INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE ATCHISON, TOPEKA & SANTA FE RAILWAY AT AUGUSTA, KANS., ON OCTOBER 18, 1927.

November 18, 1927.

To the Commission:

On October 17, 1927, there was a rear-end collision between two freight trains on the Atchison, Topeka & Santa Fe Railway at Augusta, Kans., which resulted in the death of one employee.

Location and method of operation

This accident occurred on the Eldorado District of the Middle Division which extends between Winfield Junction and Florence, Kans., a distance of 22.9 miles. 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. The accident occurred within yard limits at a point about 300 feet east of the west yard-limit board. Approaching this point from the west there is a 4° curve to the left 860 feet in length and then 723 feet of tangent, the point of accident being at about the middle of the [illegible] tangent; the grade is slightly ascending for eastbound trains.

The weather was clear, and it was dark at the time of the accident, which occurred at 5.53 a.m.

Description

Eastbound freight train extra 3187 consisted of 55 cars and a caboose, hauled by engine 3187, and was in charge of Conductor Pearson and Engineman Lloyd. It arrived at Augusta at 4.30 a.m. stopping with the rear end about 300 feet inside of the yard-limit board, and had been standing at this point approximately one hour when it was struck by extra 4067.

Eastbound freight train extra 4067 consisted of 65 cars and a caboose, hauled by engine 4067, and was in charge of Conductor Zink and Engineman Jones. It passed Douglass, 11.2 miles from Augusta, at 5.29 a.m., according to the train sheet, and collided with the rear end of extra 3187 at Augusta while traveling at a speed estimated to have been about 10 miles per hour.

The caboose of extra 3187 was derolished and eight cars more or less badly damaged. Engine 4067 came to a stop 165 feet east of the point of accident, it was not derailed nor seriously damaged and was able to proceed light to its destination under its own power. The employee killed was the flagman of extra 3187.

Summary of evidence.

Engineman Jones, of extra 4067, said his train passed Gordon, 6.2 miles from Augusta, at a speed of 35 or 40 miles per hour and that when in the vicinity of a rock crusher located nearly 2 miles fror the point of accident he shut off steam and allowed the train to drift, the speed at this time being about the same as when passing Gordon. As the train approached the curve to the left immediately west of the yard-limit board, traveling at a speed of about 25 miles per hour, he started to make a service application of the air brakes. Within a few seconds the fireman and head brakeman, both of whom were on the left side of the engine, told him that the automatic signal located 1,338 feet inside of the yard-limit board was in the stop position; this signal governs the approach to Augusta Junction. Engineman Jones continued with the making of the service application, expecting to bring the train to a stop at the signal, but almost immediately afterwards the fireman and head brakeman told him there was a caboose immediately ahead and he moved the brake-valve handle around to the emergency position. The brakes seemed to apply as if a full service application had been made and he thought that when he got off the engine, just before it reached the yard-limit board, the speed had been reduced to about 12 or 15 miles per hour. Engineman Jones was unable to offer any reason for not being able to stop other than to say that this was the first time he had encountered the rear end of a train so close to the yard-limit board, in addition to the fact, mentioned above, that he expected to stop at the automatic signal.

The statements of Fireman King corroborated those of Engineman Jones with a few exceptions. He said he was leaning forward looking through the front window of the cab in order to observe the indication of the automatic signal, and he did not think the engineman started to apply the air brakes until after receiving information that the signal was in the stop position. Fireman King then saw the caboose, notified the engineman, and heard a brake-valve exhaust which indicated that the brake valve was in the emergency position. Up to this time he had supposed that the engineman was operating the train so that he could stop if necessary at the yard-limit board.

Head Brakeman Fenzel said Engineman Jones had already made a service application of the brakes when the fireman called the indication of the automatic signal and that both he and the fireman gave the engineman warning of the proximity of the caboose within a very few seconds afterwards. The head brakeman's other statements brought out no additional facts of importance.

Conductor Zink and Brakeman Schroeder were riding in the caboose of extra 4067 when the accident occurred. Each of these thought the train had merely come to a full stop and it was not until the conductor proceeded to the head end of the train that he realized there had been an accident. Conductor Zink further stated that he was present when another engine was coupled to the train and a test made of the air brakes, this test showing that the brakes were inoperative on only one car in the train. Engineman Jones said he also was present at this time, watching the measuring of the piston travel. The record of these measurements as furnished to the Commission's inspectors showed that the train line on 5 cars at the head end of the train had been damaged as a result of the accident and that of the remaining 60 cars there were 2 cars on which the brakes leaked off and 1 car on which the piston travel was 12 inches; none of the other cars had a piston travel of more than $9\frac{3}{4}$ inches, while the shortest piston travel was $5\frac{1}{4}$ inches. After the accident the undamaged cars in the train of extra 4067, together with enough other cars to make the tonnage practically the same as at the time of the accident, were subjected to a test for the purpose of ascertaining the distance within which they could be brought to a stop from an estimated speed of 25 miles per hour. At the point where the tests were made the grade conditions were no more favorable for a quick stop than in the vicinity of the point of accident and it was found that after the slack in the train had been bunched with the independent brake the train could be brought to a stop within a distance of slightly more than 1,000 feet with a 10-pound brake-pipe reduction.

Measurements of the view approaching the point of accident showed that from the left side of the cab of an eastbound engine the markers on a caboose standing at the point of accident were visible a maximum distance of 1,377 feet, while the automatic signal located more than 900 feet east of the point of accident was visible a distance of 2,323 feet.

Conclusions

This accident was caused by the failure of Engineman Jones, of extra 4067, to move his train under proper control when approaching yard limits.

Under rule 93 of this railway all except first-class trains are required to approach yard limits under control, and it is also provided that the responsibility for accidents at such points will rest with approaching trains. Engineman Jones said he had been operating his train at various points en route at the maximum authorized speed of 40 miles per hour, but that he shut off steam at a point which is nearly 2 miles from the point of accident, allowing the train to drift until he began to apply the air brakes when approaching the yard-limit board. He said he had never previously encountered a caboose so close to this particular yard-limit board as was the case with the caboose of extra 3187, and it seems apparent that he approached the yard-limit board at too high a rate of speed; in fact, when the fireman notified him of the stop position displayed by the automatic signal located more than 900 feet beyond the point of accident the first thought which came to his mind was that he would make just a good stop for the signal. The requirements of the rule are plain and although Engineman Jones said he had not been examined on the book of rules since he was promoted in 1919 it appeared that he was thoroughly familiar with the rule.

Engineman Jones and Conductor Zink had not been examined on the book of rules since their promotion in 1919, while the fireman, who was also an experienced man, had not been examined since he entered the service, which was also the case with the two brakemen. None of these employees had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. BORLAND,

Director.