

In re investigation of an accident which occurred  
on the Jacksonville Terminal Company at  
Jacksonville, Fla., on  
September 13, 1917.

October 26, 1917.

On September 13, 1917, there was a head-end collision in the yards of the Jacksonville Terminal Company at Jacksonville, Fla., between a Seaboard Air Line passenger train and an Atlantic Coast Line passenger train which resulted in the death of one employee and the injury of four passengers. After investigation the Chief of the Bureau of Safety reports as follows:

All passenger trains entering Jacksonville use the terminal facilities of the Jacksonville Terminal Company and employees operating such trains are under the jurisdiction and subject to the rules and regulations of that company. Trains entering and leaving the terminal are designated in this report as northbound and southbound, respectively. The north entrance to the terminal yards is known as the Myrtle Avenue district, and from this district there are four lead tracks to the passenger station, known as No. 1, north, middle, and south leads, these lead tracks being protected by two-position wire connected dwarf signals operated from a signal tower located near the center of the yard and about 1,150 feet from the station. These dwarf signals only indicate when a train may start. After receiving a clear dwarf signal it is necessary for the engineer to receive a hand signal from the switchtenders before proceeding. In case they are out of order and not operating, engineers are supposed to disregard these dwarf signals and be governed by hand signals given by the towerman and switchtenders. All switches are hand operated and the lights on them are about 30 inches above the ground. There are no derails protecting these lead tracks and all switches leading to and from the station in the Myrtle Avenue district are in charge of three switchtenders who receive instructions from the towerman, the towerman receiving instructions as to what tracks are to be used from the station master. After receiving a proceed signal the rules place the responsibility for the safe movement of the train through the switches into or from the station on the main tracks of each road upon the engineer. In making these movements engineers are required to proceed, prepared to stop within half the range of vision.

Approaching the point of collision from the north the main tracks of the Seaboard Air Line Railway entering this terminal are on a curve to the left, and at a point about 1,500 feet north of the station train sheds there is a stop board which designates the entrance to the yards. For a distance of about 350 feet south of this stop board the track is made up of several short 2-1/2-degree curves to the left, connected by short tangents, then there is a 9-degree curve to the left, 210 feet in length,

which connects this track with lead track No. 1, the accident occurring about 450 feet south of the stop board. Between the stop board and lead track No. 1, a distance of about 550 feet, there are 5 switches.

Northbound Atlantic Coast Line passenger train No. 80 consisted of locomotive 261 and 10 passenger cars, in charge of Conductor Adair and Engineer Baughn, and was en route from Jacksonville, Fla. to Washington, D. C. It left the Jacksonville Union Station at about 8.15 p.m., 5 minutes late, and upon receiving signals from the towerman and switchtender, proceeded about 1,070 feet from the station and collided with train No. 23 at about 8.16 p.m., while running at a speed of 2 or 3 miles an hour.

Southbound Seaboard Air Line passenger train No. 23 consisted of motor passenger car No. 2001 and one coach, in charge of Conductor Burns and Motorman Freeman, and was en route from Savannah, Ga., to Jacksonville, Fla. It left Savannah at 3.30 p.m., arrived at the stop board designating the entrance to the yards of the Jacksonville Terminal Company at about 8.12 p.m., at which point it was delayed until 8.16 p.m., awaiting the necessary signals to enter, and then proceeded for a distance of about 450 feet, and collided with train No. 80 at a speed of about 5 miles an hour.

The express messenger in the baggage car was killed. The pilot of locomotive No. 261 was broken off. The motor car had its headlight and pilot destroyed, the end of the car bent, and the front trucks derailed. The weather at the time was cloudy.

The principal switches involved in this accident are designated in this report as switches Nos. 1 and 2, located about 70 feet north of the tower and about 4 feet apart, switch No. 1 being used to divert trains from the Seaboard Air Line main tracks to the connection leading to track No. 1, or to the other leads, and switch No. 2 being used to connect the Atlantic Coast Line north and southbound main tracks and other tracks to the lead tracks. Between switch No. 2 and the stop board are located switch No. 3, leading to the wash track, and switch No. 4, leading to the Y track, both of which must be properly set for train No. 23 to reach switches 1 and 2.

