

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 3184
NORTHERN PACIFIC RAILWAY COMPANY
REPORT IN RE ACCIDENT
AT STAMPEDE, WASH., ON
MAY 27, 1948

SUMMARY

Railroad: Northern Pacific
Date: May 27, 1948
Location: Stampede, Wash.
Kind of accident: Collision
Equipment involved: Engine : Cut of cars
Engine number: 1823 :
Consists: Engine : 13 cars, caboose
Estimated speeds: 3 m. p. h. : 30 m. p. h.
Operation: Timetable, train orders and automatic
block-signal system; siding
Tracks: Double; spiral; 2.15 percent descending
grade westward
Weather: Foggy and raining
Time: 10:52 p. m.
Casualties: 1 killed; 2 injured
Cause: Cut of cars moving out of control
on grade

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3184

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

NORTHERN PACIFIC RAILWAY COMPANY

July 12, 1948

Accident at Stampede, Wash., on May 27, 1948, caused by
a cut of cars moving out of control on a grade.

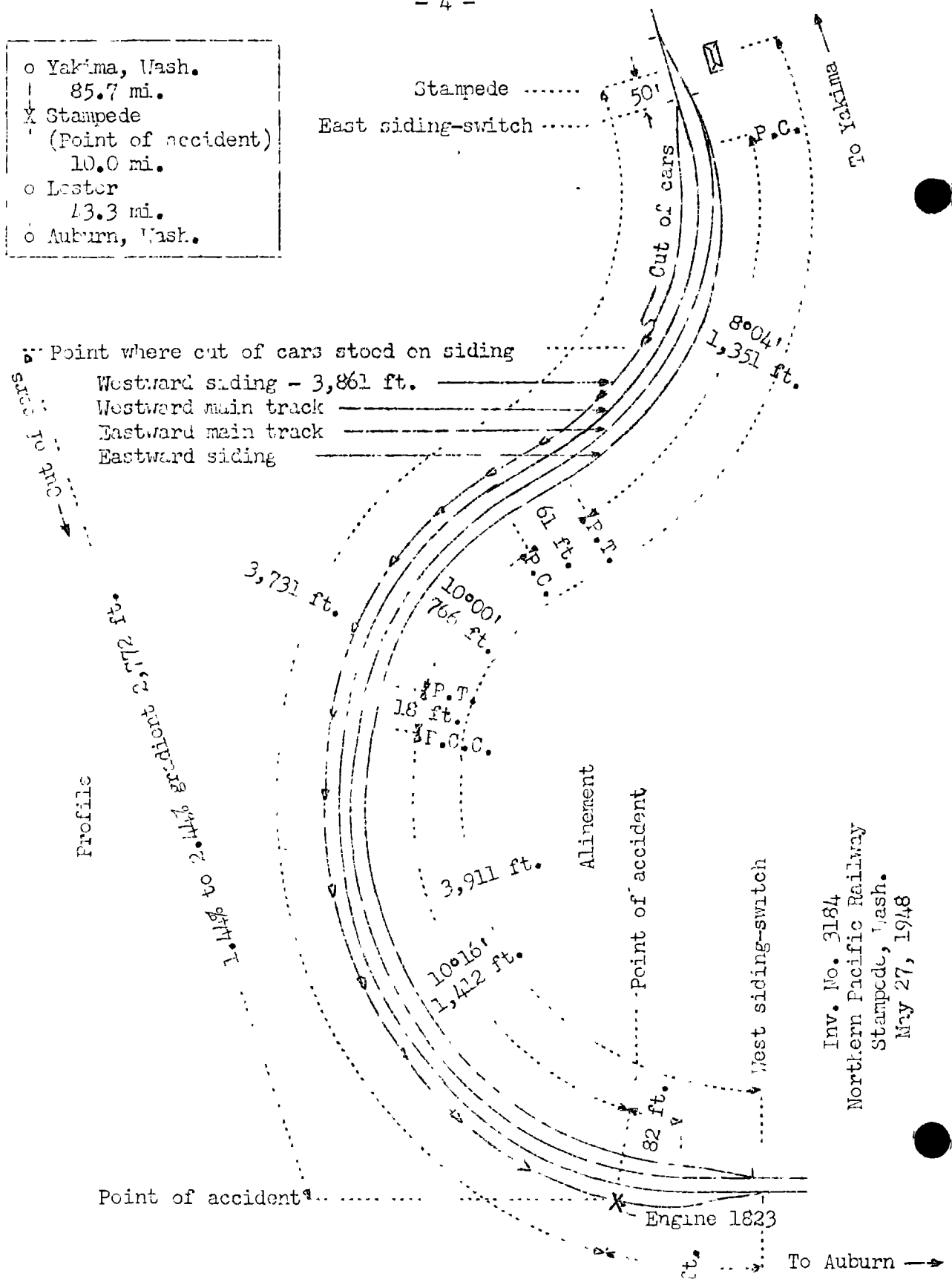
REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On May 27, 1948, there was a collision between an engine and a cut of cars on the Northern Pacific Railway at Stampede, Wash., which resulted in the death of one train-service employee, and the injury of two mechanical-department 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.



