

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3327
ELGIN, JOLIET & EASTERN RAILWAY COMPANY
IN RE ACCIDENT
AT CAVANAUGH, IND., ON
MAY 9, 1950

SUMMARY

Date: May 9, 1950

Railroad: Elgin, Joliet & Eastern

Location: Cavanaugh, Ind.

Kind of accident: Rear-end collision

Trains involved: Freight : Freight

Train numbers: Extra 102 East : Extra 802 East

Engine numbers: Diesel-electric : Diesel-electric
unit 102 : unit 802

Consists: 99 cars, caboose : 64 cars, caboose

Estimated speeds: 1 m. p. h. : 15 m. p. h.

Operation: Operating rules and automatic
block-signal system

Tracks: Double; 5°03' curve; 0.29 percent
ascending grade eastward

Weather: Clear

Time: 3:10 a. m.

Casualties: 2 injured

Cause: Failure properly to control speed of
following train moving within yard
limits

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3327

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

ELGIN, JOLIET & EASTERN RAILWAY COMPANY

June 30, 1950

Accident at Cavanaugh, Ind., on May 9, 1950, caused by
failure properly to control the speed of the
following train moving within yard limits.

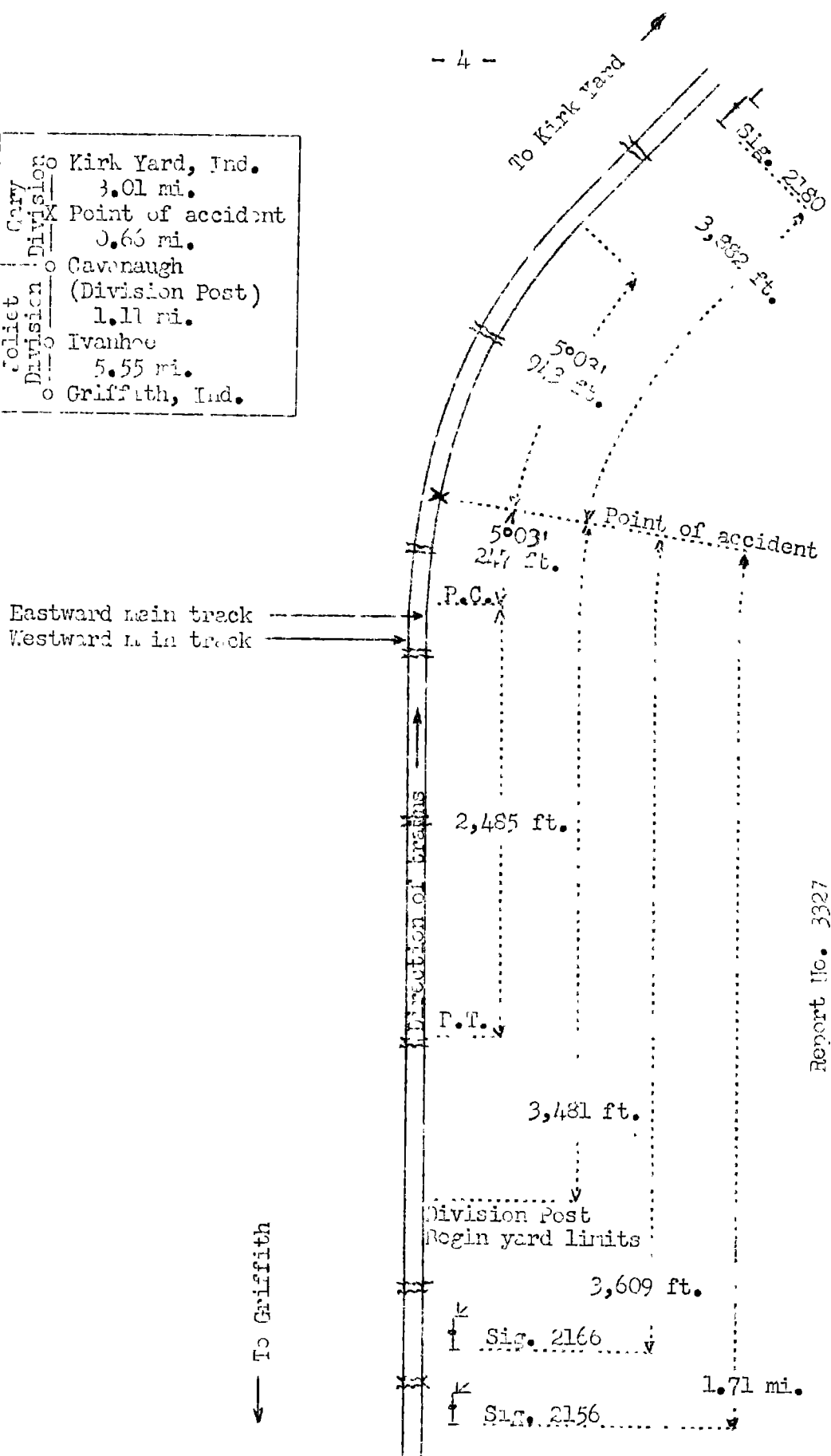
REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On May 9, 1950, there was a rear-end collision
between two freight trains on the Elgin, Joliet & Eastern
Railway at Cavanaugh, Ind., which resulted in the injury
of two employees.