Motor passenger car No. 2001 is a five compartment car consisting of engine room, baggage compartment, and three passenger compartments, and is propelled by two electric motors attached to the front truck, electricity being generated by a dynamo driven by a gasoline engine located in the engine room of the car. The

controller and brake valve are located against the right side of the engine room, about seven feet from the front end, and the motorman's seat is directly behind the controller box, which is so located that it does not obstruct the view of the motorman. There are two windows, each 1' 8" x 2' 4" and a door with a window in it 1' 3" x 2' 4", on each side of the center of the front end of the car. There is also a side window beside the motorman's seat 1' 8" x 2' 4" and an excellent view may be had from the seat to the track ahead, the angle of vision ahead from motorman's seat being about 125 degrees. This motor car is equipped with a high-power electric headlights and Westinghouse air brakes, both the headlights and brakes being in good condition at the time of the accident.

Towerman Keene stated that he was employed as towerman at Myrtle Avenue on July 1, 1917, after having been instructed for a period of two weeks, and went on duty at 4 p.m. on the day of the accident after having been off duty 16 hours. Before the arrival of train No. 23 he was instructed by the station-master to have that train run into the station on track No. 9 and after he had the tracks lined up for that movement and given the block to train No. 23 the station-master directed him by telephone to change the route to track No. 8 on the middle lead. About that time an Atlantic Coast Line switch engine appeared just south of Myrtle Avenue, coming from the lower yard on the south lead, headed north, and whistled for the block and he gave the enginemen a hand signal to come ahead, a hand signal being necessary on account of signal No. 12 north of the tower being out of order. In the meantime passenger train No. 80 arrived from the station and the enginemen sounded the whistle for the signal and the enginemen of that train mistook the hand signal intended for the switch engine as being intended for him and started his train forward. Towerman Keene stated that he then gave stop signals to trains Nos. 23 and 80, called to Switchman Gamble at Myrtle Avenue to stop train No. 80 and Switchman Graves stationed north of the tower to stop train No. 23. Train No. 80 had come almost to a stop but train No. 23 was running at a speed of 6 or 7 miles an hour when the collision occurred. He stated that the track was lined up for train No. 23 to run in on track 9 when he gave that train the block and the only explanation he could give for it being on lead track No. 1, was that one of the switches must have been changed subsequently. He said that the normal position of switches 1 and 2, is for movements to the middle lead. He stated that on account of the fixed signal between the tower and the station being out of order, it was necessary for train No. 80 to depend upon hand signals from the tower, these signals being repeated by the switchtenders. He said this signal had been out of order ever since he began working in the tower.

Negro Switchman Gamble, stationed at Myrtle Avenue, stated that he saw the towerman give a proceed signal which he thought

was for train No. 80, heard the enginemen of that train acknowledge the signal, and he then lined up the switches for that train to proceed; after that train had started forward he saw train No. 23 approaching, and ran toward train No. 80, giving it stop signals, and that train had come to a stop when the collision occurred. He stated that he was not instructed in this particular instance by the towerman to line up the switches for train No. 80, and did not line them up for that train until he saw the towerman give it a proceed signal and heard the acknowledgment of that signal. He said that the towerman had not told him to line up the track for train No. 23 to come into the depot, or said anything to him about that train prior to the accident.

Negro Switchtender Graves stated that he entered the service of the Jacksonville Terminal Company as switchtender on the day of the accident and went on duty at the north switches at 2 p.m. The trainmaster had showed him where the wash track and main line were located, what switches to throw for movements to and from those tracks, and the towerman said he would tell him when he wanted him to throw a switch. He said that the only railroad experience he had had was two years as fireman on the Norfolk & Western and four or five months as brakemen on the Atlantic Coast Line. He stated that he was standing near switches 1 and 2 just north of the tower when the towerman told him to "go up there and throw the two switches" and let train No. 23 come in. He said that he then threw two switches but did not know what tracks they led to, and later stated that he changed switches 2, 3 and 4, and that switch No. 1 was already set for the middle lead track.

Motorman Freeman of train No. 23 stated that his train arrived at the stop board and waited there about five minutes, after which Switchtender Graves lined up switches 1, 2, 3 and 4 for his train to proceed to the station, the towerman gave him a clear dwarf signal, and the switchtender signaled to him to proceed. He was positive that he saw Switchtender Graves change the switch located at the entrance of the connection to lead track No. 1. He stated that he saw the towerman giving hand signals from the tower but could not tell whether they were stop or proceed signals, or intended for him, and did not pay much attention to them because he had already received the block and the switchtender had given him a signal to proceed. He said that he started his train toward the station, expecting it to be run in on the middle lead track, and did not know that it was heading in on any other track until he felt it strike the curve, and then saw train No. 80 about 15 feet away. He promptly shut off

the power, applied the brakes in emergency, and the collision occurred almost immediately thereafter, the speed of his train at the time being about 4 or 5 miles an hour. He said that he understood the rules of the Terminal Company gave him the right to proceed after getting a proceed signal from the switchtender and a clear dwarf signal, looking out for trains ahead and not exceeding a speed of 5 miles an hour. He stated that if train No. 80 had not been moving toward him when he first saw it the collision would not have occurred, and felt that he was observing the rules and had his train under control for any ordinary condition.

