

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3404
CHICAGO GREAT WESTERN RAILWAY COMPANY
IN RE ACCIDENT
NEAR NORTH HANOVER, ILL., ON
JUNE 2, 1951

SUMMARY

Date: June 2, 1951

Railroad: Chicago Great Western

Location: North Hanover, Ill.

Kind of accident: Head-end collision

Trains involved: Freight : Freight

Train numbers: 55 : 52

Engine numbers: Diesel-electric : Diesel-electric
units 112A, units 116C,
109D, 102D, 116D, 116B
112D and 104A and 116A

Consists: 157 cars, caboose : 112 cars, caboose

Estimated speeds: 22 m. p. h. : 18 m. p. h.

Operation: Timetable and train orders

Track: Single; tangent; 0.96 percent
descending grade westward

Weather: Cloudy

Time: 8:22 a. m.

Casualties: 2 injured

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

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3404

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

CHICAGO GREAT WESTERN RAILWAY COMPANY

July 25, 1951

Accident near North Hanover, Ill., on June 2, 1951, caused
by an inferior train occupying the main track on the
time of an opposing superior train without flag
protection.

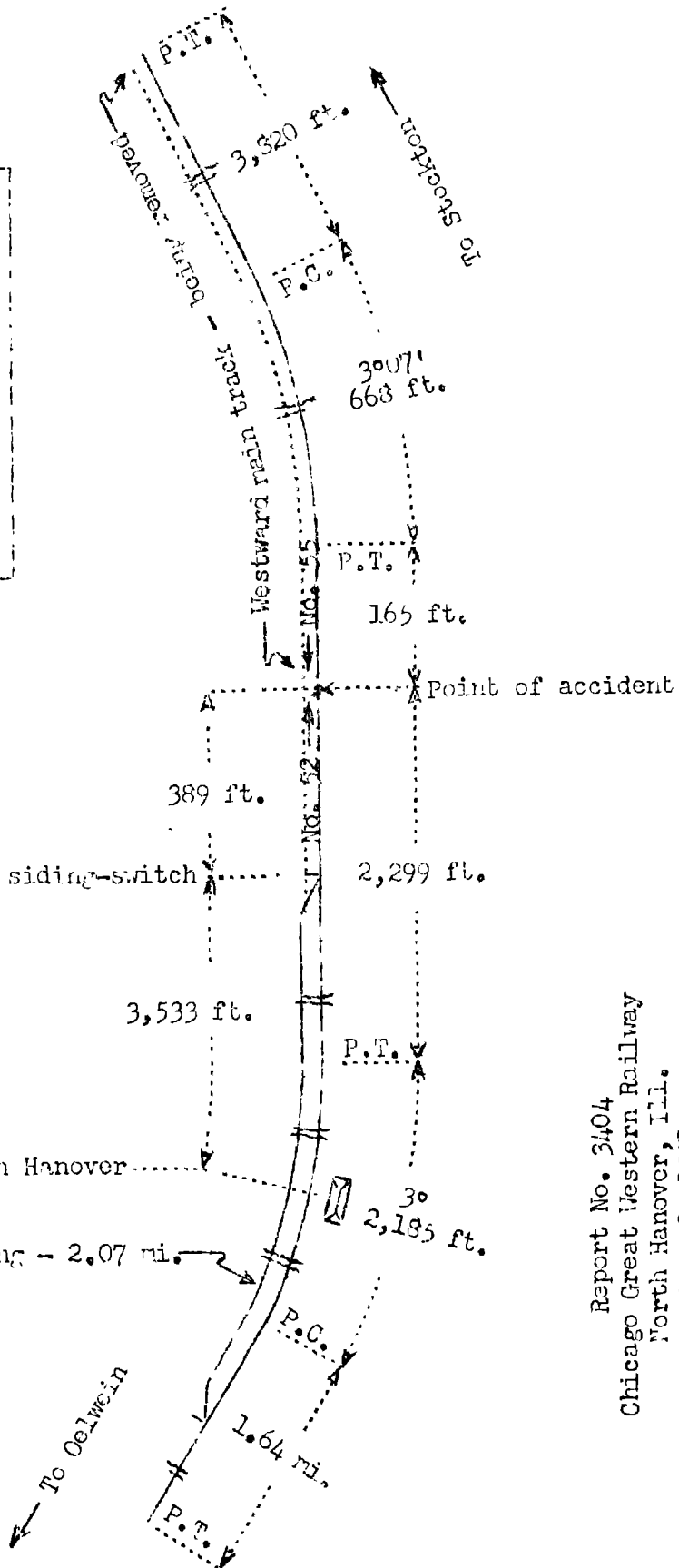
REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On June 2, 1951, there was a head-end collision
between two freight trains on the Chicago Great Western
Railway near North Hanover, Ill., which resulted in the
injury of two 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 | Stockton, Ill. |
| | 2.0 mi. |
| o | Golden |
| | 12.7 mi. |
| X | Point of accident |
| | 0.3 mi. |
| o | North Hanover |
| | 11.0 mi. |
| o | Galena Jct., Ill. |
| | 16.6 mi. |
| o | Fair Ground, Iowa |
| | 71.6 mi. |
| o | Oelwein, Iowa |



