

## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE  
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE  
FORT WORTH & DENVER CITY RAILWAY AT MEMPHIS, TEXAS,  
ON OCTOBER 30, 1929.

February 24, 1930.

To the Commission:

On October 30, 1929, there was a side collision between a passenger train and a freight train on the Fort Worth & Denver City Railway at Memphis, Texas, which resulted in the death of one employee and the injury of seven passengers, one Pullman porter and five employees.

#### Location and method of operation

This accident occurred on the Amarillo and Childress Sub-Division of the Amarillo Division which extends between Amarillo and Childress, Texas, a distance of 115.1 miles, and is a single-track line over which trains are operated by time-table and train orders, no block-signal system being in use. The accident occurred at the fouling point at the south end of the passing track at Memphis, the passing track is 3,073 3 feet in length and parallels the main track on the east. Approaching the point of accident from the south there is a 10° curve to the left 2,820 feet in length, followed by tangent track for a distance of 2,094 4 feet, then a 30° 2' curve to the right 1,054.2 feet in length, from which point the track is tangent to the south passing track switch, a distance of 1,923.7 feet, and for more than a mile beyond that point. The grade at the point of accident is 0.53 per cent descending for northbound trains.

#### Description

Southbound freight train first No. 76 consisted of 32 cars and a caboose, hauled by engine 459, and was in charge of Conductor Mitchell and Engineman Ross. This train departed from Lelia Lake, 20.1 miles north of Memphis, at 4.16 p.m., 4 hours and 31 minutes late, and upon arrival at Memphis it headed into the passing track at the north switch and after cutting the train for a highway crossing the head end of the train was pulled forward and brought to a stop with the engine fouling the main track. After standing at this point about 15 minutes a back-up movement was started to recouple the train, and engine 459 was moving at a low rate of speed when it was struck by train No 1.

Northbound passenger train No. 1 consisted of one mail and baggage car, one baggage car, two coaches, one dining car and three Pullman sleeping cars, hauled by engine 555, and was in charge of Conductor Gowdy and Engineman Wire. This train left Estelline, 13 1 miles south of Memphis, at 3 13 p m, on time, and just after passing the south passing track switch at Memphis it collided with train first No. 76 while traveling at a speed estimated to have been between 35 and 40 miles per hour.

Engine 555 came to rest on its right side west of the main track approximately 175 feet north of the point of collision and was considerably damaged. The tender was upright but remained coupled to the engine. The first car and the forward truck of the second car in train No. 1 were also derailed. Engine 459 was derailed to the east and had its right side badly damaged, the tender and the first car of train first No. 76 were slightly damaged. The employee killed was the engineman of train No. 1.

#### Summary of evidence

Engineman Ross, of train first No. 76, stated that upon arrival at Memphis the board was red and he pulled into the siding at the north switch; when the engine reached a point about 8 or 10 car-lengths north of the clearance point at the south end of the siding he brought it to a stop. As proceed signals were given at the rear end of his train, he sounded a stop signal and also a signal for flag protection and then moved ahead and stopped with the engine still in the clear, the proceed signals were continued at the rear of the train and he again moved ahead and stopped with the engine fouling the main track, with the pony truck wheels nearly to the frog. He immediately instructed the fireman to procure flagging equipment and flag train second No. 76 which he knew was closely following his own train; he said he had more time to protect against No. 1. The fireman went northward and when he met the head brakeman, who had stopped at the office, they both returned to the engine, at this time it was between 6 25 and 6 30 p m. Engineman Ross then instructed Head Brakeman Avery to flag train No. 1, and he also instructed the brakeman to give him a backup signal as soon as train No. 1 came into view; it was his intention then to back the train up and recouple it where it had been cut for a highway crossing. He saw the brakeman start ahead with a burning fusee and a white lantern but did not know how far out he went. After the brakeman started he watched for signals from the rear and shortly before the occurrence of the accident he sounded a backup signal and upon receiving such a signal an attempt was made to back up but the engine wheels

slipped and before it could be gotten into clear it was struck by train No. 1. He said that while the engine was standing on the turnout the headlight was continuously burning brightly and the rays were reflected almost directly down the main track but in such position that he could not see the track. He did not see train No. 1 approaching although he heard the whistle of that train sounded in acknowledgment of a flag just before the collision occurred. Engineman Ross was of the opinion that he had provided for the proper protection of his train, as there was ample time for Brakeman Avery to get out a sufficient distance, although he did not watch to see how far out the brakeman went and did not know whether he had the flagging equipment required by the rules.