Conductor Burns of train No. 23 stated that when his train came to a stop at the stop board he looked ahead and saw the towerman giving hand signals which he interpreted as proceed signals for his train, and his train then started forward and collided with train No. 80 at a speed of about 4 miles an hour. He did not see train No. 80 until after the collision.

Engineman Baughn of train No. 80 stated that his train left the Union Station at Jacksonville at about the usual time. He sounded the whistle for the signal, received hand signals from the towerman to proceed, which were repeated to him by the switchman, started his train forward, and nothing unusual occurred until train No. 23 appeared. He stated that when he first saw train No. 23 he supposed it was going to cross in front of his train and go into the station on one of the other lead tracks, and he reduced the speed of his train for that purpose, train 23 being 75 or 100 feet away at that time, but when he saw that it was headed in on the same track his train was on he applied the brakes in emergency. He said it was necessary for him to receive hand signals from the towerman and switchman because the dwarf signal was out of order and had been in that condition for some time, and when he received such hand signals to proceed he did not pay any further attention to the dwarf signals. He stated that after receiving the signals to proceed from the towerman and switchman he did not receive any stop signals.

Fireman Mays of train No. 80 stated that after his train left the station and before reaching the tower the engineman sounded the whistle for the signals, and the towerman gave him hand signals to proceed; the engineman answered the signals, and the train moved forward. He said that he did not see any stop signals given prior to the collision, but his train had come almost at a stop before the collision occurred.

Train-master Jarrett stated that he instructed Switchtender Graves as to his duties after he had been working about two hours. He said that they were short of men at that time, two of his regular men being in jail and another one was sick, and he

placed Graves at the north switches because he considered them to be the least important.

Manager Blanton, of the Jacksonville Terminals, stated that between 6.45 a.m., and 11.20 p.m., there are 74 regular passenger trains moving in and out of this terminal, and from 6.30 p.m. to 9.30 p.m., there is approximately one train movement a minute through Myrtle Avenue neck. He stated that on account of scarcity of colored labor they had lost a great many of their experienced men and on the day of the accident three of their regular men were away. He considered that Switchtender Graves was placed at the least important switches and did not think that his inexperience had anything to do with the accident.

The direct cause of this accident was that the switch connecting Atlantic Coast Line northbound main track with the connection leading to lead track No. 1 was improperly set. On account of the conflict in the statements of the two negro switchtenders involved in this accident it was impossible to determine with certainty which one of them is responsible for the improper handling of the switch.

The towerman intended to have train No. 23 proceed to the passenger station over the middle lead track and hold train No. 30 until that movement could be made, but on account of this switch being improperly set, train No. 23 was diverted to the connection leading to lead track No. 1, instead of crossing that lead and continuing to the middle lead, and collided with train No. 30 on the connection.

The rules of the Jacksonville Terminal Company provide that trains must proceed at such speed as to be able to stop within one-half the range of the enginemen's vision, and had these rules been observed both trains would have been brought to a stop and the accident averted. Both Motorman Freeman and Enginemen Baughn contributed to this accident, for by a literal interpretation of the rules enginemen are held responsible if their trains are struck while in motion. In other words, the enginemen must anticipate not only tracks being occupied by cars or trains ahead, but must also expect and be prepared to stop before an approaching train on the same track collides with his train.

Between the hours of 6.30 and 9.30 p.m. a great number of train movements are made in and out of this terminal and the evidence indicates that these movements are governed very largely by hand signals given by the towerman and switchtenders, and that the fixed signals are frequently inoperative or disregarded. In view of the number of train movements, the complication of track layout, and the number of diverging routes, such a system of

operation is inadequate and unsafe, this being particularly true when the men employed and placed in the responsible position of switchtender are inexperienced and not familiar with the important duties devolving upon them as in the case of Switchtender Graves. Switchtender Graves was an inexperienced man, unacquainted with his duties as switchtender, and if it was necessary to place him in a position of such responsibility, the greatest degree of care should have been exercised by the officials of the Jacksonville Terminal Company to see to it that he understood and was competent to perform his duties. In this instance practically no instructions were given this inexperienced switchtender concerning his work.

New passenger terminals are now being constructed in Jacksonville and it is understood that when completed, train movements will be governed by an interlocking plant, which will prevent the recurrence of such accidents if all signals are observed.