

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN
ACCIDENT ON THE ATLANTIC COAST LINE RAILROAD AT
BENNETTSVILLE, S.C., ON DECEMBER 2, 1933.

January 31, 1934.

To the Commission:

On December 2, 1933, there was a derailment of a passenger train on the Atlantic Coast Line Railroad at Bennettsville, S.C., which resulted in the death of 2 employees, and the injury of 2 passengers, 1 employee off duty, and 3 persons carried under contract.

Location and method of operation

This accident occurred on the Bennettsville Branch of the Columbia District of the First Division, which extends between Parkton, N.C., and Sumter, S.C., a distance of 108.7 miles. In the vicinity of the point of accident this is a single-track line over which trains are operated by time table and train orders, no form of block-signal system being in use. Approximately 1 mile north of the station at Bennettsville there is a wye which connects the Gibson and Bennettsville branches, and the accident occurred on the north leg of the wye at a point 74 feet from the point of the north wye switch. Approaching from the north on the Bennettsville Branch the track is tangent for more than 5 miles. The north leg of the wye has a curvature of 14° . At the point of accident the grade for south-bound trains is 0.22 percent descending.

The north wye switch leads off the main track to the right or west through a no. 8 turnout. It is equipped with a no. 17 Ramapo stand, located on the west side of the track; this stand is 5 feet 8 inches in height, and displays a green disc 2 feet in diameter when set for the main track and a red arrow 2 feet in length and 18 inches in width when the switch is open or set for the wye. The switch stand had been painted about 10 days prior to the date of the accident. No switch lamps are used.

The track is laid with 70-pound rails, 30 feet in length, with an average of 17 ties to the rail length, single-spiked, fully tieplated, and ballasted with cinders and gravel to a depth of 3 inches; the track is well maintained. Beginning at a point about 40 feet north of the north wye switch and continuing around the wye, the track is laid with 85-pound rails, 33 feet in length, with an average of 20 ties to the rail length, double-spiked and fully tieplated; tie rods also are used. In the vicinity of the point of accident the maximum speed for passenger trains is 50 miles per hour.



Direction of train

North wye switch

74 ft.

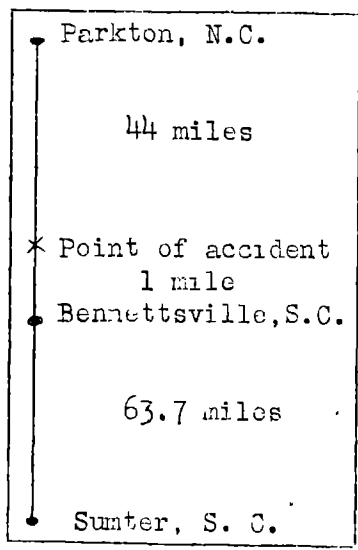
Point of accident

14° curve

Gibson Branch

Bennettsville Branch

1 mile



Station



Inv. No. 1871
 Atlantic Coast Line
 Bennettsville, S. C.
 December 2, 1933.

It was dark at the time of the accident, which occurred at 6:05 p.m.

Description

South-bound passenger train no. 55 consisted of 1 express car, 1 mail and baggage car, and 2 coaches, in the order named, hauled by engine 246, and was in charge of Conductor Morgan and Engineman Baldwin. The cars were of all-steel construction with the exception of the express car, which was of steel-underframe construction. This train departed from McColl, 8.7 miles north of Bennettsville, at 5:54 p.m., 1 minute late, stopped at Tatum, 6 miles north of Bennettsville, and was approaching Bennettsville when it entered the open switch leading to the wye and was derailed while traveling at a speed estimated to have been 40 or 45 miles per hour.

The engine, tender, first three cars and leading pair of wheels of the front truck of the last car were derailed. The engine stopped on its left side to the left of the wye track approximately 225 feet south of the switch, with the cistern of the tender across the main track. The first car passed the engine and stopped on its left side at a right angle to the wye track about 348 feet from the switch. The second and third cars were on their sides immediately behind the first car, and the fourth car stopped with its rear end about 125 feet south of the switch. The employees killed were the engineman and fireman.

Summary of evidence

Conductor Morgan stated that his train was on time and was traveling at a speed of between 40 and 45 miles per hour when it entered the wye track and was derailed. After assisting the injured he examined the switch and found it in good condition, set for the wye track and locked, and displaying a red indication. He stated that visibility was fair, although the atmosphere was smoky, and that a brakeman's lantern could be seen for a distance of 8 or 10 car lengths. Conductor Morgan did not know whether the headlight was burning and did not feel an application of the air brakes prior to the derailment; the brakes had been properly tested before leaving their initial terminal, and the engineman handled the train properly en route. The statements of Flagman Poe substantiated those of the conductor; he added that the headlight was burning when the train left Tatum.

