INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE TEXAS & PACIFIC RAILWAY AT DENTON, TEXAS, ON APRIL 3, 1929.

July 31, 1929.

To the Commission:

On April 3, 1929, there was a side collision between two Missouri-Kansas-Texas Railroad Company of Texas freight trains on the tracks of the Texas & Pacific Railway at Denton, Texas, which resulted in the death of one employee and one other person, and the injury of one other person.

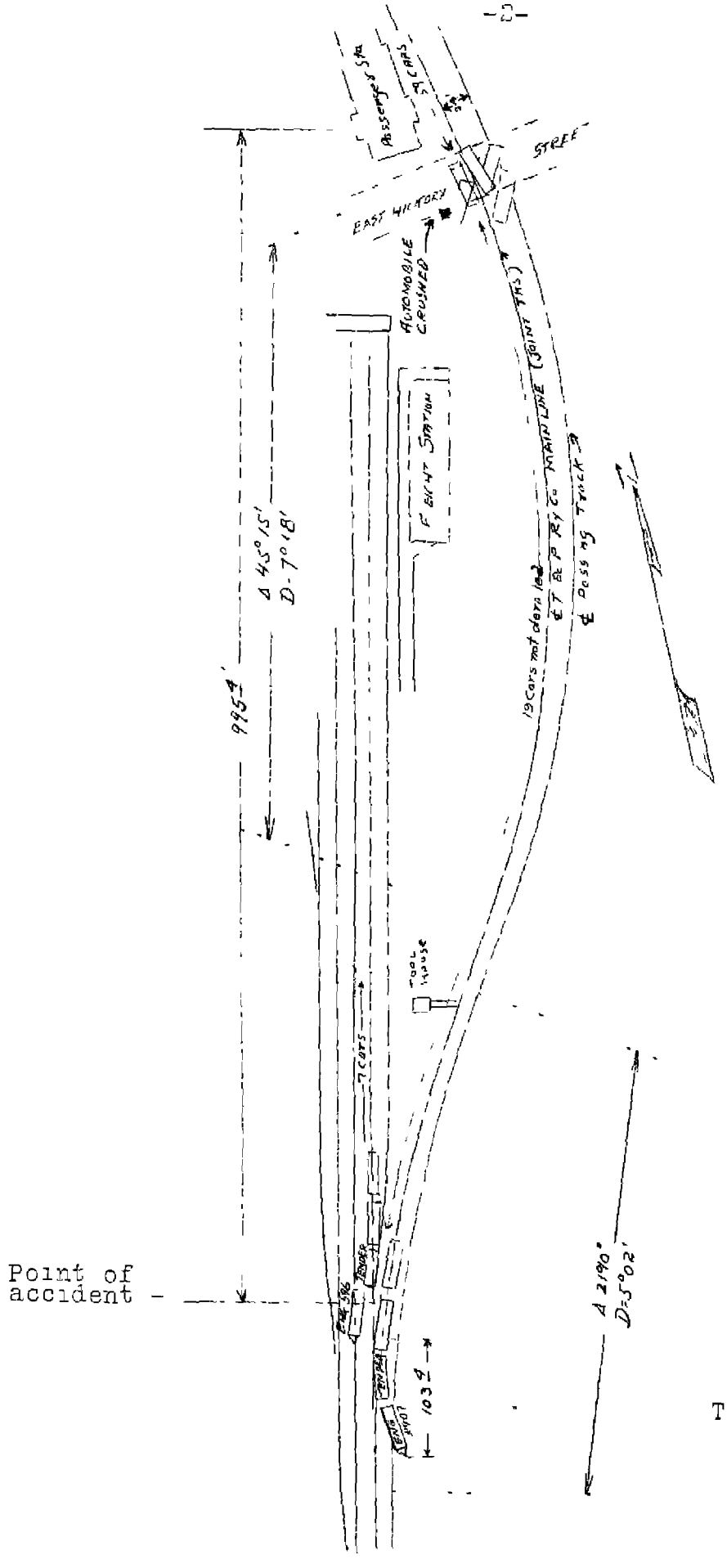
Location and method of operation

This accident occurred on the Whitesboro Subdivision of the Denton Division, extending between Bonham and Fort Worth, Texas, a distance of 116.3 miles; in the vicinity of the point of accident this is a single-track line over which trains are operated by time-table, train orders and a manual block-signal system. There are several yard tracks located west of the main track, track 1 leaves the main track at a point 1,126.4 feet south of the passenger station and is a facing-point switch for northbound trains, the accident occurring at the fouling point of this switch, more than 1½ miles inside of both of the yard-limit boards. Approaching this point from the south the track is tangent for a distance of 3,673.5 feet, followed by a 5° 02' curve to the right 420.5 feet in length, the point of accident being on this curve 151.3 feet from its southern end. Approaching from the north there is a 7° 18' curve to the right 619.8 feet in length and then tangent track for a distance of 54.2 feet, followed by the curve to the left on which the accident occurred. The grade at the point of accident is 0.25 per cent ascending for southbound trains.

The weather was clear at the time of the accident, which occurred at about 9.30 p.m.

Description

Northbound freight train extra 596, known as the Dallas-Denton local, was hauled by engine 596, and was in charge of Conductor Lacy and Engineman Werline. This train arrived at Denton from Dallas at 8.10 p.m.,



No. 1515
Texas & Pacific Ry
Denton, Texas
April 3, 1929

and after setting off the train the engine was turned and the crew started assembling a train for the return trip. With the engine headed south, it was shoving nine cars northward from the main track into track 1 at a speed estimated to have been between 5 and 12 miles per hour when it was struck by train second No.373.

Southbound freight train second No. 373 consisted of 85 cars and a caboose, hauled by engine 907, and was in charge of Conductor Quigley and Engineman Hodge. This train departed from Whitesboro, 36 miles north of Denton, at 7.52 p.m., passed the station at Denton at 9.30 p.m., according to the train sheet, and collided with the side of engine 596 while traveling at an estimated speed of from 15 to 20 miles per hour.

