Inv-2298

INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT OF THE DIRECTOR

BUREAU OF SAFETY

ACCIDENT ON THE

SEABOARD AIR LINE RAILWAY

AND THE

ATLANTIC COAST LINE RAILROAD

ARCHER, FLA.

OCTOBER 6, 1938

INVESTIGATION NO. 2298

SUMMARY

Inv-2298

Railroads:	Seaboard Air Line	:Atlantic Coast Line
Date:	October 6, 1938	
Location:	Archer, Fla.	
Kind of accident:	Side collision	
Trains involved:	S.A.L. freight	:A.C.L. freight
Train numbers:	Extra 379 north	:Extra 820 north
Engine numbers:	379	:820
Consist:	58 cars, caboose	:49 cars, caboose
Speed:	10-18 m.p.h.	:20-40 m.p.h.
Operation:	Timetable and train orders, intersection of the two railroads protected by crossing gates and watchman.	
Track:	S.A.L.: Single; 1,415 feet tangent track to crossing. Grade slightly ascending on both roads, northward to crossing. A.C.L.: Single; 3° left curve 622 feet long, then 86 feet tangent to crossing.	
Weather:	Clear	
Time:	6:50 a.m.	
Casualties:	1 killed; 2 injured.	
Cause:	Failure properly to control A.C.L. train when approaching railroad crossing at grade.	

To the Commission:

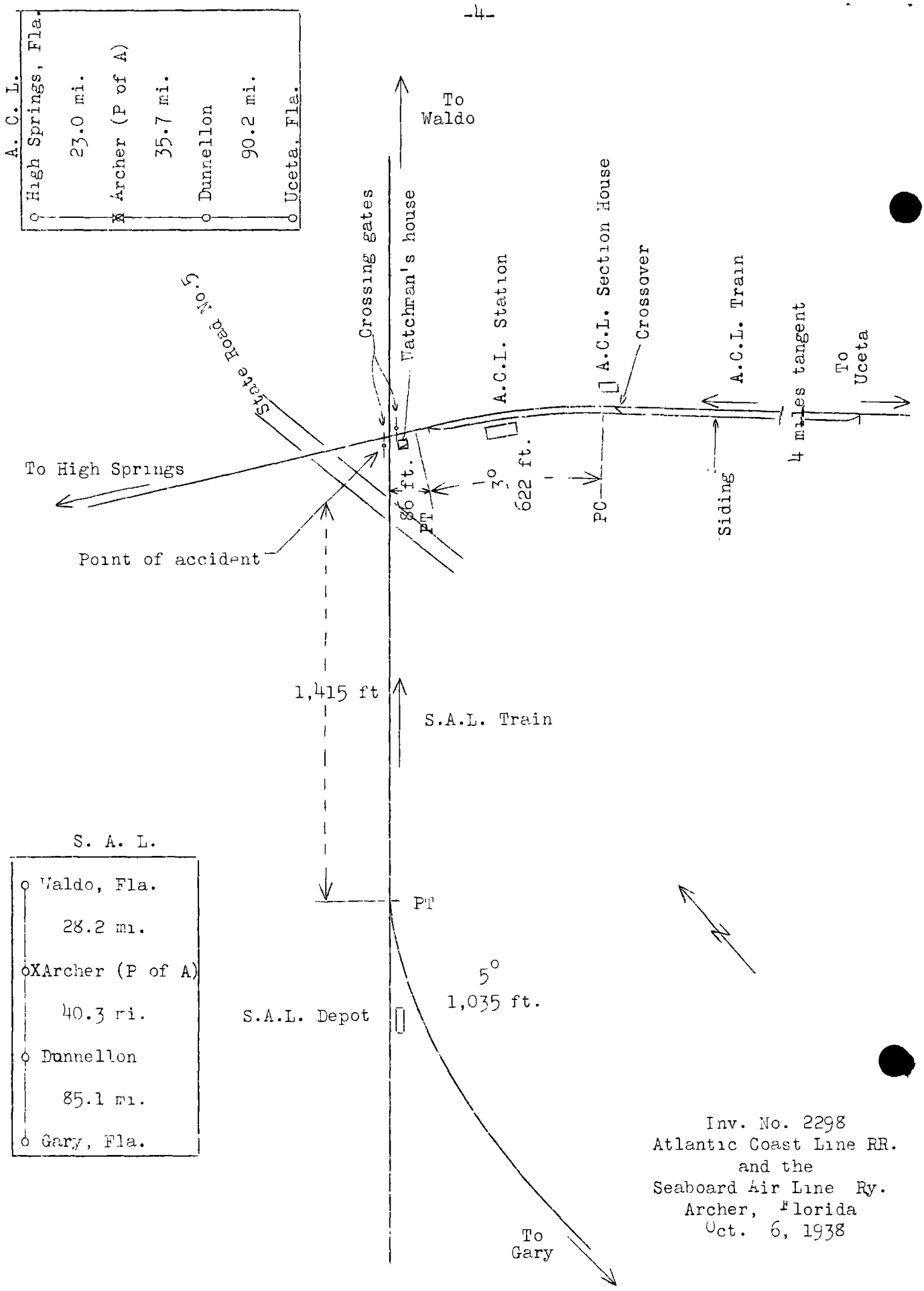
On October 6, 1938, there was a side collision between a freight train of the Seaboard Air Line Railway and a freight train of the Atlantic Coast Line Railroad at Archer, Fla., which resulted in the death of one employee and the injury of two employees.

