

IN THE STATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE MISSOURI-KANSAS-TEXAS RAILROAD COMPANY OF TEXAS NEAR HILLENDAHL, TEXAS, ON JANUARY 8, 1924.

March 28, 1924.

To the Commission.

On January 3, 1924, there was a head-end collision between two passenger trains on the Missouri-Kansas-Texas-Railroad of Texas near Hillendahl, Texas, which resulted in the death of 1 mail clerk and 4 employees, and the injury of 64 passengers, 3 persons carried under contract, and 7 employees.

LOCATION AND METHOD OF OPERATION

This accident occurred on the Houston Division of the South Texas District, which extends between Galveston and Granger, Texas, a distance of 225.9 miles. In the vicinity of the point of accident this is a single-track line over which trains are operated by time-table and train order, no block-signal system being in use. The collision occurred at a point 1.09 miles north of the north passing-track switch at Hillendahl, which is a blind siding, the passing track at this point being 6,035.3 feet in length. Approaching the point of accident from either direction the track is tangent and practically level for a distance of more than 5 miles. Northbound trains are superior to trains of the same class moving in the opposite direction.

The weather was dark and cloudy at the time of the accident, which occurred at 8.57 p.m.

Description.

Northbound passenger train No. 26 consisted of two baggage cars, one combination mail and passenger car, two coaches and two Pullman sleeping cars, hauled by engine 351, and was in charge of Conductor Jarley and Engineman Thomason. The two baggage cars and one Pullman sleeping car were of all-steel construction, while the combination car, two coaches, and rear Pullman sleeping car had steel underframes. At Houston, train order No. 61, Form 31, was received reading as follows:

"No 26 Eng 351 wait at Hillendahl until 9.00 p.m. for No. 23 Eng 278."

Train No. 26 left Houston, according to the train sheet, at 8.30 p.m., on time, passed Eureka, 6.2 miles from Hillendahl and

the last open office, at 8.45 p.m., four minutes late, passed Hillendahl, and collided with train No. 23 while traveling, at a speed estimated by the crew to have been between 40 and 50 miles an hour.

Southbound passenger train No. 23 consisted of one baggage car, one combination baggage and mail car, two coaches and one Pullman sleeping car, in the order named, all of all-steel construction, with the exception of the second and third cars, which had steel underframes, was hauled by engine 278, and was in charge of Conductor Graham and Engineman De Rossett. At Sealy, 37.9 miles from Hillendahl, the crew received a copy of train order No. 61, previously quoted, the train departing from that point at 8.08 p.m. It proceeded southward, making several station stops, passed Addicks, 6.04 miles north of Hillendahl, at 8.50 $\frac{1}{2}$ p.m., according to Conductor Graham and Brakenan Halliburton, and collided with train No. 26 at a point 3.83 miles south of Addicks while traveling at a speed estimated to have been between 40 and 55 miles an hour.

As a result of the collision both engines and tenders were demolished, the wreckage being thrown for a considerable distance on both sides of the track. The first three cars in each train were derailed and badly damaged, the first car in each train being demolished. The engineman and firemen of each train were killed.

Summary of Evidence

Conductor Carney, of train No. 26, stated that at Houston he received three orders, two of which related to track conditions and the third, train order No. 61, provided for a wait at Hillendahl until 9 p.m. for train No. 23. He said Engineman Thomason was standing on the pilot beam of the left side of the engine doing so at work when he delivered the orders and he held his electric lantern while the enginemen read the orders aloud to him. After reading the orders Engineman Thomason asked him to hand them to the fireman who was on the engine, and he did as requested, but did not know whether or not the fireman read them. He then returned to the train and told the brakeman, who was assisting passengers, that they had a wait order at Hillendahl at 9 p.m. for train No. 23. He was not certain whether or not he told the train porter about the orders, but he knew that he did not read or give the orders to either the brakeman or the porter to read. He said his train left Houston at 8.33 p.m., after a car man had given him an OK on the air and steam. He looked at his watch as the train passed Eureka tower and he said it was then 8.47 p.m., although Towerman Leathers, a Southern Pacific employee, said it was 8.45 p.m. Approaching Hillendahl Conductor Carney heard the station whistle signal sounded but did not hear the meeting-point whistle signal, and after looking through the car window he saw it was Hillendahl and pulled the whistle signal cord indicating the meet, which was not answered. He looked at his

watch and noted that it was then exactly 9 p.m., the train at this time being near a road crossing which is near the south passing-track switch. He attempted to raise two different windows so as to see if train No. 23 had arrived, but as the train passed the north switch he realized that train No. 23 had not arrived and made no further attempt to raise a window. He said it was about 9:01 p.m. or later when the train passed the north switch and the time specified in the wait order having elapsed, the speed of the train was gradually increased and was about 40 miles an hour at the time of the collision. His first intimation of anything wrong was when the air brakes were applied in emergency, the collision occurring before the speed had been materially reduced. The impact put out all lights, but he said he lighted his lantern and looked at his watch and that it was then 9:03 p.m.

