

INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT OF THE DIRECTOR

BUREAU OF SAFETY

ACCIDENT ON THE

INDIANA RAILROAD

EAST GERMANTOWN, IND.

NOVEMBER 12, 1936

INVESTIGATION NO. 2114

SUMMARY

Railroad: Indiana Railroad
Date: November 12, 1936
Location: East Germantown, Ind.
Kind of accident: Head-end collision
Trains involved: Passenger : Passenger
Train numbers: 612 : 603
Consist: Motor Car 434 : Motor Car 440
Speed: Standing : 12-20 m.p.h.
Track: Tangent; long descending grade westward
Weather: Clear; frosty
Time: 7:05 a.m.
Casualties: 1 killed; 9 injured
Cause: Failure to approach meeting point under proper control

December 28, 1936

To the Commission:

On November 12, 1936, there was a head-end collision between two passenger trains on the Indiana Railroad near East Germantown, Ind., which resulted in the death of 1 employee, and the injury of 8 passengers and 1 employee. This accident was investigated in conjunction with the Public Service Commission of Indiana.

Location and method of operation

This accident occurred on the Indianapolis-Richmond-Dayton Division, extending between Indianapolis, Ind., and Dayton, Ohio, a distance of 124.3 miles; in the vicinity of the point of accident this is a single-track electric line over which trains are operated by timetable and train orders, no block-signal system being in use. The accident occurred on the main track at a point 229 feet west of the east switch of the passing siding at East Germantown. Approaching the point of accident from the east the track is tangent for several miles; the grade for west-bound trains is descending for almost 1 mile, varying from 0.06 to 3.54 percent and extending to within 350 feet of the point of accident, then it ascends slightly, being 0.036 percent ascending at the point of accident.

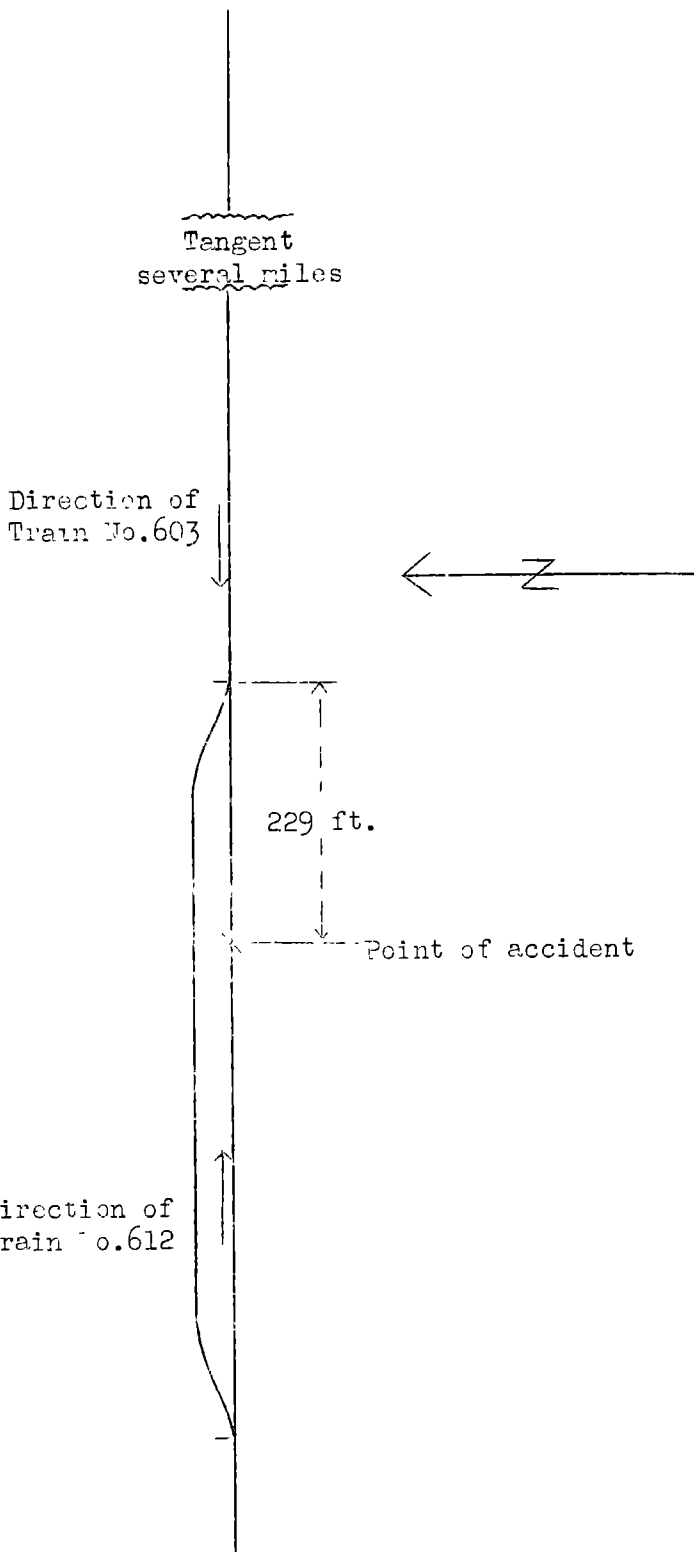
The passing siding involved is 717 feet in length and parallels the main track on the north; it was unoccupied at the time of the accident. The view of the point of accident is unrestricted.

