

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 3157
GREAT NORTHERN RAILWAY COMPANY
REPORT IN RE ACCIDENT
AT WALDEN, N. DAK., ON
JANUARY 13, 1948

SUMMARY

Railroad: Great Northern
Date: January 13, 1948
Location: Walden, N. Dak.
Kind of accident: Rear-end collision
Trains involved: Mixed : Freight
Train numbers: 200 : First 402
Engine numbers: 2524 : 3380
Consists: 22 cars : 72 cars, caboose
Speeds: Standing : 30 m. p. h.
Operation: Timetable, train orders and
automatic block-signal
system
Track: Single; tangent; 0.255 percent
descending grade eastward
Weather: Clear
Time: 8:20 p. m.
Casualties: 1 killed; 5 injured
Cause: Failure properly to control
speed of following train
in accordance with signal
indications

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3157

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

GREAT NORTHERN RAILWAY COMPANY

February 13, 1948

Accident at Walden, N. Dak., on January 13, 1948, caused
by failure properly to control the speed of the
following train in accordance with signal indications.

REPORT OF THE COMMISSION¹

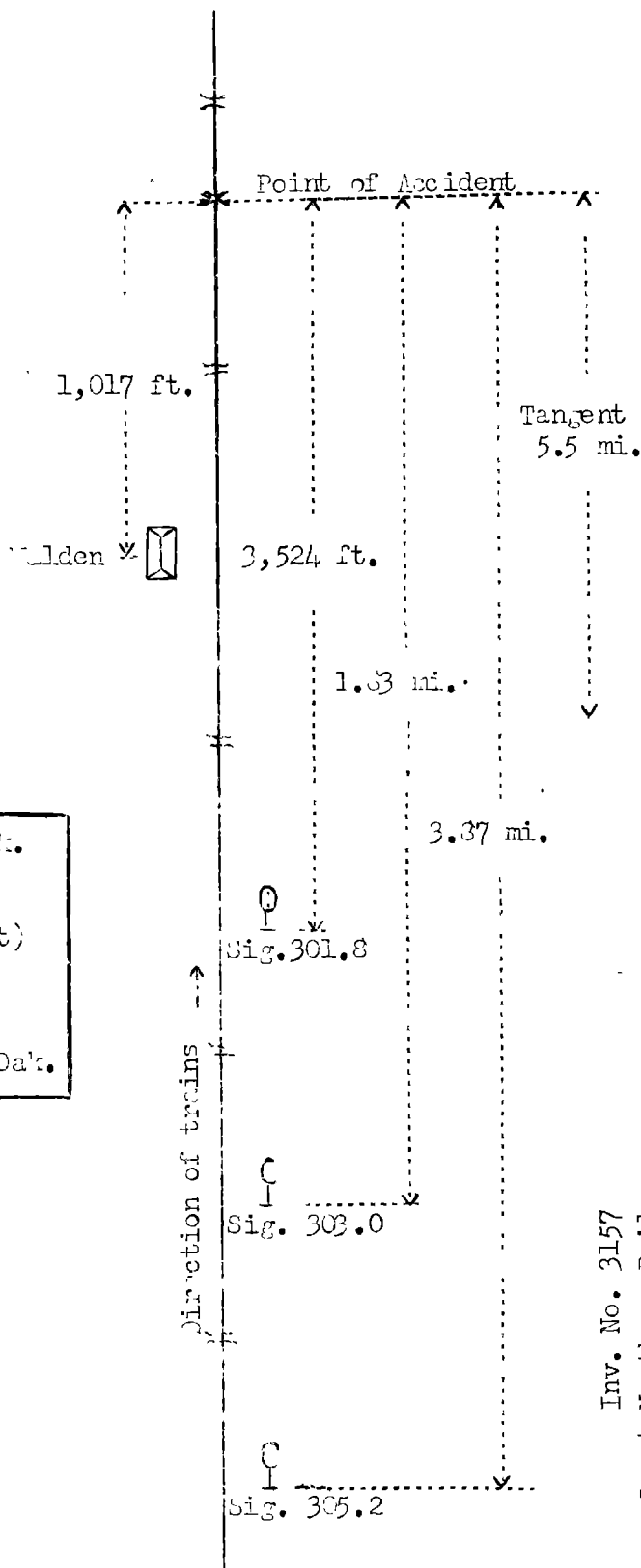
PATTERSON, Commissioner:

On January 13, 1948, there was a rear-end collision between a mixed train and a freight train on the Great Northern Railway at Walden, N. Dak., which resulted in the death of one passenger, and the injury of one passenger, one railway-mail clerk, one express messenger and two train-service employees.

