

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 3203
GREAT NORTHERN RAILWAY COMPANY
REPORT IN RE ACCIDENT
NEAR SIEBEN, MONT., ON
SEPTEMBER 8, 1948

SUMMARY

Railroad: Great Northern

Date: September 8, 1948

Location: Sieben, Mont.

Kind of accident: Head-end collision

Equipment involved: Track motor-car : Freight train
and trailers

Train number: : Extra 3245 East

Engine number: : 3245

Consists: Motor-car 3714M, : 1 car, caboose
3 trailers

Estimated speeds: 15 m. p. h. : 25 m. p. h.

Operation: Timetable and train orders

Track: Single; 6° curve; 0.65 percent
ascending grade westward

Weather: Clear

Time: 4:55 p. m.

Casualties: 4 killed; 30 injured

Cause: Failure to provide adequate protection
for movement of track motor-car

Recommendation: That the Great Northern Railway
Company provide adequate block-
signal or train-order protection
for the movement of track motor-
cars on its line

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3203

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

GREAT NORTHERN RAILWAY COMPANY

November 26, 1948

Accident near Sieben, Mont., on September 8, 1948, caused
by failure to provide adequate protection for the
movement of a track motor-car.

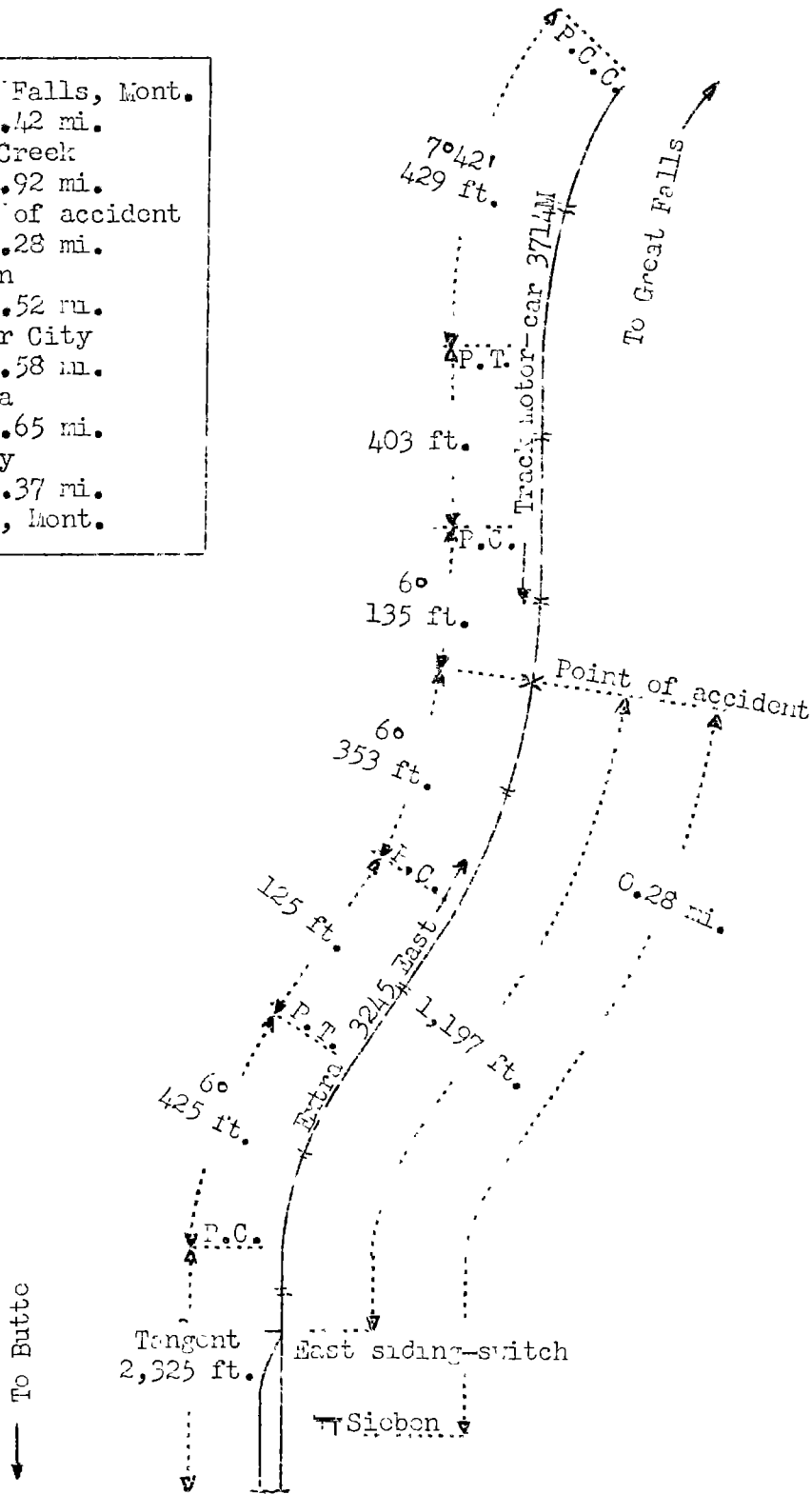
REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On September 8, 1948, there was a head-end collision between a track motor-car and trailers and a freight train on the Great Northern Railway near Sieben, Mont., which resulted in the death of 4 employees, and the injury of 30 employees. This accident was investigated in conjunction with a representative of the Montana Board of Railroad Commissioners and Public Service Commission.

