

INV. 308.

DECEMBER 4, 1915.

**IN RE INVESTIGATION OF ACCIDENT WHICH OCCURRED ON  
THE CHICAGO, ROCK ISLAND & PACIFIC RAILWAY  
NEAR AGAWAM, OKLA., ON OCTOBER 19, 1915.**

On October 19, 1915, there was a head-end collision between a passenger train and a freight train on the Chicago, Rock Island & Pacific Railway near Agawam, Okla., which resulted in the death of 3 employees and 4 trespassers and the injury of 5 employees, 1 of whom afterwards died, and 64 passengers. After investigation of this accident, the Chief of the Division of Safety reports as follows:

Eastbound fast freight train No. 98 consisted of 23 cars and a caboose, hauled by locomotive 1749. It left Waurika, Okla., a terminal, at 11:00 p.m. October 18, in charge of Conductor Shradler and Engineman Stapleton. At Duncan, 25.03 miles from Waurika, the crew in charge received a copy of train order No. 1 which read as follows:

"No. eleven 11 Eng. 810 wait at Agawam until one fifteen 1:15 a.m. Rush Springs until one twenty-five 1:25 a.m. for No. ninety eight 98 Eng. 1749."

Train No. 98 passed Rush Springs, 19.8 miles beyond Duncan, at 12:55 a.m. and at about 1:09 a.m. collided with train No. 11 at a point 2,700 feet west of the west switch at Agawam, while running at a speed of about 30 miles an hour.

Westbound passenger train No. 11, en route from Chicago, Ill., to Dallas, Texas, was in charge of Conductor Cowan and Engineman Powell. The train was hauled by locomotive 810 and

consisted of 1 mail car, 1 baggage car, 1 smoking car, 1 chair car and 2 Pullman sleeping cars, all of which were of all-steel construction with the exception of the last car, which was of wooden construction. Train No. 11 arrived at Chickasha, Okla., at 12:38 a.m., at which point the crew received train order No. 1, quoted above. The train left Chickasha at 12:40 a.m., passed Agawan, 18.9 miles beyond Chickasha at about 1:05 a.m., and collided with train No. 98 while traveling at a speed estimated to have been about 30 miles an hour.

Both locomotives were derailed on the north side of the track and very badly damaged. Locomotive 1749 was torn from its frame and came to rest on its side on top of locomotive 810, which was also lying on its side. The mail car was torn from its trucks and thrown about 35 feet from the track to the south. The baggage car was also derailed, its forward end extending toward the mail car with its rear end resting on the roadway. This car remained upright. The smoking car had only its forward trucks derailed, while none of the other cars in train No. 11 was derailed or damaged. Several of the freight cars were derailed, 5 of them being practically destroyed.

This part of the Chicago, Rock Island & Pacific Railway is a single-track line. Trains are operated by time table and train orders. Approaching the point of accident from the east the track passing Agawan station is on a tangent for a distance of 996 feet; there is then a curve to the right of 3 degrees on a high fill, 1,772 feet in length, a tangent of 278 feet passing through a cut varying from 5 to 30 feet in depth, followed by a

curve to the left of 3 degrees, the curve being 1,330 feet in length. The accident occurred on this latter curve at a point 181 feet west of its eastern end, just at the west end of the cut. Approaching this curve from the west, the track is on a tangent for a distance of 2,890 feet. Both locomotives involved were equipped with Fyle National Electric headlights, style C, measuring 1,300 mean spherical candle power without reflectors and 7,500 reflected candle power with reflectors. On account of the curve and the cut, however, the views of the engineers of both trains approaching the point of accident were very much restricted. Beginning one-half mile east of the point of accident the track is on an ascending grade for westbound trains, varying from .50 to .60 per cent, for a distance of about  $5\frac{1}{2}$  miles. The weather at the time was clear.

Conductor Shrader of train No. 98 stated that he received a copy of train order No. 1 at Duncan. He stated that his train passed Rush Springs at 12:55 a.m. and it was his judgment that the run between Rush Springs and Agawan would take about 18 minutes and that his train could have been into clear at Agawan in 15 minutes, which would be 3 minutes before train No. 11 was due to leave that point. He stated that he was riding in the cupola of the caboose at the time of the accident and saw the reflection of the electric headlight of train No. 11 as its locomotive came around the curve and that it was then only a matter of seconds before the trains collided. He also stated that his engineer had made a light application of the air brakes just prior to whistling for Agawan and that just before the collision occurred the brakes were applied in emergency. Conductor Shrader

Further stated that within one minute or less time after the collision he compared watches with the rear brakeman and with stockmen who were riding in the caboose. All of the watches agreed that it was 1:10 a.m. at that time.

