

INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 3066

CHICAGO GREAT WESTERN RAILWAY COMPANY

REPORT IN RE ACCIDENT

NEAR ALTA VISTA, IOWA, ON

JANUARY 30, 1947

SUMMARY

Railroad: Chicago Great Western
Date: January 30, 1947
Location: Alta Vista, Iowa
Kind of accident: Rear-end collision
Trains involved: Freight : Engine
Train numbers: 76 : Work Extra 720
Engine numbers: 854 : 720
Consist: 64 cars, caboose :
Estimated speeds: Standing : 15 m. p. h.
Operation: Timetable, train orders and
automatic block-signal system.
Track: Single; tangent; 0.27 percent
ascending grade eastward
Weather: Snowing
Time: 12:12 p. m.
Casualties: 3 killed; 8 injured
Cause: Failure properly to control speed
of following train in accordance
with signal indications

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3036

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

CHICAGO GREAT WESTERN RAILWAY COMPANY

March 18, 1947

Accident near Alta Vista, Iowa, on January 30, 1947,
caused by failure properly to control the speed
of the following train in accordance with signal
indications.

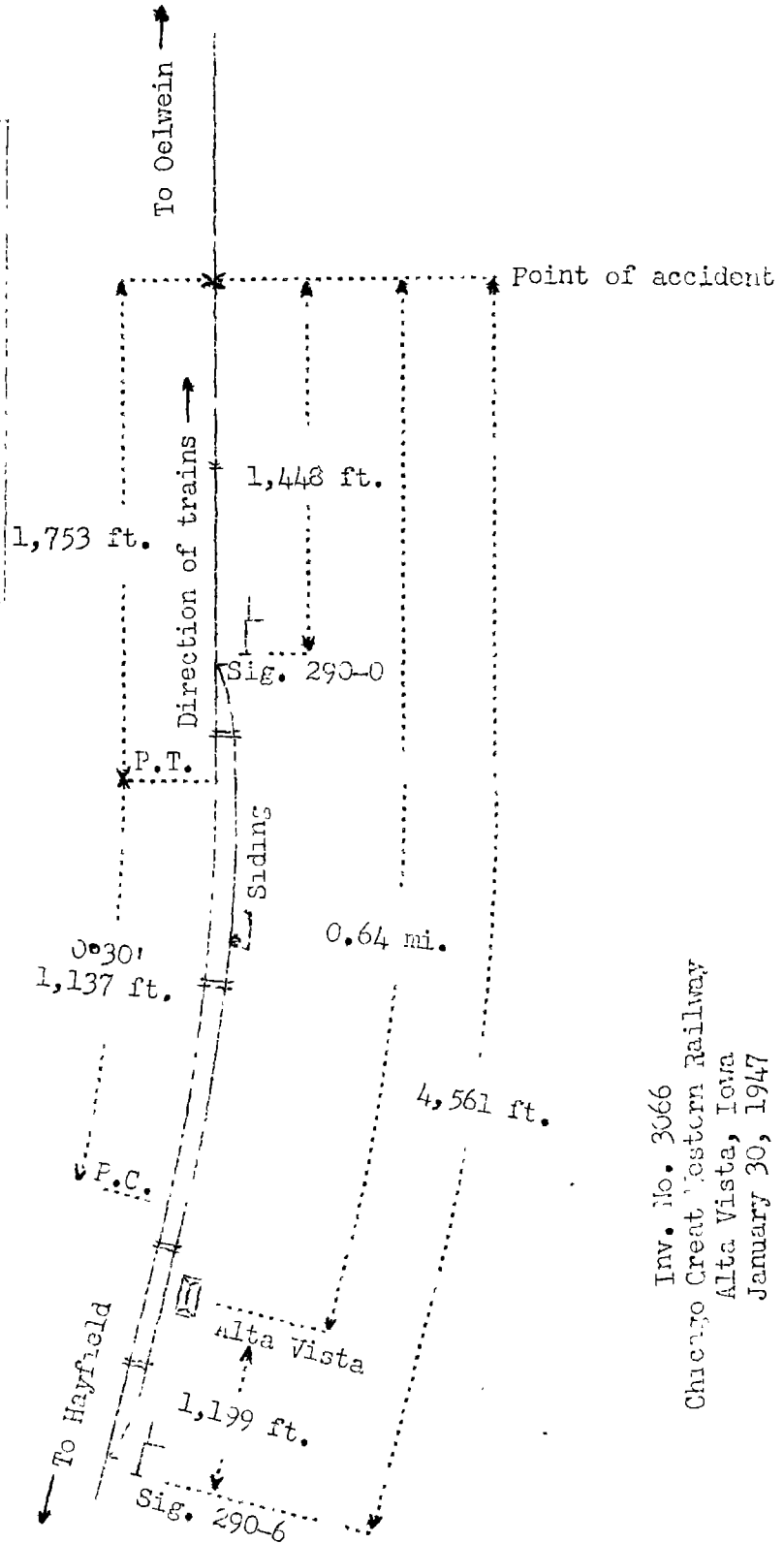
REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On January 30, 1947, there was a rear-end collision between a freight train and an engine on the Chicago Great Western Railway near Alta Vista, Iowa, which resulted in the death of three employees, and the injury of eight employees. This accident was investigated in conjunction with a representative of the Iowa State Commerce 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 Oelwein, Iowa
33.80 mi.
- o New Hampton
10.26 mi.
- X Point of accident
0.64 mi.
- o Alta Vista
3.40 mi.
- o Elma
10.40 mi.
- o Riceville
5.60 mi.
- o McIntire, Iowa
34.00 mi.
- o Hayfield, Minn.



