front truck of the combination car were derailed. The locomotive and the freight car were heavily damaged.

The engineer, the fireman, and the conductor of C.B. & Q. No. 95 were injured.

A light snow was falling at the time of the accident, which occurred about 2:35 a. m.

Diesel-electric unit 9246 is of the switcher type. At the time of the accident the control compartment was at the east end of the unit.

Discussion

The train dispatcher said that at the time Extra 76 West departed from Sharon the traffic selection lever for the interlocking east of Centerville was positioned for the movement of C.R.I. & P. trains. He said that at the time No. 95 entered the approach clearing section of the interlocking the indicators on the control machine of the traffic-control system indicated that Extra 76 West had already entered the approach clearing section and that signal 3311 was displaying an aspect to proceed for that train. The dispatcher said he did not change the position of the traffic selection lever before the accident occurred.

As Extra 76 West was approaching the point where the accident occurred the enginemen and the front brakeman were in the control compartment of the locomotive. The conductor and the flagman were in the caboose. The employees on the locomotive said that signals 3291 and 3311 each indicated Proceed for the movement of their train. None of the members of the crew saw No. 95 before the collision occurred. The engineer said that the train was moving at a speed of about 32 miles per hour when the brakes became applied in emergency as a result of the collision.

As No. 95 was approaching the point where the accident occurred the engineer and the fireman were in their usual positions in the control compartment of the locomotive. The conductor, the front brakeman, and the flagman were in the combination car. The headlight was lighted brightly. The engineer said that the train approached signal 6 at a speed which he estimated to be about 20 miles per hour. He said that when the train entered the approach lighting circuit of the signal he saw the signal become lighted and that the signal indicated Approach-next-signal-prepared-to-stop. He said that he called the indication and that the fireman answered him. The engineer said he remembered passing signal 6, but he had no recollection of the movement between that point and the crossing nor of the collision. The fireman said he had only a vague recollection of any of the events which occurred during the entire trip, and he could not remember seeing either signal 6 or signal 5 or the train of Extra 76 West. None of the members of the train crew saw the aspect of either signal 6 or signal 5 before the locomotive passed them. They said that there was no noticeable change in the speed of the train as it moved between signal 6 and the crossing.

- 9 -

The engineer and the fireman of No. 95 reported for duty at 9:10 p. m., April 7, after having been off duty during a period of 8 hours 41 minutes. The members of the train crew said they noticed nothing unusual in the handling of the locomotive prior to the time of the collision. The train was stopped at a grade crossing with the Wabash Railroad 15.4 miles east of the point of accident, and the speed was reduced between points approximately 12 miles and 4 miles east of the point of accident in compliance with a speed restriction of 15 miles per hour in that area. Both the engineer and the conductor said that the grade-crossing whistle signal was sounded for a rail-highway grade crossing a short distance east of signal 6. Neither the engineer nor the fireman could account for their failure to see signal 5 or the train of Extra 76 East. The fireman thought that possibly his loss of memory was a result of his being injured in the accident. The throttle of Diesel-electric unit 9246 is of the type which must be held in any position other than idling position, and since there was no appreciable reduction in speed on the ascending grade west of signal 6 it appears that the throttle was being held open as the train moved between signal 6 and the crossing.

After repairs had been made to the track and signal equipment which were damaged in the accident, tests of the signal apparatus involved disclosed that it functioned as intended. Observations of signal 5 were made from a locomotive of the same type as locomotive 4246. It was found that the view of the signal was unrestricted throughout a distance of 3,619 feet immediately east of the signal.

Cause

This accident was caused by failure to operate the C.B.& Q. train in accordance with signal indications.

Dated at Washington, D. C., this nineteenth day of June, 1957.

By the Commission, Commissioner Tuggle.

(SEAL)

HAROLD D. McCOY,
Secretary.