INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT OF THE DIRECTOR

BUREAU OF SAFETY

ACCIDENT ON THE

MOBILE & OHIO RAILROAD

OKOLONA, MISS.

MARCH 14, 1937

INVESTIGATION NO. 2158

SUMMARY

Inv-2156

Railroad:	Mobile & Ohio
Date:	March 14, 1937
Location:	Okolona, Miss.
Kind of accident:	Derailment
Train involved:	Freight
Train number:	Second No. 52
Engine number:	401
Consist:	58 cars and 3 cabooses
Speed:	20-25 m.p.h.
Track:	0° 30' right curve; 0.50 percent ascending grade
Time:	5:10 p.m.
Weather:	Cloudy
Casualties:	2 killed; 1 injured
Cause:	Open switch and failure to maintain proper lookout ahead.

May 13, 1937.

To the Commission:

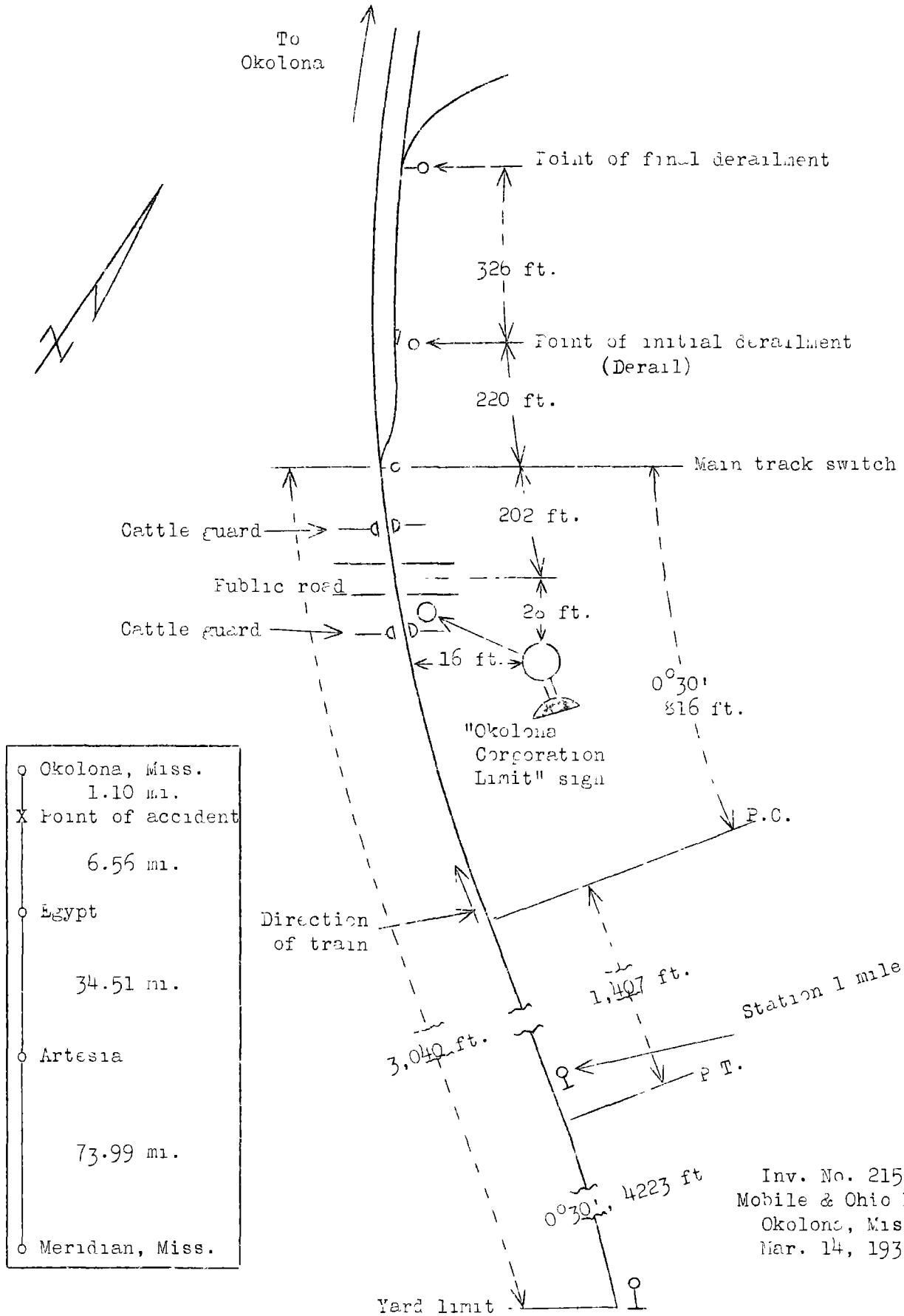
On March 14, 1937, there was a derailment of a freight train on the Mobile and Ohio Railroad, at Okolona, Miss., which resulted in the death of two employees and the injury of one employee.

