

INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 2969

THE DENVER AND SALT LAKE RAILWAY COMPANY

REPORT IN RE ACCIDENT

AT GORE, COLO., ON

JANUARY 21, 1946

SUMMARY

Railroad: Denver and Salt Lake
Date: January 21, 1946
Location: Gore, Colo.
Kind of accident: Side collision
Trains involved: D. & R.G.W. : D. & S.L. freight
passenger
Train numbers: Extra 1521 West : Extra 407 East
Engine numbers: 1521 : 407-205
Consist: 15 cars : 2 auxiliary water
cars, 48 cars,
caboose
Estimated speed: 5 m. p. h. : 5 m. p. h.
Operation: Signal indications
Track: Single; tangent; level
Weather: Dense fog
Time: 3:57 a. m.
Casualties: 1 killed
Cause: Failure to obey signal indications

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2969

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

THE DENVER AND SALT LAKE RAILWAY COMPANY

February 25, 1946.

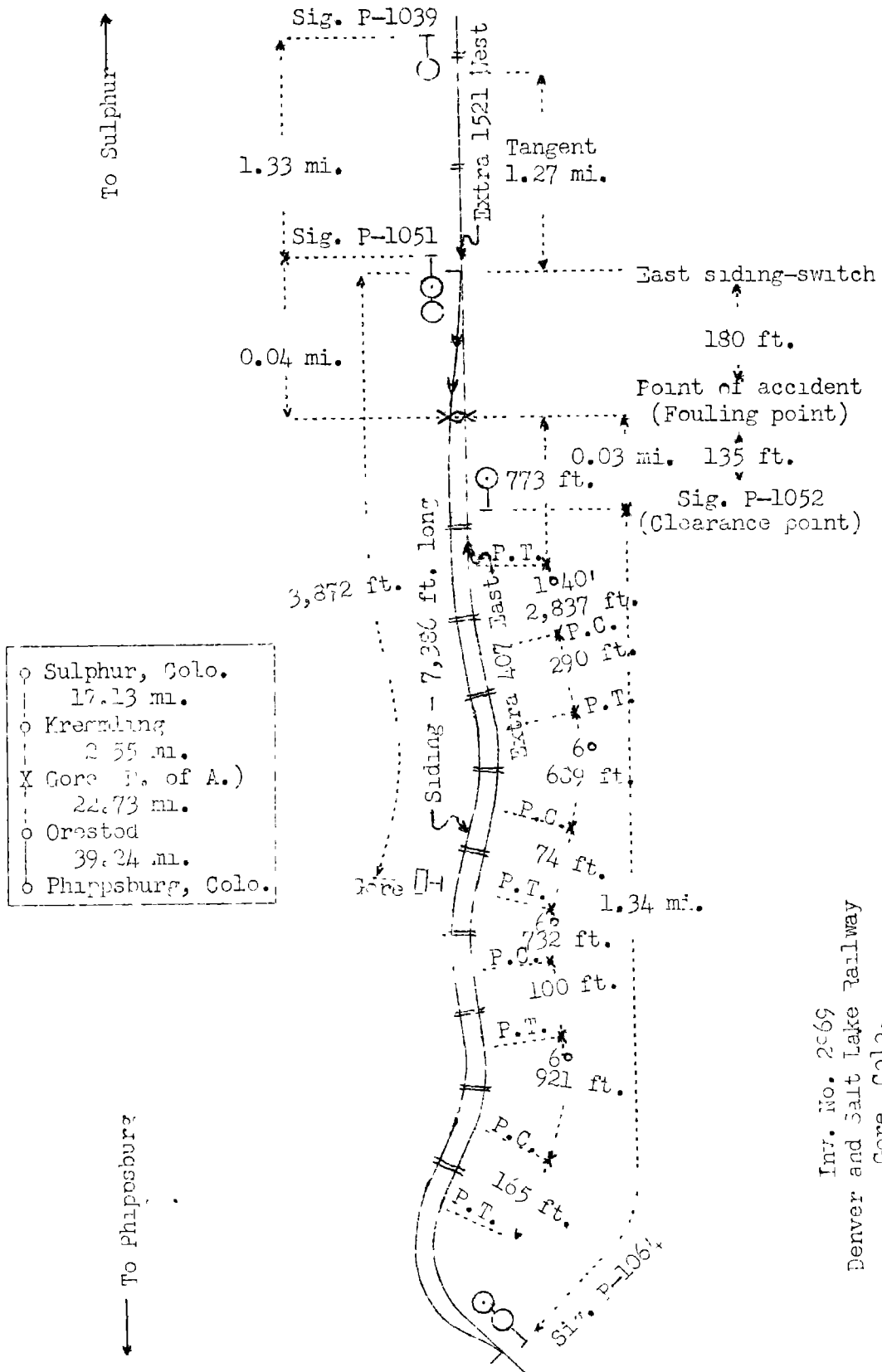
Accident at Gore, Colo., on January 21, 1946, caused by
failure to obey signal indications.

REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On January 21, 1946, there was a side collision between a passenger train of the Denver and Rio Grande Western Railroad and a freight train of the Denver and Salt Lake Railway on the line of the Denver and Salt Lake Railway at Gore, Colo., which resulted in the death of one train-service employee.

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.



- | | | |
|---|-------------------|-----------|
| o | Sulphur, Colo. | 17.13 mi. |
| o | Kremmling | 2.55 mi. |
| X | Gore (P. of A.) | 22.73 mi. |
| o | Orested | 39.24 mi. |
| o | Phippsburg, Colo. | |

Int. No. 2069
 Denver and Salt Lake Railway
 Gore, Colo.
 January 21, 1946

Location of Accident and Method of Operation

This accident occurred on Subdivision 1-A, which extends between Sulphur and Phippsburg, Colo., 31.65 miles, a single-track line in the vicinity of the point of accident, over which trains are operated by signal indications. Trains of the Denver and Rio Grande Western Railroad are regularly operated over this line. At Gore, 19.63 miles west of Sulphur, a siding 7,386 feet in length parallels the main track on the north. The east switch of this siding is 3,872 feet east of the station. Entry to the siding at the east switch is made through a No. 15 turnout. The clearance point at the east end of the siding is 315 feet west of the east switch. The accident occurred at the fouling point of the main track and the turnout of the east siding-switch, 135 feet east of the clearance point and 130 feet west of the switch. The main track is tangent throughout a distance of 1.27 miles immediately east of the east siding-switch. From the west there are, in succession, a tangent 165 feet in length, a 6° curve to the left 921 feet, a tangent 100 feet, a 6° curve to the right 732 feet, a tangent 74 feet, a 6° curve to the left 689 feet, a tangent 290 feet, a 1°40' curve to the right 2,837 feet and a tangent 775 feet to the point of accident. The grade is level throughout a distance of 1.29 miles immediately east of the point of accident and 1.36 miles westward.

Signals P-1039 and P-1051, governing west-bound movements, are, respectively, 1.37 miles and 183 feet east of the point of accident. Signals P-1064 and P-1052, governing east-bound movements, are, respectively, 1.37 miles and 135 feet west of the point of accident. Signals P-1039 and P-1052 are of the one-unit color-light type, and signals P-1064 and P-1051 are of the two-unit color-light type. These signals are continuously lighted. The involved aspects and corresponding indications and names of these signals were as follows:

<u>Signal</u>	<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
P-1039	Yellow	Approach next signal prepared to stop.	Positive Approach Signal.
P-1051	Red-over-yellow	Approach next signal at restricted speed.	Approach Restricting Signal.
P-1064	Yellow-over-red	Approach next signal prepared to stop.	Positive Approach Signal.
P-1052	Red	Stop.	Positive Stop Signal.

These signals and the east siding-switch at Gore are controlled by a centralized-traffic-control machine at Sulphur. Time locking is provided, and the circuits of the controlled signals

involved are so arranged that when the east siding-switch is lined for movement from the main track to the siding, signal P-1064 displays yellow-over-red; signal P-1052, red; signal P-1039, yellow; and signal P-1051, red-over-yellow. The control machine is provided with visual indicators, and the controlling circuits are arranged to indicate the movement of trains within the centralized-traffic-control territory.

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.