Engineer Stapleton of train No. 98 stated that his train passed Rush Springs at 12:56 a.m. and that the run to Agawan, clearing the main track, could be made in 15 minutes. He stated that as his train neared the west whistling board for Agawan, which is 1,343 feet from the point of accident, he noticed the reflection of the headlight of train No. 11 across the cut, but at that time he supposed it was down at Agawan. He estimated that his locomotive was probably 12 car lengths from the point of accident before he first discovered that train No. 11 was west of Agawan by the glare of the headlight on the left rail as it approached in the cut. He immediately applied the brakes in emergency and told the fireman and best brakeman to jump, doing so himself. He stated that the speed of his train was about 30 miles an hour at the time of the accident. Engineer Stapleton further stated that the electric headlights of both locomotives were burning at the time.

Conductor Cowan of train No. 11 stated that at Chickasha he received a copy of train order No. 1 which directed his train to wait at Agawan for train No. 98 until 1:15 a.m. He read this order aloud to his engineer after which the engineer read it back to him correctly. At this time he compared watches with the engineer and found a variation of only 30 seconds in the two watches. As the train departed from Chickasha he boarded the chair

car and after attending to his passengers went to the smoking car and took a seat near the forward end of the car next to the window. He stated that Train Auditor Baker was occupying the seat with him sorting tickets. Just after leaving Chickasha his engineman made a test of the air brakes and they were in proper working condition. Conductor Cowan further stated that approaching Agawan his engineman sounded the station signal as required by rule. Shortly afterwards he noted passing a switch light, which was the west switch light at Agawan siding, but which at the time he supposed was the switch light at the eastern end of the siding. He stated that immediately after passing this switch light, he heard 3 blasts of the whistle and interpreted them to be 3 short and 1 long blast, the signal indicating that the engineman had not forgotten train orders to be executed at that point. As a matter of fact, however, this signal, sounded by the engineman after passing the west switch, was 3 long blasts, answering the air whistle signal given by the porter to stop at Rust Springs, the next station beyond Agawan, for the purpose of letting off passengers. Conductor Cowan stated that he did not hear the train pass over the east switch and did not know that he had seen the switch light at that end of the siding. After the accident had occurred, however, he observed that that switch light was burning. He further stated that although he has been in the habit of showing train orders to the brakeman and porter, he failed to do so on this occasion as he was busy just after leaving Chickasha and did not remember to do so. He claimed that he did not hear his porter give the stop signal to the engineman. When the crash came he was thrown from his seat and when he stood up he looked at his watch and it was then 1:10 a.m.

Abe McQueen, colored porter on train No. 11, stated that he had no knowledge of any orders held by his conductor regarding train No. 98, although it was customary for the conductor to inform him of all orders. He stated that approaching Agawan the engineman sounded the station signal, but is positive that no other whistle signal was sounded before passing that station. He stated that after the train passed Agawan he signalled the engineman to stop at Bush Springs, there being passengers to get off at that point. He claimed that this signal was answered by the engineman with three very long blasts of the whistle. He further stated that it was less than a minute afterwards that the collision occurred. He felt no application of the brakes prior to the accident.

Master Mechanic Stone stated that when he went to the scene of the accident on the morning of October 19, he found Engineman Powell's watch which had dropped from the latter's pocket. He did not remember what time it was by the watch at the time he found it, but stated that it was then running. He compared the watch with other railroad men at the scene of the accident and found a difference of only 10 seconds.

This accident was caused by the failure of the crew of train No. 11 to wait at Agawan until 1:15 a.m. for train No. 98, as required by train order No. 1, for which Conductor Cowan and Engineman Powell are responsible. Inasmuch as no member of the engine crew of train No. 11 survives, there was no way of ascertaining why Engineman Powell failed to obey this train order.

Conductor Cowan also failed to obey rule No. 210a which reads as follows:

"Conductors must show all train orders to their Flagman and Brakemen, and Engineers to their Firemen and, when practicable, to the Head Brakeman, who are required to read and bear them in mind. Conductors will also inform their Porters of the contents of their train orders."

Attention is directed to the fact that on this train an auditor was employed to collect tickets, thus relieving the conductor from practically all responsibility, except that of train operation.

Engineman Powell entered the service as engineman in February, 1898 and had been on this particular division of the Chicago, Rock Island & Pacific Railway since October, 1906. His record was clear and at the time of the accident he had been on duty about 1 hour. Conductor Cowan entered the service as brakeman in September, 1893, was promoted to freight conductor in December, 1897 and to passenger conductor in November, 1904. His record was clear and at the time of accident had been on duty slightly over 5 hours.