Location and method of operation

This accident occurred on the Meridian District of the Southern Division which extends between Meridian and Okolona, Miss., a distance of 126.16 miles. In the vicinity of the point of accident this is a single-track line over which trains are operated by timetable and train orders, no block-signal system being in use. The south yard-limit board at Okolona is located 2 miles south of the station. The south lead to the yard parallels the main track on the east and joins that track through a No. 10 facing-point turnout for north-bound trains, at a point 3,040 feet north of the south yard-limit board. A No. 5 Hayes derail is located on the east rail of the south lead track at a point 220 feet north of the main track switch, and 326 feet north of the derail there is a facing point switch for north-bound trains leading from the south lead track to the south leg of a Y on the east. The initial derailment occurred on the south lead track at the derail and the final derailment occurred at the Y switch.

The main track switch is equipped with a ground-throw Ramapo Ajax switch stand located on the east side of the track, 8 feet from the east rail; this stand has a single red target 18 inches in diameter mounted on the spindle 6 feet above the head block ties, this disc being displayed to an approaching train when the switch is lined for a movement to the lead track. Main track switches on this line are not equipped with switch lights. The derail is operated by a low switch stand which is equipped with a switch light having 6 inch lenses located 26 inches above the head block ties.

Approaching the point of accident from the south there is a 30' curve to the left, 4,223 feet in length followed by 1,047 feet of tangent track and then a 30' curve to the right extending 816 feet to the south lead switch and for 3,214 feet beyond. The grade is slightly ascending northward, being 0.50 percent at the point of accident. At a point 202 feet south of the south-lead switch, a public highway crosses the track at approximately right angles. Wooden cattle guards 5 feet in height are located along the track on each side of the highway, one being located 24 feet



Inv. No. 2158
Mobile & Ohio R.R.
Okolona, Miss.
Mar. 14, 1937

north and the other 41 feet south of the center line of the highway. A metal disc corporation-limit sign, 3 feet in diameter, is located between the highway and the south cattle guard, 16 feet east of the tracks and 28 feet south of the center of the highway; this sign is 10 feet high.

It was cloudy at the time of the accident which occurred at 5:10 p.m.

Description

Train Second No. 52, a north-bound second-class freight train consisted of 58 cars and 3 cabooses, hauled by engine 401, and was in charge of Conductor Callis and Engineman Burnett. This train departed from Egypt, 7.66 miles south of Okolona, at 4:57 p. m., 5 hours and 17 minutes late, according to the train sheet, and due to an open switch, entered the south lead track in Okolona yard and was derailed while traveling at a speed estimated to have been between 20 and 25 miles per hour.

The locomotive stopped on its left side about 500 feet north of the initial point of derailment at an angle of about 35 degrees to the lead track. The tender and first 10 cars were derailed and stopped in various positions across the main track, the lead track and the south leg of the Y; all of the derailed cars except the 7th and 10th were demolished. The first marks of derailment were flange marks on the ties 19 feet north of the derail, these marks continuing to the Y track switch where final derailment occurred.

The employees killed were the fireman and head brakeman while the employee injured was the engineman.

Summary of evidence

Engineman Burnett, of Train Second No. 52, stated that he has been operating on this district as an engineer since 1911 and is fully familiar with operating rules and track conditions. An air-brake test of his train was made at Artesia, 42.17 miles south of Okolona. His engine was in good condition and he had experienced no difficulty in controlling his train en route. Approaching Okolona he allowed the train to drift for about 2 miles and when he got around the curve just north of the yard limit board he could see that the main track was unobstructed for nearly a mile. It was cloudy and dark enough to enable him to see the switch light on the derail; the headlight of his engine was burning. Nearing the crossing his train was running at a speed of about 25 miles per hour and he was keeping a close lookout for highway traffic; his attention was attracted by the light on the derail indicating that the derail was in normal position but he did not observe the position of the