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	Great Falls, Mont.	59.42 mi.
o	Wolf Creek	8.92 mi.
X	Point of accident	0.28 mi.
o	Sieben	12.52 mi.
o	Silver City	16.58 mi.
o	Helena	14.65 mi.
o	Clancy	57.37 mi.
o	Butte, Mont.	



Inv. No. 3203
Great Northern Railway
Sieben, Mont.
September 8, 1948

Location of Accident and Method of Operation

This accident occurred on that part of the Butte Division extending between Butte and Great Falls, Mont., 169.74 miles, a single-track line, over which trains are operated by timetable and train orders. There is no block system in use. The accident occurred on the main track 101.40 miles east of Butte and 0.28 mile east of the station at Sieben. From the east there are, in succession, a compound curve to the left, having a maximum curvature of $7^{\circ}42'$, 429 feet in length, a tangent 403 feet, and a 6° curve to the right 135 feet to the point of accident and 353 feet westward. From the west there are, in succession, a tangent 2,325 feet in length, a 6° curve to the right 425 feet, a tangent 125 feet, and the curve on which the accident occurred. The grade is 0.65 percent ascending westward.

This carrier's maintenance-of-way rules and instructions governing the operation of track motor-cars read in part as follows:

101. Line-up issued by the train dispatcher regarding train locations must, when practicable, be obtained from operators at train order offices before occupying the main track at the start of each day's work.

Additional line-ups may be obtained in the same manner during the day as is required.

All line-ups received from operators must be in writing on the prescribed form.

At points where telegraphers are not employed, track car operators may use train dispatcher's telephone to obtain verbal information of train locations as is necessary at the time of their movement, but, when practicable, regular line-up, Form 1139, must be obtained from operator at train order office.

102. Line-up or other information regarding train locations will not relieve foremen or others operating track cars from responsibility of protecting their cars against collisions with trains, engines, or other track cars, as prescribed by the rules.

121. Heavily loaded track cars or track equipment when on main track must be given proper flag protection.

Special Instructions for Train Dispatchers read as follows:

Item	Rule
<u>No.</u>	<u>No.</u>

26	M of W Form 1139
----	------------------------

Foreman's Train Location lineup will be issued over the signature of, and at time prescribed by, the Superintendent.

Train dispatchers will write lineup in train order book and transmit to operators on duty at each open train order office listing all trains on the road, or that are ordered or expected to run over the territory involved as he has knowledge of them. They will also specify whether regular trains are on time or late including sections, for extra trains, specify approximate time at some station or present location and when expected to leave. When authorizing movement of trains that have not been included in the lineups issued, give such trains written information either by message or train order, thus: "Foremen and track car operators do not have notice of your train on their lineups."

Operators will make the requisite number of copies at one writing and preserve a copy. He will deliver a copy to foremen and track car operators as called for, who will receipt for same by signing their names on the station copy.

