Inv-2177

INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT OF THE DIRECTOR

BUREAU OF SAFETY

ACCIDENT ON THE

SEABOARD AIR LINE RAILWAY

YOUNGVILLE, N. C.

June 2, 1937

INVESTIGATION NO. 2177

SUMMARY

Inv-2177

Railroad:	Seaboard Air Line	
Date:	June 2, 1937	
Location:	Youngville, N. C.	
Kind of accident:	Side collision	
Trains involved:	Freight	Passenger
Train numbers:	88	1
Engine numbers:	2501	252
Consist:	93 cars and caboose	9 cars
Speed:	Standing	40-45 m.p.h.
Track:	Short tangent;	0.70 percent ascending grade
Weather:	Clear	
Time:	1:51 a.m.	
Casualties:	3 injured	
Cause:	Freight train fouled main track switch directly in front of approaching superior train.	

To the Commission:

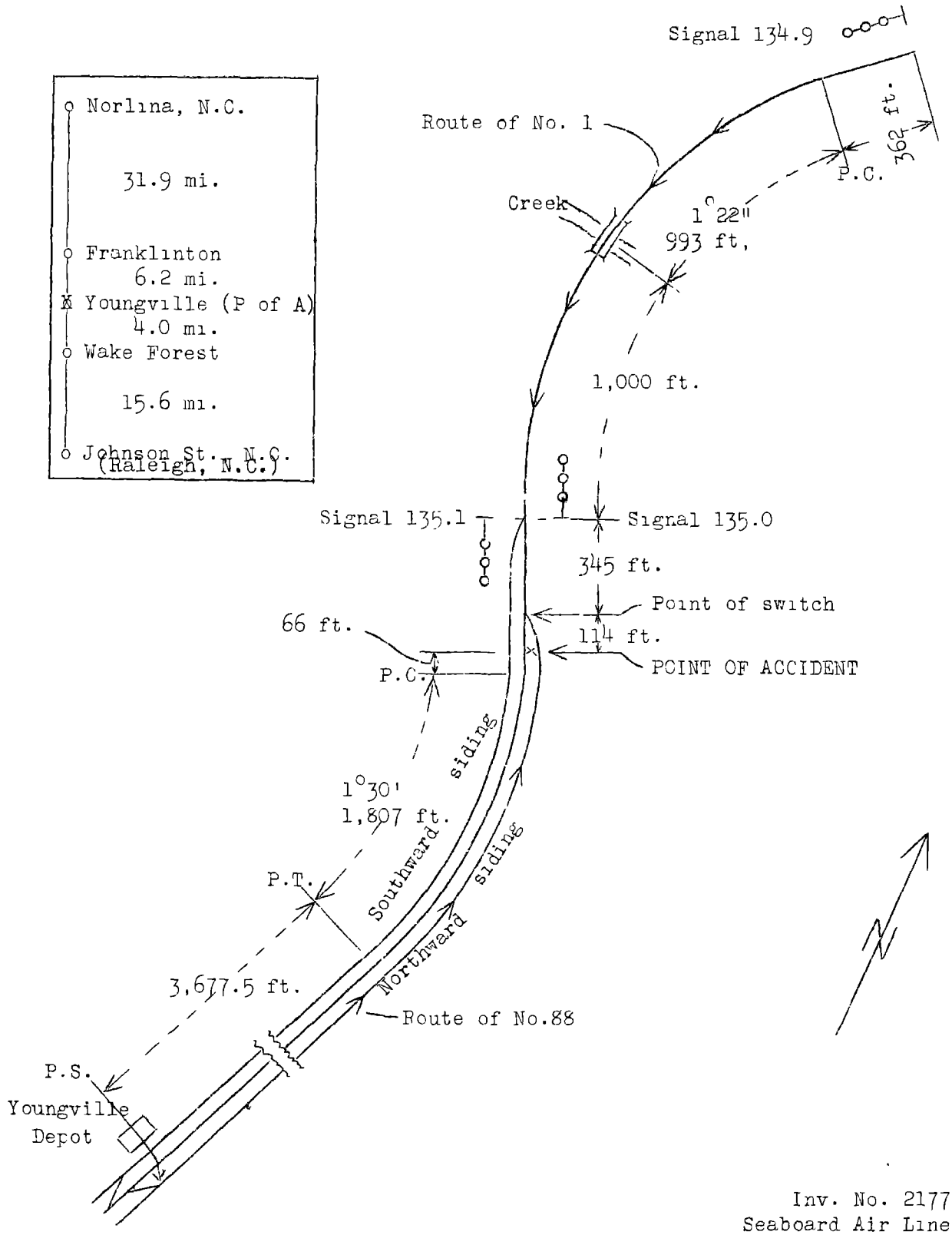
On June 2, 1937, there was a side collision between a freight train and a passenger train on the Seaboard Air Line Railway at Youngville, N. C., which resulted in the injury of two employees and one person carried under contract.

