

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE ATLANTIC COAST LINE RAILROAD AT NAHUNTA, GA., ON NOVEMBER 28, 1923.

February 5, 1924

To the Commission

On November 28, 1923, there was a rear-end collision between an Atlantic Coast Line passenger train and a Southern Railway passenger train on the Atlantic Coast Line Railroad at Nahunta, Ga., which resulted in the death of 1 employee, and the injury of 81 passengers, 17 persons carried under contract, and 2 employees.

Location and method of operation.

This accident occurred on that part of the Savannah District of the Second Division extending between Savannah, Ga., and Jacksonville, Fla. There are two routes between Folkston and Jesup, which are intermediate stations on this district, that via Nahunta being known as the Jesup short line. At Nahunta the Jesup short line, which runs almost due north and south, is crossed by the Brunswick-Waycross Branch, both being single-track lines, with wye connections both north and south of the crossing. The accident occurred on the Jesup short line at a point about 100 feet north of the switch leading to the north leg of the wye, which switch is 1,014 feet north of the station.

The Jesup short line is tangent in either direction for several miles, while the grade is practically level. There is no block-signal system in use, trains on the Jesup short line being operated by time-table and train orders. At Nahunta there is a mechanical interlocking plant which is used to govern crossing movements only, all of the switches being hand-operated and all of the functions of the interlocking plant being mechanically operated. The northbound home and distant signals are located 350 and 2,150 feet, respectively, south of the crossing. An approach bell indicator begins to sound when a northbound train enters upon a track circuit which extends approximately 4,100 feet south of the crossing, and at the same time electric locks become effective, locking derails; the south wye switch is locked when the track is lined up and signals are displayed for a main line movement. The

station is located in the northeast angle of the intersection, the train-order board is located at the station, and its normal position is clear.

The weather was cloudy at the time of the accident, which occurred at about 10.36 p.m.

Description.

Northbound Atlantic Coast Line passenger train extra 464, which ordinarily is operated as train No. 32 between Jacksonville and Waycross, was being detoured via Nahunta and thence on the Brunswick-Waycross branch to Waycross. It consisted of four express cars, one baggage car, two coaches, one dining car, and six Pullman sleeping cars, in the order named, hauled by engine 464, and was in charge of Conductor Mahoney and Engineman Fesperman. At Folkston train order No. 82, Form 31, was received reading as follows:

"Engs 464, 358, 469 run extra Folkston to Nahunta with right over all trains south run ahead of 1st class trains make first class speed".

Extra 464 left Folkston at 9.47 p.m., 23 minutes late on the schedule of train No. 32, passed Winokur, 11.9 miles from Nahunta and the last open office, at 10.15 p.m., and according to the train sheet passed the station at Nahunta at 10.29 p.m. In order to make the movement from the main line to the Brunswick-Waycross branch, it was necessary to pull by the north wye switch, and then back through the north leg of the wye to the branch line track. While the rear of extra 464 was either standing on the main line north of the switch, or being backed slowly toward this switch, it was struck by train No. 8.

Northbound Southern Railway passenger train No. 8 consisted of one mail car, one express car, two coaches, and four Pullman sleeping cars, in the order named, hauled by engine 1907, and was in charge of Conductor Tipton and Engineman Evans. This train left Jacksonville directly behind extra 464, left Folkston at 10.00 p.m., passed Winokur at 10.21 p.m., eight minutes behind extra 464, and, according to the operator at Nahunta, passed that station at 10.56 p.m., and collided with the rear of extra 464 while traveling at a speed of about 25 miles an hour.

The force of the collision derailed the forward truck and considerably damaged the rear end of the last car of extra 464 and slightly damaged three other cars. Engine 1907 was considerably damaged, but no material damage was sustained by any of the equipment in this train. The employee killed was the engineman of train No 8.

Summary of Evidence.