Location and method of operation

This accident occurred at the intersection of the track of the Seaboard Air Line Railway, hereinafter referred to as the S.A.L., and the track of the Atlantic Coast Line Railroad, hereinafter referred to as the A.C.L. Archer is located on that part of the South Florida Division of the S.A.L. designated as the Brooksville Sub-division which extends between Gary and Waldo, Fla., a distance of 153.6 miles, and also on the Southern Division of the A.C.L., on that part of the Ocala District which extends between Uceta and High Springs, Fla., a distance of 148.9 miles. In this vicinity both roads are single-track lines over which trains are operated by timetable and train orders, no block-signal system being in use. At the crossing involved, the S.A.L. extends from southwest to northeast, crossing the track of the A.C.L. at an angle of 75° 31' and the A.C.L. extends from southeast to northwest. Both trains involved were north-bound on their respective roads; timetable directions are used in this report.

Approaching from the south on the S.A.L. the track is tangent for a distance of 1,415 feet to the crossing and for a considerable distance beyond. The grade is 0.5 percent ascending northward for a distance of 1,000 feet to the crossing, beyond which point it is 0.25 percent ascending for about 1,500 feet.

Approaching from the south on the A.C.L. the track is tangent for more than 4 miles, followed by a 3° curve to the left 622 feet in length, then 86 feet of tangent track to the crossing and for 3,258 feet beyond. The grade is 0.37 percent ascending northward for 1,400 feet to within 31 feet of the crossing, then it is 0.15 percent descending over the crossing. An embankment about 6 feet high extends along the east side of the A.C.L. track for about 600 feet south of the crossing. A siding 3,717 feet in length parallels the main track on the west; the north switch is located 127 feet south of the crossing. There is a cross-over located about 593 feet south of the north switch and that part of the siding located north of this cross-over is used as a house track. At the time of the accident, there were no cars on the siding or house track. The A.C.L. station building is 37½ feet wide and 102 feet long and is located west of the tracks on the



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inside of the curve, 21½ feet from the main track, with its north end 271 feet south of the crossing. A crossing watchman's house is located in the southwest angle of the crossing and 10 feet from the center line of each track. There is also a section house located east of the A.C.L. track and about 700 feet south of the crossing, and railway-crossing sign boards are on the east side of the main track of each line and approximately 1 mile south of the crossing.

A highway designated as State Road #5 crosses the A.C.L. about 200 feet north, and the S.A.L. about 150 feet south, of the crossing.

The intersection of the two railroads is protected by crossing gates and crossing watchmen are employed to operate them and to signal trains to proceed after gates have been lined accordingly. The gates are pivoted from center posts, and there are two gates on each post; one post is located in the northwest angle of the crossing, and the other in the southeast angle; both posts are located 8 feet from each track. Each gate is equipped with a standard switch lamp, so arranged as to display a red aspect when the gate is set against traffic, and a green one when the gate is set clear. The gates are so arranged that one operation will clear one line and obstruct the other simultaneously. With the gate set against traffic the center of the lens of the switch lamp is directly over the center line of track. Below each lamp there is a sign board, 3 feet by 10 inches, on which is painted in 8-inch black letters on a white background the word "STOP". The bottom of the sign board is 5 feet 4 inches above the top of the rail.

