

Inv-2147

INTERSTATE COMMERCE COMMISSION

WASHINGTON

---

REPORT OF THE DIRECTOR

BUREAU OF SAFETY

---

ACCIDENT ON THE

ERIE RAILROAD

---

DECATUR, IND.

---

FEBRUARY 14, 1937

---

INVESTIGATION NO. 2147

SUMMARY

---

Inv-2147

Railroad: Erie  
Date: February 14, 1937  
Location: Decatur, Ind.  
Kind of accident: Rear-end collision  
Trains involved: Freight : Freight  
Train numbers: Extra 3054 : Extra 3081  
Engine numbers: 3054 ; 3081  
Consist: 94 cars and : 47 cars and  
caboose caboose  
Speed: Standing : 12-20 m. p. h.  
Track: Double-track line - tangent for several  
miles, then 1<sup>o</sup> curve to right followed  
by tangent to point of accident (1,301  
feet) and beyond. Slight descending  
grade for west-bound trains  
Weather: Snowing and blowing  
Time: 10:05 a. m.  
Casualties: 3 killed and 4 injured  
Cause: Failure to observe and obey block-  
signal indications, and failure to  
provide flag protection for Extra 3054

April 2, 1937

To the Commission:

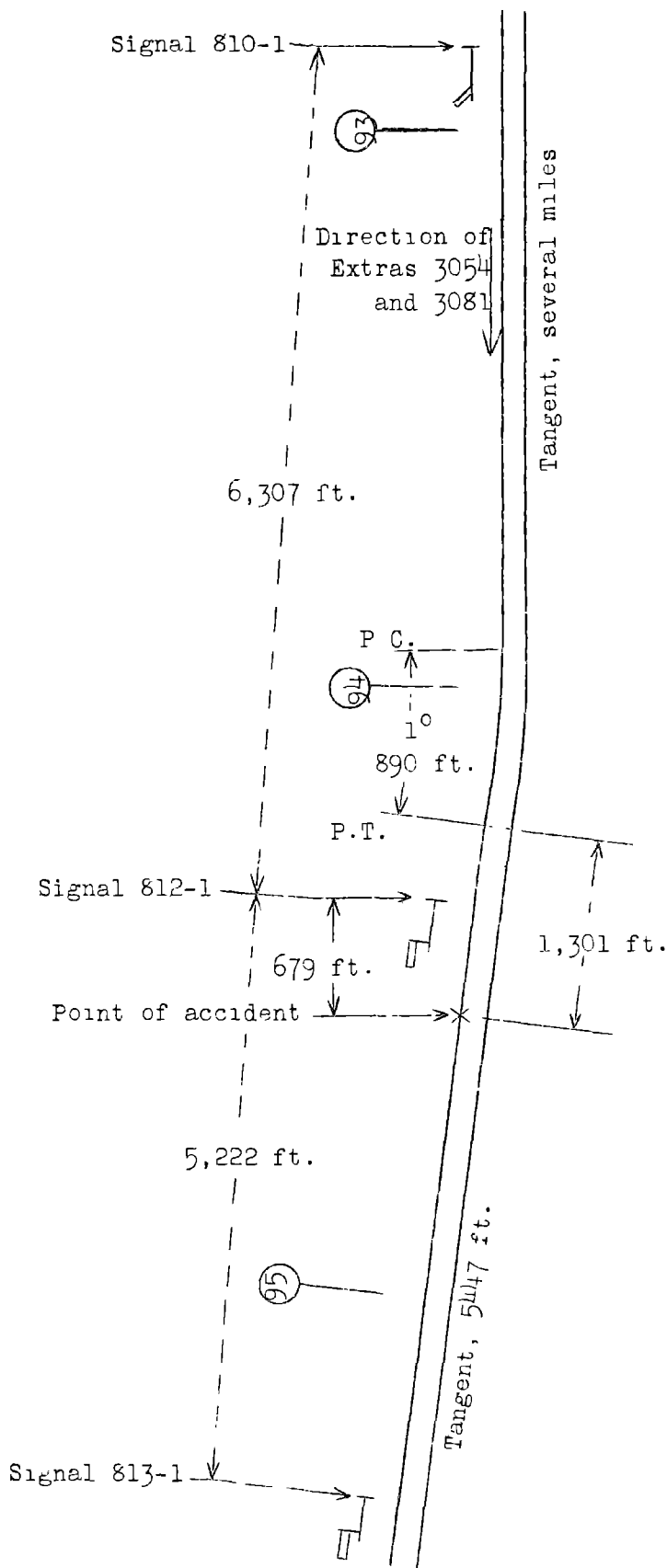
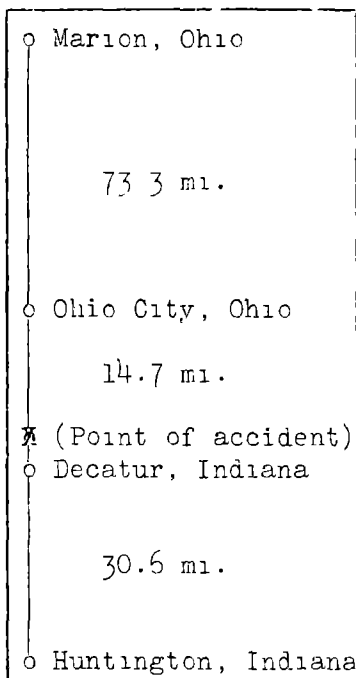
On February 14, 1937, there was a rear-end collision between two freight trains on the Erie Railroad near Decatur, Ind., which resulted in the death of three employees and the injury of four employees. The investigation of this accident was made in conjunction with a representative of the Public Service Commission of Indiana.

