

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN ACCIDENT WHICH OCCURRED ON THE CHESAPEAKE AND OHIO RAILWAY AT RICHMOND, VA., ON JUNE 30, 1932.

August 5, 1932.

TO THE COMMISSION:

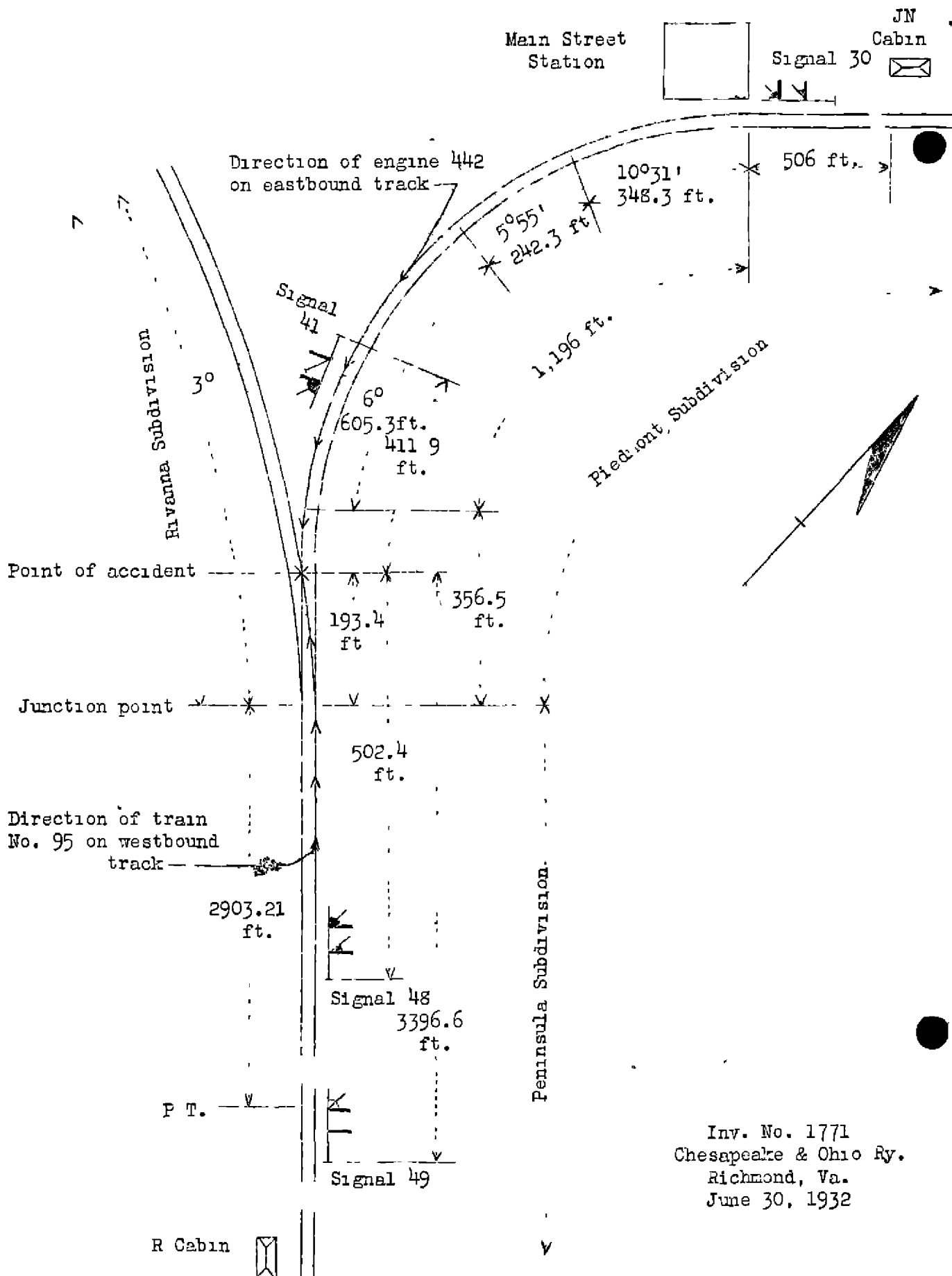
On June 30, 1932, there was a head-end collision between a freight train and a light engine on the Chesapeake and Ohio Railway at Richmond, Va., which resulted in the death of one employee and the injury of two employees.