Trains of both roads are required to approach this crossing under full control, prepared to stop before fouling the crossing. When it is seen that the gates are in proper position and a proceed signal from the watchman is received, given by green flag by day or green light by night, trains may proceed without stopping, at a speed not to exceed 20 miles per hour. In the absence of a proceed signal and in case the gates are not set in clear position, trains are required to come to a full stop before going over the crossing.

Owing to the station building on the inside of the left curve, the view of the crossing gates from the fireman's side of a northbound A.C.L. engine is restricted to 515 feet, and that of the engineman to 300 feet.

The weather was clear and the sun had risen sufficiently to make visibility of day signals good at the time of the accident, which occurred about 6:50 a.m.

Description

Extra 379, a north-bound S.A.L. freight train, consisted of 40 loaded and 18 empty cars and a caboose, hauled by engine 379, and was in charge of Conductor Wills and Engineman Lewis. This train left Gary at 1 a.m., according to the train sheet, and approached Archer, 125.4 miles north thereof, at 6:50 a.m.; the crossing gates were lined for the train to proceed and as it was proceeding over the crossing at a speed estimated to have been from 10 to 18 miles per hour, the first car in the train was struck on its right side by A.C.L. Extra 820.

Extra 820, a north-bound A.C.L. freight train, consisted of 47 loaded and 2 empty cars and a caboose, hauled by engine 820, and was in charge of Conductor Livingston and Engineman Holland. This train left Uceta at 2:26 a.m., according to the train sheet, and when approaching Archer, 125.9 miles north thereof, struck the crossing gate while traveling at a speed estimated to have been between 20 and 40 miles per hour and collided with the side of S.A.L. Extra 379.

Engine 379 and its tender were not derailed; the first 10 cars in the S.A.L. train were derailed and stopped in various positions, badly damaged.

Engine 820 stopped on its left side at right angles to the A.C.L. track and about 150 feet north of the crossing; the first 7 cars in the A.C.L. train were piled on top of one another in a small space at the crossing, badly damaged, along with the S.A.L. equipment. All of the crossing gates and the watchman's house were demolished. The employee killed was the fireman of the S.A.L. train, and the employees injured were the engineman and the fireman of the A.C.L. train.

Summary of evidence

Engineman Lewis, of S.A.L. Extra 379, stated that approaching Archer he reduced speed to about 10 miles per hour, sounded the whistle for State Road #5 highway crossing, and also saw that the crossing gates were lined for his train to proceed over the railroad grade crossing. He called "clear crossing", which was repeated by Fireman Dormany and Head Brakeman Simms, both of whom were on the left side of the engine. On reaching a point near the railroad grade crossing the watchman, from a point just outside the east rail of the S.A.L. track, gave Engineman Lewis a proceed signal with a flag which the engineman answered with two blasts of the whistle, and then he started to work steam. Just as his engine was coming to the crossing he heard a train approaching on the A.C.L. and observed that it was about opposite the

A.C.L. station building and he realized that it was traveling too fast to stop for the crossing. The first thought that occurred to him was to stop his own train, and he applied the brakes; then he decided it would be best to try to get his engine and tender over the crossing, so he immediately released the brakes, succeeded in accomplishing his purpose and then the A.C.L. engine struck the first car in his train. He did not observe the actions of the crossing watchman after receiving the proceed signal from him. The air brakes had been tested and they worked properly en route.

Head Brakeman Simms, of Extra 379, gave testimony similar to that of Engineman Levis as to what transpired; he estimated the speed of his train to have been about 10 or 12 miles per hour, and said that the fireman jumped from the left side of the engine just prior to the impact.

Conductor Wills and Flagman Sparkman, of Extra 379, were in the caboose and were not aware of anything wrong prior to the accident; they estimated the speed of their train to have been about 10 miles per hour when approaching Archer.

Engineman Holland, of A.C.L. Extra 320, stated that in the vicinity of the south end of the siding at Archer he made two brake-pipe reductions totaling about 10 pounds, which reduced the speed from about 40 miles per hour to about 20 miles per hour. When about 675 feet from the crossing he saw the crossing watchman on the bank at the usual place. He was positive that the watchman gave a proceed signal with an unfurled flag, either dirty blue or green, in his right hand, holding it up and dropping it downward once. The engineman answered the signal with two blasts of the whistle, called "clear crossing" to the fireman and the head brakeman; he then watched for the crossing watchman to walk back toward the track as usual, but could not see him at that time. He said that had he not seen the watchman he would have been able to stop short of the crossing. He then told the fireman to look for the watchman on his side around the left curve; the fireman began to tell the engineman that he did not see the watchman, but before finishing the sentence the fireman gave warning that the S.A.L. train was closely approaching the crossing. The engineman immediately closed the throttle and applied the air brakes in emergency, but due to having just released from the previous service applications, an emergency effect was not obtained; he, the fireman and the head brakeman jumped just prior to the collision. The engineman said that the crossing watchman did not give a stop signal, nor did he see a red flag at any time. After the watchman disappeared from view he did not reappear until just prior to the accident, and at that time he was running up the bank. The engineman did not see the gates set against his train until he was about three or four car lengths away from the cross-

