

BUREAU OF SAFETY

REPORT 1964

Railroad: Pennsylvania
Date: February 5, 1955
Location: Edgewood, Md.
Kind of accident: Rear-end collision
Trains involved: Passenger and freight
Casualties: 32 passengers and 18 employees
injured.
Cause: Failure of engineer to obey
signal indications.

1964

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN
ACCIDENT ON THE PENNSYLVANIA RAILROAD NEAR EDGEWOOD, MD.,
ON FEBRUARY 5, 1935.

March 19, 1935.

To the Commission:

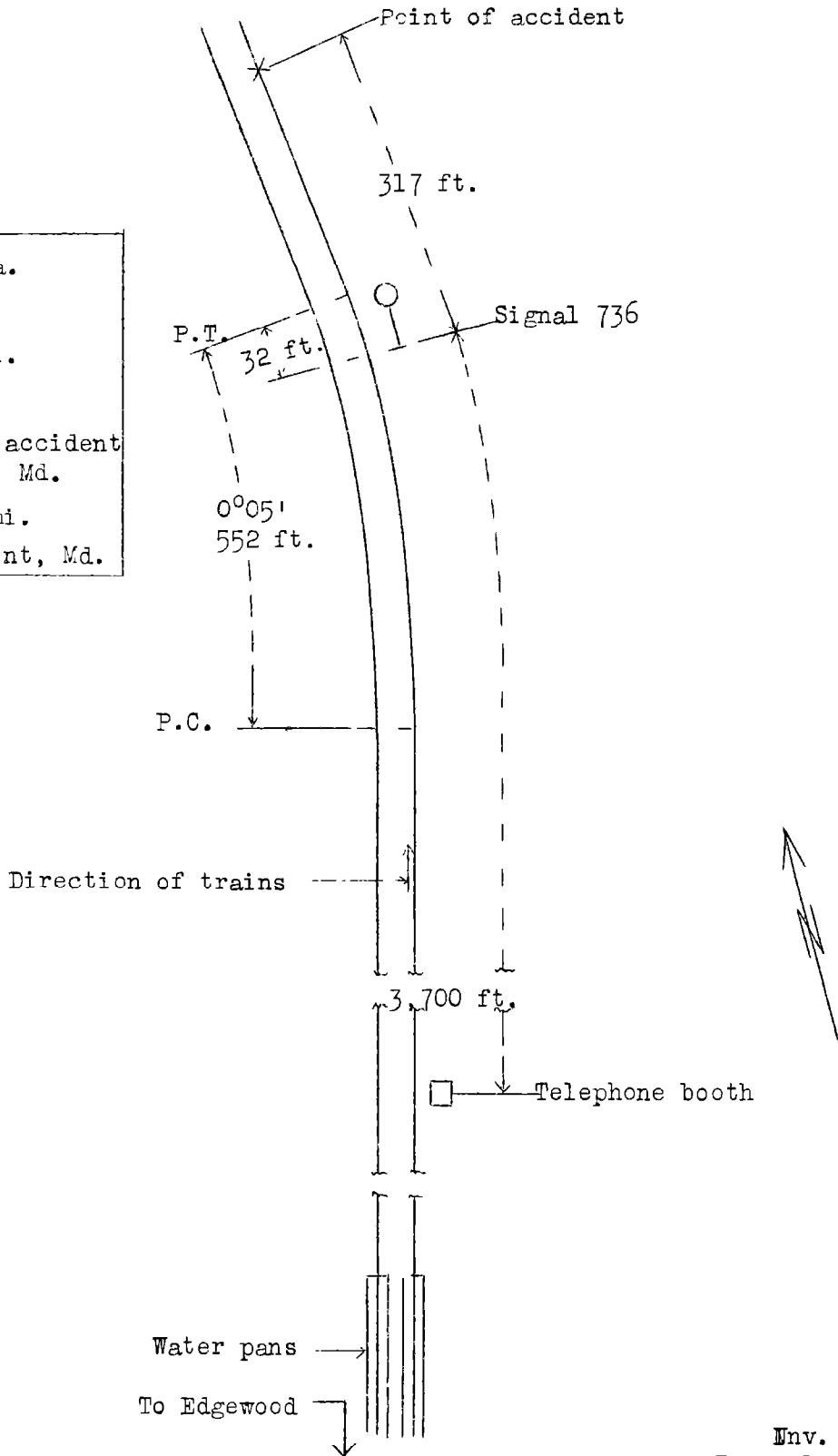
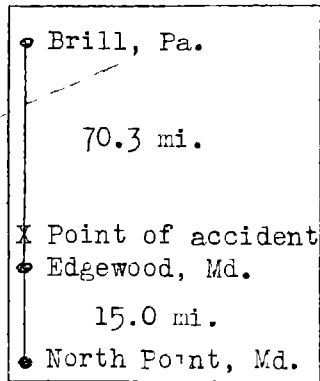
On February 5, 1935, there was a rear-end collision between a passenger train and a freight train on the Pennsylvania Railroad near Edgewood, Md., which resulted in the injury of 32 passengers, 2 railroad employees, 6 Pullman employees, and 10 dining-car employees.