Engineman Fesperman, of extra 464, said all signals at Nahunta were in the clear position, that he reduced speed to about 8 or 10 miles an hour at the time his train passed the station and that shortly afterwards, while looking back to receive a hand signal indicating when he should stop his train after passing the switch to the wye track, he saw the reflection of a fusee which he thought was located between the rear of his train and the station. He had reversed his engine and opened the throttle, but the train had not started to move backward when the collision occurred. Just before the collision occurred he saw the fusee being waved violently near the rear end of the train. With the weather conditions existing at this time he thought a fusee could have been seen for a distance of 2 miles.

Conductor Mahoney, of extra 464, stated that after leaving Folkston, where he received train order No. 82 he took Baggage-master McCullough to the rear of the train and explained to both the baggage-master and to Flagman Sanders that they were to detour via Nahunta, he instructed the flagman to throw off a fusee before reaching Nahunta and to watch out for the following train, the baggage-master was instructed to handle the wye switch, and he intended that the baggage-master should ride on the rear end as the train backed around the wye; the train porter was to open the other wye switch. He knew train No 8 was following, but thought that train would be stopped at the fusee south of the crossing. Conductor Mahoney alighted from his train as it was passing the station at Nahunta, went into the telegraph office and asked the operator for orders to Way-cross, which he said were delivered and signed for by him and he left the office immediately, estimating the time spent in the office to have been one or two minutes. He did not ask the operator to set the signal against train No. 8. As he left the office he saw train No. 8 a mile or more away and at the same time saw a fusee burning on the track about one-half mile distant, between the station and the approaching train. He stated that the train passed the fusee without acknowledging it, and he then began to give stop signals with his lantern, which signals he said were

not answered. He also stated that the engineman of train No. 8 did not shut off steam or apply the air brakes until the engine and about two cars had passed over the crossing. He denied having instructed Flagman Sanders to remain with the rear of the train, but said he told him to lock out for the rear of the train and expected him to know enough to flag when the approaching train was near.

Flagman Sanders stated that between Folkston and Nahunta he rode on the rear platform of the observation car, he saw the headlight of train No. 8 about a minute after leaving Folkston and he could see it from that time all the way to Nahunta. After leaving Folkston the conductor came to the rear, and told him to throw off a fusee when the train began to slow down at the distant signal at Nahunta for the purpose of protecting the train, as No. 8 was following, the conductor also told him that he should stay at the rear of the train and the baggagemaster would throw the switches. He understood he was to ride the rear end as the train backed around the wye. When the brakes were applied near the distant signal at Nahunta he threw off two fusees, one of which went out, but he said the second one landed in the middle of the track and was burning brightly as train No. 8 was approaching. He thought this fusee was about a train-length south of the distant signal. He stayed on the rear platform until the train passed the west wye switch, then lighted another fusee, got down on the ground and started back. He said train No. 8 had at that time passed the fusee he had thrown off and was still working steam. He thought he had gone back about half the distance to the station when train No. 8 passed him, the brakes were applied about the time the engine passed over the crossing. He thought his train had just started to move backward when the collision occurred. He said he could have gotten off the train at the time the conductor got off at the station, but he did not do so as the conductor had instructed him to stay at the rear. After the accident he did not look back to see whether his fusee was still burning.

Baggagemaster McCullough said Conductor Mahoney instructed him to open the wye switch, that the porter would open the switch at the other end of the wye, and the movement would be protected by a fusee, it was his understanding that Flagman Sanders was to ride the rear of the train around the wye. Approaching Nahunta he was on the rear of the train and saw Flagman Sanders throw off a fusee. Baggagemaster McCullough gave the engineman a stop signal after the train had passed the wye switch, got off, opened the switch, locked to see if train No. 8 was coming, and saw that the fusee was still burning. He then started to walk around the wye track to see if there was a derail. Flagman Sanders got

off the train just after he did, lighted a fusee, and started back. He also saw the conductor giving stop signals opposite the station.

Train porter James got off at the station with the conductor and went eastward on the Brunswick-Waycross branch to open the switch on that end of the wye. This switch is about 1,000 feet from the station and he said that about the time he reached it he heard some one near the station shouting and on looking saw a white light being waved. It being about this time that train No. 8 passed over the crossing, still working steam.