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

101-A. During foggy and stormy weather engine-men will be expected to exercise extraordinary precaution, especially approaching switches and where authority to proceed depends on signals.

558. When a train is stopped by a Positive Stop Signal, it may proceed when the signal is cleared, or when authorized to proceed. This authority must be written on permissive card and repeated by the conductor or engineer and record made by dispatcher or controlmen.

The maximum authorized speed for the passenger train was 58 miles per hour and for the freight train, 25 miles per hour.

Description of Accident

Extra 1521 West, a west-bound D.& R.G.W. passenger train, consisted of engine 1521, 1 passenger-baggage car and 14 coaches, in the order named. All cars were of steel construction. This train passed Kremmling, the last open office, 2.55 miles east of Gore, at 3:50 a. m., passed signal P-1039, which displayed approach-next-signal-prepared-to-stop, passed signal P-1051, which displayed approach-next-signal-at-restricted-speed, and while it was proceeding from the main track to the siding at the east switch and was moving at an estimated speed of 5 miles per hour the engine was struck by Extra 407 East.

Extra 407 East, an east-bound D. & S.L. freight train, consisting of engine 407, one auxiliary water car, engine 205, one auxiliary water car, 48 cars and a caboose, in the order named, departed from Orestod, the last open office, 22.73 miles west of Gore, at 2:27 a. m., passed signal P-1064, which displayed approach-next-signal-prepared-to-stop, passed signal P-1052, which displayed stop, and while moving at an estimated speed of 5 miles per hour it struck Extra 1521 West.

The left side of the first engine of Extra 407 East struck the left side of the engine of Extra 1521 West at the fouling point of the main track and the turnout of the east siding-switch. The first engine and the first auxiliary water car of Extra 407, and the first car of Extra 1521 were derailed. The derailed equipment, the left side of engine 1521 and the second car of Extra 1521 were considerably damaged.

There was a dense fog at the time of the accident, which occurred at 3:57 a. m.

The fireman of the first engine of Extra 407 East was killed.

Discussion

About 13 minutes before the accident occurred, the train dispatcher at Sulphur placed the levers of the centralized-traffic-control machine in position for signal P-1052 to display stop for Extra 407 East, and for signal P-1051 to display approach-next-signal-at-restricted-speed for Extra 1521 West, and lined the route for Extra 1521 West to enter the siding at the east switch at Gore to meet Extra 407 East.

As Extra 1521 West was approaching Gore the speed was about 5 miles per hour. The headlight was lighted brightly, and the enginemen were maintaining a lookout ahead. Because of dense fog, visibility was considerably restricted. When the engine was in the vicinity of the east siding-switch, the enginemen observed that signal P-1051 displayed approach-next-signal-at-restricted-speed, and that the east switch was lined for entry to the siding. The first these employees were aware of anything being wrong was when they saw the reflection of the headlight of the approaching train immediately prior to the collision.

As Extra 407 East was approaching the point where the accident occurred the speed was about 5 miles per hour. The headlight of the first engine was lighted brightly. The air brakes of this train were in the charge of the engineer of the first engine. The brakes had been tested and had functioned properly. The surviving enginemen understood that, under the rules, the yellow-over-red aspect displayed by signal P-1064 required their

train to proceed prepared to stop short of signal P-1052, and the red aspect displayed by signal P-1052 required their train to stop short of that signal and not to proceed until an indication permitting the train to proceed was displayed or proper authority from the train dispatcher had been received. The engineer of the first engine of Extra 407 West said that the train was moving at a speed of about 15 miles per hour when the engine passed signal P-1064. Soon after the engine passed signal P-1064, he placed the throttle in drifting position. From this point eastward the density of the fog increased, and the enginemen were unable to see the usual landmarks. These employees thought the speed was being properly controlled and that the train could be stopped short of signal P-1052, if the signal displayed a stop indication. However, the aspect displayed by this signal was not visible until the front end of the first engine was opposite the signal. Then the engineer of the first engine saw the stop indication displayed by the signal, and he immediately moved the brake valve to emergency position. The speed of Extra 407 East was about 5 miles per hour when the collision occurred.

Cause

It is found that this accident was caused by failure to obey signal indications.

Dated at Washington, D. C., this twenty-fifth day of February, 1946.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.