When lineup has been transmitted, either by telephone or telegraph, it will be repeated by the operator at the key station designated by the Superintendent on each subdivision and underscored by train dispatcher. When lineup has been repeated correctly by the designated office, train dispatcher will respond by giving O.K., the time, and the Superintendent's initials. Each operator receiving the lineup must observe and check his copy while it is being repeated by the designated office, they will interrupt if any error is detected, and will then write the response from train dispatcher on each copy and sign his last name in full before it is delivered.

When necessary to obtain additional lineup other than at the regular prescribed hours, foremen or track car operators may secure from operator on duty.

Track and B&B crews that are located at points, not an open office, track car operators may use the dispatcher's telephone to secure such verbal information as to the location of trains as is necessary at the time of their movement, but, when practicable, regular lineup, Form 1139, must be secured through an assigned operator.

Foreman's Train Location reads as follows:

Foreman's Train Location

Date _____

To _____ At _____

Between Sta. _____ and Sta. _____

Until _____ M. _____

* * *

_____ Supt.

Repeated At _____ By _____ Opr.

ACKNOWLEDGMENT

I understand that this is not a train order and does not confer right over any train, or waive any rule. Also that time of trains shown hereon is approximate and that other trains not shown may be run before expiration of time shown between above stations without my knowledge.

_____ Foreman

The maximum authorized speed for the train involved was 30 miles per hour, and for the track motor-car involved was 20 miles per hour.

Description of Accident

Track motor-car 3714M, one trailer and two push cars were placed on the main track at a motor-car set-off, 2.81 miles east of the east siding-switch at Sieben. This track motor-car, with the trailer and push cars in tow and occupied by 41 workmen and loaded with tools, departed west-bound from the motor-car set-off about 4:35 p. m., and while moving at an estimated speed of 15 miles per hour it was struck by Extra 3245 East at a point 1,197 feet east of the east siding-switch at Sieben.

Extra 3245 East, an east-bound freight train, consisting of engine 3245, one car and a caboose, passed Silver City, the last open office, 12.52 miles west of Sieben, at 4:30 p. m., passed Sieben, and while moving at an estimated speed of 25 miles per hour it collided with motor-car 3714M.

The track motor-car, trailer and push cars were moved eastward 327 feet to the point where Extra 3245 East stopped and were demolished. Engine 3245 was slightly damaged.

The employees killed and injured were maintenance-of-way employees, and were riding either on the track motor-car or trailer.

The weather was clear at the time of the accident, which occurred about 4:55 p. m.

According to data furnished by the railroad, motor-car 3714M was of the four-wheel type, and was equipped with four-wheel brakes. It weighed 1,500 pounds, and was powered by a 17-horse-power gasoline motor. The trailer was equipped with four-wheel brakes, full width railings front and rear, folding foot boards and safety drawbars. The four-wheel push cars were equipped with safety drawbars, but were not equipped with brakes. The lightweight of the trailer was 750 pounds, and the lightweight of each of the push cars was 650 pounds.

Discussion

The investigation disclosed that about 1 p. m. on the day of the accident, the foreman in charge of a maintenance-of-way force copied a dispatcher's line-up of train movements at Sieben, a closed station, which included the information that Extra 3245 East would leave Butte at 1:15 p. m. and that this train did not have full tonnage. He then operated the track motor-car with the trailer and push-cars in tow, occupied by the maintenance-of-way force and carrying necessary tools, to a motor-car set-off located 2.81 miles east of Sieben. This force, which consisted of the foreman and 41 track laborers, was engaged in replacing defective ties and in surfacing the track. Throughout a distance of several miles east and west of the point of accident the track is laid in a gorge and at numerous points the view of the track ahead is materially restricted by track curvature, embankments and tunnels.