Fireman Jordan, of train No. 8, stated that he was riding on the seat box approaching Nahunta and that all three signals were clear. He did not see any fusees on the track, the weather was clear and he could see signals plainly, and if there had been a fusee on the track he would have seen it. About the time the engineman sounded the station whistle signal and after passing the distant signal he got down to put in a fire and while so engaged heard the engineman apply the air brakes in emergency and saw him start to leave his seat box; he immediately looked out, saw the red markers and lights of the train ahead and jumped from the engine. He also stated that Engineman Evans was fully awake and attentive to his duties and expressed the opinion that had there been a fusee burning on the track Engineman Evans would have seen it and would have taken proper steps toward bringing the train to a stop.

Conductor Tipton, of train No. 8, said that prior to starting on this trip he and Engineman Evans ate supper together and he noticed nothing unusual about the engineman. Conductor Tipton was riding in the doorway of the baggage car approaching Nahunta and on looking out he noted that the signals were displaying clear indications; he said he did not see the light of any fusees on the track ahead of his train and if there had been one burning he would have seen the glare.

Flagman Nichols, of train No. 8, said he was standing just inside of the rear door of the last car when he felt the brakes applied and the shock threw him down. He jumped up quickly, ran out, picked up his signal case and lanterns and went back to flag train No. 80, lighting a fusee as he ran. At that time there was no fusee burning on the track behind his train. Baggage-master Driver, of train No. 8, said the brakes were applied just as the baggage car was going over the crossing.

Operator Stokes, on duty at Nahanta, stated that extra 464 passed at 10.29 p.m. and train No. 8 at 10.36 p.m. As extra 464 passed, the conductor got off, came into the office, asked for an order, which he received, read and signed for, and then went out. He thought the conductor was in the office about a minute and left about four or five minutes before train No. 8 arrived. The indicator bell began to ring when train No. 8, entered over the track circuit, and looking in that direction he saw the headlight of train No. 8, but did not see any fusee. He did not know whether extra 464 was into clear at that time as he was sitting at the telegraph table and could not see in that direction without getting up and going to the window; however, he thought there had been sufficient time for it to get into clear. He did not consider it necessary to space train No. 8 ten minutes behind extra 464, as under the orders Nahanta was extra 464's destination. He had been on duty before when similar movements to the branch line had been made, but said he had never been asked to hold the home signal against the following train while the movement was being made and never had done so.

Superintendent Pugh said the normal position of the train-order signal is clear, and that while it is used for the purpose of spacing trains, there is no rule requiring the operator to place the signal in the stop position and continue displaying a stop indication until the 10-minute time interval has elapsed. He also said that an operator is supposed to know when another train is approaching and to arrange the signal accordingly.

J. T. Moore, of Atlanta, Ga., a passenger on extra 464 stated that he was riding in the observation end of the rear car of extra 464 and that he saw train No. 8 approaching for about five minutes before the collision occurred, and that he did not see any fusees or red lights between the car in which he was riding and the oncoming train. There were statements by other passengers to the effect that they had seen a fusee on the track, but this was after the occurrence of the accident.

Conclusions.

This accident was caused by the failure of Conductor Mahoney and Flagman Sanders, of extra 464, to provide proper protection for their train.

While the investigation disclosed that there may have been some misunderstanding between Conductor Mahoney and Flagman Sanders as to the method which the conductor intended to be followed in protecting the movement of extra

#64 from main line to the wye, it is apparent that this movement was not protected as required by the rules. Rule 99(a) is as follows:

"When the speed of a train is reduced and its rear thereby endangered by a following train before the flag, an con get off, a lighted fusee must be thrown upon the track at intervals until the flagman can get back to protect his train."