Location and method of operation

This accident occurred on the Norlina Sub-division of the Virginia Division, which extends between Norlina and Johnson Street, N. C., a distance of 57.7 miles, and is a single-track line over which trains are operated by timetable, train orders and an automatic block-signal system, however, at the time of the accident the automatic signals were out of service between Youngville and Franklinton, a distance of 6 miles, and trains were being operated under manual block rules between these points.

At Youngville there are northward and southward sidings; the northward siding is 5,665 feet long and parallels the main track on the east and the accident occurred at the fouling point of the north switch of this siding. Approaching this point from the north there is a tangent 2,750 feet long, followed by a 1° 22' curve to the left 1,993 feet in length, and then a tangent 496 feet long, the accident occurring on this latter tangent at a point 180 feet from its southern end and 114 feet south of the north switch of the northward passing siding. Approaching from the south, on the northward siding, the track is tangent from the south switch for a distance of 3,677 feet, followed by a 1° 30' curve to the left, extending 1,807 feet to the No. 10 turnout of the north switch. Commencing at a point 350 feet north of the north switch and extending southward for a distance of 800 feet, the tracks are laid in a cut having an average depth of about 10 feet. The grade on the siding is 0.70 percent descending north-bound for 2,000 feet preceding the point of accident; the grade on the main track is 0.90 percent ascending south-bound for a distance of approximately 1,500 feet preceding the point of accident. The automatic signals, which ordinarily would govern south-bound trains approaching the point of accident, are located 345 feet and 2,700 feet, respectively, north of the north switch, and a small stream called Brandy Creek flows under the tracks at a point 1,316 feet north of the north switch.

The north switch is equipped with a spring frog and operated by a Weir-type switch stand, located on head-block ties



Inv. No. 2177
Seaboard Air Line Ry.,
Youngville, N.C.
June 2, 1937

6 feet 10 inches from the gauge side of the east rail; the stand is equipped with a double target 6 feet 6 inches above the head-blocks and when set for the main track, displays a white, arrow-shaped target 2 feet 8 inches long by 9 inches wide; when set for the siding two circular discs are displayed. Switch lamps are not used on main line switches when located near automatic signals and although the automatic signals at this point were out of service, no switch lamp had been provided.

The weather was clear at the time of the accident, which occurred at 1:51 a.m.

Description

Train No. 88, a north-bound second-class freight train, consisted of 93 cars and a caboose, hauled by engine 2501, and was in charge of Conductor Hunter and Engineman Brickhouse. This train departed from Wake Forest, 4 miles south of Youngville, at 1:23 a.m., according to statements of the crew, and left the north switch at Wake Forest, 3 miles south of Youngville, at 1:33 a.m., according to the train sheet, and proceeded to the south switch of the northward siding at Youngville where it headed in to clear for No. 1. After moving slowly through the siding the train stopped with the front end of the locomotive beyond the clearance point of the north switch, where it was struck by Train No. 1.

Train No. 1, a south-bound passenger train, consisted of one deadhead Pullman sleeping car, one deadhead coach, four baggage cars, one combination coach and baggage car, one coach and one Pullman sleeping car, of all-steel construction except the second car, which was steel underframe with a wooden body, and the eighth car which was all wood, hauled by engine 252, and was in charge of Conductor Cutchin and Engineman Shepard. This train departed from Franklinton, 6.2 miles north of Youngville, at 1:43 a.m., according to the train sheet, 12 minutes late, and collided with Train No. 88 at the north switch of the northward siding at Youngville while traveling at a speed estimated to have been between 40 and 45 miles per hour.

