

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON
THE CHICAGO, ROCK ISLAND & PACIFIC RAILWAY AT
DES MOINES, IOWA, ON SEPTEMBER 24, 1924.

November 8, 1924.

To the Commission:

On September 24, 1924, there was a rear-end collision between two freight trains on the Chicago, Rock Island & Pacific Railway at Des Moines, Iowa, resulting in the death of one employee and the injury of one employee.

Location and method of operation

This accident occurred on Subdivision 18, Cedar Rapids-Minnesota Division, extending between Valley Junction and Manly, Iowa, a distance of 135.4 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, no block-signal system being in use. This accident occurred within the yard limits of Short Line Junction, near Des Moines, on a slight fill, at a point 8,955 feet east of the west yard-limit board; approaching this point from the west there is a 2° curve to the right 1,084 feet in length, followed by a tangent more than a mile in length, the accident occurring on this tangent at a point 2,014 feet from its western end. The grade for eastbound trains is 1 per cent descending for a distance of more than 2 miles, extending to within about 3,200 feet of the point of accident, from which point it varies from 0.5 to 0.2 per cent descending, being at its minimum at the point of accident. The view is unobstructed for a distance of 3,100 feet. The weather was clear at the time of the accident, which occurred at about 8.40 p.m.

Description

Eastbound freight train No. 80 consisted of 12 cars and a caboose, hauled by engine 1948, and was in charge of Conductor Sullivan and Engineman Simpson. This train left Swanwood, 7 miles from Des Moines, at about 8.20 p.m., and while approaching Des Moines an air hose burst, causing the air brakes to be applied, the train coming to a stop within yard limits, about five minutes afterwards, while standing at this point, it was struck by extra 2308.

Eastbound freight train extra 2308 consisted of 38 cars and a caboose, hauled by engine 2308, and was in charge of Conductor Melone and Engineman McCurry. This train passed Enterprise, the last open office and 13.7 miles from Des Moines, at 8.26 p.m., and collided with train No. 80 while traveling at a speed estimated to have been about 20 miles an hour.

Train No. 80 was driven forward about half a car length, and the caboose and five cars were destroyed. Engine 2308 was derailed to the left and came to rest at right angles to and almost clear of the track, the tender was immediately west of the engine and diagonally across the track; three cars in this train were derailed, one of them being demolished. The track was torn up considerably. The employee killed was the engineman of extra 2308.

Summary of evidence

As train No. 80 was approaching Des Moines the air nose burst on the rear end of the first car and the train came to a stop at about 8.35 p.m., after which Engineman Simpson whistled out a flag, although under the rules it was not necessary to flag in this instance. Fireman Blaine and Head Brakeman Dorsey were working on the air hose when Engineman Simpson saw the reflection from the headlight as extra 2308 was coming down the hill; he also saw Flagman Happ going back with a lighted red fusee. On realizing that there might be a collision he shouted a warning of danger to the fireman and head brakeman, and shortly after these employees stepped out from between the cars the accident occurred. After the accident Engineman Simpson went back and looked at the brake valve on engine 2308 and stated at that time it was in the emergency position.

Flagman Happ, of train No. 80, stated that when his train stopped he started forward with an air hose but on being signaled by the head brakeman he returned to the caboose, secured his flagging equipment and started back to flag, carrying a lighted red fusee from the time he left the caboose. On reaching a point about 30 car lengths distant he saw extra 2308 approaching, at which time it was a considerable distance away, but he said he began waving stop signals with the fusee. Later his stop signals were acknowledged and extra 2308 passed him at a speed in excess of 30 miles an hour with the air brakes applied and sparks flying from the wheels, he was about opposite the caboose of extra 2308 when it came to a stop. Conductor Sullivan had started toward the head end of train No. 80 at about the time Flagman Happ went back to flag, and his statements did not bring out any additional facts of importance.