1

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.

To Fargo Job. ↑



- o Fargo Job., N. Dak.
46.40 mi.
- X Wajden
(Point of accident)
25.50 mi.
- o Hannaford
51.35 mi.
- o New Rockford, N. Dak.

↓ To New Rockford

Inv. No. 3157
 Great Northern Railway
 Wajden, N. Dak.
 January 13, 1948

Location of Accident and Method of Operation

This accident occurred on that part of the Minot Division extending between New Rockford and Fargo Jct., N. Dak., 123.25 miles, a single-track line, over which trains are operated by timetable, train orders and an automatic block-signal system. The accident occurred on the main track at Walden, 76.85 miles east of New Rockford, at a point 1,017 feet east of the station. The main track is tangent throughout a distance of 5.5 miles immediately west of the point of accident and a considerable distance eastward. The grade for east-bound trains is 0.40 percent descending throughout a distance of about 5 miles, then there is a vertical curve 200 feet, and a 0.255 percent descending grade 2,102 feet to the point of accident and 598 feet eastward.

Automatic signals 305.2, 303.0 and 301.8, governing east-bound movements, are, respectively, 3.87 miles, 1.83 miles and 3,524 feet west of the point of accident. These signals are of the three-indication, color-light type, and are approach lighted. The aspects and corresponding indication and names are as follows:

<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
Green	Proceed on main route. * * *	Clear signal.
Yellow	Proceed on main route prepared to stop at next signal. Train exceeding medium speed must at once reduce to that speed.	Approach signal.
Red, with number plate	Stop, then proceed at restricted speed. * * *	Stop and proceed signal.

The controlling circuits are so arranged that, when an east-bound train is occupying the main track in the block immediately east of signal 303.0, this signal displays stop-then-proceed-at-restricted-speed, and signal 305.2 displays proceed-prepared-to-stop-at-next-signal. When an east-bound train is occupying the main track in the block immediately east of signal 301.8, this signal displays stop-then-proceed-at-restricted speed and signal 303.0 displays proceed-prepared-to-stop-at-next-signal.

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

DEFINITIONS.

* * *

Medium Speed.--A speed not exceeding 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.

11. A train finding a fusee burning red on or near its track must stop and extinguish the fusee, and may then proceed prepared to stop short of train or obstruction within the first mile.

19. * * * the following signals will be displayed to the rear of every train, as markers, to indicate the rear of the train.

Lights * * * as markers, showing green to the front and side and red to the rear.

* * *

27. A signal imperfectly displayed, or the absence of a signal at a place where a signal is usually shown, must be regarded as the most restrictive indication that can be given by that signal, * * *

* * *

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

35. The following signals will be used by flagmen:

* * *

Night signals--A red light,
Torpedoes and Fusees.

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, placing two torpedoes, and when necessary, in addition, displaying lighted fuseses. When recalled and safety to the train will permit, he may return.

* * *

509 (B). When a train is stopped by a Stop and proceed indication, it may proceed:

* * * at restricted speed through the entire block. * * *

* * *

The maximum authorized speed for the trains involved was 50 miles per hour.

Description of Accident

No. 200, an east-bound second-class mixed train consisting of engine 2524, 20 freight cars, 1 express-mail car and 1 coach, in the order named, stopped about 8:15 p. m. on the main track at Walden, with the rear end standing 1,017 feet east of the station. About 5 minutes later the rear end was struck by First 402.

First 402, an east-bound third-class freight train consisting of engine 3380, 72 cars and a caboose, departed from Hannaford, 25.5 miles west of Walden, at 7:40 p. m., 2 hours 42 minutes late, passed signals 305.2 and 303.0, which displayed proceed-prepared-to-stop-at-next-signal, passed signal 301.8, which was dark because of a defective light bulb, and while moving at an estimated speed of 30 miles per hour it collided with No. 200.