Brakeman Lee, of train No. 26, said that while he was loading passengers at Houston he asked Conductor Carney regarding train No. 23 and was told that they, train No. 26, would wait at Addicks until 9 p.m. for that train. He said the train left Houston a few seconds after 8:30 p.m., stopped about a minute at Houston Heights for passengers, slowed down at Eureka and then increased speed to about 45 miles an hour, at which speed he thought his train was traveling at the time of the collision. He said he did not hear the whistle signal sounded approaching Hillendahl and did not hear the Conductor pull the whistle signal cord passing there. He was in the rear coach of his train when the collision occurred and did not feel the air brakes applied in emergency. Immediately after the collision he went back to Hillendahl, and notified the dispatcher of the accident, about 30 minutes afterwards Conductor Carney came to the booth and he asked the conductor what they had hit and was informed that they had collided with train No. 23. The conductor adding "We waited until nine o'clock at Addicks for them," at which he, Brakeman Lee, corrected him, saying the dispatcher had quoted train order No. 61 to him and had spelled out the word "Hillendahl". Conductor Carney then took the orders from his pocket, read train order No. 61, and exclaimed "Well, it does say Hillendahl, but we went by the north switch just at nine o'clock".

Fireman Zorburg, who was deadheading on train No. 26, said he was talking with Brakeman Lee at Houston when Conductor Carney came to where they were standing and informed Brakeman Lee that "we have until nine o'clock to make Addicks". He said he looked at his watch at about the time train No. 26 was between the passing track switches at Hillendahl, at which time it was about 2 or 3 minutes before 9 p.m. He estimated the speed to have been about 45 or 50 miles an hour at the time of the collision. Car Inspector Bell was beside

the engine when Conductor Carney handed the orders to Engineer Thomason, and heard the conductor say they had until 9 p.m. to go to Hillendahl.

Train Porter Franks, of train No. 26, said his train stopped at Houston Heights for passengers and left shortly after leaving that point. Conductor Carney said what he understood to have been "we have until nine o'clock to go to Addicks." He said he did not see the orders received at Houston and that Hillendahl was not mentioned at any time.

Conductor Graham, of train No. 23, stated that after receiving train order No. 61 at Seely his train left that point at 8.05 p.m. and after making several station stops, the last being half the second station north of Addicks, he commenced to work on his reports, having previously instructed Brakeman Halliburton to sit on the other side of the car and to notify him when they passed Addicks. When the brakeman so notified him, he looked at his watch and it was then 8.50 $\frac{1}{2}$ p.m. and he gave the matter no further thought as he considered there was ample time to clear train No. 26 at Hillendahl. Upon feeling the air brakes applied, apparently a service application, and thinking his train had arrived at Hillendahl he again looked at his watch and it was then exactly 8.57 p.m. He followed the brakeman to the door and had just started down the steps when the collision occurred. Conductor Graham estimated the speed of his train passing Addicks to have been about 60 miles an hour and about 35 miles an hour at the time of the collision. Brakeman Halliburton said that when he called Conductor Graham's attention to the fact that they were passing Addicks the conductor said they had 9 $\frac{1}{2}$ minutes to clear at Hillendahl, and on looking at his watch he found that it showed the same time as the conductor's watch.

Switchman Swanson, who was a passenger on train No. 23 at the time of the accident, said that as the train passed Addicks he looked at his watch and it was 8.51 p.m. He was positive about the time as he had been occupying his mind by looking at his watch as he did not want to go to sleep on the train. Immediately after the collision he again looked at his watch and it was not yet 9 p.m.

Fireman Deckert, of train No. 26, died from his injuries on January 13. Engineer Calloway, local chairman of the Brotherhood of Locomotive Firemen and Enginemen, stated that he called to see Fireman Deckert at the hospital on January 11 and upon being asked how train order No. 61 read he repeated the order verbatim and he quoted Fireman Deckert as saying "we read the order to wait at Addicks." He then asked Fireman Deckert if he had read the order and was answered in the affirmative.

