

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE ST. LOUIS-SAN FRANCISCO RAILWAY AT WEST TULSA, OKLA., ON NOVEMBER 29, 1923.

January 28, 1924.

To the Commission:

On November 29, 1923, there was a collision between two switching transfers on the St. Louis-San Francisco Railway at West Tulsa, Okla., which resulted in the death of one employee and the injury of three employees.

Location and method of operation.

This accident occurred on the Cherokee subdivision which extends between Monett, Mo., and Sapulpa, Okla., a distance of 155.3 miles. Movements within yard limits are governed by rule 93, reading as follows:

"Within yard limits the main track may be used protecting against first class trains. Second and third class and extra trains must move within the yard limits prepared to stop unless the main track is seen or known to be clear."

The accident occurred within yard limits 1,462 feet west of the station at West Tulsa on the westbound main track; at this point both main tracks are used by switch engines operating in either direction. Approaching the point of accident from the east the track is tangent for 4,111 feet, followed by a curve of 2° to the left, 883 feet in length, and is then tangent to and beyond the point of accident, the accident occurring on this tangent about 1,798 feet from its eastern end. The grade is practically level or very slightly descending at the point of accident. Parallel with and to the left of the 2° curve east of the station there is an electric power line, and on five poles located about 16 feet above the tops of the rails there are 250-candle power incandescent lights. It was snowing at the time of the accident which occurred at about 12.05 a.m.

Description.

Switch engine 3802, in charge of Foreman Richardson and Engineman Bryant, left the yard office at West Tulsa, the engine headed west, with two cars ahead of it, to run to the Cosden Refinery and while proceeding eastward on the westbound main track at a speed estimated to have been between 8 and 15 miles an hour, it collided with a transfer of cars being pushed by switch engine 3803.

Switch engine 3803, in charge of Foreman Morrison and Engineman Studebaker, after switching at a connection east of the Arkansas River bridge, started towards West Tulsa, the engine headed west, with 15 cars ahead of it. After passing over the bridge and through a crossover from eastbound to the westbound main track, it proceeded a short distance and had stopped or nearly stopped when it was struck by switch engine 3802.

The end of the gondola car next to engine 3802 overrode the buffer beam and came to rest against the smoke box of the engine, the rear trucks being derailed, while the couplers between the 13th and 14th cars ahead of engine 3803, both tank cars, were broken and the cars came to rest with the end of the forward car raised and resting on the end of the next car. The employee killed was a switchman.

Summary of evidence.

Foreman Richardson of switch transfer 3802 said that he was directed by Night Yardmaster McBride to go to the Cosden Refinery for some cars; he suggested to the night yardmaster that he take the two cars which were then coupled ahead of the engine, which he was unable to place in the yard owing to a train blocking the crossover, to the refinery and upon his return with the transfer he would place the cars at the west end of the yard, to which arrangement he said the night yardmaster agreed. Leaving the yard office the train moved eastward on the westbound main track and Foreman Richardson said he boarded the head car which was a box car, carrying a lighted lantern, and stood on top about 6 feet from the head end of the car. Switchman McDonough rode the side ladder of the coal car next ahead of the engine and Switchman Simmons rode on the right front footboard of the engine. Looking eastward he was able to see the bright lights about the station and believed that the track was clear up to that point. After passing through a flurry of snow while moving at a speed of

about 8 or 10 miles an hour, he saw a stop signal given from the top of a car about 7 or 8 car lengths ahead and he at once started to give stop signals to his engineman but after two or three motions his lantern went out and when the engineman failed to respond to his arm signals, he went to the head end of the car to descend the side ladder but fearing that there was not time to climb down and reach a place of safety, he returned to about the center of the car and lay down on the running board to await the shock of the collision which occurred a few seconds later. He thought the approaching transfer was about stopped when the collision occurred. Foreman Richardson said the bright lights about the station, together with the wind and snow, prevented him from seeing the light on the head car of the train sooner than he did and that it did not occur to him to go to the rear of the car after his lantern went out and shout to Switchman McDonough to give stop signals. Switchman McDonough said he was unable to see the approaching train and his first intimation of the accident was when the collision occurred, at which time he estimated the speed to have been about 12 or 15 miles an hour.