Location of Accident and Method of Operation

This accident occurred on that part of the Tacoma Division extending between Auburn and Yakima, Wash., 130 miles. Between Lester and Stampede, respectively, 43.3 and 53.3 miles east of Auburn, 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. At Stampede a siding 3,261 feet long and designated as the westward siding parallels the main tracks on the north. The east and the west switches of this siding are, respectively, 50 feet and 3,211 feet west of the station. The accident occurred on the westward siding at a point 130 feet east of the west switch. From the east on the siding there are, in succession, a No. 11 turnout to the right, an 8°04' curve to the right 1,351 feet, a tangent 61 feet, a 10°00' curve to the left 766 feet, a tangent 18 feet and a compound curve to the left, having a maximum curvature of 10°16', 1,412 feet to the point of accident, then there is a spiral extending 82 feet to the east end of a No. 11 turnout at the west end of the siding. Between the east and the west switches of the siding the grade for west-bound movements varies between 1.44 and 2.44 percent descending, and it is 2.15 percent at the point of accident.

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

19. Unless otherwise provided, 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 * * * red to the rear.

* * *

806. When cars are left on any track, sufficient hand brakes must be set to prevent cars moving; if the track is on a grade and hand brakes are not sufficient, wheels must also be blocked or chained and, when practicable, cars must be coupled together.

When necessary to hold or stop cars by the use of hand brakes, it must be known that such brakes are in good order before cutting off cars.

807. * * *

Before engines are detached from a train on a grade, either on main track or siding, a sufficient number of hand brakes must be applied on the low end of train to hold train; the air brakes must be released and the slack closed in against cars on which the hand brakes are applied.

When engine is recoupled to train, hand brakes must not be released until air brake system is fully recharged.

* * *

Description of Accident

During a period of several hours prior to the time the accident occurred the crew of engine 1823 and a wrecking equipment force were engaged in clearing the wreckage of the derailment of four cars of a freight train from the track in the vicinity of the station at Stampede. This derailment occurred about 19 hours prior to the accident under investigation. The derailed cars and the wrecking equipment, which consisted from east to west of four box cars, one wrecking crane, one flat car, one box car, two flat cars, two box cars, one box-sleeping car, one box-dining car and a caboose, were assembled on the westward siding with the west end of the caboose standing 2,952 feet east of the west switch. About 10:25 p. m., engine 1823, headed east, departed eastward from the vicinity of the east-siding switch, en route to a water tank located about 0.75 mile east of the station, to supply the tender with water. About 27 minutes later, after engine 1823 had returned from the water tank and had entered the westward siding at the west switch, the engine was struck by the cut of cars, which had moved westward out of control on the siding, at a point 180 feet east of the west switch.

