INTERSTATE COMMERCE COMMISSION

1098

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE TEXAS & PACIFIC RAILWAY AT EASTLAND, TEXAS, ON OCTOBER 23, 1924.

December 11, 1924.

To the Commission:

On October 23, 1924, there was a head-end collision between two freight trains on the Texas & Pacific Railway at Eastland, Texas, resulting in the death of one employee and the injury of two employees.

Location and method of operation

This accident occurred on the Fort Worth sub-division of the Fort Worth Division, extending between Fort Worth and Baird, Texas, a distance of 140 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. The collision occurred within yard limits at Eastland, at a point 269 feet west of the west passing-track switch, this switch being located at a point approximately 1,500 feet west of the passenger station, and 10,735 feet east of the west yard-limit board. Approaching the point of accident from the west there is a 30' curve to the left 500 feet in length and then tangent track to and beyond the point of accident, 4,000 feet distant; the grade for eastbound trains is from 1.6 to 0.8 per cent descending for 2,600 feet and is then 0.35 to 0.15 per cent descending to the point of accident 1,400 feet distant.

The west passing-track switch at Eastland is a facing-point switch for eastbound trains and leads off to the north from the main track, the switch stand, which is located on the north side of the main track, is of the Elliott high-stand ground-throw type, and displays a red or a green target, depending on whether the switch is open or closed. The red target is 34 inches in length, with rounded ends, and is parallel with the ground, the green target has square ends and is at an angle with the ground of 30°.

There was nothing to obstruct the view of the passing-track switch or the point of accident for a distance of approximately 4,000 feet.

The weather was clear at the time of the accident, which occurred at 10.49 a.m.

Description

Westbound freight train extra 389 left Mingus, its initial terminal, at 7.10 a.m., in charge of Conductor Thomson and Engineman Wood. At Ranger, 10 miles east of Eastland, the crew received a copy of train order No. 52, Form 31, providing for a meet with extra 520 at Eastland. Extra 389 departed from Ranger at 9.43 a.m., and upon its arrival at Eastland at 10.45 a.m. it pulled by and backed in at the west passing-track switch. Shortly afterwards the engine with three cars attached headed out on the main track, preparatory to making a movement to the house track, located south of the main track, and the engine had reached a point 389 feet west of the west passing-track switch when it collided with extra 520.

Eastbound freight train extra 520 consisted of 46 cars and a caboose, hauled by engine 520, and was in charge of Conductor Arnold and Engineman Crader. It left Baird, its initial terminal at 9.25 a.m., after having received a copy of train order No. 52, previously mentioned. It departed from Cisco, 9.9 miles from Eastland, at 10.32 a.m., according to the train sheet, and collided with engine 389 at Eastland while traveling at a speed of 25 miles an hour.

The force of the collision drove engine 389 and the attached three cars backward a distance of 306 feet; while the equipment in this train remained upright on the rails it was badly damaged, the first two cars being practically demolished, and the head end of engine 389 sustaining considerable damage. Engine 520 came to a stop 133 feet east of the point of collison upright on the roadbed, the head end of the engine being badly damaged, the tender and following nine cars were derailed, seven of the derailed cars being demolished. The employee killed was the engineman of extra 389.

Summary of evidence

After extra 389 had arrived at Eastland and had backed in on the passing track, the engine and four or five cars were cut off and backed in on the stock

track, leading from the passing track, where two of the cars were left. The engine and attached cars then moved westward through the passing-track switch out on the main track en route to the house track switch and Fireman Nash said they were moving westward on the main track at a speed of about 5 or 6 miles an hour when the collision with extra 520 occurred. At the time of leaving the stock track Engineman Wood appeared to be searching for something in his seatbox and continued looking into it while the engine and cars were moving out on the main track. Fireman Nash said he saw the approaching train as soon as his engine entered upon the main track and called a warning to Engineman Wood, who reached for the brake valve, but the collision occurred before any noticeable effect of the brakes was obtained. Fireman Nash said that steam was escaping from the safety valve and that he had not heard any one calling to Engineman Wood.

Head Brakeman Thornton, of extra 389, said he walked toward the main-track switch after the cars had been placed on the stock track and was between the stock and passing-track switches when he first saw extra 520 approaching, about 10 car lengths west of the passing-track switch, engine 389 being about at the switch at this time moving westward at a speed of about 6 miles an hour. He immediately gave stop signals and as these signals were unheeded and Engineman Wood was not in sight in the engine cab he shouted two or three times in an effort to attract his attention, but apparently he was not heard, as engine 389 continued to move westward without lessening its speed until it collided with extra 520. He did not think the air brakes on his own train were applied prior to the occurrence of the collision.

After the two cars had been set out on the stock track, Rear Brakeman Bowles, of extra 389 started across to the house-track switch to line that switch for the intended movement for that track. He heard a short blast of a whistle and on looking westward saw extra 520 approaching, about 300 yards distant, while the engine of his own train was passing through the switch to the main track; he also saw Brakeman Thornton giving stop signals. Brakeman Bowles and also Middle Brakeman Mathis said that after the single whistle blast had been sounded they heard three short blasts, which is a signal to back up. Conductor Thomson was at the freight house and knew nothing of the impending accident until he heard one blast of a whistle and on looking saw his own engine on the main track, with extra 520 approaching.