Dr. E. V. Bertner stated that he attended Engineman Thomason after he had been removed to a sanitarium at Houston and that Engineman Thomason continually repeated that the collision was not the fault of his train in view of which Dr. Bertner thought it best to take a statement, and upon request Engineman Thomason stated in substance that he had a wait order at Addicks with train No. 23 and that his train collided with that train while traveling at a speed of about 45 miles an hour on straight track. Dr. Bertner then asked him if he could not see the headlight of that train, to which he replied that he did see a headlight but thought it was train No. 33 on the siding at Addicks. Dr. M. B. Stokes also was present and corroborated the information given by Dr. Bertner. Dr. Stokes further expressed the opinion that Engineman Thomason was fully conscious and understood the questions asked him, as his replies were perfectly coordinated and connected.

Mr. G. H. Deaton, an employee of the Humble Life Line Co., stated that on the night of the accident he was driving north in his automobile on the Katy highway, which parallels the track in the vicinity of the point of accident, and just as train No. 23 passed him the engineman blew two long blasts on the whistle, he stopped his car and looked back southward and saw a train approaching from the opposite direction and before he fully appreciated the situation there was a loud crash followed by an explosion. At the time of the collision he was about 300 yards north of where the trains came together, he turned his car and drove back to a point opposite the wreckage and while he said he did not place a great deal of dependence in a dashboard clock, on this occasion he looked at the clock in the dashboard of his car and noted that it was then 9 p.m. Mr. Deaton also stated that both headlights were burning brightly. On January 11, 1924, General Yardmaster Christian, in company with an inspector of this Commission, examined this clock and it was found that there was but 15 seconds variation between the time shown by the clock and the standard watches carried by those who examined the clock.

In the vicinity of the point of accident the wires of the Southwestern Telephone Company are located on the west side of and parallel the track, while the wires of the Western Union Telegraph Company are located on the opposite side, the poles of both companies being about 38 feet from the track. Eight of the ten wires of the telephone company were broken at a point opposite the point of collision, undoubtedly due to flying wreckage, as parts of the engines were found practically under these broken wires. Multiplex wires 201 and 203 of the Western Union Telegraph Company were crossed

or short circuited at a point on the other side of the track about opposite the point where the telephone company's wires were broken. Multiplex wire No. 201 was in use at the time and failed at 8.57 p.m., the failure being recorded by the multiplex operator at Houston who was using the wire and immediately tore out the blank and stamped the time of the failure on it in accordance with instructions. The time stamp used for the purpose is regulated by the master clock, which is set each day at 11 a.m., and regulates time on the railroad. The time stamp is also examined every four hours, and had been last examined at 7.33 p.m.

Wire Chief Hunt, of the Western Union Telegraph Company, said he arrived at the scene of the accident between 1 and 2 a.m., January 9, and found multiplex wires Nos. 201 and 203 and the dispatcher's telephone wire had been blown off the insulators, crossed, and otherwise disturbed. Operator Jones, on duty at Houston, said he tried to use the dispatcher's telephone at 9 p.m., and at that time found it out of order.

There was considerable evidence by various passengers on train No. 26 to the effect that they looked at their watches immediately after picking themselves up, and that the accident occurred between 9.02 and 9.03 p.m.

Conclusions

This accident was caused by failure to obey a wait order. The ante-mortem statements of the engineman and fireman of train No. 26 were to the effect that they understood Addicks to be the point at which their train was to wait for train No. 23, while the flagman and train porter said this was their understanding of what Conductor Carney told them concerning the orders he had received. Considerable testimony was taken concerning the time at which the accident occurred, but the best evidence is that afforded by the multiplex operator in the Western Union Telegraph office at Houston showing that wire No. 201 failed at 8.57 p.m. It is believed that train No. 26 passed Hillendahl before the time named in the wait order, and that this was due to the fact that the wait order had been misread by the engine crew and also by the conductor. Had conductor Carney shown his orders to the flagman and also to the train porter, as he should have done, it is possible the error would have been discovered.

This accident directs attention to the ever-present possibility of man-failure in train operation, and to the necessity for the adoption of some form of automatic train control for the purpose of stopping a train whenever for any reason those in charge fail properly to perform their duties.

All the employees involved were experienced men. At the time of the accident they had been on duty less than four hours, after eight hours or more off duty.

Respectfully submitted,

W. P. BORLAND,

Director.