Upon his arrival at the scene of the accident about 4 hours after its occurrence Trainmaster McNeill examined the switch which he found in good condition, set for the wye track,

locked, and displaying a red target. He inspected the track for a distance of approximately three-fourths of a mile north of the switch and found no evidence of anything dragging. He reached the conclusion that the switch had been maliciously opened by some unknown person between the time of 3:55 and 6:05 p.m., no train having passed over that switch since train no. 67 had turned on the wye track at 3:55 p.m.

Roadmaster Andrews stated that it was his opinion that the switch had been opened with a switch key. While it was possible to throw this switch with a track wrench he found no evidence of a wrench having been used; in fact, his examination of the switch clearly indicated that it had been thrown and locked by some one in possession of a switch key. Roadmaster Andrews also said that the Bennettsville section gang was not on duty on the day of the accident.

Conductor Hamilton, of trains nos. 67 and 66, stated that on arriving at the north wye switch from the north with train no. 67 about 11:57 a.m. they headed in on the north leg of the wye in order to turn their train. The brakeman opened the switch for the train to enter, but the conductor closed the switch and locked it. They proceeded through the west wye switch, backed down to the station, and performed the usual switching operations, but on no occasion did they go near the wye again until they left on train no. 66 at 3:50 p.m., passing the switch involved at a speed of about 30 miles per hour. Conductor Hamilton said there was no other engine or train that would have occasion to use that switch after he had closed it that morning and he was positive that he had properly set and locked it. The statements of Engineman Grimmer, Fireman Deas and Brakeman Jeffords corroborated those of the conductor. Engineman Grimmer further stated that there was nothing missing or dragging on the engine of train no. 66 that could have come in contact with the switch as it passed over it. He thought that the switch target could be seen at night for a distance of 150 feet and while the smoke would not interfere with the vision during the day, it would decrease the range of vision at night.

North-bound train no. 336 left Bennettsville at 11:59 a.m., and passed over the north wye switch as a trailing switch a few minutes after the arrival of train no. 67. South-bound train no. 337 arrived at Bennettsville at 3:07 p.m., after having passed over the switch in question in facing position. The next and last train to pass over the switch prior to the time of the accident was train no. 66.

Examination of the track by the Commission's inspectors for a distance of 1 mile north of the switch disclosed nothing that could have contributed to the cause of the accident. There was no evidence of anything dragging, and the track was in good condition. The switch was in excellent condition, the point

fitted well against the stock rail, the bridle bars were in good condition, and there was no evidence on the switch stand or lock that would indicate that it had been forced in any way. The first mark of derailment was a well defined flange mark on the head of a spike on the outside of the left rail of the wye 74 feet from the switch point; the second spike was similarly marked. The next mark was a flange mark on a tie on the inside of the right rail 82 feet from the switch point, and beyond that tie the track had been repaired at the time of their inspection.

Conclusions

This accident was caused by an open switch.

After the accident the switch was found to be lined and locked for the wye track with the target displaying a red indication. The switch was found in excellent condition and there was no evidence that it had been tampered with in any way. The last time the switch had been used was approximately 11:57 a.m., when train no. 67 entered the wye. Subsequent to that time two trains passed over the switch in trailing position and one in facing position, which would indicate that this switch must have been in proper position at those times and that it must have been opened and locked for the wye track sometime after 3:50 p.m., after the departure of the last train prior to the accident.

Several weeks subsequent to the accident a 19-year old negro who was said to have been arrested while trying to break into a store was found to be in possession of a switch key and was said to have admitted opening the switch in order to see if the lock would work, and then apparently did not realize he had left the switch open. It was understood the key had been lost many years ago, was found and turned in at a store, and had been taken from that store in a robbery by the negro some time prior to the accident.

There had been numerous forest fires in the vicinity of the point of accident, causing the air to be more or less smoky, and under such conditions, with no lamp on the switch stand, the engineman would have little opportunity of knowing that the switch was open until his engine reached it. The track approaching this switch is tangent for several miles and undoubtedly he would have seen the red indication of a lighted switch lamp, had the switch stand been so equipped, in time to avert the accident. This was a main track switch and the practice of not equipping such switches with lamps is not conducive to safe train operation, especially where there is no form of block-signal protection. If done as a matter of economy, then it is dangerous as well as expensive economy, and should be abandoned in the interest of safety.

Respectfully submitted,

W. P. BORLAND,

Director.