Engine 252 and the first two cars of Train No. 1 were derailed; both the engine and tender were badly damaged and stopped on their right sides forming an obtuse angle across the main track and the southward siding, with the front end of the engine lying on the main track about 180 feet south of the point of collision. The first car was badly damaged and the second car slightly damaged; both remained upright at an angle across the main track and southward siding. All the wheels except the rear pair of drivers and the trailer truck of engine

2501 of Train No. 88 were derailed, as were also those of the rear tender-truck and both trucks of the head car.

The employees injured were the engineman and fireman of Train No. 1.

Summary of evidence

Engineman Brickhouse, of Train No. 88, stated that an air brake test was made before leaving Johnson St., and all brakes were reported operative. His train left Wake Forest at 1:23 a.m., and arrived at Youngville at 1:37 a.m., but due to difficulty in releasing the train brakes after stopping to enter the siding at Youngville, the clearance time on Train No. 1 was short. The train proceeded slowly through the siding and he permitted it to roll towards the north end, even after he was sure the rear end was in to clear. Approaching the north end he asked the fireman the distance to the clearance point and understood the reply to be about 10 car lengths; with this distance in mind he intended to stop with the independent brake, but after traveling 3 or 4 additional car lengths the fireman called to him that the engine was fouling the main track and he immediately stopped the train with an emergency application of the automatic brakes. Engineman Brickhouse then gave the brakeman a lighted fusee and told him to run as fast as he could to stop No. 1. He did not attempt to back his train because the brakes had been applied in emergency and it would have taken some time to release them and, in addition, this would have made it necessary to take the slack in the train and would have placed his engine farther out on the main track. He instructed his fireman to cut the engine off as he intended to back in on the southward siding or run around his train and head in behind it after No. 1 had been stopped. There was not time, however, to move the engine thereafter and he left it when he saw the collision was inevitable. There was no unusual noise on the engine that would have interfered with his hearing any warnings given by the fireman and brakeman concerning the fouling point. The headlight was burning brightly but due to being on the outside of the curve he could not see the switch and as he had no mark by which to gauge the clearance point he was depending upon the fireman, who appeared to be alert, to give him the necessary information. He knew that the fireman's experience had been mostly in yard service although he had made some road trips. Engineman Brickhouse could not estimate the length of time that elapsed between the time his engine fouled the main track and the time of the collision, but he was of the opinion that had the automatic signals been in operation, Train No. 1 would have received a

caution indication at the distant signal and could have been stopped before reaching the point of collision; also that markers designating the clearance points in sidings would help to prevent accidents of this kind.

Fireman Devine, of Train No. 88, could not recall any of the events concerning the arrival of his train at the entrance to the south end of the siding, but stated that the train drifted through the siding at a speed of 7 or 8 miles per hour and when the engineman asked him how far it was to the north switch, he replied that he could not see it. Although the headlight was burning brightly he was unable to locate the switch until he was within 5 or 6 car lengths from the clearance point, and at that time he notified the engineman. The train continued to move slowly, the engineman using the independent brake to control it, and when they had reached a point about 3 car lengths from the clearance point, he warned the engineman that they were far enough; however, no effort was made to stop the train until they were almost at the clearance point and he called a third warning to the engineman who responded by making an emergency application of the train brakes. Fireman Devine did not know whether Brakeman Eubanks had said anything to Engineman Brickhouse concerning the location of the train. Brakeman Eubanks did not leave the engine until it stopped, and, running northward with a lighted fusee, he had reached the switch when last seen by Fireman Devine, who was preparing to uncouple the engine from the train in accordance with instructions given by Engineman Brickhouse. He could not state the exact time the accident occurred, nor tell how much time elapsed between the time the train stopped and the time the collision occurred, but he estimated it at from 1 to 1½ minutes.

Brakeman Eubanks, of Train No. 88, who was on the engine when approaching the north end of the siding, corroborated the fireman's statements regarding his conversation with the engineman when approaching the clearance point and stated that he also had given the engineman similar information. As soon as the train stopped he lighted a fusee and ran as fast as he could to flag No. 1; he had reached a point about 24 car lengths north of the switch when the train came into view but his stop signal was not acknowledged until the train was almost upon him. The reflection from the firebox of Train No. 1's engine indicated that the fireman was working on the fire and since the engineman was on the outside of the curve, Brakeman Eubanks thought that his stop signals were not seen promptly.