Report No. 3404
 Chicago Great Western Railway
 North Hanover, Ill.
 June 2, 1951

Location of Accident and Method of Operation

This accident occurred on that part of the Illinois Division extending between Stockton, Ill., and Oelwein, Iowa, 114.7 miles. Golden, North Hanover, and Aiken are located, respectively, 2.2 miles, 15.5 miles, and 24.3 miles west of Stockton. Between Stockton and Golden this is a double-track line, over which trains moving with the current of traffic are operated by timetable, train orders and an automatic block-signal system. Between Golden and Aiken, 22.1 miles, it is a single-track line, over which trains are operated by timetable and train orders. When the accident occurred there was no block system in use between Golden and North Hanover. At North Hanover a siding 2.07 miles in length parallels the main track on the north. The east switch of this siding is 3,533 feet east of the station. The accident occurred on the main track at a point 389 feet east of the east siding-switch. From the east there are, in succession, a tangent 3,820 feet in length, a 3°07' curve to the right 668 feet, and a tangent 165 feet to the point of accident and 2,299 feet westward. From the west there are, in succession, a tangent 1.64 miles in length, a 3° curve to the left 2,185 feet, and the tangent on which the accident occurred. The grade is 0.96 percent descending westward at the point of accident.

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

5. * * *

* * * the time applies to the switch where an opposing train enters the siding; * * *

* * *

71. A train is superior to another train by right, class or direction.

Right is conferred by train order; class and direction by timetable.

* * *

Direction is superior as between trains of the same class.

72. * * *

Trains in the direction specified by the timetable are superior to trains of the same class in the opposite direction.

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.

* * *

88. At meeting points between trains of the same class, the inferior train must clear the main track before the leaving time of the superior train.

* * *

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.

* * *

When a train is moving under circumstances in which it may be overtaken by another train the flagman must take such action as may be necessary to insure full protection.

* * *

FORMS OF TRAIN ORDERS.

E,

Time Orders.

* * *

(3) No 1 Eng 932 wait at H until nine fifty nine
9 59 a m for No 2 Eng 928.

The train first named must not pass the designated point before the time given, unless the other train has arrived. The train last named is required to run with respect to the time specified, at the designated point or any intermediate station where schedule time is earlier than the time specified in the order, as before required to run with respect to the schedule time of the train first named.

* * *

Timetable special instructions read in part as follows:

RED LIGHT

ON SINGLE TRACK--When head end protection is required as provided by Rule 99, enginemen will immediately display RED HEADLIGHT. This will not relieve forward trainman or fireman from complying with * * * Rule 99. * * *

* * *

Timetable special instructions provide that east-bound trains are superior to trains of the same class in the opposite direction.

The maximum authorized speed for freight trains was 45 miles per hour.