Fireman Yancy, of extra 2308, stated that no trouble was experienced in the handling of the train on this trip; several stops were made en route and the air brakes responded properly. Approaching the point of accident the engineman shut off steam and permitted the train to drift down the hill and on reaching bridge 772, located about 8,000 feet west of the point of accident, the speed was about 35 or 40 miles an hour. While rounding the curve just in advance of the tangent on which the accident occurred he heard some one shout a warning of danger, went over to the engineman's side of the gangway, and saw the flagman of train No. 80, waving a fusee, and also the markers on the caboose of that train. Fireman Yancy said he then crossed over to his side of the gangway and jumped just before the accident occurred, the speed not having been decreased at this time. Fireman Yancy further stated that he did not recall any application of the air brakes before an emergency application made just prior to the accident, and thought the accident was due to the speed at which the train was operated down the hill.

Head Brakeman McDonald, of extra 2308, stated that no difficulty with the air brakes was experienced in making three stops en route. Coming down the hill toward Des Moines the engineman made a light air-brake reduction, then released, and the speed entering the yard limits was about as usual, around 35 miles an hour. He stated that Engineman McCurry acknowledged the flagman's signals a considerable distance before reaching the tangent on which the accident occurred, after which he applied the airbrakes in emergency and opened the sanders, and the brakes seemed to take proper effect; Brakeman McDonald jumped when about 30 car lengths west of the point of accident, and estimated the speed to have been about 30 or 35 miles an hour at this time. He thought the speed was too high in this instance and did not think that the train was under proper control when rounding the curves.

Conductor Melone, of extra 2308, stated that the air brakes were tested and worked properly; at Cambridge, 25.10 miles from Des Moines, an exceptionally good stop was made. He did not recall the engineman having made the various customary running tests of the air brakes en route, as required by the rules, or reducing the speed approaching the yard limits, although after entering the yard limits, on reaching a point about 4,900 feet from the point of accident, at which time the speed was about 25 miles an hour, a service application of the air brakes was made. He was riding in the caboose coming down the hill and just before the accident occurred he felt the air brakes applied in emergency. Conductor Melone was of the opinion that

the accident was a result of misjudgment by Engineman McCurry of the distance to where train No. 80 was standing. Flagman Carroll was of the impression that the speed was excessive, and said he had commented about it shortly before the accident occurred.

Car Inspector Hardkopp, located at Iowa Falls, said he examined the cars in extra 2308 prior to its departure from that point and found one brake out out, one inoperative, and one with long piston travel. It further appeared from the testimony of the employees that the train line was not broken after the train left Iowa Falls, which is about 73 miles from the point of accident. After the accident one of the members of the wrecking crew inspected the cars and found one brake cut out; he did not make an air-brake test, but paid particular attention to the position of the angle cocks and found them all open

Terminal Train Master Heggenberger stated that on numerous occasions he had made observations to determine whether or not trains were being handled under proper control within yard limits and found that the rules were not being violated. The statements of the employees, however, indicated that speeds of 25 or 30 miles an hour when entering the yard were not unusual.

Conclusions

This accident was caused by the failure of extra 2308 to be operated under proper control within yard limits, for which Engineman McCurry is responsible.

Rule 93, of the operating rules of this railway, reads in part as follows:

"Unless the main track is seen or known to be clear, second and third class and extra trains must move within yard limits under control.
* * * In case of collision the responsibility rests with moving train or engine."

The evidence indicates that the air brakes had worked properly en route and that apparently they took effect when applied prior to the occurrence of the accident. The statements of the employees, however, indicate that the speed of the train was in the vicinity of 30 or 35 miles an hour when the engineman first saw the rear end of the train ahead, and it seems probable that this estimate is very reasonable, particularly in view of the fact that the train had traveled the distance of approximately 10 miles

from Enterprise to the point of accident in about 14 minutes, with probably only one air-brake application on the 1 per cent descending grade which extends for a distance of several miles west of the point of accident. The evidence also indicates that Engineman McCurry saw the rear end of train No. 80 in ample time to stop had he properly controlled the speed of his train, although it is possible an error of judgment on his part as to the distance available for this purpose may have contributed to the occurrence of the accident.

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

None of the employees involved had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

- W. P. Borland,

Director.