The brakes on No. 1 were set and the train was reducing speed as it passed him and he estimated the speed to have been between 50 and 55 miles per hour when the collision occurred.

Conductor Hunter, of Train No. 88, stated that he had conversed with Engineman Brickhouse after the accident, and that the engineman informed him that he had been judging his location upon erroneous information from the fireman that the engine was about 10 car lengths from the clearance point, and had not made the stop in time to remain into clear.

Engineman Shepard and Fireman Evans, of Train No. 1, made statements to the effect that their train was proceeding at a speed between 55 and 60 miles per hour when the fireman, who had just returned to his seat-box from the deck of the engine, called a warning to the engineman; the brakes were applied in emergency and the speed had been reduced to about 40 or 45 miles per hour at the time of the accident. The headlights of both engines were burning. Engineman Shepard estimated that the brakeman of Train No. 88 was from 12 to 14 car lengths north of the point of accident at the time the fireman called the warning, and Fireman Evans located the brakeman of Train No. 88 at a point 3 feet north of the automatic signal near the north switch at that time.

The statements of Baggage Master Rogerson and Flagman Pullock, of Train No. 1, were to the effect that No. 88's brakeman was at a point 15 to 25 car lengths north of the automatic signals near the north switch when No. 1 was flagged. Flagman Pullock stated that immediately after tne accident he went back to flag and found Brakeman Eubanks of Train No. 88 sitting on the rail at Brandy Creek.

Porter Lassiter of Train No. 1 stated that they passed the brakeman at the creek.

Division Superintendent Terrell stated that on the morning of May 29, the wings of a Jordan spreader, which was being hauled in a north-bound freight train, came open and knocked down all the automatic block signals between Wake Forest and Franklinton; signal masts, relays, etc., were demolished, and it was necessary to procure new material before repairs could be made. At the time of the accident the signals had been restored between Wake Forest and the south end of Youngville, and a manual block system was in effect between Youngville and Franklinton, a distance of six miles. Operator Walker at Youngville stated that the rear end of No. 88 was into clear before No. 1 left Franklinton.

Observations made by inspectors of the Commission disclosed that from the fireman's side of the cab of a north-bound train occupying the siding, the north switch could be seen for a distance of about 900 feet, but could not be seen from the engineman's side until the engine had reached the turnout. The view of the point of accident was restricted to about 1,200 feet from the fireman's side and 500 feet from the engineman's side of a train approaching from the North. A bend in the west rail of the turnout, 37 feet from the point of the frog, appeared to indicate where the engine truck of engine 2501 had stood when the engines collided; this bend was 20 feet north of the actual fouling point and 75 feet north of the insulated joints.

Discussion

The evidence disclosed that Train No. 88 entered the northward siding at Youngville to clear for Train No. 1 and was not stopped until the front end of the engine had fouled the main track at the north end, at which time an emergency application of the train brakes was made. The engineman's view of the clearance point was restricted by track curvature and the length of the Mallet engine which he was operating. The engineman inquired of the fireman regarding their location; there is some discrepancy as to what information he received, the fireman stating that he told the engineman that they were within 5 or 6 car lengths of the clearance point, while the engineman claims that the fireman said 10 car lengths; the fireman also stated that he gave a second warning when about 3 car lengths distant but the engineman denied hearing this warning. The fireman's statements were corroborated by Brakeman Eubanks, who claimed to have given the engineman similar information.

The engineman was depending on the fireman for proper information although he knew he had but limited road experience. After Train No. 88 had stopped and it was evident that a back-up movement would be impossible, due to the time required to release the train brakes, a flagman was sent out to flag Train No. 1 and the flagman had reached a point 1,000 feet in advance of his engine when the approaching train came into view. Due to the fact that the engineman of that train was on the outside of the curve and the fireman was working on the fire, the flagman's signals were not immediately seen, but on account of the limited view it is probable that the accident could not have been averted even if the fireman had been in position to observe the stop signals as soon as they became visible. Had the automatic block-signals been in service, the accident undoubtedly would not have occurred.

Conclusion

This accident was caused by a freight train fouling the clearance point of a main-track switch directly in front of an approaching superior train.

Recommendation

It is recommended that the clearance point of main track switches not equipped with switch lights be distinctly marked.

Respectfully submitted,

W. J. PATTERSON,

Director.