

INTERSTATE COMMERCE COMMISSION

REPORT OF THE CHIEF OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE HOUSTON & TEXAS CENTRAL RAILROAD, SOUTHERN PACIFIC LINES, AT BREMOND, TEX., ON NOVEMBER 4, 1922.

December 6, 1922.

To the Commission:

On November 4, 1922, there was a rear-end collision between a passenger train and a mixed train on the Houston & Texas Central Railroad, Southern Pacific Lines, at Bremond, Tex., resulting in the death of 1 passenger, and the injury of 11 passengers.

Location and method of operation.

That part of the Dallas Division on which this accident occurred is a single-track line over which trains are operated by time-table and train orders, no block-signal system being in use. Time-table directions are used in this report. This collision occurred on the Waco Branch, at a point 400 feet west of the junction switch at Bremond, which leads off the main track to the south; approaching this point from the east the track is tangent for more than a mile, while the grade is practically level. The switch stand is located on the engineman's side of a westbound train, and the switch is a facing-point switch for westbound trains. The disk switch target is 18 inches in diameter located on a mast 5 feet 9 inches in height, the indication is red when the switch is lined for the Waco Branch; the target cannot be seen when the switch is closed. No switch light is used at night to indicate the position of this main track switch. Under special rules and regulations contained in time-table No. 186, effective July 9, 1922, train No. 17 cuts off sleeping cars for Waco on the main track just east of the junction switch, after which the Waco Branch train backs out and picks up these cars, following trains are required to approach Bremond under control excepting to find this movement being made. The weather was clear at the time of the accident, which occurred at about 4.06 a.m.

Description.

Westbound mixed train No. 65 consisted of 3 freight cars, 1 baggage and express car, and 4 coaches, in the order named, hauled by engine 318, and was in charge of Conductor Cunningham and Engineman Caswell. Train No. 17 had cut off three sleeping cars for Waco and left them standing just east of the junction switch, after which train No. 65 backed out on the main track through this switch, and moved these cars forward into clear on the Waco Branch, and while standing at this point, 400 feet from the switch, the rear end was struck by train No. 37.

Westbound passenger train No. 37 consisted of 1 baggage car, 1 coach, 1 chair car, and 4 Pullman sleeping cars, in the order named, of all-steel construction, hauled by engine 709, and was in charge of Conductor Turner and Engineman Reilly. This train passed Calvert, 14.1 miles from Bremond, at 3.46 a.m., 31 minutes late, entered the junction switch leading to the Waco Branch at Bremond, and while traveling at a speed estimated to have been between 15 and 25 miles an hour collided with train No. 65,

Engine 709 was considerably damaged, while the rear car of train No. 65, of steel construction, was telescoped by the engine of train No. 37 a distance of approximately 18 feet. None of the other equipment in either train was derailed or materially damaged.

Summary of evidence.

After the Waco sleeping cars were left at Bremond by train No. 17, Head Brakeman Burkhead, of train No. 65, opened the junction switch and left the lock hanging. The train then backed out through the switch, and the sleeping cars were coupled to train No. 65 by Flagman Thornhill, who then placed the markers on the rear car, and gave a proceed signal. When the rear car was at the junction switch, Flagman Thornhill got off and he claimed he set his lantern on the ties, and closed and locked the switch. After examining the switch points he gave a proceed signal, ran and caught the rear of the train, then gave an additional proceed signal. At the time of the accident Conductor Cunningham, Engineman Caswell, Head Brakeman Burkhead, and Flagman Thornhill were either at, or in the immediate vicinity of the station.

Conductor Cunningham stated he was standing on the right side of the front platform of the middle sleeping car, looking out of the vestibule door, and as Flagman Thornhill kept his lantern in his hand while the junction switch was thrown, he could tell it was being closed. He did not personally ascertain whether or not the switch had actually been closed and locked, but maintains that on meeting Flagman Thornhill inside the middle sleeping car, shortly after watching the motions of the lantern, he inquired as to whether or not this was done and was informed that the switch had been closed, however, Flagman Thornhill had no recollection of this conversation. Conductor Cunningham, Head Brakeman Burkhead, and Flagman Thornhill stated that some college students had been causing them considerable trouble at Bremond, while Flagman Thornhill stated there were four men, with whom he previously had trouble, standing at the junction switch at the time he closed and locked it. Conductor Cunningham, Head Brakeman Burkhead, and Flagman Thornhill were of the opinion the switch was opened with malicious intent.