The engine of First 402 stopped 683 feet east of the point of accident. The engine truck was derailed and the front end was badly damaged. The rear nine cars of No. 200 were derailed. The rear car and the third car from the rear were demolished. The remaining seven cars were badly damaged. The front portion of No. 200 was forced forward a considerable distance.

The fireman and the front brakeman of First 402 were injured.

The weather was clear and the temperature was 8 degrees below zero at the time of the accident, which occurred about 8:20 p. m.

Engine 3380 of First 402 is provided with LT-type air-brake equipment, and two No. 5 Duplex air compressors. The feed valve was adjusted to supply brake-pipe pressure of 70 pounds. The tender is provided with a brake-pipe vent valve. Approximately 71 percent of the cars of First 402 were equipped with AB-type brakes.

Discussion

About 5 minutes after No. 200, an east-bound second-class mixed train, stopped on the main track at Walden the rear end was struck by First 402, an east-bound third-class freight train. When the accident occurred the engine of No. 200 had been moved to an auxiliary track to perform switching, and the front brakeman and the swing brakeman were in the vicinity of the engine. The enginemen and the brakemen were not aware of anything being wrong until after the collision occurred.

When No. 200 was preparing to stop at Walden the flagman dropped a lighted 10-minute red fusee from the rear car at a point about 3,300 feet west of the point where the collision occurred. Just before his train stopped, the flagman dismounted and proceeded westward to provide protection against following trains. He had reached a point about 2,000 feet to the rear of his train when he saw the reflection of the headlight of First 402. Then he gave stop signals with a lighted red fusee until the engine of First 402 passed him at a speed he estimated as 35 miles per hour. Immediately prior to the accident the conductor of No. 200 was in the coach. When he observed First 402 closely approaching he called a warning to the passengers in the coach, then jumped just before the collision occurred. The marker lamps on the rear of the coach were lighted and displayed red to the rear.

As First 402 was approaching signal 305.2, located 2.04 miles west of signal 303.0, the speed was about 45 miles per hour. The headlight was lighted brightly, and the enginemen and the front brakeman were in the cab of the engine. There was no condition of the engine that

distracted the attention of these employees or obscured their vision. The weather was clear and visibility was unrestricted. The engineer said that when the engine was in the immediate vicinity of signal 305.2, which displayed approach, he made a 12-pound brake-pipe reduction. Soon afterward, because he thought the speed of the train was not reduced as a result of the brake application, he moved the brake valve to emergency position, but he said the brakes did not seem to function. However, he did not so inform the other employees on the engine. The front brakeman and the fireman said they did not observe that the engineer took any action to control the speed of the train in the vicinity of either signal 305.2 or signal 303.0, which also displayed approach. They said that when the engine was in the vicinity of signal 301.8, located 1.16 miles east of signal 303.0 and 3,524 feet west of the point where the accident occurred, they informed the engineer that no aspect was displayed by this signal. Soon afterward the front brakeman and the fireman saw a lighted red fusee and the lighted red marker lamps of the preceding train, and they again warned the engineer. They did not observe what action was taken by the engineer prior to the time they jumped from the engine. The employees on the engine understood that the absence of a light or signal at a place where a signal is usually shown or an imperfectly displayed signal must be regarded as the most restrictive indication that can be displayed by that signal. The conductor, the swing brakeman and the flagman were in the caboose. These employees said they were not aware of anything being wrong until the collision occurred. They said that the speed of their train had been controlled at several points en route by service brake-pipe reductions, and the brakes functioned properly. The brakes had been tested by members of the crew of First 402 at New Rockford, 76.85 miles west of Walden, about 2 hours 40 minutes prior to the time the accident occurred, and at that time the brakes functioned properly. Immediately after the collision occurred the swing brakeman examined the brakes of each car as he proceeded toward the front of the train, and he said that all brake shoes were tight against the wheels.

Cause

It is found that this accident was caused by failure properly to control the speed of the following train in accordance with signal indications.

Dated at Washington, D. C., this thirteenth day of February, 1948.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.