The weather was clear at the time of the accident, which occurred about 7:05 a.m.

Description

Train No. 612, an east-bound passenger train, consisted of motor car 454, of all-steel construction, and was in charge of Motorman-Conductor Grandison. This train departed from Newcastle, Ind., 27 miles west of East Germantown, at 6:15 a.m., according to the train sheet, on time. At Cambridge City, 2.2 miles west of East Germantown, the motorman-conductor received copy of train order 204, establishing a meeting point at East Germantown with Train No. 603, car 440. The train then proceeded to East Germantown and stopped on the main track near the east switch of the passing siding, where it was standing when struck by Train No. 603.

o Dayton, Ohio
29.6 mi.
o Hope, Ohio
4.6 mi.
o New Westville, Ohio
5.3 mi.
o Richmond, Indiana
1.1 mi.
o Ohio, Indiana
4.7 mi.
o Centerville, Indiana
7.1 mi.
X East Germantown (Point of accident)
2.2 mi.
o Cambridge City
69.7 mi.
o Indianapolis, Ind.



Inv. No. 2114
 Indiana Railroad
 East Germantown, Indiana
 Nov. 12, 1936

Train No. 603, a west-bound passenger train, consisted of motor car 440, of all-steel construction, and was in charge of Motorman-Conductor Ramey. At Ohio, 11.3 miles east of East Germantown, the motorman-conductor received a copy of train order 204, previously referred to. Train No. 603 departed from Ohio at 6:47 a.m., according to the train sheet, 10 minutes late, but on arrival at East Germantown it failed to take siding at the east switch as required by timetable rule, but continued westward on the main track and collided with Train No. 612 while traveling at a speed estimated to have been between 12 and 20 miles per hour.

Motor car 434, of Train No. 612, was driven backward a distance of approximately 60 feet, but both cars remained upright on the track, separated from each other with their forward ends badly damaged. The employee killed was the motorman-conductor of Train No. 612, and the employee injured was the motorman-conductor of Train No. 603.

Summary of evidence

Motorman-Conductor Ramey, of Train No. 603, stated that he had been off duty 15 hours 15 minutes prior to going on duty at 5:25 a.m., November 12, and that he had received proper rest and felt normal both physically and mentally. He reported for duty at Richmond shop, Ohio, Ind., and operated an east-bound car from Ohio to Hope, a distance of 11 miles; he was furnished with a pilot on that trip because he was not broken in on this portion of the road since it had been taken over from the Dayton & Western Traction Company on July 1, 1936. At Hope he changed off with another motorman-conductor and took charge of Train No. 603, car 440, west-bound. Before changing to that car he noticed sand running out of the sand pipe of car 440 and he remarked to the pilot that it looked as though the sanders were working all right; the motorman-conductor with whom he changed did not make any mention of the car not operating properly. Motorman-Conductor Ramey was familiar with this type of motor car; he said that he departed west-bound from Hope siding at about 6:17 a.m., 7 minutes late, and that upon approaching New Westville, 4.6 miles west of Hope, he made a running test of the air brakes and they worked properly, and while proceeding through the streets of Richmond, 5.3 miles west of New Westville, he made a number of stops for traffic and also stopped at Richmond station and the brakes worked properly. At Richmond shop he looked in the sand box of car 440 to make sure it contained sand. On arrival at Ohio, 1.1 miles west of Richmond, he reported to the dispatcher and received train order 204 directing his train to meet Train No. 612, car 434, at East Germantown; he fully understood the contents of the order and knew that his car was required to take