ing. On previous occasions when he approached this crossing and the gates were set against his train the watchman would not be on the bank, and on such occasions he would not see the watchman until he had stopped his train. He was fully aware of the timetable rule in connection with this crossing. He stated that he did not have his train under proper control and that had the instructions been complied with the accident would have been averted.

Fireman Howard, of Extra 820, stated that he was sitting on the seat box on the left side, looking ahead. After passing the south switch of the siding at Archer the engineman applied the brakes, then sounded two blasts on the whistle and called that he had the crossing, released the brakes and began to work steam. He estimated the speed to have been about 25 or 30 miles per hour. He looked out the window, but did not see anybody until the engine was in front of the station building, then he saw the crossing gates set against his own train and the watchman leave his shanty, run up the bank on the right side of the train with a red flag about half unfurled; at the same time he saw the S.A.L. train about three car lengths south of the crossing, and he called a warning of danger and jumped; then the accident occurred.

Head Brakeman Crevasse, of Extra 820, gave testimony similar to that of Fireman Howard; he was standing in the gangway when the fireman called a warning of danger about five car lengths from the crossing; then he looked out the right side when only a short distance from the crossing and saw the gates lined against his own train and then jumped. He estimated the speed to have been about 20 miles per hour at the time of the impact. He said that at no time did he see the crossing watchman or the S.A.L. train prior to the accident.

Conductor Livingston, of Extra 820, stated that he was on the right side of the caboose cupola, and Flagman Cason was on the left side. The speed was about 45 miles per hour approaching Archer; when the engine was about $\frac{1}{2}$ to $\frac{1}{4}$ mile south of the crossing, a service air-brake application was made, reducing the speed to about 20 miles per hour, then the brakes were released. The conductor looked to the left through the cupola window and saw the S.A.L. train approaching, its engine being between 50 and 100 feet from the crossing. He realized that an accident was inevitable as he knew it would be impossible for his own train to be stopped before reaching the crossing at the speed it was traveling and the engine then being about opposite the station building. He called a warning to the flagman and immediately thereafter the impact occurred, at which time the speed had not been perceptibly changed. The air brakes functioned properly

en route. Due to the curvature he could not see the position of the crossing gates or the watchman on the bank. He said it is the practice that if the way is clear the crossing watchman places himself in position on the bank where the engineman of an A.C.L. train can see him from the straight track south of the curve before the engineman can actually see the position of the gate, and after reducing speed to about 20 miles per hour, he accepts the signal from the watchman as assurance that everything is all right, which practice encourages enginemen to approach around the curve much faster than they otherwise would. He stated that in this instance the A.C.L. train was not under control in accordance with the requirements governing the crossing. This particular A.C.L. run had been operating for about two weeks and previously it had not been necessary to stop for the crossing.

Crossing Watchman Wynn, at Archer, had been employed in that capacity for 3½ years. He heard the S.A.L. train approaching, lined the gate clear for it and when the S.A.L. engine rounded the curve and reached the straight track he gave it a proceed signal with a green flag, which was answered. In the meantime, when the S.A.L. train was about 800 feet from the crossing, he heard the A.C.L. train coming. He thought that at the speed it was traveling the A.C.L. train would not get stopped, so, as a matter of precaution, he immediately went into the watchman's house, got a red flag, went to his usual position on the embankment for giving proceed signals and waved stop signals with his unfurled flag, in accordance with the rules, in an endeavor to stop the A.C.L. train. His stop signals were not answered and the train passed him at a speed of about 35 or 40 miles per hour. The S.A.L. train was moving over the crossing at a speed of about 15 or 18 miles per hour. He said he placed himself in the southeast angle of the crossing at a point 60 feet from the A.C.L. track and 56 feet from the S.A.L. track, and at this time the A.C.L. engine was 979 feet from the crossing. This was the first time he had ever placed himself on the embankment to give a stop signal, it being the practice to place himself in that position only to give a proceed signal when the way is clear. The reason for taking up a conspicuous position on the embankment was as a favor to A.C.L. enginemen, so that they could see him farther; approaching A.C.L. trains have answered his proceed signal while the engine was south of the section house and he thought that his practice of taking up a position on the embankment probably encouraged A.C.L. enginemen to approach faster than they otherwise would if he placed himself at the crossing where they could not see him until they also saw the position of the crossing gate. The normal position of the crossing gates when not set for trains is one across the A.C.L. and one across the S.A.L.