After the impact, the engine and the cut of cars moved westward, entered the westward main track and stopped with the engine standing 1,565 feet west of the point of collision. The front of the engine was badly damaged and the caboose was demolished.

The front brakeman was killed.

It was raining and foggy at the time of the accident, which occurred about 10:52 p. m.

The caboose was of steel-underframe and wooden-super-structure construction. All units of the cut of cars were equipped with vertical-shaft type hand brakes.

Discussion

Under the rules, when an engine is to be detached and cars are to be left standing on a descending grade the train-brake system must be charged, the air brakes released, and hand brakes sufficient to hold the cars must be applied before the engine is detached. The hand brakes must not be released until after the engine has been recoupled to the cars and the train air-brake system is fully charged.

According to the statements of a trainmaster and the members of the crew of engine 1823, before the engine departed from Stampede en route to the water tank, the engine was coupled to the west end of the caboose, and the air-brake systems of the engine and the cars were coupled and tested, and the air brakes functioned properly. About 9:30 p. m. the cut of cars was moved to the westward siding and stopped on a 2.44 percent grade, with the caboose standing 936 feet west of the east siding-switch. Then the air-brakes were released and the hand brakes were applied on the caboose, 8 of the 9 wrecking-train service cars and 2 of the cars that had been rerailed, a total of 11 hand brakes out of 14 units. Soon afterward the engine was detached from the caboose and moved westward a distance of about 10 feet. During an interval of about 5 minutes before the engine departed, the members of the crew observed that the hand brakes were holding the cut of cars on the descending grade. When the engine departed eastward the front brakeman accompanied the engine and the conductor and the flagman remained in the vicinity of the station. During the return movement the engine stopped at the station so that the flagman could board the engine. Then the engine moved westward and stopped about midway of the cut of cars so that the front brakeman could alight, and the engine proceeded to the west siding-switch and entered the siding. After the flagman closed the switch, engine 1823 moved eastward on the siding and it had reached a point about 400 feet east of the switch when the flagman and the engineer saw the lighted marker lamps of the caboose about 700 feet distant and a back-up signal being given with a lighted white lantern from the east platform of the caboose. Then the engineer realized that the cut of cars was moving westward, and he reversed the movement of the engine in an attempt to minimize the shock of the collision. Engine 1823 had attained a speed of about 3 miles per hour and the cut of cars was moving at a speed of about 30 miles per hour when the collision occurred.

When the cut of cars started to move out of control on the siding, the trainmaster and various members of the wrecking-train force were in the dining car, which was the car next to the caboose, and three members of a train-service crew, who were off duty, were in the caboose. The conductor was in the vicinity of the east-siding switch. The first these employees were aware of anything being wrong was when they observed that the cut of cars was in motion. One of the members of the crew in the caboose said that as the cut of cars moved westward he applied the hand brake on the caboose with the aid of a club. During this time the front brakeman entered the caboose and warned the occupants that the cars were moving out of control, and they jumped from the caboose just before the collision occurred. These employees said that as the cars passed them sparks flying from the brake shoes indicated that only two hand brakes were applied on the cars near the east end of the cut.

Immediately after the accident examination disclosed that the hand brakes were applied only on the most easterly second and third cars. The remainder of the hand brakes were released. Test of the hand-brake equipment of the cars involved disclosed that 10 hand brakes were in operative condition and functioned properly. The caboose was demolished and the hand brake could not be tested. The hand brake of the car next to the caboose was damaged in the collision, and the hand brakes on two of the four cars at the east end of the cut had been damaged as a result of the previous derailment. Apparently some of the hand brakes were released immediately before the cars started to move out of control.

Cause

It is found that this accident was caused by a cut of cars moving out of control on a grade.

Dated at Washington, D. C., this twelfth day of July, 1948.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.