

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
MISSOURI, KANSAS & TEXAS RAILROAD AT MUSKOGEE, OKLA.,
ON FEBRUARY 16, 1920.

April 24, 1920.

On February 16, 1920, there was a rear-end collision between a freight train and a passenger train on the Missouri, Kansas & Texas Railroad at Muskogee, Okla., which resulted in the death of 1 employee. After investigation of this accident the Chief of the Bureau of Safety reports as follows:

This accident occurred on the Choctaw Division, a single-track line over which trains are operated by timetable and train orders, no block signal system being in use. Passenger trains register and receive orders at the passenger station at Muskogee, while freight trains register and receive orders at the yard office, located approximately 2,500 feet north of the passenger station.

The accident occurred within the yard limits at a point about 6,450 feet south of the passenger station. The track between the station and the point of accident is straight, while the grade is .75 percent descending for southbound trains, beginning at a point about 1,500 feet south of the station. About 1,750 feet south of the passenger station there is an interlocking plant controlling movements over crossings with two other railroads and about 1,450 feet farther south there is a crossing with a street railway. On the east side of the track about 1,000 feet south of the street railway crossing, the property of an oil refining plant begins, extending a distance of about 1,700 feet. The point of accident was about 600 feet south of this property and at the time of the accident a cloud of steam and smoke was blowing across the track from the refinery. The weather was foggy.

Southbound freight train No. 95, a fourth class local freight train en route from Muskogee to McAlester, Okla., was in charge of Conductor Parker and Engineman Poole and consisted of engine 530, 9 cars and a caboose. At the yard office at Muskogee the crew of this train received copies of train order No. 41, reading as follows.

"Extra 846 south run ahead of No. 7
Eng. 273 Muskogee to Summit. No 95 Eng.
530 run ahead of No. 7 Muskogee to Summit."

According to the freight train register, train 95 left at 7.35 a.m. and at about 7.49 p.m. this train passed passenger train No. 7, which was standing at the passenger station, and pulled out upon the main line. At a point about 6,350 feet south of the passenger station train No. 95 collided with a motor-car which was being used by a section gang. The train was brought to a stop with the caboose 200 feet south of the point where the motor-car was struck, and had been standing at this point

from 5 to 7 minutes when its rear end was struck by train No. 7.

Southbound passenger train No. 7, a second-class passenger train, in charge of Conductor Carringer and Engineer Lambert, enroute to Denison, Texas, consisted of engine 273 and six cars. At about 7.30 a.m. this train arrived at the passenger station at Muskogee where train order No. 41, above quoted, was received by the crew regardless of this order, however, an arrangement was made with the trainmaster whereby train No. 7 left ahead of extra 846. Train No. 7 left the station at about 7.56 a.m., although the passenger train ^{registered} showed the time as 8.10 a.m., and at about 8.00 a.m. while running at a speed variously estimated at from 15 to 35 miles an hour, collided with the rear end of train No. 95.

The force of the collision moved train No. 95 ahead about 175 feet, demolishing the caboose and derailling three cars immediately ahead of it, two of them being badly damaged. The engine of train No. 7 was derailed and was considerably damaged. The tender and the cars of train No. 7 remained on the track. The employee killed was Engineer Lambert, of train No. 7.

The investigation disclosed that as soon as train No. 95 had been brought to a stop after striking the motor-car, the flagman ran back to flag, taking with him a red flag and torpedoes. He had gotten back a distance of about 14 telegraph poles, or within three telegraph poles of the street railway crossing, when he saw train No. 7 approaching about three telegraph poles distant and he attempted to flag that train with his red flag. No attention was paid to his stop signals, however the train passing him at a speed of about 25 miles an hour. He had not put down any torpedoes. When train No. 7 was within a short distance of the rear end of train No. 95, it was seen by members of the crew of that train, as well as by section men who were examining the wreckage of their motor-car, and although stop signals were given they were not heeded by the engine crew. As the engine passed the section foreman, at a point about 300 feet from the rear of train No. 95, the cab windows were closed and apparently had a little frost on them, while the engineman appeared to be reading train orders, and the engine was still working steam. The fireman of train No. 95 thought the engineman applied the brakes just before the collision occurred, but did not know whether he shut off steam, neither of these facts was definitely established.

The train dispatcher had expected train No. 7 to consume a considerable amount of time in doing its station work and for this reason issued the order for train No. 95 and extra 846 to run ahead of it. In the meantime Trainmaster Poole had expedited the station work and then verbally authorized Conductor Carringer to run his train ahead of extra 846. Train No. 7 then departed; the first warning the firemen had of the fact that his train was overtaking train No. 95 was when the engineman called to him just before the collision occurred.

It is the practice for trains clearing at the yard office to check the train register there, the record of superior trains being placed on the yard office register by the operator on duty, who obtains the information from the dispatcher. This however, does not comply with the special instructions in the timetable, which require first and second class trains to throw off register record on form 68 at the yard office. Rule 91 reads in part as follows

"Unless some form of block signals is used, trains in the same direction must keep at least ten minutes apart, except in closing up at stations."