Inv. No. 3066
Chicago Great Western Railway
Alta Vista, Iowa
January 30, 1947

Location of Accident and Method of Operation

This accident occurred on that part of the Minnesota Division extending between Hayfield, Minn., and Oelwein, Iowa, 98.1 miles, a single-track line in the vicinity of the point of accident, over which trains are operated by timetable, train orders and an automatic block-signal system. The accident occurred 54.04 miles east of Hayfield and 0.64 mile east of the station at Alta Vista. From the west there is a 0°30' curve to the left 1,137 feet in length, then a tangent 1,753 feet to the point of accident and a considerable distance eastward. The grade is 0.27 percent ascending eastward.

Automatic signals 290-6 and 290-0, governing east-bound movements, are located in the immediate vicinity of the west and the east switches of the siding at Alta Vista and are, respectively, 4,561 feet and 1,448 feet west of the point of accident. These signals are of the one-arm, two-position, upper-quadrant, semaphore-type. They are approach lighted, and the involved aspects and the corresponding indications and names are as follows:

<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
Red, horizontal	Stop.	Stop Signal.

The controlling circuits are so arranged that when the block immediately east of signal 290-0 is occupied, signals 290-6 and 290-0 display stop. The masts of these signals are 8 feet 2-3/4 inches south of the gage side of the south rail of the main track. When a stop indication is displayed, the semaphore arm of each signal is 24 feet above the level of the tops of the rails.

Operating rules read in part as follows:

27. A signal imperfectly displayed, or the absence of a signal at a place where a signal is usually shown, must be regarded as the most restrictive indication that can be given by that signal, * * *

* * *

27 (a). When conditions obscure a clear view of signals enginemen will approach them with caution.

34. All members of train and engine crews must, when practicable, communicate to each other by its name the indication of every signal affecting the movement of their train or engine.

35. The following signals will be used by flagmen:

Day Signals--A red flag,
Torpedoes and
Fusees.

Night Signals--A red light,
A white light,
Torpedoes and
Fusees.

82. Time-table schedules, unless fulfilled, are in effect for twelve hours after their time at each station.

Regular trains twelve hours or more behind either their schedule arriving or leaving time at any station lose both right and schedule, and can thereafter proceed only as authorized by train order.

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. One-fourth of a mile from the rear of his train he will place one torpedo on the rail, continuing back an additional one-fourth mile where he will place two torpedoes on the rail, three rail lengths (100 feet) apart. He will then return to the single torpedo where he will remain until relieved by another flagman or is recalled by the whistle of his engine. When whistle signal has been given to recall the flagman, and safety to the train will permit, he may return after removing the one torpedo. When the conditions require he will leave a lighted fusee.

During foggy or stormy weather and in the vicinity of obscure curves or descending grades, or when other conditions require it, the flagman will increase the distance, placing two torpedoes at every one-fourth mile after having placed the one.

The front of the train must be protected in the same way when necessary.

* * *

When day signals cannot be plainly seen, owing to weather or other conditions, night signals must also be used.

Conductors and enginemen are responsible for the protection of their trains.

FORMS OF TRAIN ORDERS.

H.

Work Extras.

- (1) Eng 292 works extra six forty five 6 45 a m until five forty five 5 45 p m between D and E.

The work extra must, whether standing or moving, protect itself against extras within the working limits in both directions as prescribed by Rule 99. * * *

* * *

When a work extra is to be given exclusive right over all trains the following form will be used:

- (6) Work Extra 292 has right over all trains between D and E * * *

* * *

504. When a train is stopped by block signal, it may proceed when the signal is cleared. If not immediately cleared--

* * *

On single track, a flagman must be sent ahead immediately and the train must wait five minutes thereafter, then proceed with caution following the flagman through the block, expecting to find an opposing or preceding train, a broken rail, an open switch or other obstruction. While waiting for the five minutes to elapse, the train will remain entirely clear of the signal to enable it to change to Caution or Clear should the obstruction be removed before the expiration of the five minutes. The flagman in advance must be on the alert for all obstructions as well as for a train;

Or if the next signal in advance, in the direction in which the train is moving, can be plainly seen to be Caution or Clear, and if the track ahead is clear, the train may proceed with caution, at not to exceed ten miles per hour to the next signal in advance, without sending a flagman ahead, expecting to find a broken rail, an open switch or other obstruction.

In this territory the maximum authorized speeds are 45 miles per hour for freight trains and 35 miles per hour for engines moving light.

