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Railroad accident report
report # 2851

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 2851
THE NORTHERN PACIFIC RAILWAY COMPANY
REPORT IN RE ACCIDENT
NEAR GOLD CREEK, MONT , ON
DECEMBER 16, 1944

SUMMARY

Railroad: Northern Pacific
Date: December 16, 1944
Location: Gold Creek, Mont.
Kind of accident: Rear-end collision
Trains involved: Freight : Freight
Train numbers: Extra 5118 West : Extra 1818 West
Engine numbers: 5118 : 1818
Consist: 110 cars, cabooses : 38 cars, cabooses
Estimated speed: Standing : 15 m. p. h.
Operation: Timetable, train orders and
automatic block-signal system
Track: Double; tangent; 0.394 percent
descending grade westward
Weather: Clear
Time: 4:12 a. m.
Casualties: 1 killed; 2 injured
Cause: Failure properly to control speed
of following train in accordance
with signal indications

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2851

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

THE NORTHERN PACIFIC RAILWAY COMPANY

January 25, 1945.

Accident near Gold Creek, Mont., on December 16, 1944,
caused by failure properly to control the speed
of the following train in accordance with signal
indications.

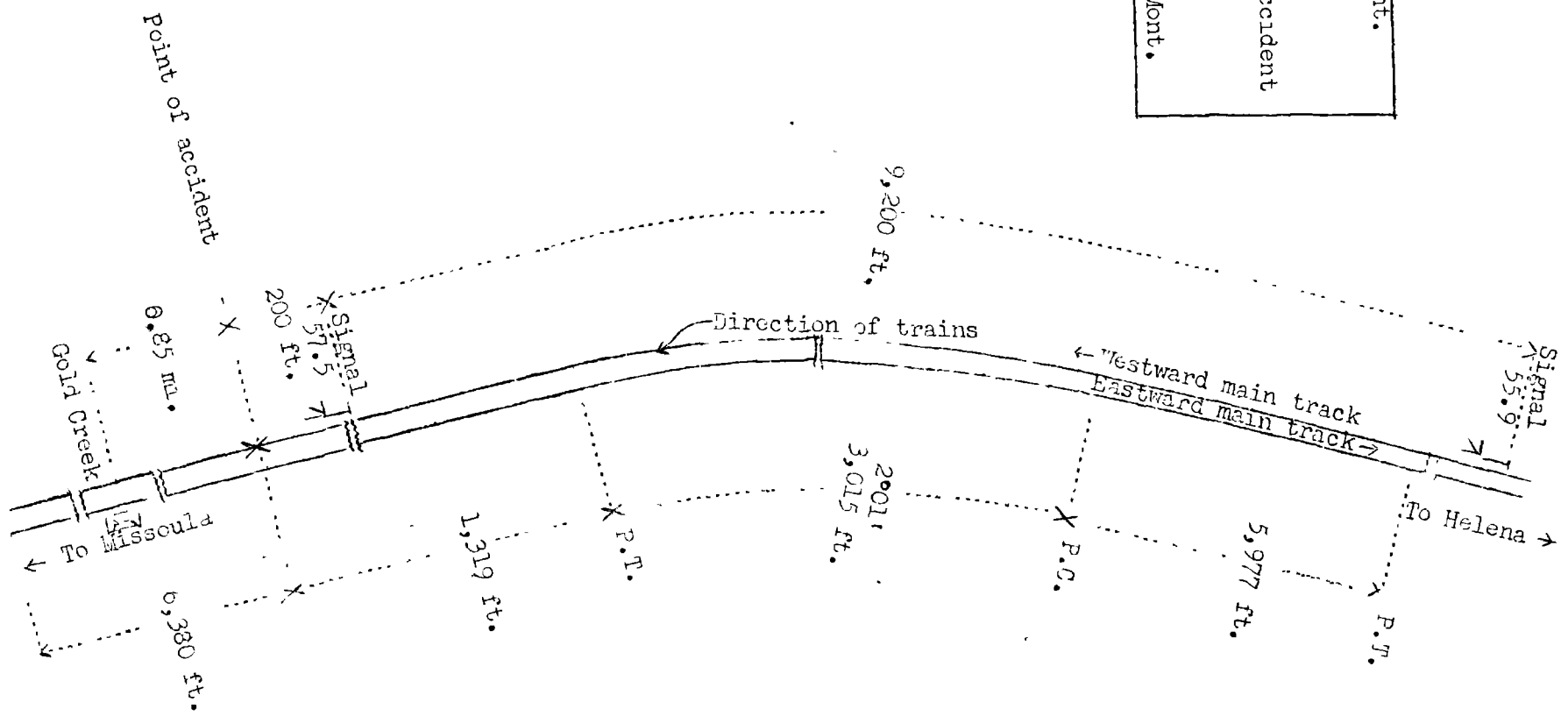
REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On December 16, 1944, there was a rear-end collision between two freight trains on the Northern Pacific Railway near Gold Creek, Mont., which resulted in the death of one person carried under contract, and the injury of two employees. This accident was investigated in conjunction with a representative of the Montana Board of Railroad Commissioners and Public Service Commission.

¹Under 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.

○	Helena, Mont.
	50.90 mi.
○	Garrison
	6.75 mi.
x	Point of accident
	0.85 mi.
○	Gold Creek
	60.90 mi.
○	Missoula, Mont.