About 4:30 p. m., a track patrolman arrived by track motor-car at this point and orally informed the foreman that, while at Wolf Creek, 9.2 miles east of Sieben, he had heard the train dispatcher transmit a train order that No. 235, a west-bound first-class passenger train, would wait at Clancy, 43.75 miles west of Sieben, until 3:30 p. m. for Extra 3245 East. The foreman said that it was customary for trains to stop at Helena, 31.1 miles west of Sieben, so that the crews could eat, and that he thought Extra 3245 East probably would add cars to the train at that point. On the basis of this information, and also the fact that the maximum authorized speed for Extra 3245 East was 30 miles per hour between Clancy and Sieben, he calculated that Extra 3245 East would not arrive at Sieben before 5:30 p. m. He then had the track motor-car, trailer and push-cars placed on the main track, the tools loaded on one of the push-cars, and, with the 41 workmen either on the track motor-car or on the trailer, departed west-bound about 4:35 p. m. Flag protection was not provided against trains or other track motor-cars in either direction. While moving on a curve at an estimated speed of 15 miles per hour the track motor-car was struck by Extra 3245 East at a point 1,197 feet east of the east siding-switch at Sieben.

As Extra 3245 East was approaching the point where the accident occurred the speed was about 25 miles per hour. No train order restricting the movement of Extra 3245 East with respect to track motor-cars had been issued, and the crew of this train had not been informed that the track motor-car involved was occupying the main track. The enginemen were maintaining a lookout ahead from their respective positions

on the engine and the members of the train crew were in the caboose. The brakes of this train had been tested and had functioned properly en route. The fireman first observed the approaching track motor-car at a distance of about 100 feet. He immediately called a warning to the engineer, who placed the brake valve in emergency position, but the collision occurred before the brakes of the train had become effective. Because of track curvature and an embankment on the inside of the curve, the view of the point of accident from either direction was materially restricted.

Operators of track motor-cars in this territory are given line-ups, either written or oral. A line-up neither confers right over trains or other track motor-cars nor relieves the operator of responsibility for collision if the movement of a train is omitted from the line-up or if the line-up is otherwise erroneous. Train crews and the operators of other track motor-cars are not informed when a track motor-car is occupying the main track. Trains may be created at any time after a line-up has been issued without the issuance of a superseding line-up by the train dispatcher. A line-up does not confer authority for any motor-car to occupy the main track. Track motor-car operators are required to provide the same degree of protection when they have a line-up as when they do not have it.

In the instant case, the foreman accepted information from the track patrolman that No. 235, a west-bound first-class train, would wait at Clancy, 43.75 miles west of Sieben, until 3:30 p. m. for Extra 3245 East. No. 235 was scheduled to leave Clancy at 3:20 p. m. The foreman was aware that the maximum authorized speed for Extra 3245 East was 30 miles per hour and calculated that Extra 3245 East, moving at the maximum authorized speed, could not arrive at Sieben before 5 p. m. He assumed that a stop would be made at Helena, either for a meal period or to add cars to the train, or both, and he thought this stop would delay that train at least an additional 30 minutes. However, the movement of this train was faster than the foreman anticipated, as the accident occurred at 4:55 p. m. at a point 0.28 mile east of Sieben. This faster movement is accounted for by the fact that Extra 3245 East departed from Clancy at 3:30 p. m., and departed from Helena at 4:05 p. m. after a 5-minute stop at that station and that it maintained an average speed of 29.3 miles per hour between Clancy and Helena, 14.65 miles, an average speed of 39.8 miles per hour between Helena and Silver City, 16.58 miles, and an average speed of 30.7 miles per hour between Silver City and the point of accident, 12.8 miles.

During the past five years the Commission has investigated eighteen collisions between trains and track motor-cars, including the instant case. These accidents have resulted in the death of 39 persons and the injury of 67 persons and were caused by failure to provide adequate protection for the movement of track motor-cars. If an adequate block system had been provided to protect the movement of the track motor-car, the opposing movements would not have been permitted to occupy the same block simultaneously. If adequate train-order protection had been provided for the movement of the track motor-car, the members of the crew of Extra 3245 East and the operator of the track motor-car would have had a common understanding with respect to both movements.

Cause

It is found that this accident was caused by failure to provide adequate protection for the movement of a track motor-car.

Recommendation

It is recommended that the Great Northern Railway Company provide adequate block-signal or train-order protection for the movement of track motor-cars on its line.

Dated at Washington, D. C., this twenty-sixth day of November, 1948.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.