Location and method of operation

This accident occurred within interlocking limits at Rivanna Junction, which is the junction of three subdivisions of the Richmond Division. In the immediate vicinity of the point of accident these subdivisions are double-track lines, and the movements of trains and engines are governed by interlocking signals. Main Street Station is on the Piedmont Subdivision about 1,500 feet from the junction point; JN Cabin is about 506 feet north of the station, and R Cabin, the interlocking tower and telegraph office at the west end of Fulton yard, is on the Peninsula Subdivision 1.7 miles east of Main Street Station. Approaching the point of accident from the station, there is a sharp curve to the left and this is followed by tangent track for a distance of 356.5 feet to the junction point. Approaching from the east on the Peninsula Subdivision the track is tangent for a distance of 2,903.21 feet, followed by a 3° curve to the left on the Rivanna Subdivision. The accident occurred at the movable point crossing where the westbound track of the Rivanna Subdivision crosses the eastbound track of the Piedmont Subdivision, 193.4 feet west of the junction point. The tracks in this vicinity are laid on a steel viaduct approximately 31 feet above the ground level. The grade is practically level.

The switches and signals are controlled from an electric interlocking machine at JN Cabin. The eastbound signals involved on the Piedmont Subdivision are signal 30, located just north of the station, and signal 41, located 411.9 feet west of the point of accident; on the Peninsula Subdivision, westbound signals 49 and 48, located 3,396.6 and 502.4 feet, respectively, east of the point of accident. Signals 41 and 48 are of the color-light type.

The weather was clear at the time of accident, which occurred about 9.40 p.m.



Inv. No. 1771
 Chesapeake & Ohio Ry.
 Richmond, Va.
 June 30, 1932

Description

Westbound passenger train No. 43, hauled by engine 442, arrived at Main Street Station at 9.30 p.m. The engine was detached and moved by Hostler Purvis to the eastbound main track of the Piedmont Subdivision, then was backed up on that track en route to Fulton yard and collided with train No. 95 at Rivanna Junction while traveling at a speed estimated to have been between 6 and 10 miles per hour.

Westbound third-class freight train No. 95 consisted of ~~113~~ cars and a caboose, hauled by engine 1253, and was in charge of Conductor Jenks and Engineman Parker. This train departed from R Cabin, Fulton Yard, at 9.30 p.m., on time, en route to Gladstone on the Rivanna Subdivision, and collided with engine 442 while traveling at an estimated speed of 10 or 12 miles per hour.

Engine 1253, after the collision, which occurred 12 feet east of the frog, was diverted from its normal route and continued westward on the eastbound track of the Piedmont subdivision for a distance of approximately 125 feet; the engine truck, the tender, and the front truck of the first car were derailed. Engine 442 was driven westward for a short distance, and its tender was derailed and badly damaged. The employee killed was the hostler of engine 442, and those injured were the conductor and flagman of train No. 95.

Summary of evidence

Engineman Parker, of train No. 95, stated that as he approached signals 49 and 48 he called "yellow signal" each time to the fireman and head brakeman, who acknowledged these indications. Signal 48 displayed red over yellow, or a restricting signal, meaning to proceed prepared to stop short of train, obstruction or anything that might require the speed of a train to be reduced, and he said his vision was not obscured in any way and he could see signal 48 for a distance of 125 car-lengths. He had made it a rule in crossing at Rivanna Junction, in order to keep from having a rigid wheel base, to ease his engine over the frogs and he had his mind on the throttle, and when he looked up again he saw a blurred object ahead of him and the fireman told him to "hold it", and he said he was placing the brake valve in the emergency position when the collision occurred. The headlight on his engine was burning and his train was traveling at a speed of between 10 and 12 miles per hour at the time of the accident. He did not see a cab light or rear light of any kind on engine 442 and thought that that engine must have been moving, with the throttle open, because after the first impact, which knocked the light engine away, it struck his own engine a second time.

Fireman Melton, of train No. 95, stated that after their engine had passed signal 48 he saw engine 442 approaching on the

Piedmont track, possibly three car-lengths distant and about 50 feet from the crossing, traveling at a speed of about 6 miles per hour, and at once notified Engineman Parker. He did not see a light on engine 442, but after the accident he found the cab light burning.

Head Brakeman Cavenough, who was riding on engine 1253, stated that after the accident he went to the cab of engine 442 and closed the throttle and applied the independent brake.

