INTERSTATE COMMERCE COMMISSION WASHINGTON

INVESTIGATION NO. 2650

THE NORTHERN FACIFIC RAILWAY COMPANY

REPORT IN RE ACCIDENT

NEAR HUNTLEY, MONT., ON

SEPTEMBER 26, 1942

Inv-2630

SUMMARY

Railroad:

Northern Pacific

Date:

September 26, 1942

Location:

Huntley, Mont.

Kind of accident:

Head-end collision

Trains involved:

Work

: Freight

Train numbers:

Work Extra 2152 : Extra 1720 East

Engine numbers:

2152

: 1720

Consist:

ll cars, caboose : Auxiliary water car,

65 cars, caboose

Speed:

25 m. p. h.

: Standing

Operation:

Movement with current of traffic by timetable, train orders and an automatic block-signal system; movement against current of traffic by train

orders only.

Track:

Double; 3012' curve; grade level

Weather:

Clear

Time:

About 3 p. m.

Casualties:

1 killed: 4 injured

Cause:

Misunderstanding of flagging

instructions

Recommendation:

That the Northern Pacific Railway Company provide an adequate block system for operation of trains

agginst current of traffic

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2630

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

THE NORTHERN PACIFIC RAILWAY COMPANY

November 23, 1942.

Accident near Huntley, Mont., on September 26, 1942, caused by a misunderstanding of flagging instructions.

REPORT OF THE COMMISSION

PATTERSON, Commissioner:

On September 26, 1042, there was a head-end collision between a work train and a freight train on the Northern Pacific Railway near Huntley, Mont., which resulted in the death of one train-service employee, and the injury of one train-service employee and three maintenance-of-way employees.

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.

Signal 216.

Location of Owork train flagman

Morthern Pacific Rallway Huntley, Mont. September 26, 1942 Inv-2630

-To Billings

- 5 **- 2630**

Location of Accident and Method of Operation

This accident occurred on that part of the Yellowstone Division designated as the Fourth Sub-Division and extending between Billings and Forsyth, Mont., a distance of 101.6 miles. In the vicinity of the point of accident this is a double-track line over which trains moving with the current of traffic are operated by timetable, train orders and an automatic blocksignal system, and trains moving against the current of traffic are operated by train orders only. The accident occurred on the eastward main track at a point 3.28 miles west of Huntley. Approaching from the east there are, in succession, a 00481 curve to the left 494 feet in length, a tangent 349 feet, a 20 curve to the left 708 feet, a tangent 1,140 feet, and a 30121 curve to the right 492 feet to the point of accident and 205 feet beyond. Approaching from the west there are numerous short curves and tangents, which are followed, in succession, by a 3042' curve to the right 741 feet in length, a tangent 1,185 feet and the curve on which the accident occurred. At the point of accident the grade is level. tracks parallel the south bank of the Yellowstone River. On the south side of the track there is a rock bluff which varies in height between 20 and 50 feet.

DEFINITIONS.

Extra Train.-A train not authorized by a time-table schedule. It may be designated as -

Extra-for any extra train except * * * or work extra;

* * *

Work Extra-for work train extra.

Operating rules read in part as follows:

D-97. Where specified on the time-table, extra trains may be run with the current of traffic without train orders provided they secure proper clearance. The operator must secure authority from the train dispatcher before issuing clearance. Such clearances will be numbered and may be cancelled by train order.

Work extras must not be run without train orders and must move with the current of traffic unless otherwise provided.

99 (B). When a flagman is sent out with instructions affecting a train's authority to proceed, three copies of the instructions must be made, one copy to be given to the flagman who must show this to the engineman of the train or trains affected, * * *.

* * *

FORMS OF TRAIN ORDERS

D-H.

(1.) Eng 292 works extra on _____ track, or ____ tracks, 645 a m until 545 p m between D and E.

The work extra must, whether standing or moving, protect itself within the working limits against extra trains moving with the current of traffic on the track or tracks named. * * *

Time-table Special Instructions read in part as follows:

Transportation Rule D-97 applies to all divisions.

The maximum authorized speed for freight trains is 50 miles per hour, and for the work train involved, 30 miles per nour.