Fireman Baker, of train first No. 76, corroborated the statements of Engineman Ross concerning the movements of their train on the passing track and the whistle signals sounded but was not aware of the fact that the engine fouled the main track until informed by the engineman. As instructed by the engineman he secured a red lantern, a white lantern, fuses and torpedoes and immediately went back about five or six car-lengths and flagged train second No. 76, which was then approaching on the main track. He met Head Brakeman Avery at this point. When he returned to the engine he noticed that the headlight was shining at an angle of about 35° to the main track. He heard the engineman instruct the brakeman to flag train No. 1 and also to give him a back-up signal when No. 1 showed up, the brakeman went ahead carrying a lighted fuse, and two others that were not burning, and started southward. The last time he saw the brakeman he was walking near the south passing track switch. Fireman Baker then boarded the engine, at about 8.30 p.m., and after conversing with the engineman he crossed over to his side of the cab, a short time later the engineman remarked that train No. 1 was approaching. The engineman then sounded the whistle for a back-up movement, and a signal was apparently given as he acknowledged it; a back-up movement was started but he did not know how far the engine moved before the collision occurred. His view of the track toward the south was obstructed by some cars on a stock track a short distance ahead. He had not seen train No. 1 approaching but heard two short blasts of its whistle just an instant before the accident. He thought that about 7 or 8 minutes elapsed between the time the brakeman started ahead and the time of the accident.

Head Brakeman Avery, of train 1st No. 76, stated that he was employed as a brakeman on June 30, 1929, and had worked pretty regularly since that time. He opened the switch at the north end of the passing track at Memphis and

then rode as far as the station, located about midway of the siding, he went into the office, got a clearance card, and then proceeded toward the head end. He said the train was moved ahead on three occasions after it first came to a stop and in the first two instances the engineman sounded a stop signal, followed by one long and three short blasts of the whistle. After the final stop he stepped close to the train, looked ahead and it appeared that the engine was fouling the main track. When he arrived at the engine he delivered the clearance card to the engineman and was told by the engineman to go ahead and watch out for train No. 1, the engineman also instructed him that as soon as that train appeared he should transmit a back-up signal, he was not instructed how far to go. He expected to flag train No. 1 if at the time it approached his own train was not clear of the main track. The fireman then gave him a lighted fusee and two that were not lighted and he started walking towards the south. He also had a white electric lantern but did not secure or ask for a red lantern before departing. Upon reaching a point a short distance beyond the passing track switch the fusee burned out and at this time his watch indicated it was 6 33 p m. He said he continued walking forward and when he reached a point approximately five or six car-lengths from his engine, he saw the headlight of train No. 1, which was then in the vicinity of the one-mile board. He lighted a second fusee and after giving his engineman a backup signal with the lantern he walked ahead slowly and started giving stop signals with the fusee and lantern, he continued to give these signals but did not hear them acknowledged. When he realized the approaching train was not going to stop he turned around and ran towards his own train, swinging the fusee behind him. He thought that 4 or 5 minutes elapsed from the time he first saw the headlight until the collision occurred. His reasons for not going farther south were that he thought the headlight of his train which was burning, in addition to his fusee would be ample warning to the crew of the approaching train, and he wanted to be near enough after No. 1 passed to open the switch so that his train could pull out of the siding and proceed.

Conductor Mitchell, of train 1st No. 78, stated that the train stopped north of the north passing track switch at 5 55 p m, and it immediately headed in the siding but was stopped when it lacked five or six car-lengths of being into clear. After giving a signal to pull ahead he heard the engineman sound a stop signal and also a signal for flag protection, but he thought the latter signal was for protection at the head end. The train was then moved forward until the rear end was just into clear. He hurried to a crossing just north of the station, cut the

train and again signalled the engineman to pull ahead. After the crossing had been cleared and the train stopped he looked towards the engine and it appeared to be in the clear as the rays of the headlight seemed to shine directly down the track, although the darkness and mist somewhat interfered with the view. He returned to the rear of the train and was at that point when he heard train No. 1 sound a road-crossing signal, at that time he could see a burning fusee ahead of his engine and it appeared to be in line with the rays of the headlight. This fusee was still burning when he saw the headlight of train No. 1 coming around the curve south of the point of accident. Conductor Mitchell said he knew the time-table showed the capacity of the passing track at Memphis was 60 cars and that his train consisted of 62 cars in addition to the caboose but stated he has had a train of 65 cars and an engine on this siding and cleared a passenger train although there was no crossing out at that time.

Flagman Dormire, of train 1st No. 76 stated that after the train pulled into the siding he closed the switch and as the caboose was close to the fouling point he removed a marker to allow train second No. 76 to pass. He then walked down to the crossing for the purpose of recoupling the train but could not see the engine of his train from that point and did not know it was fouling the main track until after the accident. While train No. 1 was approaching he saw the flare of a red fusee in the vicinity of his engine.