Inv. No. 2851
 Northern Pacific Railway
 Gold Creek, Mont.
 December 16, 1944

Location of Accident and Method of Operation

This accident occurred on that part of the Rocky Mountain Division designated as the Third Sub-division and extending westward from Helena to Missoula, Mont., 119.4 miles. In the vicinity of the point of accident this was a double-track line over which trains moving with the current of traffic were operated by timetable, train orders and an automatic block-signal system. The accident occurred on the westward main track 57.65 miles west of Helena, at a point 0.85 mile east of the station at Gold Creek. From the east there were, in succession, a tangent 5,977 feet in length, a 2°01' curve to the left 3,015 feet and a tangent 1,319 feet to the point of accident and 6,380 feet westward. The grade for west-bound trains varied between 0.39 percent and 0.26 percent descending throughout a distance of 2.84 miles, then it was level 600 feet, and 0.394 percent descending 550 feet to the point of accident and a considerable distance westward.

Automatic signals 55.9 and 57.5, governing west-bound movements on the westward main track, were located, respectively, 9,400 feet and 200 feet east of the point of accident. These signals were of the one-arm, three-position, upper-quadrant, semaphore type and were continuously lighted. The involved night aspects and corresponding indications and names of these signals were as follows:

<u>Signal</u>	<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
55.9	Yellow.	Approach next signal prepared to stop. Block is clear; second block in advance is not clear.	Approach signal.
57.5	Red, with number plate.	Stop, then proceed at restricted speed.	Stop and proceed signal.

Operating rules read in part as follows:

DEFINITIONS.

* * *

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 on or near its track may proceed at restricted speed without stopping.

15. The explosion of two torpedoes is a signal to proceed at restricted speed. The explosion of one torpedo will indicate the same as two but the use of two is required.

* * *

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 fusees. * * *

* * *

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. By night, * * * lighted fusees must be thrown off at proper intervals.

* * *

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

Description of Accident

Extra 5118 West, a west-bound freight train, consisting of engine 5118, 110 cars and a caboose, passed Garrison, 7.6 miles east of Gold Creek and the last open office, at 3:55 a. m. and stopped on the westward main track at Gold Creek at 4:05 a. m., with the caboose standing about 200 feet west of signal 57.5. About 7 minutes later the rear end was struck by Extra 1818 West.

Extra 1818 West, a west-bound freight train, consisting of engine 1818, 37 cars, a caboose and one car, in the order named, departed from Garrison at 3:58 a. m., passed signal 55.9, which displayed approach-next-signal-prepared-to-stop, passed signal 57.5, which displayed stop-then-proceed-at-restricted-speed, and while moving at an estimated speed of 15 miles per hour it struck Extra 5118 West.

The caboose and the rear three cars of Extra 5118, and the engine of Extra 1818 were derailed. The caboose and rear car were destroyed by fire, and the engine and the other two cars were more or less damaged.

It was clear at the time of the accident, which occurred about 4:12 a. m.

The conductor and the flagman of Extra 1818 were injured.

Discussion

Under the rules of this carrier governing operation in automatic block-signal territory an approach indication requires that the speed of a train must be so controlled that the train can be stopped at the next signal. A stop-and-proceed indication requires a train to stop at the signal, then it may proceed but must be prepared to stop short of a train, an obstruction or anything that may require the speed of a train to be reduced. All the employees concerned so understood.

About 7 minutes after Extra 5118 West stopped, the rear end was struck by Extra 1818 West 200 feet west of signal 57.5.

When Extra 5118 stopped, the conductor proceeded toward the front end of the train to make an inspection of the train and the flagman proceeded eastward to provide flag protection. The marker lamps on the caboose were lighted and displayed red to the rear. In addition, a lighted 10-minute fusee was displayed from each side of the rear end of the caboose. The flagman said that he had reached a point about 1,200 feet to the rear of his train and was giving stop signals with a lighted red and a lighted white lantern when the engine of Extra 1818 passed him. The conductor and the flagman of Extra 5118 thought the flag protection furnished for their train was sufficient.

As Extra 1818 West was approaching signal 55.9, located 9,200 feet east of signal 57.5, the speed was about 35 miles per hour. The headlight was lighted brightly, and the enginemen were maintaining a lookout ahead. The brakes had functioned properly at all points where used en route. Signal 55.9 displayed approach-next-signal-prepared-to-stop, and the enginemen called the indication. When the engine reached a point about

1,250 feet east of signal 57.5 the enginemen observed this signal displaying stop-and-proceed, and the engineer made an 8-pound brake-pipe reduction. Soon afterward, the engineer saw the lighted fusees and the marker lights of the preceding train, and he immediately moved the brake valve to emergency position. The speed of Extra 1818 was about 15 miles per hour when the collision occurred. The engineer of Extra 1818 said that the signals between Garrison and signal 57.5 displayed approach indications, and he thought that when his train was approaching signal 57.5 Extra 5118 would be far enough west of that signal for it to display approach instead of stop-and-proceed. In addition, he thought the distance between the point where signal 57.5 could first be seen from an engine moving westward on the curve and the location of the signal was sufficient to provide stopping distance for a train moving at a speed of about 30 miles per hour. However, soon after he made the service brake-pipe reduction he realized that he had misjudged the distance, then, in an unsuccessful attempt to avert the accident, he moved the brake valve to emergency position. If the speed of Extra 1818 had been controlled in accordance with the indications displayed by the signals involved, this accident would not have occurred.

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 twenty-fifth day of January, 1945.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.