Description of Accident

At Billings, 12.3 miles west of Huntley, the crew of Work Extra 2152 received a clearance, Form A, and copies of three train orders, of which one was train order No. 231, Form 19, reading as follows:

Eng 2152 works Extra 701 am until 801 pm between Billings and Huntley on eastward track protecting against No 804

Work Extra 2152, consisting of engine 2152 headed east, one dozer, one air-dump car, one ditcher, one air-dump car, one ditcher, one coal car, three ditcher, one air-dump car, one water car, one coal car, three outfit cars and a caboose, in the order named, departed westward from Huntley about 2:50 p. m. and while moving against the current of traffic on the eastward main track at an estimated speed of 25 miles per hour it collided with Extra 1720 East at a point 3.28 miles west of Huntley.

Extra 1720 East, an east-bound freight train, consisted of engine 1720, 1 auxiliary water car, 51 loaded and 14 empty cars and a caboose. At Laurel Yard, 14 miles west of Billings,

- 7 **-** 2630

a terminal air-brake test was made and the brakes functioned properly en route. At Billings, the last open office, the crew received a clearance, Form A, and copies of four train orders, of which one was train order No. 231, Form 19, previously quoted. This train passed Billings at 2:25 p.m., according to the dispatcher's record of movement of trains, stopped in response to the signals of the work-train flagman at a point 7,442 feet west of the point where the accident occurred, then proceeded and stopped again at a point 2,632 feet east of automatic signal 216.8. About 1 minute later it was struck by Work Extra 2152.

From an engine moving in either direction, in the vicinity of the point of accident, the view of a train approaching from the opposite direction is restricted to a distance of approximately 1,000 feet, because of the rock bluff and track curvature.

The front end of engine 1720 was badly damaged, and the auxiliary water car stopped against the tender. The tender of engine 2152 was forced into the engine cab and the cab was badly damaged. The front end of engine 2152 was damaged, the rear wheels of the engine truck were derailed, and the south wheel of the No. 1 pair of driving wheels was several inches above the rail. The first car in Work Extra 2152 was derailed and demolished. The next three cars were slightly damaged.

The weather was clear at the time of the accident, which occurred about 3 p. m.

The train-service employee killed was the engineer of Work Extra 2152. The train-service employee injured was the fireman of Work Extra 2152.

Data

Trains of the Chicago, Burlington and Quincy Railroad, nercinafter referred to as the C. B. & Q., are operated over the line of the Northern Pacific Railway between Billings and Huntley, Mont., a distance of 12.3 miles.

Discussion

The rules governing operation on the line involved provide that in double-track territory extra trains may be authorized to move with the current of traffic by the issuance of a clearance form. A work extra must be authorized by train order and, unless otherwise provided, move with the current of traffic and, whether standing or moving, protect itself against extra trains moving with the current of traffic. When a flagman is sent out with instructions affecting the authority of other

- 8 - 2630

trains to proceed, the instructions must be ir writing and the flagman must show the instructions to the engineers of trains affected. All the surviving employees involved understood these requirements.

The crews of the trains involved held copies of train order No. 231, which authorized Work Extra 2152 to work between Billings and Huntley on the eastward main track. The work extra was required to move with the current of traffic and to provide flag protection against eastward extra trains.

Work Extra 2152 departed from Billings about 8 a.m. and operated ditching machines on the eastward main track at a point about 8 miles east of Billings until 10:45 a.m. To protect his train, the conductor issued written instructions to the flagman which read as follows:

Flagman West

Flag CBQ let them drive us to Huntley.

Then hold all east until we return.

Bailey

Wrk X 2152

The flagman was stationed at a point some distance west of the point where the work was performed and he furnished flag protection in accordance with the written instructions until he was recalled. Work Extra 2152 departed from the point of work about 10:45 a.m. to clear for an east-bound C. B. & Q. train, and arrived at Huntley at 11:15 a.m. It was delayed 3 hours by other trains, of which one was another east-bound C. B. & Q. train, which passed at 2:15 p.m. A flagmen was left at Huntley and Work Extra 2152 departed on the westward main track at 2:15 p. m., and proceeded to a point about 4.5 miles west of Huntley. The flagman who held the written instructions previously quoted was left at that point. Work Extra 2152 then returned to Huntley and was delayed until 2:50 p. m. by another east-bound C. B. & Q. train. At 2:55 p. m. the work extra departed from Huntley and was moving westward against the current of traffic on the eastward main track as it approsected the point where the accident occurred. The engine was neaded eastward and the speed was about 30 miles per hour. When the engine was about 500 feet east of the point where the accident occurred, a maintenance-of-way employee, who was on the fireman's seatbox, saw the engine of Extra 1720 East and called a warning. The engineer of Work Extra 2152 immediately moved the brake valve to emergency position but the distance