¹
Under authority of section 17 (2) of the Interstate Com-
merce Act the above-entitled proceeding was referred by
the Commission to Commissioner Patterson for consideration
and disposition.

Joliet	Cary	o	Kirk Yard, Ind.
			3.01 mi.
Division	X		Point of accident
			0.66 mi.
Division	o		Cavanaugh
			(Division Post)
Division	o		Ivanhoe
			5.55 mi.
Division	o		Griffith, Ind.



Report No. 3327
 Elgin, Joliet & Eastern Railway
 Cavanaugh, Ind.
 May 9, 1950

Location of Accident and Method of Operation

This accident occurred on that part of the Gary Division extending between Cavanaugh and Kirk Yard, Ind., 3.67 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 operating rules and an automatic block-signal system. Trains operating between Griffith, Ind., 6.66 miles west of Cavanaugh, and Kirk Yard are operated over the Joliet Division between Griffith and Cavanaugh, and over the Gary Division between Cavanaugh and Kirk Yard. A post at Cavanaugh indicates the dividing point between the two divisions. Yard limits extend between the division post at Cavanaugh and Kirk Yard. The accident occurred on the eastward main track at a point 3,481 feet east of the division post at Cavanaugh. From the west there is a tangent 2,485 feet in length, and then a 5°03' curve to the right 247 feet to the point of accident and 943 feet eastward. The grade for east-bound trains is 0.29 percent ascending at the point of accident.

Semi-automatic signal 2156 and automatic signals 2166 and 2180, governing east-bound movements on the eastward track, are located, respectively, 1.71 miles west, 3,600 feet west, and 3,882 feet east of the point of accident. Signal 2156 is of the two-arm semaphore type. Signal 2166 is of the one-arm semaphore type. Each of these signals displays three aspects and is continuously lighted. Signal 2180 is of the one-arm semaphore type and displays two aspects. It is approach lighted. The aspects applicable to this investigation and the corresponding indications and names are as follows:

<u>Signal</u>	<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
2156	Yellow- over- Red	PROCEED PREPARED TO STOP AT NEXT SIGNAL. TRAIN EXCEEDING MEDIUM SPEED MUST AT ONCE REDUCE TO THAT SPEED.	APPROACH.
2166	Yellow	PROCEED PREPARED TO STOP AT NEXT SIGNAL. TRAIN EXCEEDING MEDIUM SPEED MUST AT ONCE REDUCE TO THAT SPEED.	APPROACH.
2166 2180	Red	STOP; THEN PROCEED AT RESTRICTED SPEED.	STOP AND PROCEED.
2180	Green	PROCEED.	CLEAR.

The controlling circuits of signals 2156 and 2166 are so arranged that when the block of signal 2166 is occupied and the lever controlling signal 2156 is in position for the signal to display an aspect to proceed, signal 2156 indicates Approach and signal 2166 indicates Stop and Proceed.

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

DEFINITIONS.

Reduced Speed.--Proceed prepared to stop short of a train, obstruction, or anything that may require the speed of a train or engine to be reduced.

Medium Speed.--A speed not exceeding twenty five miles per hour.

Restricted Speed.--A speed not exceeding that which will enable a train or engine to stop short of a train ahead, obstruction, or switch not properly lined, and to look out for broken rail.

93. Within yard limits the main track may be used, protecting against first class trains.

Second and third class, extra trains and engines must move within yard limits at reduced speed unless the track is seen or known to be clear.

* * *

Timetable special instructions read in part as follows:

1. The Gary Division between * * * Cavanaugh and Kirk Yard is double track and yard limits over which trains and engines may move without train orders, clearance Form A, or time-table schedule.

The maximum authorized speed for freight trains is 45 miles per hour.

Description of Accident

Extra 102 East, an east-bound freight train, consisted of Diesel-electric unit 102, 99 cars and a caboose. This train departed from Griffith at 1:55 a. m., passed Ivanhoe, the last open office, 1.11 miles west of Cavanaugh, at 2:48 a. m., passed signal 2166, which indicated Approach, and stopped at signal 2180, which indicated Stop and Proceed. The rear end

of the train stopped about 3,600 feet east of signal 2166. As the train stopped, the indication of signal 2180 changed from Stop and Proceed to Proceed. The train then proceeded and had just started to move when the rear end was struck by Extra 802 East.