Description of Accident

No. 55, a west-bound second-class freight train, consisted of Diesel-electric units 112A, 109D, 102D, 112D and 104A, coupled in multiple-unit control, 157 cars and a caboose. At Stockton, the last open office, 14.7 miles east of the point of accident, the crew received copies of train order No. 37 reading as follows:

No. 52 Motor 116C wait at North Hanover until eight twenty 820 AM for No. 55 Motor 112A

This train departed from Stockton at 7:12 a. m., 3 hours 47 minutes late. About 5 miles west of Stockton the train parted because of a broken knuckle, and it stopped at 7:20 a. m. About 8:08 a. m., the Diesel-electric units were

detached from the train and they proceeded westward to leave a flagman at North Hanover to provide flag protection against No. 52. While moving at a speed of 22 miles per hour the units collided with No. 52 at a point 389 feet east of the east siding-switch at North Hanover.

At Fair Ground, 27.6 miles west of North Hanover, the crew of No. 52, an east-bound second-class freight train, received copies of train order No. 37. This train consisted of Diesel-electric units 116C, 116D, 116B and 116A, coupled in multiple-unit control, 112 cars and a caboose. No. 52 passed Fair Ground at 7:10 a. m., 1 hour 45 minutes late, passed Galena Jct., the last open office, 11 miles west of North Hanover, at 7:51 a. m., 1 hour 41 minutes late, passed the east siding-switch at North Hanover about 8:22 a. m., and while moving at a speed of 18 miles per hour it collided with No. 55.

The Diesel-electric units of No. 55 were shoved eastward, and the front end of the first Diesel-electric unit stopped about 50 feet east of the point of collision. The front truck of the first Diesel-electric unit was derailed to the north and displaced toward the rear of the unit a distance of about 3 feet. The front wheels of the rear truck of this unit were derailed. They stopped in line with the track. The first and the second Diesel-electric units were badly damaged. No. 52 stopped with the front of the first Diesel-electric unit elevated at an angle of about 45 degrees and against the front end of the first unit of No. 55. All wheels of this unit were clear of the rails. A separation occurred between the first and the second Diesel-electric units. The rear truck of the fortieth car, and the forty-first to the forty-third cars, inclusive, were derailed and stopped in various positions on or near the track. The first and the second Diesel-electric units were badly damaged. The twenty-first, twenty-ninth, forty-first and forty-second cars were considerably damaged. The thirty-seventh and forty-third cars were somewhat damaged, and the thirty-first car was slightly damaged.

The engineer of No. 55 and the front brakeman of No. 52 were injured.

The weather was cloudy at the time of the accident, which occurred about 8:22 a. m.

The first Diesel-electric unit and the caboose of each train were equipped with radio telephone. When the accident occurred the radio telephone was not operative on the Diesel-electric unit of either train.

During the 30-day period preceding the day of the accident, the average daily movement in the vicinity of the point of accident was 8.37 trains.

Discussion

Before April 13, 1951, there were two main tracks in service between Golden and the present location of the west siding-switch at North Hanover. On that date the use of one of the main tracks was discontinued, and since that time the other main track has been used as a single track between these points. This accident occurred during the transition of the automatic block-signal system from double-track to single-track operation.

Under the rules of this carrier the time of an east-bound train at North Hanover applies at the east switch of the siding. Train order No. 37 required that No. 52 wait at North Hanover until 8:20 a. m., unless No. 55 arrived before that time. If No. 55 proceeded to the siding at North Hanover for No. 52 it was required to be clear of the main track at that point not later than 8:20 a. m., or to provide flag protection as prescribed by Rule 99. There was no siding between the west end of double track at Golden and North Hanover. Therefore, after 8:20 a. m., No. 55 was without authority to proceed beyond Golden against the schedule of No. 52 and was required to be clear of the main track or to provide flag protection against the superior train.