main track switch until his engine entered the turnout, whereupon he looked back and saw the switch was set for the lead track. He felt a slight impact as the engine struck the derail and he put the automatic brake valve in service position, fully applied the independent brake and opened the sanders but as there was no indication that the engine was derailed, he did not consider an emergency application of the brakes necessary. He did not discover that the engine was derailed until it struck the Y track switch at which time he placed the automatic brake valve in emergency position. The speed of his train had been reduced from 25 miles per hour to 20 miles per hour at the time of final derailment and the brakes were holding well. He considered that he was complying with rule 93, governing movement of trains within yard limits, and said that he could have stopped his train within one-half of his range of vision. He did not think it necessary to take unusual precaution while operating in this portion of the yard and said that the usual speed for freight trains at this point was from 20 to 25 miles per hour as it was customary for trains from the south to enter the yard-tracks at the north yard cut-off switch, nearly three-fourths of a mile north of the south lead switch. Whenever it is desired to have a train enter the yard over the south lead track, such train is notified by a 19 order and in the event such notice has not been given, the yard master arranges to flag the train south of the switch; neither he nor the head brakeman, who was on the opposite side of the engine, saw anyone at the switch in this instance. He did not know just how far the target on the lead switch was visible from the south but said that the cattle guards obscured the view. When he knew in advance that he was to enter the south lead track he applied the brakes a considerable distance south of the point from which the switch was first visible. Switch targets, as maintained, are not readily seen at a great distance and he said that had the switch been equipped with a switch light it would have attracted his attention. He placed the time of accident at about 5:00 p.m.

Conductor Callis, of Train Second No. 52, stated that the air brakes on his train were tested and had worked properly en route. He was familiar with rule 93, and considered that its provisions were complied with and that a stop could have been made as required by that rule. He was in the caboose and estimated the speed of his train approaching the south lead switch to have been about 15 or 20 miles per hour. He did not notice any application of the air brakes before the final derailment occurred. After the accident he looked at the main track switch and saw the unlocked switch lock lying on the head block and there was no indication of tampering with the switch. The weather was cold and cloudy and he estimated the range of vision at 100 or 200 yards. He said the accident occurred at 5:10 p. m.

The statement of Flagman Vann corroborated the statement of Conductor Callis except that he estimated the speed of his train between the yard-limit board and the point of accident as being about 25 miles per hour. The weather was cloudy and visibility was not very good.

Conductor Hasselle, in charge of Extra 409 South, the last train to use the switch prior to the accident, stated that his train left Okolona yard over the south lead. In keeping with previous arrangement, Yard Master Gay went to the south end of the yard to open and close the switches for his train. His train left the south lead track at 4:30 p. m. and he was on the rear platform of the caboose, from which he threw off a note to Yard Master Gay who was standing near the derail. He saw the yard master line the derail, pick up the note and advance toward the main track switch; satisfied that he would close the switch, he went inside the caboose. He said Yard Master Gay drove his car to the south end of the yard and from where he left the car standing it would be necessary for him to pass the main track switch to return to his car. Conductor Hasselle said that he is familiar with the rule which holds conductors responsible for the position of switches used by themselves and their trainmen but in this case he was relieved of such responsibility by Yard Master Gay. It was cloudy and appeared to be misting at the time. He estimated the range of vision as being about 600 feet.

Engineman Jackson, of Extra 409 South, stated that prior to leaving the yard, Conductor Hasselle told him to run the switch as the yard master would get it. The derail and main track switch were lined for his train and the yard master gave him a proceed signal. He did not look back for a signal from the rear as he depended on the yard master to close the switch. However, he did see the caboose as it passed over the switch 63 cars distant. He thought the south lead switch target would be visible for about 20 car lengths when approaching from the south and considered a speed of 25 miles per hour not excessive for a north-bound train at that point.

Head Brakeman Carpenter stated that the yard master told him that their train was to leave the yard as soon as possible in order to expedite the arrival of Train Second No. 52. The yard master said he would line the switches at the south end of the yard and he was standing near the derail as the train pulled by.

