

## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE  
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE  
GULF, COLORADO AND SANTA FE RAILWAY, AT ALVIN,  
TEXAS, ON APRIL 9, 1930.

May 7, 1930

To the Commission:

On April 9, 1930, there was a rear-end collision between two passenger trains of the St. Louis, Brownsville & Mexico Railway, Missouri Pacific Lines, on the tracks of the Gulf, Colorado and Santa Fe Railway, at Alvin, Texas, which resulted in the death of 2 employees, and the injury of 23 passengers, 2 employees, 1 Pullman porter, and 3 persons carried under contract

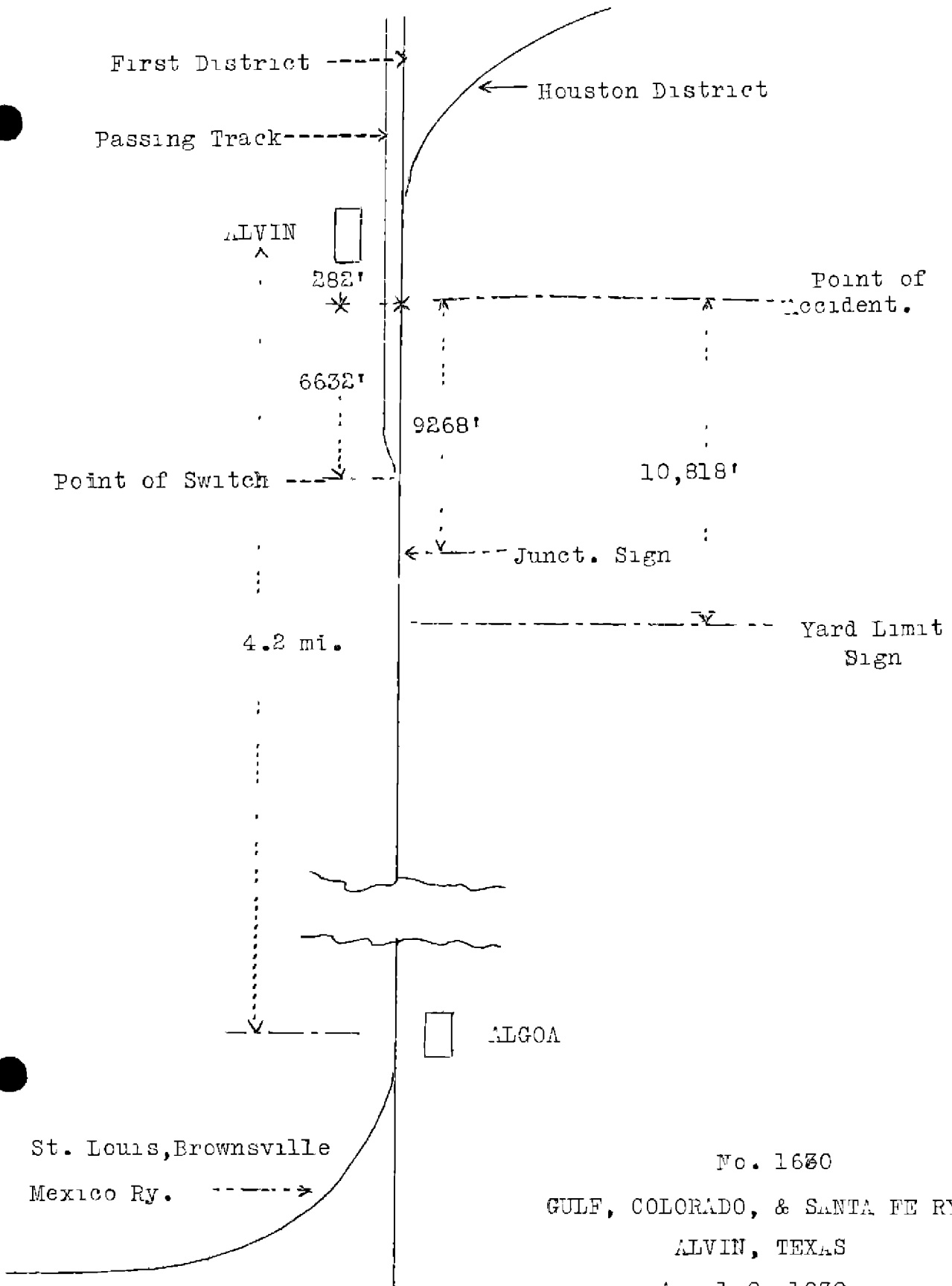
Location and method of operation

This accident occurred on that part of the First District of the Galveston Division of the Gulf, Colorado and Santa Fe Railway, extending between Algoa and Alvin, a distance of 4.2 miles. Algoa is a junction point between the St. Louis, Brownsville & Mexico Railway and the Gulf, Colorado and Santa Fe Railway, and Alvin, which is located north of Algoa, is a junction point between the First and the Houston Districts of the Gulf, Colorado and Santa Fe Railway. In the vicinity of the point of accident this is a single-track line over which trains are operated by time-table and train orders, no block-signal system being in use. Trains of the St. Louis, Brownsville & Mexico Railway are governed by the rules and regulations of the Gulf, Colorado and Santa Fe Railway while operating over their line. The accident occurred 282 feet south of the station at Alvin. A yard-limit board and a junction board are located 10,818 feet and 9,268 feet, respectively, south of the point of accident. Approaching the point of accident from Algoa, the track is tangent and the grade is practically level.

The weather was foggy at the time of the accident, which occurred at 6 46 a.m.

Description

Passenger trains Nos. 14 and 16 run daily between Brownsville and Houston, Texas, but are operated as Nos. 514 and 516 from Algoa to Houston.



No. 1630

GULF, COLORADO, & SANTA FE RY.

ALVIN, TEXAS

April 9, 1930.

Northbound passenger train No. 514 consisted of two express refrigerator cars, five baggage cars, one coach, and one Pullman sleeping car, hauled by IGN engine 384, and was in charge of Conductor Muma and Engineman Burrows. The first, second, fifth and last cars were of steel-underframe construction, while the remaining cars were of all-steel construction. At Algoa this train received train order No. 38, directing it to run 20 minutes late from Algoa to Houston. It departed from Algoa at 6.30 a.m., 20 minutes late, arrived at Alvin at 6.37 a.m., and under train order No. 38 it was due to leave at 6.40 a.m., but it was still engaged in station work at that point when its rear end was struck by train No. 516.