the siding. He said that he worked extra and had no regular run, but he was thoroughly familiar with the rules, was qualified to operate the car over the track involved and knew about the long descending grade approaching East Germantown siding. His train departed from Ohio about 10 minutes late, made a stop at Centerville, 4.7 miles west of Ohio and stopped again, on an ascending grade at Stop 12, about $1\frac{1}{2}$ or 2 miles west of Centerville, and he had no trouble in making these stops. It was a very frosty morning and the rail was slippery. He tipped over the hill at a speed of about 50 miles per hour and on reaching a point about 3,500 feet east of the meeting point he saw the burning headlight of Train No. 612. When about 3,000 feet from the meeting point, Motorman-Conductor Jackson, who was deadheading on the train, came to the front end of the car and offered to assist by opening the east switch of the passing track. That employee remarked about the slippery condition of the rail to which Motorman-Conductor Ramey agreed, adding that the dispatcher had figured out a good meet, this being the extent of the conversation, and nothing transpired to distract his attention from his duties. When about 2,500 feet from the siding he shut off the power as a matter of extra precaution in view of the condition of the rail, this location being about 1,100 to 1,300 feet east of the point where the power is normally shut off, for the purpose of entering the siding. He said the speed of the car began to reduce about 2,200 or 2,500 feet from the siding and he applied the air brakes when about 2,000 feet away, but the wheels locked and slid. He then released the air brakes, fully opened the sanders and opened the controller a point or two in order to loosen the brake shoes from the wheels; he repeated this operation about 4 or 5 times prior to the accident but the wheels continued to slide and the speed was not properly reduced. When about 1,000 feet from the siding he realized that a collision was imminent, and when about 500 or 600 feet distant he began to sound an alarm by giving several short blasts of the whistle. He also motioned to the motorman-conductor of the opposing car, who was sitting on the seat, in an endeavor to have him back his car away but instead it seemed as though the other car started moving forward. His own car passed the east switch, with the wheels sliding, at a speed of about 20 or 22 miles per hour, following which Motorman-Conductor Ramey ran back into his car just before it struck the other car while traveling at a speed of about 20 miles per hour. Motorman-Conductor Ramey did not know whether the brakes were applied on the other car at the time of the accident or whether it was standing or moving, but it appeared to him to be moving forward; neither did he know whether the sand was running on his own car and properly sanding the rails and after the accident he did not look at the rails to see whether the sand had flowed properly. The fact that the

wheels were sliding, indicated that a sufficient amount of sand was not remaining on the rails, otherwise he thought that he could have stopped without difficulty before reaching the switch. He did not reverse the power as it would not have decreased the speed and would have opened his light switch; he also said that the power was not off the line at any time prior to the accident.

Motorman-Conductor Jackson, who was deadheading on Train No. 603, gave testimony similar to that of Motorman-Conductor Ramey as to what transpired, and he estimated the speed to have been from 12 to 18 miles per hour at the time of the collision. Motorman-Conductor Jackson was of the opinion that Train No. 603 could have stopped without trouble before reaching the east switch of the siding, provided the wheels had not become locked; he thought that there may have been some wet leaves on the rails, which had a tendency to cause sliding of the wheels, and he said that Motorman-Conductor Ramey did everything that could have been done to stop the car before reaching the switch, and that the accident was caused by reason of frost or possibly some leaves on the rails which caused the wheels to slide and lowered the retarding effect of the brakes.