Engineman Crader, of extra 520, stated that among the orders received at Baird was an order to meet westbound extra 389 at Eastland, which he understood required extra 389 to take siding as his own train was superior by direction. He said he sounded the station and meeting-point whistle signals when his train was about ¾ mile west of the west passing-track switch at Eastland and then applied the air brakes in service application, which reduced the speed of his train from 25 to about 15 miles an hour and he said it was moving at this speed when he first observed engine 389 standing on an inside track at least four or five car lengths from the west passing-track switch. About the time his train was ½ mile west of the west switch he could see the switch but not the position of the switch points, and could not identify the indication displayed by the switch target, due to the fact that the sun was shining from the opposite direction. He said he had released the brakes and that his engine was about 700 feet from the switch when engine 389 very suddenly came out on the main track at a speed he judged to have been about 6 or 8 miles an hour, and he re-applied the brakes in service application, thinking that extra 389 would stop and back into clear, as he had seen a brakeman giving stop signals and then back-up signals to the engineman of engine 389, but as soon as he realized that engine 389 was not going to stop he placed the brake valve in the emergency position but on account of the depleted train line, due to the previous service application, a full emergency effect of the brakes was not obtained and the collision occurred before the speed of his train had been materially reduced. Engineman Crader said he understood rule 93 required his train to approach and pass through the yard limits under control prepared to stop, but said he could see that the main track was clear, with engine 389 on the passing track, and expressed the opinion that the crew of engine 389 also should have been governed by rule 93 to the extent of knowing that the main track was clear before entering upon it. Engineman Crader further stated that the brakes had been tested before leaving Baird and had worked properly en route.

Fireman Cunningham, of extra 520, said the speed of his train was about 25 miles an hour approaching Eastland and following an application of the brakes the speed was reduced to about 15 or 18 miles an hour just after starting down the grade about ¾ mile west of the station. About the time the brakes were released he saw extra 389 on a track north of the main track but could not at that time see the passing-track switch target

or the position of the switch points on account of the sun shining in his eyes. When his train was about 35 car lengths from the passing-track switch extra 389 came out on the main track, and although Engineman Crader twice sounded stop signals and then sounded a back-up signal, extra 389 continued out on the main track and was moving westward at the time of the collision.

The statementsof Head Brakeman Woods, of extra 520, who was riding on top of the 15th car, practically agreed with those of the fireman so far as essential details were concerned, while the statements of Conductor Arnold and Rear Brakeman Wade, who were riding in the caboose, brought out no additional facts of importance.

Engine 520 was equipped with a Boyer speed recorder, the tape from this recorder showed that the speed of extra 520 at a point 4,500 feet west of the point of accident was about 21 miles an hour and that it was about 25 miles an hour at the point of accident. This recorder was subsequently removed from the engine and tested as to its accuracy, and it was found to register 1 mile slow; it was in good condition otherwise, having been overhauled and placed on engine 520 on October 20, 1934

Conclusions

This accident was caused by the failure of Engineman Crader, of extra 520, to operate his train under proper control within yard limits, a contributing cause was the failure of Engineman Wood, of extra 389, to know that the way was clear before moving his engine out on the main track.

Under rule 93 of the rules of the transportation department trains are required to move within yard limits "prepared to stop unless the main track is seen or known to be clear." While Engineman Crader said he could see that the track was clear, he could not see the indication of the switch target, which would have told him that the west passing-track switch was open, and under these circumstances the track was not clear for the passage of his train. It also appears from the evidence furnished by the speed recorder, and also by the fact that engine 389 was driven backwards a distance of 306 feet as a result of the collision, that the

speed was higher than was estimated by Engineman Crader. Had he properly controlled the speed of his train, so that he could have stopped as soon as he saw that the passing-track switch was open, it is probable that the accident would not have occurred.

The testimony was to the effect that Engineman Wood was engaged in looking into his seat box while his engine was moving out on the main track, paying no attention to the track ahead, and that no application of the air brakes was made prior to the occurrence of the accident. Had Engineman Wood looked from his side of the engine before proceeding out on the main track he could have seen extra 520 approaching and possibly could have prevented the occurrence of the accident.

In this connection it might be pointed out that the crew of extra 389 did not display good judgment in leaving the main-track switch open, with no member of the crew in charge, while they were engaged in setting out some cars on another track, particularly in view of the fact that they were to meet extra 520 at Eastland and that that train might be expected to arrive at any time.

Attention is also called to the fact that the speed limit for freight trains on the Ft. Worth Subdivision is 35 miles an hour, while the tape from the speed recorder on engine 520 showed that a speed of 35 miles an hour was attained at several points en route from Baird to the point of accident.

Had an adequate block-signal system been in use on this line, this accident probably would not have occurred; an adequate automatic train stop or train control device would have prevented it

The employees involved were experienced men; at the time of the accident the crew of extra 389 had been on duty about 4 hours and the crew of extra 520 about 2 hours, previous to which both crews had been off duty 14 hours or more.

Respectfully submitted,

W. P. BORLAND,

Director.