Location and method of operation

This accident occurred on that part of the Maryland Division extending between North Point, near Baltimore, Md., and Brill, near Philadelphia, Pa., a distance of 85.3 miles; in the vicinity of the point of accident this is a double-track line over which trains are operated by time table, train orders, and an automatic block and cab-signal system. The accident occurred 317 feet north of automatic signal 736; approaching this point from the south, the track is tangent for a distance of about 4 miles and then is a 0°05' curve to the left 552 feet in length, followed by about $2\frac{1}{4}$ miles of tangent, the accident occurring on this latter tangent at a point about 285 feet north of its southern end. The grade is level at the point of accident.

The signals are of the position-light type, those involved being dwarf signal 15-E and automatic signal 736, which is mounted on a mast and displays three indications, namely, clear, approach, and stop-and-proceed. Dwarf signal 15-E governs movements from Arsenal siding at Edgewood interlocking plant, and is located 9,377 feet south of signal 736. The cab-signal system is of the position-light type and displays four indications, namely, clear, approach-restricting, approach and caution-slow-speed.

Under the rules, when an approach cab-signal indication is displayed the engineman is required to approach the next signal prepared to stop and a train exceeding one-half its maximum authorized speed at the point involved must at once reduce to not exceeding that speed; when a wayside signal displays a stop-and-proceed indication a train must stop and is then permitted to proceed at once, not exceeding 15 miles per hour, expecting



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to find a train in the block or the track otherwise obstructed.

The maximum speed limit for freight trains in this vicinity is 50 miles per hour.

It was snowing at the time of the accident, which occurred about 11:57 a.m.

Description

Train No. 136, a north-bound passenger train, consisted of 1 express car, 1 combination car, 1 coach, 3 Pullman sleeping cars, 1 dining car, 2 Pullman sleeping cars, 1 Pullman lounge car, and 3 Pullman sleeping cars, in the order named, and all of steel construction, hauled by engine 887 and was in charge of Conductor Shockley and Engineman Stoope. This train passed Edgewood at 11:51 a.m., 12 minutes late, and on reaching a point about 1.32 miles beyond that point it stopped on account of the steam pressure being low. Work of cleaning out the front-end of the engine was then started and was about completed, after the train had been standing about 5 minutes, when the rear end was struck by Train MD-114.

Train MD-114, a north-bound local freight train, consisted of six cars and a caboose, hauled by engine 391, and was in charge of Conductor Veasey and Engineman Ruckle. This train stood on Arsenal siding at Edgewood until Train No. 136 passed and then pulled out behind that train at 11:54 a.m., passing dwarf signal 15-E, which was displaying a caution-slow-speed indication, with the same indication also being displayed by the cab signal. After entering upon the main track the cab-signal indication changed to approach and the train proceeded, passed the flagman of Train No. 136 and also signal 733 displaying a stop indication, and collided with Train No. 136 while traveling at a low rate of speed.

The rear end of the last car in Train No. 136 was raised several inches and the entire train moved forward about 2 feet; it had been standing with only the independent engine brake applied; all of the cars in Train No. 136 sustained more or less damage. The front end of engine 391 was damaged and one pair of driving wheels derailed, while several of the freight cars were damaged. The railroad employees injured were the conductor and brakeman of Train MD-114.

Summary of evidence

Engineman Stoope, of Train No. 136, stated that it was not

customary to whistle out a flag and that he did not do so. The work of cleaning out the front end netting had about been completed when the collision occurred. It was snowing, but he had experienced no difficulty in observing signal indications and estimated that he saw the indication displayed by signal 736 from a distance of about 20 passenger car lengths. Fireman Harris, a qualified engineman, corroborated the statements of Engineman Stoope. Engineman Ayer, on special duty, also was on the engine and he estimated that he saw the indication displayed by signal 736 at a distance of about 3,500 feet.

Conductor Shockley, who was in the rear car, said the flagman got off by the time the train stopped and then the conductor started forward through the cars to ascertain why the stop had been made, the collision occurring before he reached the engine. After the accident he immediately went back to the rear of the train and at that time he saw his flagman returning, the flagman then being about one car length south of signal 736.

Flagman Knotts stated that he was on the ground as soon as the stop was made and immediately started back with torpedoes, fusees and flags, going to a point just south of signal 736, and he saw that the signal was displaying a stop indication. When he first saw the following train approaching it seemed as though it came out of a fog; he started giving stop signals, on the engineman's side, and began to walk back slowly, when he realized that his signals were not being acknowledged and that the train was not stopping, he ran toward it and lighted a fusee but his signals were not answered. The engine was working steam when it passed him, at a point about four or five car lengths south of signal 736, and he shouted to the engineman, who was sitting on the seat box with the window open; the engineman turned around and looked at him and then applied the brakes. Flagman Knotts estimated the speed to have been between 40 and 50 miles per hour at that time and said that he did not have an opportunity to put down torpedoes.

