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REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURPED ON THE MISSOURI PACIFIC RAILROAD AT SWIFTON, ARK., ON OCTOBER 4, 1924.

October 27, 1924.

To the Commission

On October 4, 1924, there was a derailment of a passenger train on the Missouri Pacific Railroad at Swifton, Ark., which resulted in the death of 2 employees and 1 trespasser, and the injury of 23 passengers, 7 mail clerks and 1 trespasser.

Location and method of operation

This accident occurred on the Hoxie District of the Arkansas Division, which extends between North Little Rock and Hoxie, Ark., a distance of 117.05 miles. In the vicinity of the point of accident this is a single-track line over which trains are operated by time-table, train orders, and a manual block-signal system. The point of accident was at the south house-track switch at Swifton; approaching this point from the south the track is tangent for several miles, while the grade is level and then slightly ascending for a distance of several thousand feet.

The south-house-track switch is a facing-point switch for northbound trains, with a No. 10 turnout leading to the left. The switch stand is of the Elliott ground-throw type, displaying at night a red indication when the switch is open and a green indication when closed it is equipped with two latches, one to hold it in position when closed and one to serve a similar purpose when it is open. The stand is located on the fireman's side of a northbound train.

The weather was clear at the time of the accident, which occurred between 10.25 and 10.30 p.m.

## Description

Northbound passenger train No. 8 consisted of four baggage cars, two mail cars, three baggage cars,

one chair car, one coach, and one Pullman sleeping car, hauled by engine 5538, and was in charge of Conductor Moore and Engineman Heiserer. The first, fifth, sixth and eleventh cars were of steel construction, the others were of steel-underframe construction. Train No. 8 passed Tuckerman, 7.5 miles south of Sufton and the last open office, at 10.16 p.m., 19 minutes late, and was derailed on account of entering the south house-track switch at Swifton, which was found to be open, while traveling at a speed estimated to have been about 50 or 55 miles an hour.

Engine 5538 came to rest on its right side 354 feet beyond the switch points, between the main and house tracks; the first nine cars and the forward truck of the tenth car were derailed, the third and fourth cars being demolished. There was a cotton platform on the left side of the house track, opposite which two box cars and one flat car were standing, the cotton platform was demolished, the flat car badly damaged, and the two box cars driven ahead a distance of about 500 feet, one of them also being badly damaged. The employees killed were the engineman and fireman

## Surmary of evidence

Conductor Moore said he was riding in the tenth car and that his first knowledge of anything wrong was when he felt the emergency application of the air brakes followed immediately by the shock of the derail-About 15 minutes after the cocurrence of the accident he examined the saitch and found it open, with the lever down in its socket, the lamp extinguished, and the lock lying on the ground opposite the stand lock was open and did not show any signs of having been battered. At this time the rear truck of the tenth car was standing on the switch points so that they could not possibly have been moved after the occurence of the accident and prior to the time of his examination. switch seemed to be in good condition and the points titled properly. He did not examine the lamp to see if it had been burning recently. The statements of Brakeman King and Train Porter Starkey brought out no additional facts of importance except that Brakeman King thought the air brakes were applied a second or two before the accicent occurred.

Examination of the track showed that the switch and frog were not damaged, nor were there any marks on the house track at any point south of the frog.. The first mark was on a bolt at a joint at the north

end of the frog on the outside of a rall, a flange mark then appeared or the head of a spike 88 feet beyond the switch points, which was followed by flange marks across the top of the succeeding ties, these marks continuing until a point 114 feet from the switch points was reached, the rails were then overturned and the track more or less damaged for a distance of 561 feet.

The switch was last used by work extra 4621 between the hours of 5 and 6 p.m. and was closed by Brakeman Wilkerson, who stated that he locked the switch and then pulled on the switch chain to make certain that the switch was properly secured. Brakeman Wilkerson also said that while at Swifton he saw some one light the lamp and that this lamp was burning properly when his train departed. Southbound freight train No. 63 passed over this switch at about 8.45 p.m. and north-bound passenger train No. 38 passed over it between 9.10 and 9.15 p.m., making a station stop at Swifton, and Engineman Barnard, of train No. 38, said that all the switch lamps were burning properly and that he did not see any one in the vicinity of the house-track switch. Engineman Barnard also said that during the past two or three months he had not onserved any switch lamps extinguished.

Section Foreman Slaughter, in charge of the section on which the accident occurred, said he passed the switch several times on the evening of the accident, the last time at about 9.40 p.m., and at that time the lamp was ourning properly. He last inspected the switch at about 2 p.m., on the same day opening and closing it, and he said it was in good condition, that neither he nor any of his men handled it after that time and that none of his men possessed a switch key. Section Foreran Slaughter was sleeping nearby and was awakened by the noise of the accident and on reaching the scene he found the conditions as described by Conductor Moore.

William Hatfield, a citizen of Swifton, said ne could plainly see the switch lamp from his house and that between 10 and 10.15 p.m. his vife remarked as to now brightly it was burning. Shortly afterwards he crossed the track in his automobile, and noticed that the switch lamps were burning properly, while in the distance he could see the electric headlight of train No. 8. He did not see any one near the house-track switch

T. M. Winfrey, city marshall at Swifton, who is also employed by the raplroad company to watch exposed cotton at night, was on the cotton platform when train No. 8 approached but did not take special notice of the house-track switch and was unable to say positively

whether or not the switch lamp was burning. He also said that just prior to the accident he had noticed no one in the vicinity of the switch.

Roadmaster Pinkerton said a man is employed to clean, fill, and light all switch lamps daily between Newhort and Military, a distance of 29.29 miles, within which territory this accident occurred. Mr. Pinkerton said he received frequent reports of lamps being out and has issued instructions that they must be relighted. It has been his observation, however, that enginemen do not reduce the speed of their trains when they observe switch lamps not burning at night.

## Conclusions

This accident was caused by a switch having been opened, apparently with malicious intent.

The evidence clearly indicates that there was nothing defective about the switch, but that some one apparently opened it and that train No 8 was derailed as a roull of enering this open switch at a high rate of speed. Prior to the occurrence of the accident the switch lamp had been observed burning property, displaying a green indication, by various persons and at various times from early in the evening to within a few minutes of the time at which the accident occurred, and it is possible the person who opened the switch did so, and also extinguished the lamp, just before the engine of train No. 8 reached it.

At the time of the investigation it had not been developed just when or by whom the switch was opened, although the fact that the lock was not damaged in any way, and was again placed in use by the section foreman after the accident, indicates that the person who opened the switch was in possession of a switch key.

The employees involved were experienced men At the time of the adulation the engine crew had been on cuty about 3 hours and the train crew about 8½ hours, after off-duty portods of approximately 12 and 13 hours, respectively.

Respectfully submitted,

W. P. BORLAND,

Director.