Engine 596 was overturned and came to rest on its right side on track 2, quite badly damaged, the tender remained upright but was derailed and slightly damaged. Engine 907 came to rest in an almost upright position east of the main track and was also considerably damaged. The tender and one truck of the first car were derailed while impact caused the train to buckle, derailing the 21st to the 25th cars, inclusive, one being demolished and the others more or less damaged. One of these cars fell on an automobile which was parked alongside the station platform, killing one of its occupants and injuring another occupant. The employee killed was the engineman of engine 596.

Summary of evidence

Conductor Lacy, of extra 596, stated that a few minutes after arriving at Denton he received copies of the line-up of trains expected to arrive, which included the information that train second No. 373 would be due at about 9.25 p.m. One copy of this line-up was delivered to the engine crew and another to the brakemen. He was at the telegraph office when he heard train No. 373 approaching, and as he did not want to delay that train he went out on the platform and looked toward the south to see if his own engine was obstructing the main track but did not see it, neither did he hear it working steam. Conductor Lacy then returned to the telegraph office, but a few seconds later he heard an unusual noise and upon again leaving the office he saw some cars turn over just south of the station; he did not learn until later just what had occurred. He estimated the speed of train No. 373 at the time the engine passed the station at 12 to 14 miles per hour. Conductor Lacy further stated that he understood the line-up of trains was issued for the purpose of arranging his work in order not to delay those trains if possible, but in his opinion rule 93 provided ample protection for his train

while it was occupying the main track.

Rear Brakeman Jackson, of extra 596, stated that his conductor gave him a copy of the line-up showing when trains were due to arrive at Denton but did not instruct him to keep clear of the main track for any of these trains. He was riding on the leading car when the cut of nine cars was being shoved from the main track into track 1 but when this car had reached a street crossing, located approximately 150 feet north of the switch, he got off on the engineman's side and when about four cars had passed him he heard the rapid exhaust of the engine of train No. 373, indicating that that train was moving at a good rate of speed, and as a result he signaled his own engineman to increase speed in order to clear the main track. The speed was increased to some extent, and was about 10 or 12 miles per hour at the time of the accident.