Engineman Ruckle, of Train MD-114, stated that the air brakes had been tested and worked properly, as did also the cab-signal system. On departing from Arsenal siding a caution-slow-speed indication was displayed by dwarf signal 15-E and also by the cab signal; after entering upon the main track the cab-signal indication changed to approach which permitted him to operate his train at not more than one-half the maximum authorized speed for freight trains, or 25 miles per hour, prepared to stop at signal 736; however, he assumed that Train No. 136 would be gone by the time his own train reached the signal and expected to find it displaying a clear indication. Approaching the water pans he increased speed to about 30 miles per hour, in order to scoop water, and when his engine reached the north

end of the water pans, 4,487 feet from signal 736, he closed the throttle and looked back to see whether water was overflowing from the tank. He then looked ahead again but he said it was snowing hard and it was not until he had reached a point about 14 or 15 car lengths south of signal 736, at which time the speed still was about 30 miles per hour, that he first saw the indication of the signal, with the flagman in the immediate vicinity of the signal running toward him with a flag, and also saw the rear end of the passenger train. He immediately applied the brakes in emergency, opened the sanders, reversed the engine and opened the throttle, before reaching the flagman, but the wheels locked and slid on the wet rail; had it not been for the wet rail he said he would have been able to stop. Engineman Ruckle did not answer the flagman's signals as he was busy trying to stop; he did not see a fusee, although he did hear the flagman shout as the engine passed him; he knew, however, that as an approach indication was displayed on the cab signal, he was required to stop at signal 736 even if he had not been flagged.

Fireman Smith, of Train MD-114, operated the scoop when taking water, at which time the speed was between 30 and 35 miles per hour. On reaching the north end of the water pan he raised the air-operated scoop and then worked on the fire, and the first he knew of anything wrong was when the engineman applied the brakes in emergency, at which time the speed was about 30 miles per hour and the engine about 8 or 10 car lengths south of signal 736; he then saw the signal and the flagman, but did not see a fusee. Fireman Smith said that the engineman was working steam and did not shut off until just before the emergency application was made, and that the engine was about four or five car lengths from the signal when it was reversed by the engineman; the wheels under the engine were sliding after the brakes were applied. Both the engineman and the fireman thought the snowfall became heavier after leaving Edgerwood.

Conductor Veasey, Brakeman Baker and Flagman Stephenson were in the caboose; the conductor estimated the speed to have been about 40 miles per hour immediately prior to the time the emergency application was made, while the brakeman and the flagman estimated it to have been about 25 or 30 miles per hour. After the accident the flagman went back to a point opposite a telephone booth located about 3,700 feet south of signal 736, and while he said that it was snowing hard and that vision was poor, he also said that he could see signal 736 from that point; his train, however, appeared only as a dark object. Flagman Stephenson and Brakeman Baker further stated that they saw the flagman of Train No. 136 in the immediate vicinity of signal 736 just after the accident and that he had a red flag; however, they did not see a fusee.

Discussion

Engineman Ruckle was thoroughly familiar with conditions in this territory and fully understood that he was running under an approach cab-signal indication which required him to operate his train at not to exceed one-half its maximum authorized speed, or 25 miles per hour, and to approach the next signal prepared to stop. According to his own statement, however, he assumed that the passenger train would keep moving instead of stopping, and was expecting to find signal 736 displaying a clear indication although the cab signal continued to display an approach indication. When he saw signal 736 at stop it was only 14 or 15 car lengths distant and it was too late to stop his train, due in his opinion to a wet rail and the wheels locking. Other evidence indicated that a reasonably good view could have been had for some distance, and Engineman Ruckle's flagman could see the signal indication from a telephone located about 3,700 feet distant.

Under the rules the flagman was required to go back immediately a sufficient distance to insure full protection, placing two torpedoes, and when necessary, in addition, displaying lighted fusees; when day signals can not be seen plainly owing to weather or other conditions, night signals also must be used. Train No. 136 had been standing about 5 minutes but the flagman went back only to signal 736, starting toward Train MD-114 when he saw it approaching. To insure protection as contemplated by the rule he should have gone back considerably farther than he actually did in this case, particularly in view of the unexpected stop between stations and the weather conditions which existed.

Conclusions

This accident was caused primarily by the failure of Engineman Ruckle, of Train MD-114, properly to obey signal indications. Flagman Knotts, of Train No. 136, did not go back as far as he could have gone in the time available.

Respectfully submitted,

W. J. PATTERSON,

Director.