Northbound passenger train No. 516 consisted of one combination mail and baggage car, one coach, one chair car, one cafe-lounge car, two Pullman sleeping cars, one private car, and three Pullman sleeping cars, in the order named, hauled by NOT&M engine 389, and was in charge of Conductor Ellis and Engineman Raiford. The fourth, fifth, seventh and eighth cars were of steel-underframe construction, while the remaining cars were of all-steel construction. This train also received train order No. 38, mentioned above, at Algoa, and departed from that point at 6.40 a.m., on time, and collided with the rear end of train No. 514 at Alvin while traveling at a speed variously estimated to have been between 12 and 25 miles per hour.

The rear car of train No. 514 was telescoped for a distance of about 6 feet by engine 389, causing considerable damage to both the car and the engine. The second car from the rear in train No. 514 also sustained considerable damage, while four of the other cars in this train received minor damage. The first two cars in train No. 516 were considerably damaged and the next six cars received slight damage. None of the cars in either train was derailed. The employees killed were the engineman and brakeman of train No. 516, and the employees injured were the conductor and fireman of train No. 516.

#### Summary of evidence

Engineman Burrows, of train No. 514, stated that upon approaching Alvin, he sounded the station whistle signal and when about 1 mile south of the station he whistled out a flag and then reduced the speed considerably when at a point about 700 feet from the station, so that the flagman could get off. While

his train was standing at Alvin, he heard a road crossing whistle sounded by train No. 516, and then heard a flag answered by that train, the collision occurring about 20 or 30 seconds afterwards. At no time did he look back to see if the flagman was out, nor did he see train No. 516 before the collision occurred. Engineman Burrows stated that while there was a light fog, yet he could see a distance of 1,000 or 1,200 feet. He further stated that very often his train had been flagged at Alvin a distance of from 1,500 feet to half a mile from the station. Flagman Fields had been working with him for some time and he had watched the flagman pretty closely and usually had found him to be very careful. The statements of Fireman Crofford corroborated those of Engineman Burrows except that he stated that due to the fog he could see only a distance of about 300 or 400 feet, and that he could not see the rear end of his own train.