Head Brakeman Taylor, of extra 596, stated that while the cut of cars was being shoved into track 1 he was walking northward on the west side of the main track and had reached a point about 150 feet south of the switch leading to track 1 when his engine passed him and it was then that he first noticed a train approaching on the main track about 15 car-lengths from where the collision later occurred. He stepped to the center of the main track and started giving stop signals with a white lantern, continuing these signals until his lantern became extinguished a few seconds later. Apparently these signals were not seen, as they were not acknowledged, and he said he thought they would have been difficult to discern in view of the fact that he was in line with the rays of the headlight of his own engine, which was backing up as it passed him.

Fireman Heard, of extra 596, was on his seatbox looking northward and when the engine had about reached the switch leading to track 1 he observed the approaching train, at about the time it came into view around the curve south of the station. When the engine of that train reached a point about 15 car-lengths distant he realized it was on the main track and immediately shouted several times to his engineman to get into clear, but as the engineman had his head out of the window he did not know whether he had been heard, and he then got off the engine from the engineman's side of the cab. He estimated the speed of train No. 373 at 18 or 20 miles per hour as it rounded the curve on which the accident occurred. Fireman Heard further stated that the cab light of his engine was burning and he knew of nothing to prevent the engine crew of train No. 373 from seeing it had they been maintaining a close lookout, but the headlight on the rear of the tender was not burning while switching as it blinded the brakeman.

Engineman Hodge, of train second No. 373, stated that his train approached Denton station at a speed of about 10 miles per hour and after whistling twice he received a clear board and then permitted the train to continue to drift until it had nearly reached the station, when he opened the throttle. He was watching ahead closely from the time his train passed the street crossing south of the station and was not aware of anything unusual until the fireman warned him of the danger, when he immediately shut off steam but he did not remember whether he applied the brakes, and he said he did not see engine 596 until his own engine entered the curve on which the accident occurred, engine 596 then being about 100 feet distant. He estimated the speed of his train at the time of the accident at 20 miles per hour. Engineman Hodge had not asked the fireman whether the main track was clear and had not instructed him to keep a close lookout while passing through Denton yard, as he had always done so without being cautioned, and he could not account for his own failure to observe the reflection from the headlight of engine 596, the crew of which was known by him to be switching at Denton every night at about this time. Engineman Hodge further stated that he knew rule 93 requires that second and inferior class and extra trains must move within yard limits prepared to stop unless the main track is seen or known to be clear, and he was familiar with bulletin instructions to the effect that track conditions at Denton are such that it is necessary to proceed through that yard at a very slow rate of speed in order to comply with rule 93, yet he was of the opinion that he had complied with these requirements inasmuch as he thought the track was clear.

Fireman Cox, of train No. 373, stated that the speed of his train was approximately 10 miles per hour when it approached Denton but after passing the station the speed was gradually increased, and at the time of the accident it was between 18 and 20 miles per hour. He was riding on his seatbox keeping a sharp lookout ahead but did not see engine 596 until the rays from the headlight of his engine shone upon it, about 100 feet distant. He immediately notified his engineman to this effect and jumped off, and as he did so he heard the air go into emergency. Fireman Cox had just previously seen a light in the vicinity of the switch leading to track 1 but did not know whether it was on the main track or on some other track, and he attributed to the curvature of the track his failure to see engine 596 any sooner than he did, and said that probably the lights shining at some industries in the vicinity prevented him from seeing the reflection of the headlight of that engine, he did not see any stop signals given by Brakeman Taylor.

Head Brakeman Heacker, of train second No. 373, stated that when his train passed the station at Denton he was standing in the right side of the gangway, looking ahead, and continued to do so until the engine reached the leaving end of the curve to the right, but he did not see engine 596. There were lights in the vicinity of the point of accident but he could not ascertain whether one was a cab light or whether they were all street lights. When his engine entered the curve on which the accident occurred he started towards the left side of the gangway but before reaching it the fireman discovered that engine 596 was on the main track and shouted a warning; the engineman immediately shut off steam and applied the brakes in emergency but as the train was then about three car-lengths from the point of accident the speed was only reduced slightly, being about 15 miles per hour at the time of the collision.

Conductor Quigley, of train second No. 373, was riding in the caboose as his train approached Denton at a speed of about 10 miles per hour and this speed was later increased to not more than 30 miles per hour. The statements of Flagman Smiers, of train second No. 373, brought out nothing of importance.