No means of complying with this requirement are provided, nor is any prescribed rule followed. According to the train dispatcher, in the absence of train orders train No. 95, for example, after reaching the passenger station and finding that train No. 7 had departed, would have the right to proceed immediately without first ascertaining that it had been gone 10 minutes.

This accident was caused by the failure of Engineman Lambert, of train No. 7, to observe and obey the stop signals of Flagman Jones, of train No. 95, and also by his failure to operate his train under control within the yard limits of Muskogee, as required by special instructions in the timetable.

All the evidence indicates that Flagman Jones went back a distance of approximately one-half mile, which would have been sufficient distance for Engineman Lambert to stop his train had he observed the flagman's signals. While no reason can be given for his failure to observe the stop signals of Flagman Jones, there is evidence indicating that just prior to the collision he was reading his orders.

Among the special instructions contained in the timetable is the following paragraph.

"All trains must run under control through Muskogee, North McAlester and Atoka yards, expecting to find main track occupied."

In view of the weather conditions which existed at the time of the accident, Engineman Lambert should have operated his train with particular caution and should have been prepared to stop within his range of vision. Had he been operating his train with a proper degree of caution within yard limits and had he been paying sufficient attention to the track ahead, he would have been able to bring his train to a stop in time to avoid the collision, notwithstanding his failure to observe the flagman's signals.

Rule 99 of this railroad requires a flagman to put down one torpedo 20 telegraph poles from the rear of his train, and two torpedoes at an additional distance of five telegraph poles.

While Flagman Jones had not gotten back the distance from his train at which torpedoes were required to be used, had he exercised good judgment he would have put down one torpedo as soon as he saw train No. 7 approaching. Had he done so this accident undoubtedly would not have occurred.

Engineman Lambert was employed as a fireman in 1891 and promoted to engineman in 1895; Flagman Jones was employed as a brakeman in 1909. The records of these employees were good. The engine crew of train No. 7 had been on duty about half an hour after a period off duty of nearly 9 hours, the train crew had been on duty about 5 hours after about 18 hours off duty. The entire crew of train No. 95 had been on duty about half an hour after periods off duty ranging from 8-1/2 hours to about 40 hours.

Trainmaster Poole is open to criticism for authorizing a violation of train order No. 41. This order directed train No. 95 and extra 846 to run ahead of train No. 7, and the dispatcher did not know that the order was not being obeyed until after the accident occurred. The proper execution of train orders is of the utmost importance in the safe operation of trains, and the example of a trainmaster in authorizing a train order to be disregarded not only introduces an element of danger, but it can not fail to influence subordinate employees.

While Rule No. 91 previously referred to, requires trains moving in the same direction to keep 10 minutes apart, the evidence indicates that little if any attention was paid to this rule. The statements of the employees were conflicting as to when the trains involved left Muskogee, while no definite information on this point can be obtained from the two train registers. The following times of departure were taken from these train registers.

| Passenger train register | Freight train register |
|--------------------------|------------------------|
| Train No. 1 7.42 a.m. | Train No. 95 7.35 a.m. |
| Train No. 7 8.10 a.m. | Extra 846 7.50 a.m. |

An improvised block sheet is maintained at the interlocking tower on which is shown the time at which trains clear that point. This sheet shows that train No. 1 passed at 7.49 a.m., train No. 95 at 7.52 a.m., train No. 7 at 7.58 a.m., and extra 846 at 8 02 a.m. These figures are believed to be approximately correct, and they show that each of the two passenger trains was followed closely by a freight train and that all four trains departed within a period of approximately 13 minutes. These train movements were made under unfavorable weather conditions, and on a single-track railroad where following movements are required to be spaced 10 minutes apart. Under these circumstances, and also in view of the action of the trainmaster in authorizing a violation of train order No. 41, it is apparent that conditions existed which were very likely to result in an accident of this character. In previous reports attention has been called to locations where

trains in the same direction were required to be spaced 10 minutes, but no provision was made to supply necessary information to train crews to enable them to comply with the rule, and no attempt was made to enforce the rule. The meaning and intent of a rule of this character are plain, and instead of being utterly disregarded, as in this case, by responsible operating officials, such measures should be taken as will result in its requirements being obeyed. In this particular case, there was ample opportunity for spacing trains at the interlocking tower. In a memorandum by the superintendent it is stated that to provide the protection intended to be given by Rule 91, it would be necessary to place a block at the interlocking tower; this would be entirely feasible except for the fact that there is a heavy movement of trains and engines through the plant and the time of the towerman is fully occupied with the operation of the plant. The investigation of this accident, however, disclosed that the rules which are intended to provide for the safety of train operation at this point not only are inadequate for the purpose but their requirements are disregarded in daily practice with full knowledge and in this case at the direction of responsible operating officers. To provide a safe method of train operation, the block system should be placed in effect on this line. The traffic includes 12 daily scheduled passenger trains and a check of the train sheet indicates an average of 25 train movements. Had an adequate block signal system been in use on this line, this accident would not have occurred.