Shop Foreman West arrived at the scene of the accident about 40 minutes after its occurrence. The cars were separated a distance of about 100 or 125 feet. He found burned spots on the rails commencing at a point about 2,200 feet east of the siding; these marks existed on the rails for a distance of about 150 feet at 3 or 4 different locations, indicating that the brakes had been applied and released 3 or 4 times and that the wheels had been sliding where the burned spots appeared; the last wheel burns extended for a distance of about 250 feet. There was sand at all of these places, but he could not say whether the sand came from the sanders of the car involved or from a preceding freight train. It was a frosty morning and the rail was wet and slippery but he did not notice any leaves on the rail. Inspection of the cars after they were moved to Richmond shop indicated that the air brake equipment was in proper condition; the sand box was about half full of sand and the indications were that the sand had been running as it had formed into a funnel-shape leading toward the outlet at the bottom of the box, whereas if it had not been running, the motion of the car would have leveled the sand in the box.

Maintenance of Way Superintendent Walker arrived at the scene of the accident about 2 $\frac{1}{2}$ hours after its occurrence; he walked eastward along the track for about $\frac{1}{2}$ mile, but did not see any leaves or weeds on the rails that might cause wheels to slide; however, the rails were very frosty. There was also

evidence that the track had been sanded, the sand starting about 300 feet east of where the accident occurred and extending up the hill for a distance of probably 1,100 or 1,200 feet, and there was also evidence of slicing wheels on that portion of track.

Assistant Superintendent of Equipment Burton also arrived at the scene of the accident about $2\frac{1}{4}$ hours after its occurrence; he examined the cars, but owing to their damaged condition he could not tell whether the sanders had been working, although there was an ample supply of sand in the boxes. After plugging the damaged train line the air brakes worked properly. The west-bound car had not been reversed, but the east-bound car had been, indicating that Motorman-Conductor Grandison endeavored to back away when he realized that the west-bound car was not going to stop before reaching the east switch of the siding. Under normal operating conditions cars of the type involved can be stopped from a speed of 40 miles per hour, within a distance of 600 to 700 feet and from a speed of 60 miles per hour can be stopped within a distance of from 1,000 to 1,200 feet. All brakes are adjusted and minor inspections are made on every car entering or leaving Indianapolis, and cars are given shop inspection every 1,500 miles. Car 434 was thoroughly inspected on November 6, 1936, and car 440 on November 7, 1936, at Terre Haute shop, and the shop inspection cards showed that both cars were in good mechanical condition at that time. The cars are equipped with what is known as "dead-man control".

Trainmaster Lentz stated that there are no general speed restrictions in effect on this line, except at dangerous points, curves, approaching meeting points, and certain other locations, the operation of the cars being left to the judgment of each motorman-conductor, who is thoroughly instructed in his duties and qualified in the operation of the car before being placed in charge.

Motorman-Conductor Ramey is 42 years of age and has been in the employ of this company since October 11, 1934, having had 6 or 7 years previous experience on interurban lines. His record is good and he has not been involved in any previous trouble.

Discussion

Motorman-Conductor Ramey had received proper rest before going on duty and felt normal physically and mentally. He was familiar with the operation of the interurban car, made a running test of the air brakes and they worked properly en route

prior to the accident and there was an ample supply of sand in the sand box. At Ohio, 11.8 miles east of East Germantown, he received train order 204 directing his train to meet Train No. 612 at East Germantown. He fully understood the requirements of this order and knew that his train was required to take the siding; according to his own statement he was fully aware of the slippery condition of the rail and was also familiar with the descending grade approaching the meeting point, yet he began the descent at a speed of about 50 miles per hour and continued to use power on the descending grade for a distance of approximately 2,300 feet and until his train was within about 2,500 feet of the meeting point. Although he turned the power off at a point considerably in advance of the location at which he would have done so under normal conditions, this proved to be an inadequate distance as the wheels became locked and began to slide; he then released the brakes, fully opened the sanders and applied the power one or more points on the controller for the purpose of releasing the brake shoes from the wheels. He repeated this operation several times but the wheels became locked each time and continued to slide and the car proceeded by the east switch of the siding and collided with the opposing train on the main track. Had Motorman-Conductor Ramey operated his train with the caution required by the existing conditions, the accident would have been avoided.

Conclusion

This accident was caused by failure of the Motorman-Conductor of Train No. 603 to approach a meeting point under proper control in view of existing conditions.

Respectfully submitted,

W. J. PATTERSON,
Director.