Agent Cleghon, of the A.C.L. at Archer, stated that at the time of the accident he was in the southwest angle of the crossing, on State Road #5, and about 800 feet from the A.C.L. track and 400 feet from the S.A.L. track. He saw the S.A.L. train first, and about 20 seconds later he saw the A.C.L. train. The crossing gates were lined clear for the S.A.L. train and set against the A.C.L. train. When he saw the watchman the latter was running toward the east side of the A.C.L. track and up the embankment, and the watchman waved stop signals with a red flag to the A.C.L. train. The S.A.L. train was traveling about 15 miles per hour and the A.C.L. train was traveling about 20 miles per hour.

According to statements submitted by the railroads, there was a daily average of 2.5 S.A.L. trains and a daily average of 5 A.C.L. trains over this crossing during the 30-day period preceding the day of the accident.

Observations of the Commission's Inspectors

The Commission's inspectors observed the range of vision looking toward the crossing from the fireman's position in the cab of a northbound A.C.L. engine to be 510 feet, and that of the engineman only 300 feet, the view from the fireman's side being restricted by the station building, and from the engineman's side by track curvature. By taking a position on the bank on the east side of the A.C.L. track at a point 114 feet distant from the center of the railroad crossing a train may be seen approaching on the long tangent south of the 3° curve for 3 or 4 miles.

Discussion

S.A.L. Extra 379 was first to approach the crossing at Archer in this instance. Accordingly, the crossing watchman lined the gates clear for it and waved a proceed signal with a green flag. The crossing watchman then heard A.C.L. Extra 820 approaching, and from the sound it appeared that it was traveling too fast to stop short of the crossing. As a matter of precaution, he ran to a location on the embankment east of the A.C.L. track and waved stop signals with a red flag, but the A.C.L. train struck the crossing gate and ran into the side of the S.A.L. train. The engineman of the A.C.L. train was positive that he received a proceed signal given with a soiled blue or green flag by the crossing watchman as his train approached, and said that had he not seen the watchman he could have stopped his train before reaching the crossing. As it was, however, he released the air brakes on receiving the signal from the watchman before his train rounded the curve a sufficient distance for him to personally determine the position of the crossing gate, and when

he saw it set against his own train it was then too late to avert the accident. The crossing watchman, however, denied that he gave the A.C.L. train a proceed signal, but instead said he waved stop signals to it, and in this contention he was supported by the A.C.L. agent at Archer. Nevertheless, under the rule the engineman first should have seen that the crossing gate was in clear position before accepting a proceed signal from the crossing watchman. If this rule had been obeyed this accident would not have occurred.

The investigation disclosed that a practice had developed at Archer whereby the crossing watchman would wave a proceed signal from the embankment on the east side of the track to enginemen of north-bound A.C.L. trains, such proceed signal only being waved when the gates were lined clear for the A.C.L. train. This was done so that A.C.L. enginemen could see the watchman farther, and the signal would be accepted and acknowledged before A.C.L. trains had rounded the curve a sufficient distance for the engine crew personally to observe the position of the gate. The crossing watchman ordinarily would not take up such a position on the embankment when the gate was lined against A.C.L. trains, and prior to this occasion he had never so located himself to give a stop signal to an A.C.L. train. The motive which actuated him in this instance was the fact that he realized the A.C.L. train apparently was approaching too fast to stop for the crossing; therefore, as a matter of precaution he went up on the bank and waved stop signals in an attempt to stop the A.C.L. train. The practice disclosed in this instance, wherein an operating rule has been violated for a considerable length of time until it has become a custom, is a matter for which operating officials as well as employees involved are responsible.

Conclusion

This accident was caused by failure to operate the A.C.L. train under proper control prepared to stop before reaching the crossing gates at a railroad intersection.

Recommendation

It is recommended that responsible officers of this railroad immediately take steps to insure proper enforcement of the operating rule involved.

Respectfully submitted,

W. J. PATTERSON,

Director.