Head Brakeman Wyatt, of train No. 514, stated that he was unloading express when he heard train No. 516 approaching, and on looking back, he saw Flagman Fields going back through the fog with a lighted fusee, and then in about one and one-half minutes he heard the engineman of train No. 516 answer the flagman. When he first saw the headlight of that train, it was about seven or eight car-lengths from the rear of his own train.

Conductor Muma, of train No. 514, stated that when he got off his train he saw the flagman start back southward with a red lantern and fusees. Conductor Muma then went to the office, but had returned and was standing by his train, about four car-lengths from the rear, when he heard train No. 516 whistle for the station and the road crossing. He looked down the track and could see the headlight of the approaching train about one-half mile distant. His flagman then was between 300 and 400 feet south of the rear of his train, flagging the approaching train with a lighted fusee, which was acknowledged by the engineman of that train. It was his opinion that the flagman was out far enough to afford ample protection.

Flagman Fields, of train No. 514, stated that approaching Alvin, just before his train reached the south switch of a passing track located 6,914 feet from the station, he threw off a 10-minute fusee on the engineman's side of the track. He said he then dropped off of his train just before it came to a stop, and had been standing for several minutes at a point about three car-lengths from the rear of his train, or 15 feet according to another statement, when he heard

train No. 516 sound a station whistle. He could see the headlight, and he said he immediately lighted a fusee and started to run back, giving violent signals which were answered by the engineman. He continued to run back, and thought he was about 450 or 500 feet from the rear of his own train when train No. 516 passed him, moving at a speed he estimated to have been about 25 miles per hour. The engineman appeared to be working with the reverse lever, and on holding his fusee down toward the wheels he noticed that every brake in the train was hanging clear of the wheels and he heard no grinding of the brake shoes. As soon as the collision occurred, he walked ahead and crawled under the fifth car, from the right to the left side, and as he walked toward his train he again noticed that the brakes were not set. Flagman Fields further stated that he had heard his own engineman sound the station whistle when approaching Alvin, but had not heard him whistle out a flag, and he also said that he did not put down any torpedoes.

Fireman Reese, of train No. 516, stated that approaching Alvin their train was traveling at a speed of 38 or 40 miles per hour, and that the engineman sounded the station whistle and shut off steam just south of the south switch of the passing track. The first indication that Fireman Reese had that there was a train on the main line was when he saw two dim markers through the dense fog, about 800 or 900 feet distant. The engineman saw the train at the same time and made a heavy service application of the air brakes, followed in a few seconds by an emergency application. He then saw the engineman start to reverse the engine, but he did not know whether or not he succeeded in doing so before the collision occurred, by which time the speed had been reduced to about 12 or 15 miles per hour. Fireman Reese saw the flagman between 250 and 400 feet distant, and not more than 10 or 15 feet from the rear of his train, and it appeared that the flagman had lighted the fusee on the left side of the track after Fireman Reese had seen the markers, and then had crossed over to the right side, where he was obscured from the fireman's view by the smoke box of the engine. The engineman answered the flag with two short blasts of the whistle, but Fireman Reese said he heard no torpedoes nor had he seen any fusee between Algoa and Alvin, and he did not believe it possible for him to have missed seeing one as there had been nothing to distract his attention from a constant lookout ahead. He further stated that the air brakes worked satisfactorily en route.

Conductor Ellis, of train No. 516, who had been riding on the right side of the second car, said he did not see a fusee at any time, and he thought he would have noticed it if there had been one. He estimated the speed of their train at the time the brakes were applied to have been 45 or 50 miles per hour, and thought it had been reduced to about 15 miles per hour at the time of the collision. The air brakes had been tested at the initial terminal and running tests had been made en route when cars had been set out and picked up, and they worked properly at all times.