- 9 **-** 2630

was not sufficient to stop his train snort of Extra 1720. The speed of Work Extra 2152 was about 25 miles per hour when the collision occurred. There was no condition of engine 2152 that distracted the attention or obscured the vision of the employees who were on the engine. The brakes of Work Extra 2152 had functioned properly en route. The point where the work train was to resume work was about 1,800 feet west of the point of accident.

Extra 1720 East was stopped in response to signals given by the flagman of Work Extra 2152. The flagman informed the engineer of Extra 1720 that Work Extra 2152 was either en route to Huntley on the westward main track, or en route from Huntley to a point where work was to be performed on the eastward main track, or at the working point. The flagman did not know the location of the working point and did not show the written instructions to the engineer of Extra 1720. Extra 1720 then proceeded at a speed of about 10 miles per hour. Just before the engine passed automatic signal 216.8, located 2,632 feet west of the point where the accident occurred, the indication displayed by this signal changed from proceed to approach. The enginemen and the front brakeman were maintaining a lookout anead. Because the view of the track ahead was obscured by the rock bluff and track curvature, the train was stopped at a point 7,442 feet east of the point where it had been stopped by the flagman, and the front brakeman went forward to provide flag protection. He had reached a point near the front end of his engine when Work Extra 2152 rounded the curve and struck engine 1720.

The flagman of Work Extra 2152 said it was his understanding that the written instructions given him by the conductor about 8 a.m. were invalid because he flagged the first eastbound C.B. & Q. train and later was recalled to accompany his train when it moved to Huntley and for this reason he did not snow the instructions to the engineer of Extra 1720. The conductor of the work train said that he expected the flagman to be governed by the written instructions throughout the entire day. In this case the flagman was expected to hold all eastbound trains at the point where he stopped Extra 1720 East until he received information that the work train had arrived at the point of work.

Work Extra 2152 was not authorized by train order No. 231 to move from Huntley to the point of work against the current of traffic on the eastward main track; therefore, flag protection was required for that movement, and also to furnish protection against eastward trains while the work extra was working in this territory. If the flagman of Work Extra 2152 had been properly instructed and if he had shown the written instructions to the engineer of Extra 1720 in accordance with the requirements of the rules. Extra 1720 would have been required to stay

- 10 - 2630

at the point where it was stopped by the flagman until it was authorized to proceed, and this accident would have been prevented.

Although Extra 1720 East was not held at the point where it was flagged and was not given instructions to stop at any point beyond, the changing of the indication of the automatic signal from proceed to approach indicated the probability that a train was proceeding in the opposite direction at a point about 2.8 miles distant; however, Extra 1720 proceeded slowly 2,632 feet beyond the signal before it stopped for the purpose of proceeding thereafter under flag protection but, before the flagman got beyond the front of the engine, the work train was seen approaching at a relatively high rate of speed. If Extra 1720 had stopped on tangent track some distance west of the curve involved it is possible the accident would have been averted; however, the crew on the engine of the work train could have seen Extra 1720 at least 1,000 feet but the first person on the work train to see the other train was a maintenance-of-way employee, who was on the fireman's seatbox and saw the other train at a distance of only 500 feet.

The trains involved were being operated on a track on which the automatic-block signals are not designed for either-direction operation and did not provide protection for opposing movements. The book of operating rules of this carrier contains manual-block rules which provide for the blocking of opposing movements. If an adequate block system for movements against the current of traffic had been in use, this accident would have been averted.

<u>Cause</u>

It is found that this accident was caused by a misunderstanding of flagging instructions.

Recommendation

It is recommended that the Northern Pacific Railway Company provide an adequate block system for operation of trains against the current of traffic.

Dated at Washington, D. C., this twenty-third day of November, 1942.

By the Commission, Commissioner Patterson.

W. P. BARTEL.

(SEAL)

Secretary.