The statements of some of the witnesses mentioned above were to the effect that it was customary for southbound trains to increase speed while passing through the yard in order to get over the ascending grade which begins about at the point of accident.

Operator Mays, on duty at Denton at the time of the accident, stated that when he heard train second No.373 call for the order board he cleared it and then notified the dispatcher to indicate the train by at 9.30 p.m. His first intimation of anything wrong was when he heard the crash of the cars piling up on the crossing south of the station. He estimated the speed of the train at the time it passed his office at 15 or 20 miles per hour, which was about the normal rate of speed for all southbound freight trains through Denton yard.

Trainmaster Troutt, of the T&P Railway, stated that he was employed as Chief Dispatcher at Denton from October, 1920, to December, 1927, and from his observations during that time all trains moved under control until the crews knew the main track was clear or were given a proceed signal from some member of the local's crew. Since that time he has closely observed the operation of trains through Denton yard and the crews used every precaution; in fact, for several years it has not been necessary to call the attention of any crew to violations of the bulletin instructions. All

crews were aware that they might expect to find the Dallas-Denton local at Denton, on any track, between the hours of 8 and 11 p.m., and were governed accordingly. It was his opinion that it would be necessary for a tonnage train to reduce speed to 12 or 15 miles per hour approaching the point of accident to comply with the bulletin instructions in effect at that point.

Trainmaster Winkel, of the M-K-T of T Railroad, stated that from his observations of southbound freight trains passing through Denton they restrict their speed between 8 and 10 p.m., daily except Sunday, expecting to find the local switching on the main track. He said the bulletin instructions remain in effect until a clear vision can be had from the head end of the train south of the freight house, located south of the passenger station.

The statements of Superintendent Pistole were to the effect that he has frequently ridden southbound freight trains from Whitesboro to Fort Worth and that the speed of these trains through Denton was such that they could easily have been brought to a stop within range of vision. These trains were operated at slow speed from the time they passed the north yard-limit board until they reached the tangent track south of the point of accident and then speed was increased, which he considered was not in violation of rule 93 or the bulletin instructions.

Between 10 p.m. and midnight on April 6, vision tests were made in the vicinity of the point of accident by using the same type of engines that were involved in the accident. The first test was made with one engine, headed south and coupled to 9 cars, the engine and one car on the main track and the balance of the cars on track 1. The other engine was moved southward from the station until it had reached the point where the engineman could see the reflection of his headlight shining on the cars fouling the main track, and it was found that this point was 487.8 feet north of the point of accident. This engine was then moved southward an additional distance of 24.3 feet before it could be definitely ascertained from the engineman's side that the cars were fouling the main track. The standing engine came into view from the fireman's side of the moving engine when the latter engine was 480 feet north of the point of accident. Another test revealed that stop signals given from about the point at which Brakeman Taylor said he was located at the time he first observed train No. 373 approaching, could be seen from the fireman's side of an approaching southbound engine when 531 feet north of the point of accident.

Conclusions

This accident was caused by the failure of Engineman Hodge, of train second No. 373, to operate his train under proper control within yard limits.

Rule 93 of the Texas & Pacific Railway requires that within yard limits the main track may be used, protecting against first-class trains, second and inferior class and extra trains must move within yard limits prepared to stop unless the main track is seen or known to be clear. There are also bulletin instructions in effect that due to track conditions at Denton it is necessary for trains to proceed through the yard at a very low rate of speed. The evidence indicates that train second No. 373 approached the station at Denton at a speed of about 10 miles per hour but after passing that point the speed was increased until it was 18 or 20 miles per hour when it was discovered that the main track was occupied. Engineman Hodge was familiar with rule 93, as well as with the bulletin instructions, but for some reason he presumed that the main track was clear and as a result he began working steam after passing the station, without having received a signal from any one, although he knew that the Dallas-Denton local was usually working at Denton when his own train passed that point. Both Engineman Hodge and Fireman Cox maintained that they did not see engine 596 until it was only 100 feet distant. Tests conducted subsequent to the accident developed that it was possible for the engineman to have definitely ascertained that cars were fouling the main track when they were 463.5 feet distant, and for the fireman to have seen engine 596 at a distance of 480 feet, and it is believed that if these employees had been on the alert, with the train under control as required by the rules, this accident would have been prevented.

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.