James Richardson, colored supply man at Fulton roundhouse, stated that he boarded engine 442 at Main Street Station, intending to ride to work at Fulton yard. Hostler Purvis spoke to him at the time, and he noticed nothing unusual in the hostler's appearance. The hostler moved the engine westward beyond JN Cabin and when the engine stopped the brake functioned properly; the hostler then started the engine eastward. Richardson was riding on the fireman's seatbox, or on the outside of the curve and Hostler Purvis on the engineman's seatbox facing the front end of the engine but looking back occasionally toward the direction in which the engine was traveling. The engine was traveling at a speed of about 10 miles per hour and when about an engine-length from signal 41, Richardson called "red light" to which the hostler replied "look out for yourself". The hostler then left his seatbox, went over to the fireman's side and looked out, and returned to his own side of the cab and either closed or opened the throttle. Richardson stated that after he had given warning to the hostler there was sufficient time in which to have stopped the engine, and that he saw the headlight of train No. 95 before the collision occurred. He did not have any understanding with the hostler about calling signals, and only called the stop indication because the hostler was disregarding it.

Operator Ward, on duty at JN Cabin at the time of the accident, stated that at 9.30 p.m. the operator at R. Cabin reported train No. 95 as leaving there westbound; he immediately lined the switches for that train to move via the westbound main track to the Rivanna subdivision, displaying a yellow under red indication at signal 48 and this line-up remained unchanged until after the accident. Train No. 43 had arrived on time and engine 442 had been detached and was moving on the eastbound main track at 9.34 p.m., receiving a yellow over red indication at eastbound signal 30, which meant to prepare to stop at the next signal. Signal 41 was displaying a stop indication, the only indication it could have displayed with the line-up as given to train No. 95, and the first thing Operator Ward knew of anything wrong was when the operator at R Cabin asked if he were holding train No. 95; he then observed by his track circuit that engine 442 had passed signal 41. Operator Ward further stated when engine 442 pulled by the tower before starting back eastward he did not observe whether or not there was a light on the rear of the engine.

Terminal Trainmaster Smith arrived at the scene of the accident about 25 minutes after its occurrence and his inspection of the track revealed that engine 442 had run through the movable frog points, allowing the engine of train No. 95 to follow them when the accident occurred.

Dr. Herring, of Grace Hospital, stated that when Hostler Purvis was admitted to the hospital about 10.45 p.m. he was in a profound state of shock and after the doctor had used the usual stimulation for such conditions the hostler reacted and was apparently thoroughly conscious, and stated that a negro was riding on the engine from Main Street to Fulton and rather than watch the signals personally he depended on the negro to call their indications for him and for some reason the wrong signal was given.

Superintendent of Telegraph and Signals Taylor, Division Engineer White and Supervisor of Signals Johnson arrived at the scene of the accident about one hour after its occurrence. The position of the levers at JN Cabin controlling the signals and switches at Rivanna Junction, indicated that the route had been lined up for a movement from the westbound main track of the Peninsula Subdivision to the westbound track of the Rivanna Subdivision. After checking the position of the levers in the machine, an inspection was made of the movable point crossing and switch machine which operates this crossing. The switch machine was found to be in the reverse position and locked, which corresponded to the position of the controlling lever in JN Cabin. The west points of the movable point crossing showed signs of having been trailed through, the north point standing away from the knuckle rail approximately $1\frac{1}{2}$ inches, and it was also observed that the switch rods had been badly bent. A thorough inspection and test was made of all the signal apparatus used in the control of the switches and signals, and everything was found to be in proper condition. A test also showed that signal 41 could have been seen by the hostler a distance of 716.5 feet, but at a point 178 feet west of the signal he would have lost sight of it on account of the tender cutting off his view. The signal comes in clear view from the fireman's side at a distance of 157.5 feet, this view being unobstructed from that point to the signal.

The engineman's report covering the condition of engine 442 upon its arrival at Main Street Station showed it to be in first-class condition; all brake equipment was in first-class condition when this engine was turned over to the hostler, and the throttle worked perfectly after the accident.

Conclusions

This accident was caused by the failure of Hostler Purvis, of light engine 442, properly to observe and obey signal indications.

The investigation developed that the route was lined properly for a movement of train No. 95, but that engine 442 passed signal 41, which was displaying a stop indication, ran through the movable point crossing, and then collided with train No. 95. A complete statement could not be obtained from Hostler Purvis before he died, but it is apparent that he was not maintaining a proper lookout for signal indications, possibly depending upon Richardson, the colored supply man who was riding with him and who had a very restricted view of the signal. It also seems probable that when warned of the stop indication of the signal, Hostler Purvis became confused, as he failed to make an application of the brakes and the throttle was found open after the occurrence of the accident, 411 feet beyond the signal location.

All of the employees involved were experienced men and at the time of the accident none of them had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. Borland,

Director.