#### Location and method of operation

This accident occurred on the First Subdivision of the Marion Division, extending between Marion, Ohio, and Huntington, Ind., a distance of 126.6 miles; in the vicinity of the point of accident this is a double-track line over which trains are operated by timetable, train orders and an automatic block-signal system. The accident occurred on the west-bound main track at a point 8,792 feet east of the station at Decatur, this point being 743 feet east of the east yard limit board for that station. Approaching this point from the east the track is tangent for several miles followed by a  $1^{\circ}$  curve to the right 890 feet long and then a tangent extending 1,301 feet to the point of accident and about a mile beyond. The grade for west-bound trains is slightly descending, ranging from 0.109 to 0.2 percent, and being 0.2 percent at the point of accident. The maximum speed authorized for freight trains is 50 miles per hour.

The signals involved are automatic signals 810-1 and 812-1. These are 3-position, upper quadrant, semaphore signals showing green, yellow or red, for proceed, approach, and stop and proceed, respectively. Signals 810-1 and 812-1 are located 6,986 feet, and 679 feet, respectively, east of the point of accident. To the Engineman of a west-bound train an unobstructed view of signal 812-1 is restricted to 1,581 feet, because of a telegraph line, with poles spaced 125 feet apart, which parallels the tracks at a distance of 40 feet from the center of the west-bound track, but between points 2,681 feet and 1,681 feet east of that signal it is visible through the spaces between the poles. The maximum distance at which this signal can be seen by the fireman of a west-bound train is 1,031 feet.

The weather was cloudy, with intermittent snow storms accompanied by considerable wind, at the time of the accident which occurred at 10:05 a. m.



Inv. No. 2147  
Erie Railroad  
Decatur, Ind.  
Feb. 14, 1937

### Description

Extra 3054, a west-bound freight train, consisted of 94 cars and a caboose hauled by engine 3054, and was in charge of Conductor Karnes and Engineman Belding. This train departed from Marion, Ohio, at 2:30 a. m., passed Extra 3081 West at Ohio City, 79.3 miles west of Marion and the last open telegraph station, at 8:58 a. m., according to the train sheet, stopped for signal 813-1, and while standing with its caboose 679 feet west of signal 812-1 and 743 feet outside of yard limits, it was struck by Extra 3081.

Extra 3081, a west-bound freight train, consisted of 84 cars and a caboose, hauled by engine 3081, and was in charge of Conductor Strauss and Engineman Patterson. This train departed from Marion, Ohio, at 9:25 p. m., February 13, left Ohio City with 47 cars and a caboose at 9:32 a. m., February 14, according to the train sheet, 34 minutes behind Extra 3054, passed signal 810-1 displaying an approach indication, passed signal 812-1 displaying a stop indication and collided with the rear of Extra 3054 while running at a speed estimated to have been between 25 and 30 miles per hour.

Engine 3081 was derailed to the right and stopped approximately 100 feet west of the point of collision, upright, but at an angle of almost 90° with the track, its head end pointing down the side of a fill; the 15 cars next to the engine remained on the track and were only slightly damaged. The 16th to 22nd cars inclusive were derailed, and were considerably damaged, the 17th, 20th and 21st cars being destroyed. The 22nd and 23rd cars and the caboose of Extra 3054 were demolished and the debris lay across the main tracks and on top of engine 3081; the 24th car was thrown to the south clear of both main tracks.

The employees killed were the conductor and flagman of Extra 3054 and the fireman of Extra 3081; the employees injured were the engineman, conductor, flagman, and head brakeman of Extra 3081.