Description of Accident

No. 76, an east-bound second-class freight train, consisting of engine 854, 64 cars and a caboose, passed Riceville, the last open office, 13.8 miles west of Alta Vista, at 5:07 a. m., 6 hours 42 minutes late, passed Alta Vista, and was moving at an estimated speed of 30 miles per hour when the engine struck a bank of snow, and a separation occurred between the first and second cars. The train stopped about 5:45 a. m., with the rear end standing 3,362 feet east of the station at Alta Vista. Because of drifting snow, it was not possible to recouple the train. About 12:12 p. m. the rear end of this train was struck by Work Extra 720.

At McIntire, 19.4 miles west of Alta Vista, the crew of Work Extra 720 received a message and copies of train order No. 239 reading in part as follows:

Message

* * * Eng 720 light pick up section men * * *
go to one half mile east of Alta Vista and assist
No 76 out of snow Pull rear end their train into
Alta Vista

Order No. 239

Eng 725 and Eng 720 work as two extras between
McIntire and New Hampton protecting against
each other and with right over all other trains
protecting against Eng 854 in snow * * * and
No 76's train about one mile east of Alta Vista
* * *

New Hampton is 10.9 miles east of Alta Vista. Work Extra 720, consisting of engine 720, departed from McIntire at 11:35 a. m., passed signal 290-6, which displayed stop,

passed the station at Alta Vista at 12:11 p. m., passed signal 290-0, which displayed stop, and while moving at an estimated speed of 15 miles per hour it collided with No. 76 at a point 1,448 feet east of signal 290-0.

The caboose and the sixty-fourth, sixty-third and sixty-second cars of No. 76, and the engine of Work Extra 720 were derailed and damaged.

Two maintenance-of-way employees, who were on the engine of Work Extra 720, and the flagman of No. 76 were killed. Four maintenance-of-way employees, who were on the engine of Work Extra 720, the engineer and the fireman of Work Extra 720, and the conductor and the front brakeman of No. 76 were injured.

It was snowing at the time of the accident, which occurred about 12:12 p. m.

Discussion

About 5:45 a. m. No. 76, an east-bound freight train, stopped on the main track about 3/4 mile east of Alta Vista and, because of drifting snow, this train was unable to proceed. About 5 hours later, arrangements were made for engine 720 and several maintenance-of-way employees to proceed from McIntire, 19.4 miles west of Alta Vista, to the point where No. 76 had stalled. Train-order No. 239 was issued authorizing Work Extra 720 to work between McIntire and New Hampton, 10.9 miles east of Alta Vista, and message instructions were issued for Work Extra 720 and the maintenance-of-way force to assist in moving the equipment of No. 76 to Alta Vista. Work Extra 720 departed from McIntire at 11:35 a. m., passed signals 290-6 and 290-0, which displayed stop, and collided with the rear end of the equipment of No. 76 at a point 1,448 feet east of signal 290-0.

When the collision occurred the conductor, the flagman and the front brakeman of No. 76 were in the caboose. The flagman was killed. The conductor said that flag protection was provided against following trains until about 8 a. m. At that time he communicated by telephone, located in a farmhouse near his caboose, with the operator at Alta Vista, and asked the operator to inform the dispatcher that No. 76 would be 12 hours late on its schedule time at Alta Vista at 10:52 a. m., and included a request that the dispatcher relieve the crew of the duty of furnishing flag protection for their train. The train dispatcher said that, since there was no other east-bound train moving in this territory except Work Extra 720, he authorized the operator to inform the conductor of No. 76 that

it would not be necessary for the crew to provide flag protection for their train. The dispatcher did not inform the crew of Work Extra 720 that flag protection was not being furnished for No. 76, and he thought train order No. 239 and the message instructions, which gave the approximate location of the equipment of No. 76, contained all the information necessary for the movement of Work Extra 720.

Work Extra 720 consisted of the engine only, which was headed east, and the crew consisted of an engineer and a fireman. A foreman and five maintenance-of-way employees were on the engine. The enginemen and the surviving maintenance-of-way employees said that from the time the engine passed Elma, 3.4 miles west of Alta Vista, until the time the accident occurred, visibility was restricted to a distance of only a few feet, because of snow being driven by a strong wind. They did not see the stop indication displayed by signal 290-6, and they did not realize that the engine was in the vicinity of Alta Vista until the engineer saw the mast of signal 290-0 as the engine passed it. The engineer thought this was signal 290-6. The enginemen said that neither the semaphore arm nor the light of this signal was visible. The engineer said that soon afterward he moved the independent brake valve to application position, but this action was not taken soon enough to stop the engine short of the preceding train. The enginemen estimated the speed of their engine as about 15 miles per hour when the collision occurred. The operator at Alta Vista said that the stop indication displayed by signal 290-6, located 1,199 feet west of the station, was visible from the station when he looked in the direction of that signal a few minutes before Work Extra 720 passed the station, and that when Work Extra 720 was approaching the station the engine was visible throughout a distance of about 300 feet. The operator estimated the speed of Work Extra 720 as about 20 miles per hour when the engine passed the station. In tests after the accident signals 290-6 and 290-0 functioned properly.

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 eighteenth day of March, 1947.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.