Fireman Allen, of train No. 1, stated that the brakes were tested at Childress and they functioned properly in making the station stop at Estelline, the last stop prior to the accident. Approaching Memphis he was riding in the left side of the cab and maintaining a good lookout. The engineman was on his seatbox and had the side window open and it appeared he was looking ahead from this window. The whistle was sounded for two road crossings in the vicinity of the section house south of the station and then a station signal was sounded. Just after his engine got around the curve south of the point of accident he noticed a light through steam from the stack of his engine, but could not determine exactly where it was. He asked the engineman where it was but the engineman made no reply. He said the brakes were applied only a moment before the collision occurred and at about the same time a whistle signal was sounded but he did not know whether it was in answer to a flag. He had not seen engine 459 as it was on the opposite side of the track from where he was riding. He estimated the speed of the train at 35 or 40 miles per hour, and said it was not reduced to any extent prior to

the accident due to the short time after the brakes were applied. He did not see a fusee or any other signals given in the vicinity of the point of accident but the headlight of his engine was burning brightly and this may have obscured the view. He could not say whether the steam and smoke from the engine interfered with the view of the engineman. The engineman had not complained of feeling ill and appeared to be normal in every respect.

Conductor Gowdy, of train No. 1, stated that while approaching Memphis he heard a road crossing whistle and a station whistle signal sounded, he heard no other signals sounded prior to the accident. He felt an application of the brakes just before the collision occurred but did not think it was an emergency application, and estimated the speed of his train to be about 35 or 40 miles per hour at the time of the accident. A very short time after the train stopped he looked at his watch and it was between 6.39 and 6.40 p.m.

The statements of Flagman Simms and Train Porter Holmes, of train No. 1, brought out no additional facts of importance, except they felt a severe application of the brakes a second or two before the collision occurred.

The statements of Brakemen Bromley and Waite, of train second No. 76, were to the effect that they observed the headlight of train No. 1 when it entered the straight track south of the point of accident, at that time there was a fusee burning in the vicinity of the engine of train first No. 76 but they could not determine its exact location.

Subsequent to the accident tests made under conditions similar to those which existed at the time of this accident demonstrated that with an engine standing 12 feet from the point of a frog, in about the same position as that occupied by engine 458 prior to the accident, it could be determined that the engine was not into clear at a distance of 2100 feet. At that distance the headlight could be plainly seen; the beam of the headlight was at an angle across the track and did not obscure an approaching engineman's view of a flagman stationed near the standing locomotive.

#### Conclusions

This accident was caused by the failure of Brakeman Avery, of train first No. 76, to afford proper protection to his train while it was fouling the main track.

In order to clear the north end of the passing track and clear a highway crossing the engine of train 1st No. 76 was moved beyond the clearance point at the south end of the siding. Head Brakeman Avery was instructed by the engineman to flag train No. 1. The evidence indicates that there were then 9 or 10 minutes before No. 1 was due at this point, but Brakeman Avery went only a very short distance, according to his own statements only about five or six car-lengths, and according to other evidence only a little more than 100 feet from his engine when he saw the headlight of train No. 1. He lighted a fusee and gave stop signals, but his signals were not immediately acknowledged, and as it appeared that the approaching train was not going to stop he became panic-stricken and ran down the track toward his own train and ahead of the approaching train. Had he used all of the time at his disposal he could have gotten a sufficient distance from his engine to provide proper protection, but it appears that he was more concerned about being in position to open the switch so as to allow his train to depart after No. 1 arrived than he was in flagging train No. 1. He said he thought the headlight of engine 459 and his fusee would provide ample protection. He had had but little experience as a flagman and did not appear to have a definite understanding of what was required or expected of him. Because of his failure properly to perform the duties of a flagman he is primarily responsible for this accident.

Engineman Ross apparently assumed he had done all that was required for the protection of his train when he instructed the head brakeman to flag No. 1. However, had he made any effort to ascertain whether his instructions were being carried out he would have known the flagman was not out far enough to provide proper protection.

The fireman of train No. 1 was on the alert as he noticed a light shortly after leaving the curve south of the point of accident and called it to the attention of the engineman. According to the statements of the surviving members of the crew of train No. 1, the brakes on their train were not applied until just before the collision occurred. No reason can be given for the apparent failure of the engineman to see the headlight of train first No. 76 or the burning fusee held by Brakeman Avery sooner than he did unless steam and smoke from his own engine interfered with his vision, as it evidently did in the case of the fireman.

Brakeman Avery had been employed in that capacity for only about 4 months, the other employees involved were experienced men and at the time of the accident none of

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then had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

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Director