Rear Brakeman Adair, who was riding in the rear car of train No. 516, stated that as his train approached Alvin, he saw a burning fusee on the engineman's side of the track at a point about 250 or 300 feet south of the south switch of the passing track, but he made no effort to notify the conductor, as the latter was in the ninth car from the rear, nor did he attempt to stop the train, as he presumed the engineman had seen the fusee. He thought the fusee was a little over half burned and that it would take three or four minutes for it to burn out.

The statements of the members of the crew of northbound extra 1064, which was standing on the passing track just south of the station platform, corroborated in part those made by other witnesses. Engineman White was on his engine when train No. 514 arrived and he saw the flagman of that train get off and go back a distance of about 10 or 15 feet, still being at that point when Engineman White went to a nearby cafe. Judging from his own range of vision, Engineman White thought that the engineman of train No. 516 could have seen the rear of train No. 514 a distance of 1,800 or 2,000 feet. Fireman Ficklen, who was near the head end of his own train at the time of the accident, said he saw the headlight of engine 516 when it was about 15 or 20 car-lengths distant, and saw the flagman of train No. 514 standing about 15 feet from the rear of his train. He called to the flagman and told him he had better flag the approaching train, and he said the flagman lighted a fusee and crossed over on the opposite side of the track, but he did not know whether or not he flagged train No. 516 as his own view was then obstructed. Conductor Haswell was walking toward the head end of his own train when train No. 514 passed him. He saw the flagman of that train about 30 or 40 feet from its rear end, but he did not notice whether or not he had any flagging equipment.

Rear Brakeman Alexander, of extra 1064, said his caboose stopped about 25 car-lengths from the south passing-track switch, from which point he was able to see the switch lamp. He did not notice a fusee near the switch after the passage of train No. 514, but said he did not particularly look in that direction. As soon as train No. 514 had passed, he started ahead, and had proceeded about 20 car-lengths when train No. 516 passed. He then saw some one flagging with a fusee, and heard the signal acknowledged by the engineman of train No. 516.

General Car Foreman Anderson, of the Houston Belt and Terminal Railway, arrived at the scene of the accident less than two hours after its occurrence, at which time all the cars of train No. 516 had been moved away except the first three cars. He did not know whether or not the air hose was coupled between the engine and first car of train No. 516, but he examined the angle cocks on the remaining two cars that had not been disturbed and found them in their proper position. The air brakes were still applied and the piston travel on the three cars was  $7\frac{1}{2}$ , 5, and  $5\frac{1}{2}$  inches, respectively.

Inspection of engine 389 disclosed no defects that might have contributed to the cause of the accident.

### Conclusions

This accident was caused by the failure of Conductor Muma and Flagman Fields, of train No. 514, to provide proper flag protection.

Rule 99, of the operating rules of the Gulf, Colorado and Santa Fe Railway, provides that when a train stops under circumstances in which it may be overtaken by another train, the flagman must go back immediately with flagman's signals a sufficient distance to insure full protection, placing two torpedoes, and when necessary, in addition, displaying lighted fusees.

The weight of evidence indicates that Flagman Fields was standing only a short distance - about 15 feet - from the rear of his train, and that he made no attempt to go back to flag until he heard train No. 516 approaching, whereupon he lighted a fusee and ran back but was unable to get back far enough to flag the train in time to prevent the accident. Flagman Fields stated that he threw off a 10-minute fusee south of the south switch of the passing track which is located 6,914 feet south of the station. No one saw this fusee except Rear

Brakeman Adair, of train No. 516, who said it was about 250 or 300 feet south of the south switch and that it was only a little over half burned. This would have been impossible, however, in view of the fact that train No. 514 had been standing at the station nine minutes prior to the accident, in fact, it is more than probable that, if a fusee was thrown off, it had been burned out before the arrival of train No. 516.

Conductor Muma was fully aware of the fact that his train was on the time of train No. 516, yet when he returned after registering, he stood on the ground about four car-lengths from the rear of the train and made no effort to see that his flagman gave proper protection, he heard train No. 516 whistle and saw his flagman 300 or 400 feet back, waving a fusee. Obviously this was not a sufficient distance in view of the foggy weather prevailing.

All of the employees involved were experienced men, and 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. BORLAND,

Director.