### Summary of evidence

Engineman Patterson of Extra 3081 stated that he had had plenty of rest before being called at Marion. Before leaving there the train brakes were tested, and en route the brakes gave no trouble. At Ohio City his train took siding to do work and to permit Extra 3054 to pass. After leaving Ohio City he had in mind that he might overtake Extra 3054 and was keeping a sharp lookout. During the trip from Marion to the point of

accident there had been snow flurries which at times had rendered it difficult to see signals, but nothing of the kind interfered with his view of signal 810-1, and he noted that it was at "caution" when he was still a considerable distance from it, and called the indication to other members of the crew on the engine but could not remember whether his call was answered. Just after noting the indication of signal 810-1 he closed the throttle and put on the injector but had some difficulty in starting it so that his attention was diverted from the track for a little time, and when he looked ahead again he saw the red indication of signal 812-1, and also the caboose of Extra 3054 a short distance away. He put the brake valve in emergency position but the distance to the caboose was too short to permit of stopping and engine 3081 struck it while moving at a speed of from 10 to 20 miles per hour. Approaching the rear end of Extra 3054 he did not observe any fusees nor hear any torpedoes explode, nor was anyone visible in or about the caboose of that train. His usual practice with respect to calling signal indications is to call only those which are not clear.

Flagman Forster, of Extra 3081, stated that at Ohio City their train did some work and was passed by Extra 3054. From Ohio City to a point west of signal 810-1 he rode on the deck of their engine behind the boiler head and was unable to see signal indications. After passing signal 810-1 he moved to the seat box on the left side as the fireman found it necessary to do some work on the deck. Shortly after moving to the seat box he looked out of the window and saw a caboose about 13 or 20 car lengths away; he called a warning to those in the cab and at that time Engineman Patterson closed the throttle and made an emergency application of the brakes. They were then a short distance west of signal 812-1 and were running about 30 miles per hour. Approaching the point of collision they did not explode any torpedoes, nor were any fusees visible, neither were they flagged. After the collision he discovered the bodies of Conductor Karnes and Flagman Nevius in the wreckage. No signal indications were called by either Engineman Patterson or Fireman McConkey between Ohio City and the point of collision but Flagman Forster did not consider that unusual as he has noticed that neither of these two men call clear indications, so he assumed that all signals were clear. Engineman Patterson was at all times in proper position and seemed alert as their train approached signal 810-1; Fireman McConkey was on the left seat box most of the time and seemed to be watching signal indications. Just before moving to the left seat box Flagman Forster had spoken to both Engineman Patterson and Fireman McConkey and they seemed to be in normal condition.

Head Brakeman Leatherman, of Extra 3081, stated that after leaving Ohio City he was standing beside the engineman but in such position that it was impossible for him to see the signal indications. His statement agreed with that of Flagman Forster with respect to the calling of signal indications by members of the engine crew, torpedoes and fusees, the absence of a flagman in the vicinity of the point of collision and the position and condition of the engine crew.

Conductor Strauss, of Extra 3081, stated that he was in the caboose between Ohio City and the point of collision. The first indication of trouble was when approaching Decatur at 10:05 a. m., running at a speed of 25 to 30 miles per hour he felt a heavy application of the brakes followed by a severe shock which threw him to the floor. He went to the head end, checking the brakes en route, and noting that the brakes on all cars which remained upright were applied; he asked Engineman Patterson what had happened, and in reply the engineman stated that he had run a yellow signal. Conductor Strauss stated that he had frequently ridden in the cab with Engineman Patterson and Fireman McConkey and had noticed that these two men made a practice of calling all signal indications. He said that at the time of the accident it was snowing and there was a high wind. He had spoken to Engineman Patterson at Ohio City and considered him in normal condition.

Engineman Belding, of Extra 3054, stated that as they approached Decatur signal 810-1 was in caution position and signal 812-1 was in stop and proceed position; he complied with these indications and later stopped at signal 813-1 and whistled out a flag. The engine was cut off and moved to the water tank and after re-coupling to the train, and pumping up the air, he gave two blasts of the whistle and immediately started to pull out, but had moved only about one engine length when the brakes were applied in emergency. He did not recall the flagman when preparing to leave because it was snowing and visibility was restricted to about 20 car lengths, and he thought it would be safer not to call the flagman in, and permit those on the rear end to exercise their own judgment.

The statements of Fireman Byrd and Head Brakeman Burkhead, of Extra 3054, agreed with that of Engineman Belding.