Special Agent Williamson, of the International & Great Northern Railway, stated he was standing about opposite the baggage car of train No. 65 when it pulled up to the station at Bremond on the Waco Branch, and saw Flagman Thornhill put his lantern down and exert considerable effort in closing the switch, which was closed on the second attempt.

When approaching Bremond, Engineman Reilly of train No. 37, shut off steam and made light application of the air brakes. He started to sound four blasts of the whistle, calling for the train-order board at the station, however, before sounding the fourth blast he saw that the switch was open, at which time the speed was about 35 miles an hour and the engine about 35 or 40 feet from the switch, and he at once applied the air brakes in emergency. Engineman Reilly stated that he could have seen the switch target much sooner had the headlight been burning brightly.

Road Foreman of Engines Doyle stated the use of switch lights on main track switches was discontinued about the year 1900, at which time electric headlights were introduced, while Superintendent Hollimon said that in general they now have lights on main-track switches

through yards, and on all main-track switches on a portion of the division. In company with other officials, Road Foreman of Engines Doyle made a vision test, using an engine with a headlight similar to the one on engine 709, and the red indication of the switch target could not be seen until the engine was within 450 feet of the switch, which was not sufficient distance within which to bring to a stop a train such as the one involved, traveling at a speed of between 30 and 35 miles an hour, he estimated the distance necessary for this purpose to be 300 yards.

Conclusions.

This accident was caused by an open switch.

In regard to the statements of Conductor Cunningham, of train No. 65, and Special Agent Williamson, of the International & Great Northern Railway, about Flagman Thornhill closing the junction switch, it is to be noted that while Conductor Cunningham states that as Flagman Thornhill kept a lantern in his hand, he could tell by the motion of the light, from his position on the middle sleeping car, that the switch was being closed, Flagman Thornhill maintains he placed his lantern on the ties, then closed the switch; also, actual test proved that from his position it was impossible for Conductor Cunningham to have seen any one in the act of throwing this switch. It also appears that Special Agent Williamson, standing opposite the baggage car in train No. 65, said he saw Flagman Thornhill throw the switch; however, the baggage car was standing at a point approximately 900 feet from the switch, and owing to the darkness it would be practically impossible for him to have definitely determined the position of, or to have accurately followed, the movements he maintains Flagman Thornhill made.

Immediately after the accident the switch was found to be lined for the Waco Branch, and everything pertaining to it was found to be in the same condition as it was just before train No. 65 backed out of the Waco Branch and picked up the sleeping cars, the lock being suspended from the chain, and unlocked; there were no marks to show that any part of this switch or its appurtenances had been tampered with. While the evidence indicates that some students had caused members of the crew of train No. 65 considerable trouble at Bremond, there is no evidence that any one tampered

with the switch, other than the opinion advanced by some of the employees, and it is believed Flagman Thornhill failed to close and lock the switch after his train passed through it to the Waco Branch.

Under rule 98 of the rules and regulations of the operating department, trains must approach the end of double track, junctions, etc., prepared to stop unless the switches and signals are right and the track is clear, while under the special instructions in the time-table, previously referred to, trains following train No. 17 are required to approach Bremond expecting to find the sleeping cars being handled by the Waco Branch train. In this case, the cars had been picked up and moved off the westbound main track, but with the switch still open one of the conditions requiring westbound trains to approach with care still existed. Engineman Reilly was not properly observing these rules in approaching this point at a speed which, according to his own estimate, was about 33 miles an hour. Had he taken the proper measures to reduce the speed of his train before it reached the switch, undoubtedly he would have been able to bring it to a stop before colliding with the rear of train No. 65. Had this main-track switch been equipped with switch light, undoubtedly Engineman Reilly could have discovered it was open in time to have averted the accident.

The employees involved were experienced men. At the time of the accident the crews of trains Nos. 65 and 37 had been on duty less than 8 hours, previous to which they had been off duty 12 hours or more.

Respectfully submitted,

W. P. Borland,

Chief, Bureau of Safety.