At Stockton the members of the crew of No. 55 received copies of train order No. 37. Each member of the crew read and understood the order. The members of the crew had compared time and there was a variation of only a few seconds in their watches. No. 55 departed from Stockton at 7:12 a. m., proceeded westward, and entered the single track at Golden. The brakes of this train had been tested and had functioned properly when used en route. About 7:20 a. m. the brakes became applied in emergency and the train stopped with the front end of the first Diesel-electric unit about 9.4 miles east of the east siding-switch at North Hanover. The front brakeman immediately inspected the train and found a broken knuckle between the fifty-eighth and the fifty-ninth cars. It was necessary to obtain a replacement for the broken knuckle from the Diesel-electric units. He

said he was aware that the time in train order No. 37 might expire before repairs were completed. He warned the enginemen that it might be necessary to detach the Diesel-electric units and to proceed westward to provide flag protection before the broken knuckle was replaced. The conductor and the flagman proceeded from the caboose immediately after the train stopped to determine the cause of the emergency application of the brakes. They assisted the front brakeman in making repairs and recoupling the train. After the broken knuckle was replaced there was a further delay before members of the crew were successful in coupling the two portions of the train. Then the conductor and the front brakeman proceeded to the front end of the train and the flagman proceeded to the rear to provide flag protection. The conductor said that he became concerned because little time remained to provide flag protection for the movement of his train to North Hanover. He did not think it practicable to attempt to back the train of 157 cars and a caboose eastward to the end of double track at Golden to clear No. 52. He said that while the front brakeman was detaching the Diesel-electric units from the train he instructed the engineer to proceed to North Hanover to provide flag protection. The units departed westward about 8:08 a. m. He said that he urged the engineer to make every effort to reach North Hanover before the time in train order No. 37 expired. As the Diesel-electric units of No. 55 were approaching the point where the accident occurred the speed was about 54 miles per hour. The oscillating red headlight was lighted. The enginemen, the conductor and the front brakeman were maintaining a lookout ahead from the control compartment of the first Diesel-electric unit. The conductor said that he informed the engineer that the time had expired, then observed No. 52 approaching and called a warning. The engineer said that before the time expired he had displayed the oscillating red headlight and applied the independent brake to stop the units and allow the front brakeman to alight to provide flag protection. He said that he first observed No. 52 when it was about 1,000 feet distant and immediately moved the brake valve to emergency position. The speed of the Diesel-electric units of No. 55 was reduced to 22 miles per hour when the collision occurred.

The members of the crew of No. 52 had compared time before their train departed from its initial terminal and there was a variation of only a few seconds in their watches. They were aware that their train was required to remain clear of the east siding-switch at North Hanover until 8:20 a. m., unless No. 55 was into clear on the siding. The conductor said that when the train was about 6 miles west of North Hanover he had attempted to communicate by radio telephone

with the crew of No. 55, but received no response. As No. 52 was approaching the station at North Hanover the speed was reduced to about 5 miles per hour so the time in train order No. 37 would expire before the train arrived at the east siding-switch. The enginemen were maintaining a lookout ahead from their respective positions in the control compartment of the first Diesel-electric unit. The front brakeman was in the cab of the rear unit. The conductor and the flagman were in the caboose. The brakes of this train had been tested and had functioned properly when used en route. The engineer said that at 8:20 a. m., when the time in train order No. 37 expired, the front end of No. 52 was at a point about 1 mile west of the east siding-switch at North Hanover. He said that the speed of the train was then gradually increased to about 25 miles per hour. About 8:22 a. m., before the front end of No. 52 had reached the east siding-switch, the engineer observed the Diesel-electric units of No. 55 approaching and made an emergency application of the brakes. The fireman said that he first observed the Diesel-electric units of No. 55 at a distance of about 1,000 feet and called a warning to the engineer. The speed of No. 52 was reduced to 18 miles per hour when the collision occurred.

The installation of the automatic block-signal system between Golden and the west siding-switch at North Hanover was completed and the signals were placed in service two days after the accident occurred.

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 flag protection.

Dated at Washington, D. C., this twenty-fifth day of July, 1951.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.