Signal Maintainer Fenimore stated that on February 10, he gave signals 810-1 and 812-1 the regular weekly test and inspection and at that time both of these signals performed properly with no adjustments. When he arrived at the scene of the accident shortly after 11:00 a. m. on the date of the accident both signals 810-1 and 812-1 were in "stop and proceed"

position, and after the tracks were cleared and the bonding restored these signals resumed normal operation.

Road Foreman of Engines Morrett stated that he assisted in removing the body of Conductor Karnes from the demolished caboose. At 1:00 p. m. on the day of the accident he inspected engine 5081 and found the throttle closed, the double heading cock open, the brake valve in emergency position and the reverse lever at about 50 percent cutoff. He then made an inspection of the brakes of Extra 3081 and found both angle cocks between the tender and head car open as were also the angle cocks and the branch-pipe cutout cocks on all cars in the train except the seven that had buckled; the brakes were still applied on all but fourteen cars, exclusive of those that had buckled out of the train, and the cars on which the brakes were applied included the rear cars in the train. On February 18, in company with other officials he made observations to determine the visibility of signal 812-1; with weather conditions similar to those that existed at the time of the collision it was noted that to an engineman on a west-bound train this signal is visible for 1,000 feet between points 2,681 and 1,681 feet east of the signal, and then after disappearing for 100 feet due to interference by the pole line to the north of the tracks, there was an unobstructed view for 1,581 feet. By leaning out of the cab window on the left side the fireman of a west-bound train can see signal 812-1 for 1,051 feet, but through the clear vision window on the left side of the cab the view is restricted to 911 feet. He stated that at intervals of not more than two years enginemen and trainmen are required to attend classes at which there is a general discussion of the operating rules. In addition, these employees are required to answer 75 questions of which at least 50 percent pertain to rules of the operating department. Each month the road foreman of engines and the trainmaster make efficiency tests to observe the manner in which enginemen and trainmen obey signal indications and comply with the flagging and other rules, and in addition these officials ride with the different crews to note the manner of compliance with signal rules, flagging rules and the rule regarding communication of signal indications.

Trainmaster Mulligan corroborated the statement of Road Foreman of Engines Morrett with respect to supervision, rules examination and instruction.

Engineman Patterson's service record shows that he is more than 73 years of age and has been in service as engineman and fireman for nearly 47 years. He was subjected to a physical examination on January 27, 1937, was examined on the book of rules February 29, 1936, and was subjected to a test



on signal observance on July 6, 1936, and to an efficiency test by the road foreman of engines on September 27, 1936.

#### Discussion

The evidence indicates that the rear end of Extra 3054 was standing at the time of collision and was several hundred feet outside of the east yard limit board at Decatur, yet no protection of any kind was afforded by the crew of that train although the engineman had whistled out a flag and had not given any recalling signal other than two blasts of the whistle just before the collision occurred.

Under the rules the approach indication of a signal is:

"Prepare to stop at the next signal. Train exceeding medium speed must at once reduce to that speed."

Medium speed is defined as:

"One half the maximum authorized speed at the point involved, but not to exceed 50 miles per hour unless otherwise provided."

The maximum authorized speed for freight trains is 50 miles per hour.

According to the statement of Engineman Patterson of Extra 3081, he called the approach indication of signal 810-1, and closed the throttle at that time. The speed at that time was estimated at between 25 and 30 miles per hour which was very little, if any, in excess of the limits set in the definition of "medium speed", and in the circumstances closing of the throttle might be considered as compliance with the signal indication. Neither Flagman Forster nor Head Brakeman Leatherman heard either Engineman Patterson or Fireman McConkey call the indication of signal 810-1, or, in fact, of any signal between Ohio City and the point of collision, and Flagman Forster stated that when he gave warning of the proximity of the caboose of Extra 3054 Engineman Patterson closed the throttle and set the brakes in emergency.

Engineman Patterson stated that immediately after noting the indication of signal 810-1 he started to put on the injector and his attention was diverted from his other duties for a time; when he again directed his attention to the track ahead he was so close to signal 812-1, which was displaying a stop indication, and to the rear end of Extra 3054, that it was impossible

to stop in time to avoid the accident. From this statement it appears that for a space of three minutes or more, notwithstanding the approach indication of signal 810-1, he paid no attention to the condition of the track ahead.

Tests indicate that Fireman McConkey would be unable to see signal 812-1 or the rear end of Extra 3054 until his train was approximately 1,000 feet from the signal; the evidence shows that when that point was reached Fireman McConkey was on the deck of the engine. It is evident that no proper lookout of the track ahead was being exercised by those on engine 3081.

#### Conclusions

This accident was caused by failure to provide flag protection and by failure properly to observe and obey block-signal indications.

Respectfully submitted,

W. J. PATTERSON,

Director.