

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3484
GREAT NORTHERN RAILWAY COMPANY
IN RE ACCIDENT
AT STANLEY, N. DAK., ON
SEPTEMBER 21, 1952

SUMMARY

Date: September 21, 1952

Railroad: Great Northern

Location: Stanley, N. Dak.

Kind of accident: Rear-end collision

Trains involved: Freight : Freight

Train numbers: First 403 : Second 403

Engine numbers: Diesel-electric : 2037
units 416A, 416B,
416C and 416D

Consists: 97 cars, caboose : caboose

Estimated speeds: Standing : 15 m. p. h.

Operation: Timetable, train orders and
automatic block-signal system

Track: Single; 2°03' curve; 0.6 percent
ascending grade westward

Weather: Cloudy

Time: 5:35 a. m.

Casualties: 1 killed

Cause: Failure properly to control speed of
following train moving on a siding

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3484

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

GREAT NORTHERN RAILWAY COMPANY

November 17, 1952

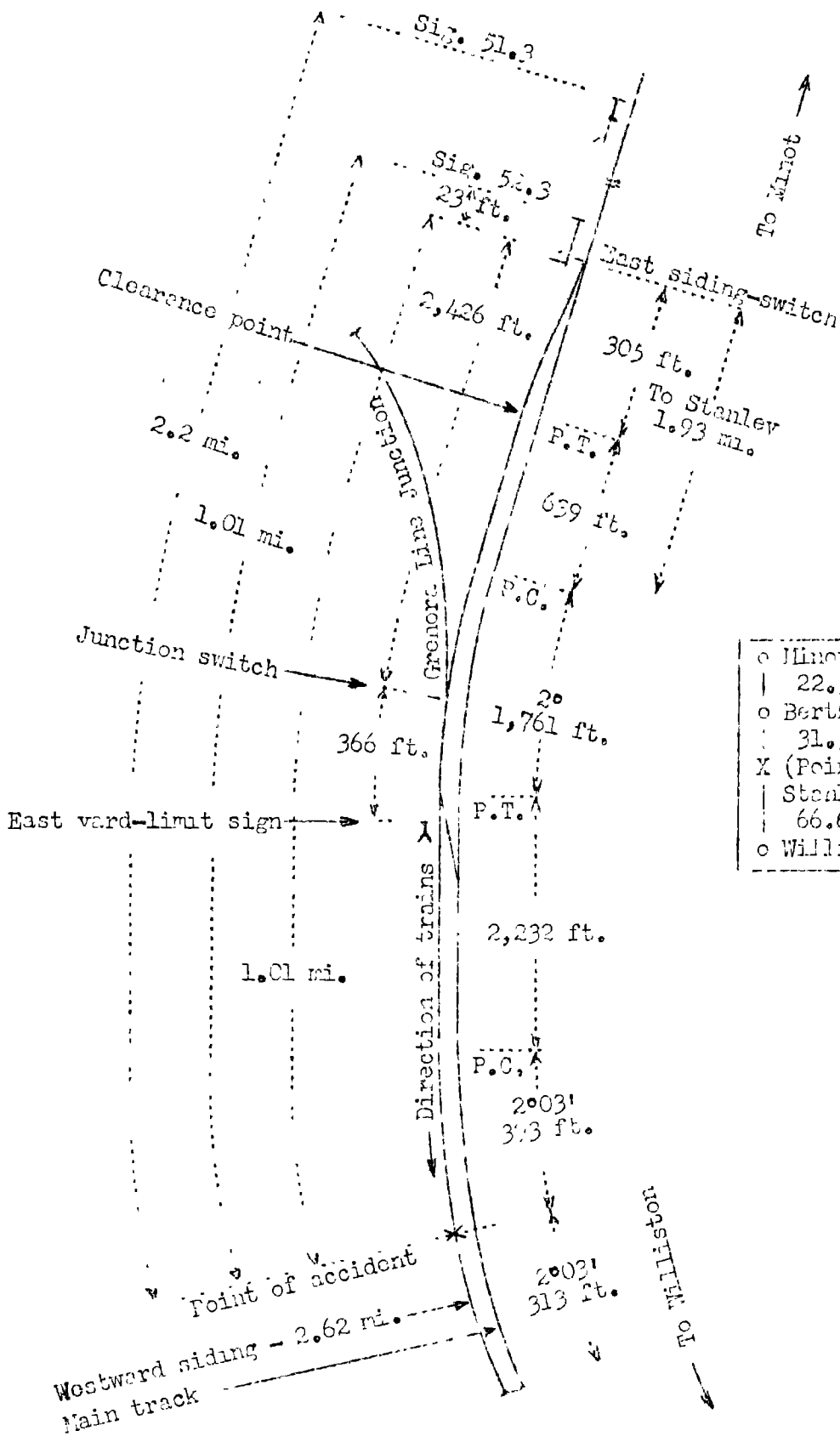
Accident at Stanley, N. Dak., on September 21, 1952,
caused by failure properly to control the speed
of the following train moving on a siding.

REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On September 21, 1952, there was a rear-end collision between two freight trains on the Great Northern Railway at Stanley, N. Dak., which resulted in the death of one employee.

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.



o	Minot, N. Dak.
	22.33 mi.
o	Berthold
	31.37 mi.
X	(Point of accident)
	Stanley
	66.62 mi.
o	Williston, N. Dak.

Report No. 3434
Great Northern Railway
Stanley, N. Dak.
September 21, 1952

Location of Accident and Method of Operation

This accident occurred on that part of the Minot Division extending between Minot and Williston, N. Dak., 120.32 miles. In the vicinity of the point of accident this is a single-track line, over which trains are operated by timetable, train orders and an automatic block-signal system. At Stanley, 53.7 miles west of Minot, a siding 2.62 miles in length parallels the main track on the north. It is designated as the westward siding. The east switch of the siding is 1.93 miles east of the station. A branch line diverges northward from the siding at a point designated as Grenora Line Junction, 2,426 feet west of the east siding-switch. The east yard-limit sign is 366 feet west of the junction switch. The accident occurred on the siding at a point 1.01 miles west of the east siding-switch. From the clearance point at the east end of the siding there are, in succession, a tangent 689 feet in length, a 2° curve to the left 1,761 feet, a tangent 2,232 feet and a 2°03' curve to the left 393 feet to the point of accident and 313 feet westward. The grade is 0.6 percent ascending westward at the point of accident.

Automatic signal 51.3, governing west-bound movements on the main track, and interlocking signal 52.3, governing west-bound movements from the main track to the siding, are located, respectively, 2.2 miles and 1.01 miles east of the point of accident. Signal 51.3 is of the one-arm, upper-quadrant semaphore type and displays three aspects. Interlocking signal 52.3 is of the two-arm, upper-quadrant semaphore type and displays four aspects. These signals are approach lighted. Night 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>
51.3	Yellow over number plate	Proceed on main route prepared to stop at next signal. Train exceeding medium speed must at once reduce to that speed	Approach signal.
52.3	Red over yellow	Proceed on secondary route.	Secondary route signal.

The east switch of the westward siding is power-operated. It is controlled from a control machine located in the station at Stanley. The controlling circuits are so arranged that, when the east siding-switch is lined for movement to the siding and the block of signal 52.3 and that portion of the siding between the east siding-switch and a point 2,227 feet westward are unoccupied, signal 51.3 indicates Approach and signal 52.3 indicates Proceed on secondary route.

Rule 105 reads as follows:

Unless otherwise provided, trains using a siding must proceed at restricted speed.

Timetable Special Instructions read in part as follows:

* * * Where Automatic Block and Interlocking Rules and Signal Indications require movement at Restricted Speed, such movement must be made prepared to stop short of train, obstruction, or switch not properly lined and on the lookout for broken rail or anything that may require the speed of a train to be reduced; but not exceeding 15 MPH or as much slower as necessary; and where conditions require the movement must be controlled so stop can be made in time to avoid accident.

The maximum authorized speed for freight trains is 50 miles per hour. Steam engines moving in forward motion, without cars, or with caboose only are restricted to 35 miles per hour.

Description of Accident

First 403, a west-bound third-class freight train, consisted of Diesel-electric units 416A, 416B, 416C and 416D, coupled in multiple-unit control, 97 cars and a caboose. This train departed from Minot at 3:35 a. m., 1 hour 34 minutes late, passed Berthold, 31.37 miles east of Stanley and the last open office, at 4:38 a. m., 1 hour 37 minutes late, passed signal 51.3, which indicated Approach, passed signal 52.3, which indicated Proceed on secondary route, entered the siding at Stanley and stopped about 5:25 a. m., with the rear end 1.01 miles west of the east siding-switch. About 10 minutes later the rear end was struck by Second 403.