Yard Master Gay stated that he had been employed on yard engines in Okolona yard for a period of 16 years, followed by 14 years as yard master and is thoroughly familiar with the operation and track lay-out at that point. On the day of the accident, Extra 409 South was called to leave at 4:40 p.m., and he instructed the crew that he would be at the south end of the yard to handle the switches for them. He drove his car from the yard office and

parked it on the east side of the track about 100 feet south of the south lead switch. He then lined the switches and stood near the derail as Extra 409 left the yard. When the caboose passed, he replaced and locked the derail and picked up a note thrown off by the conductor of the departing train. He then lined and locked the main track switch and examined the switch points to see that they were in proper position before returning to his car. He said that he did not read the note thrown off by the conductor of Extra 409 until after he had closed the main track switch. As he drove across the track, he again looked at the switch and observed that the target was lined for the main line. He noticed two small children in the vicinity of the switch but no automobiles. He then returned to the office and later went to Monroe Street crossing where he was informed of the derailment. Some time after the accident he examined the main track switch and found it lined for the lead track. The switch lock was lying unlocked on the head block, but he did not examine it. He said that when he wanted a train to head in at the south lead, he would inform the crew by message, but in case a train was not so notified, he would send out a flagman. He did not consider conditions immediately south of the lead track switch such as to require added precautions by north-bound trains, nor did he consider 25 miles per hour an unsafe speed in approaching this switch. However, he did think that a switch light would afford a greater degree of safety. He could recall no instance wherein switches had been tampered with in Okolona yard. The weather was cloudy at the time Extra 409 South departed and it was getting about dark when he first learned of the accident to Train Second No. 52; the visibility at that time would permit seeing a man a distance of 15 or 20 car lengths.

Roundhouse Foreman Wilson reached the scene of accident about 25 minutes after its occurrence at which time visibility was about 500 feet and a headlight was not necessary. The brake valve of the derailed engine was in running position although this observation was not made until after several people had been inside the cab. He made an inspection of the engine but found nothing that would contribute to the accident.

Train Master McAlpin stated that he reached the scene of the accident at 3 a. m., March 15, and found the south lead switch lined and latched for the lead, but was unable to find the switch lock. During the afternoon of March 17, with weather conditions cloudy, he made observations from a locomotive similar to the one involved in the accident and found that with the main track switch lined for the south lead, the switch target became visible at a point about 1800 feet south of the switch and remained in view for a distance of 800 feet. It was then obscured by the corporation-limit sign for a distance of about 300 feet when it again became visible and remained in view until the switch was

reached. He believed that a switch light would not have increased the distance from which the position of the switch could have been seen, considering the time of day and the visibility at the time of accident.

Discussion

The evidence indicates that in order to expedite the movement of trains, the yard master had instructed the crew of Extra 409 South not to stop to close the switches when they pulled out at the south end of the yard and had advised them that he would attend to this duty; accordingly, he proceeded to the switches and lined them for a movement from the south lead to the main track and Extra 409 departed via that route at 4:30 p.m. Yard Master Gay was stationed near the derail switch as the train pulled by and Conductor Hasselle of Extra 409 saw him restore the derail to its normal position and pick up a note which he had dropped from the caboose and proceed in the direction of the main track switch. However, Conductor Hasselle did not see him close that switch. Yard Master Gay claimed that after picking up the note he closed and locked the main track switch and examined the switch points and saw them to be in proper position. This was the last known operation of the switch. He then got in his automobile which was parked near the highway crossing and as he drove over the crossing he again looked and saw the switch still lined for a main track movement after which he drove to the yard office nearly a mile distant. When Train Second No. 52 approached about 30 minutes later the switch was lined for the lead track and the switch lock was later found lying unlocked on the head block ties. Visibility tests made three days later under practically similar weather conditions and with an engine similar to the one involved in the accident, disclosed that with the main track switch lined for a movement to the lead track, the switch target is visible at a point about 1,800 feet south of the switch and remains visible for about 800 feet; it then becomes hidden by the corporation-limit sign and remains obscured for a distance of 300 feet where it again becomes visible and remains so until the switch is reached. None of the three men on the engine of Train Second No. 52, however, saw the indication of the switch target until the engine was entering the turnout although the engineman said he could see that the track was clear for nearly a mile ahead and the day was not so far advanced but that the sun would have been shining had there been no clouds. He was watching for traffic over the highway crossing located about 200 feet south of the switch and although he saw the light on the derail indicating the derail to be in normal position, he did not see the banner on the main track switch until the engine had entered the switch.

Even then he did not apply the brakes in emergency but merely placed the brake valve in service position; he said that had he applied the brakes in emergency when the engine first entered the turnout the accident might possibly have been prevented. Knowing that the derail was in derailing position on the south lead track, he should have made an emergency application of the brakes as soon as the engine entered the turnout.

Conclusion

This accident was caused by an open switch and failure of those on the engine of Train Second No. 52 to maintain a proper lookout of the track ahead.

Respectfully submitted,

W. J. PATTERSON,

Director.