Extra 802 East, an east-bound freight train, consisted of Diesel-electric unit 802, 64 cars and a caboose. This train departed from Griffith at 2:45 a. m., passed signal 2166, which indicated Approach, passed Ivanhoe at 3:08 a. m., passed signal 2166, which indicated Stop and Proceed, and while moving at an estimated speed of 15 miles per hour it struck the rear end of Extra 102 East.

Diesel-electric unit 802 was derailed to the north and stopped on its left side, across the westward main track and at an angle of about 15 degrees to the track. The first car of Extra 802 East was derailed to the south and stopped in an upright position at the foot of the embankment. The caboose of Extra 102 East was derailed to the north and stopped on its side and across the westward main track. The rear car of Extra 102 East was derailed to the south and stopped in an upright position at the foot of the embankment. Diesel-electric unit 802 and both derailed cars were badly damaged, and the caboose was destroyed.

The fireman and the front brakeman of Extra 802 East were injured.

The weather was clear at the time of the accident, which occurred about 3:10 a. m.

Discussion

When Extra 102 East stopped at signal 2180 the engineer, the fireman, and the front brakeman were in the control compartment of the Diesel-electric unit, and the conductor, the swing brakeman, and the flagman were in the caboose. Employees on the Diesel-electric unit said that the indication of signal 2180 changed from Stop and Proceed to Proceed as the train stopped, and the train then proceeded. They were unaware of anything being wrong until the brakes became applied in emergency as a result of the collision. Employees in the caboose said that as the train stopped they heard the pneumatic horn of the following train sounded for a rail-highway grade-crossing located west of signal 2166. The conductor instructed the swing brakeman and the flagman that, if the Diesel-electric unit of their train was unable to start the train on the ascending grade before the following train stopped behind their caboose, they were to arrange for the Diesel-electric unit of the following train to assist in

starting their train. When the swing brakeman and the flagman stepped to the rear platform of the caboose to attend to this duty, they observed that Extra 802 East was moving too fast to stop short of the rear end of their train. They called a warning to the conductor, and alighted from the caboose immediately before the collision occurred.

As Extra 802 East was approaching the point where the accident occurred the enginemen were maintaining a lookout ahead from their respective positions in the control compartment of the Diesel-electric unit, the front brakeman was seated in the brakeman's seat in the control compartment of the Diesel-electric unit, and the conductor, the flagman, and the swing brakeman were in the caboose. The headlight was lighted. The enginemen called the aspect of signal 2156, which indicated Approach, and the aspect of signal 2166, which indicated Stop and Proceed. Under the rules of this carrier the indication of signal 2166 required that Extra 802 East stop short of the signal, and then pass through the block at not exceeding restricted speed. However, the train was not stopped short of the signal before it entered the block. The engineer said that, on his east-bound trip through Cavanaugh, signal 2166 had indicated Stop and Proceed when there was no preceding train in the block, and he had assumed that the signal was out of order. On the day of the accident he observed the indication of the signal, but, because he did not see a preceding train in the block, he assumed that the signal had not been repaired and did not stop his train before it entered the block. He estimated that the speed of his train was about 15 miles per hour as it passed signal 2166 and was slightly increased as it approached the point where the accident occurred. He first observed the marker lights of Extra 102 East at a distance of about 600 feet. He immediately closed the throttle and placed the brake valve in emergency position. He said he thought that the emergency brake application was not as effective as it should be, and he estimated that the speed of the train was about 15 miles per hour at the time of the collision. The fireman said that after calling the aspect of signal 2166 the engineer informed him that he thought the signal was out of order and that he did not like to stop the train at that location because it probably would stall on the ascending grade east of the signal. Because the control compartment of the Diesel-electric unit was at the rear of the unit, the fireman did not observe the marker lights of Extra 102 East until after the brakes had been applied. Employees on the caboose were unaware of anything being wrong until the brakes were applied. They estimated that the speed of the train was between 20 and 25 miles per hour between signal 2166 and the point of accident.

After the accident occurred, the brakes of the Diesel-electric unit and the first car of Extra 802 East could not be tested. The brakes of the remaining cars of the train were tested and functioned properly.

This accident occurred within yard limits. Under the rules of this carrier governing operation of trains within yard limits, Extra 802 East was required to be operated in such a manner that it could be stopped short of a preceding train. The indication of the last signal which this train passed placed a restriction on the movement similar to the requirement of the yard-limit rule.

Cause

It is found that this accident was caused by failure properly to control the speed of the following train moving within yard limits.

Dated at Washington, D. C., this thirtieth day of June, 1950.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. EARTEL,
Secretary.