In this instance entire dependence was evidently placed upon a fusee which the flagman states was thrown off near the distant signal. The flagman and baggagemaster of extra #64 were positive in their statements that a lighted fusee was thrown off at that point, and Conductor Mahoney said train No. 8 ran over the lighted fusee without acknowledging it, however, the fireman and conductor of train No. 8 were equally positive that there was no burning fusee on the track in that vicinity when that train approached, and their statements are supported by the statement of the operator that he saw no fusee as train No. 8 approached, as well as by the fact that Engineeran Egan of train No. 8 continued to operate his train at full speed beyond that point, and other evidence. It is believed, therefore, that if Flagman Sanders threw off a fusee when approaching Wahunta it was not burning when train No. 8 approached; both Conductor Mahoney and Flagman Sanders were in position to have full knowledge of this fact.

Rule 99 provides that "when a train stops or is delayed under circumstances in which it may be overtaken by another train, the flagman must go back immediately with stop signals a sufficient distance to insure full protection. This rule was not complied with. Both conductor Mahoney and Flagman Sanders knew that train No. 8 was following them, as it had been in sight for several miles, and there was ample time to have provided adequate protection. It was clearly the duty of Conductor Mahoney to see that adequate flag protection was provided for his train while it was occupying the main track, and he said he told the flagman to perform this duty. The statements of the flagman, however, are to the effect that he was told to remain with his train, in which statement he is supported by the baggagemaster. Regardless of which version is correct, Conductor Mahoney was in position to know what was taking place and should have seen to it that his train was being properly protected.

Under the interlocking rules, the normal indication of home signals is stop and signals must be restored so as to display the normal indication as soon as the train or engine or switch they were cleared has passed 500 feet beyond them. However in view of the light traffic on the

Brunswick-Luxcross branch it appears that the practice has grown up at this point to leave the signals clear for main line movements except upon a crossing movement on the branch is being made. The interlocking signals at Mahunta were in the clear position when train No. 8 approached, as previously stated, they are not used to indicate whether or not the track is occupied by a preceding train. Had these signals been placed in normal position when extra 43- passed and not cleared until that train was into clear on the eye track this accident would probably have been prevented. Operator Stokes could easily have ascertained that extra 43- was not clear of the main line when train No. 8 approached, and he could have set the interlocking signal to stop at any time.

The train-order board was also in the clear position. Under these circumstances Engineer Evans, of train No. 8, had no warning of the presence of a train ahead, except such signals as might have been used by the conductor and flagman, until he saw the markers on the rear of extra 43-. The air brakes on train No. 8 were not applied until he was passing the station. In view of the fact that the track is straight and that the weather conditions were favorable to the observance of signals Engineer Evans should have seen the markers on the rear of extra 43- in time to enable him to bring his train to a stop.

According to the records train No. 8 passed Luckur, the last open office south of the point of accident eight minutes behind extra 464. The method followed on this line for special trains is for the operator to head to the engine of a train crossing a station less than 10 minutes behind a preceding train a card stating the time the preceding train passed, the engine of then being expected to regulate the speed of his train to provide for proper spacing. In this instance, however, the operator at Luckur did not head such a card to the engineer of train No. 8 as he did not see it approaching that it would pass about when the 10-minute period expired, and it actually arrived sooner than he expected. The normal indication of train-order boards is clear. On most railroads the normal position is at stop. They are placed in that position as soon as a train has passed and are not cleared for a following train until it approaches the station, and then not unless the prescribed time has elapsed since the passage of the first train. Such an a large extent, on account of the train-order board always being in the stop position except when a train is actually passing, lessens the opportunity for error on the part of the operator and is therefore more desirable from the standpoint of safety in train operation.

According to the time-table there are 10 first-class trains scheduled on this line between Volkston and Jolup. In this instance four first-class trains were operated only a few minutes apart, and rules which were essential to safety were not observed. The time-table and train-order system of train operation is inadequate to provide proper protection for traffic of this character. Had an adequate automatic train-control system been in use at this point, this accident could undoubtedly have been prevented.

The employees involved were experienced men, except Operator Stokes, who was 19 years of age and had had about 3 months' experience as an operator. At the time of the accident the train crews had been on duty less than 3 hours after about 10 hours of sleep.

Respectfully submitted,

W. J. ...

Director