Second 403, a west-bound third-class freight train, consisted of engine 2037, a 2-8-3-2 type, and a caboose. This train departed from Minot at 4:05 a. m., 2 hours 4 minutes late, passed Berthold at 4:53 a. m., 1 hour 52 minutes late, passed signal 51.3, which indicated Approach, passed signal

52.5, which indicated Proceed on secondary route, entered the siding at Stanley and while moving at an estimated speed of 15 miles per hour it struck the rear end of First 403.

The caboose, the ninety-seventh car and the rear truck of the ninety-sixth car of First 403 were derailed. The caboose was turned end for end and stopped upright and parallel to the track on the north side of the siding. The ninety-seventh car stopped upright, on the north side of the siding and at an angle of about 45 degrees to the track. The ninety-sixth car stopped in line with the track. The caboose was badly damaged and the other derailed cars were considerably damaged. Second 403 stopped with the front end of the engine about 102 feet west of the point of collision. No equipment of this train was derailed. The front end of engine 2037 was somewhat damaged.

The conductor of First 403 was killed.

The weather was cloudy at the time of the accident, which occurred about 5:35 a. m.

Discussion

As First 403 was approaching Stanley, the route was lined for movement from the main track to the westward siding. This train entered the siding and stopped about 5:25 a. m. to await the passage of a following superior train. The front end of the train stopped in the vicinity of the east end of the station and the rear end was 1.01 miles west of the east siding-switch. The flagman said that the markers were lighted and that he had turned them to display green to the rear when the train was clear of the main track. After the train stopped, the conductor remained in the caboose. The flagman and the swing brakeman alighted from the south and the north sides of the caboose, respectively. They proceeded westward and inspected the cars of the train until they met the front brakeman, who had inspected the south side of the forward portion of the train. The front brakeman then returned to the front end of the train. The flagman and the swing brakeman started toward the rear of the train, on the south side of the train. They observed that Second 403 had entered the siding and was moving westward. When they were about 1,200 feet from the caboose they observed fire flying in the vicinity of the rear end of the train and heard the impact of the collision as Second 403 struck their train. The members of the crew at the front end of the train did not feel the impact when the accident occurred. They observed

that the brakes became applied in emergency but later released. When they prepared to depart from the siding the operator informed them that the rear end of the train had been struck by Second 403.

As Second 403 was approaching Stanley, the engineer and the fireman were in their respective positions in the cab of the engine. The conductor and the other members of the train crew were in the caboose. The headlight was lighted brightly. The brakes of this train had been tested and had functioned properly when used en route. Signal 51.3 indicated Approach and signal 52.3 indicated Proceed on secondary route, and the speed was reduced to about 18 miles per hour as the train was diverted to the siding at the east siding-switch. The engineer said that he informed the fireman that their train would clear a following superior train at Stanley. Because of track curvature to the left on the siding and the possibility that First 403 also would clear the same train at that point, he instructed the fireman to maintain a lookout while moving on the siding. He said that he observed that the cab window was open and that the fireman appeared to be maintaining a lookout ahead. He thought the speed of the train was about 10 or 12 miles per hour. He said that he did not observe the caboose of the preceding train. When the fireman called a warning he immediately made an emergency application of the brakes but the collision occurred before the speed had been materially reduced. The fireman said that after the train entered the siding he leaned out his window to maintain a lookout ahead. The wind was blowing from the north and smoke and steam trailed down along the left side of the engine. The fireman said that when he observed the markers of the preceding train he immediately warned the engineer to apply the brakes. He said that when the engineer took no action he crossed the deck of the engine and repeated his warning and the engineer then made a light application of the brakes before the accident occurred. The front brakeman was in the cupola of the caboose. He said that because of the smoke and steam from the engine he was unable to see the track ahead and he did not observe that the preceding train was occupying the siding. The members of the crew in the caboose said that the brakes were applied in emergency immediately before the collision occurred.

This accident occurred on a siding. The rules of this carrier require that when a train is moving on a siding it must be operated in such manner that it can be stopped short of a preceding train.

Cause

It is found that this accident was caused by failure properly to control the speed of the following train moving on a siding.

Dated at Washington, D. C., this seventeenth day of November, 1952.

By the Commission, Commissioner Patterson.

(SEAL)

GEORGE W. LAIRD,
Acting Secretary.