Engineman Bryant said that leaving the yard office the speed was about 8 or 10 miles an hour and approaching the coal chute, about 800 feet west of the point of accident, he reduced speed on account of the snow and smoke from one of the refineries blowing across the track; he was watching Foreman Richardson's lantern on top of the head car and when he saw the stop signals given he immediately made an emergency application of the air brakes and thought that the engine did not move over a car length before the collision occurred. He also said that the air brakes on the engine were in good condition and the headlight was burning brightly but was obscured by the box car ahead of the engine.

Fireman Hall said he was sitting on his seat box with his head out of the side window of the cab looking ahead, although it was difficult to see ahead any great distance owing to the snow; just before the collision occurred he saw stop signals given from the top of the head car of an approaching train and the light then went down the side of the car. He shouted to Engineman Bryant who was then applying the air brakes, at which time the speed was about 12 or 15 miles an hour but the cars collided before speed was materially reduced.

Foreman Morrison, of switch transfer 3803, said that after the train had passed over the bridge and through the crossover to the westbound main track, he rode the right running board of a tank car, the second car from the head end. Switchman Hallum riding the head car and Switchman Taylor, who handled the crossover switches, riding on the engine. He estimated the speed after leaving the crossover to have been about 8 miles an hour but was unable to say whether or not the train had come to a stop before the collision occurred. He also said it was the practice for switch engines to use the main track against the current of traffic and that it was necessary to use the westbound main track to get into Cosden Yard.

Switchman Hallum from his position on top of the head car said he saw the reflection of a headlight about 150 yards distant and when he realized that it was coming toward them, he gave a slow signal and receiving no response from the approaching train, he gave a stop signal which his engineman obeyed, and he continued to give stop signals to the other crew which were finally observed by a man riding on top of the head car who gave a succession of stop signals when the trains were about two car lengths apart. Switchman Hallum said he then started down the side ladder of the car on the left side and had just reached the ground when the collision occurred.

Engineman Stuebaker said the train moved 6 or 7 car lengths after passing through the crossover when he observed the switchman on the head car giving violent stop signals and he shut off and applied the air brakes and he thought that the train had stopped before the collision occurred as he only felt a slight jar. He said he experienced no difficulty in seeing Switchman Hallum's signals 15 car lengths distant.

Night Yardmaster McBride said that while it snowed during the night he did not think that the wind was of sufficient violence to make it difficult to see signals, and noted after the accident that from a point near the station he was able to see the lights about the scene of the accident, a distance of 35 or 40 car lengths, when he believed that the weather conditions were about the same as at the time of the accident, nor did he experience any difficulty during the night in observing switch targets about the yard.

General Foreman Spencer said he examined the air brakes on engine 3802 after the accident and found them to be in good condition.

Conclusions.

This accident was caused by the failure of switch transfer 3802 to be operated under control as required by rule.

According to Foreman Richardson's statement, he first saw the approaching train when it was about 7 or 8 car lengths distant and he immediately gave stop signals. Engineman Bryant said that he applied the air brakes in emergency upon seeing the signals and that the engine did not move over a car length before the collision occurred; according to Switchman Hallum, stop signals were given from the leading car of the opposing train when the two trains were only about two car lengths apart. It is therefore, apparent that Foreman Richardson did not discover the opposing train until very shortly before the collision occurred. Opinions of employees involved varied as to the extent to which the storm obscured the view and interfered with the observance of signals, but in any event it was incumbent upon Foreman Richardson to see to it that his train was operated at such speed that it could be stopped within the distance that from his position on the leading car he could see and know the track to be clear

Tests made subsequent to the accident to determine to what extent the electric lights near the station interfered with the view of Foreman Richardson to the east developed that the 2nd and 3rd lights from the west end, on account of the curve, shined on the left and right side of the westbound main track, respectively, but not sufficiently close to interfere with or confuse the proper observance of signals. It is believed that had Foreman Richardson been maintaining a proper vigilance in protecting the movement and had Engineman Bryant restricted the speed of the train to a rate within safe limits considering the weather conditions, this accident would have been averted.

The investigation disclosed that although transfer 3803 was operated for a considerable distance over main line the air brakes on the cars in this train were not coupled up and used; while this train was stopped or nearly stopped at the time of the accident, had the brakes on these cars been used by the engineman, this train might

have been stopped in time at least to reduce the severity of the collision.

All of the employees involved were experienced men; at the time of the accident none of them had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted

W. P. BORDLAND

Director.