

INV. 304.
DECEMBER 31, 1915.

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON
THE KANSAS CITY SOUTHERN RAILWAY AT KANSAS CITY, MO.,
ON OCTOBER 19, 1915.

On October 19, 1915, there was a head-end collision between two switching locomotives running light on the Kansas City Southern Railway at Kansas City, Mo., which resulted in the death of 3 employees and the injury of 3 employees. After investigation of this accident, the Chief of the Division of Safety reports as follows:

The accident occurred on the Terminal Division of the Kansas City Southern Railway on a single-track line, 1 mile in length, connecting Walnut Street and Benning Street yards. Very little of this track, which is known as the "High Line," is laid on a tangent, most of it being on curves varying from 1 to 15 degrees, and between Walnut Street yard and the point of accident, a distance of 1,600 feet, the track runs through a cut varying from 5 to 30 feet in depth. The cut is a descending grade for west-bound movements extending practically the entire length of this line, the grade varying from .6 per cent to approximately 3 per cent.

Movements over this High Line are handled under what is called a manual block signal system. The train dispatcher handling trains on this track also handles trains on the Air Line and Subway Districts. His office is in a tower at Walnut Street and he has a telephone switch board with a connection extending to Santa Fe Tower, located at the other end of the yard at Benning Street, these towers forming the block limits. No semaphores or other form of fixed signals are used, movements in each direction being author-

ized by the dispatcher at Walnut Street, who personally issues a clearance card to the engine foreman of westbound trains and who authorizes the operator at Santa Fe Tower to issue clearances to the engine foreman of eastbound trains. At Walnut Street the movements of trains are recorded in a block sheet which also shows the time at which clearance cards are issued to westbound trains by the dispatcher at Walnut Street and presumably their time of arrival at Santa Fe Tower. The statements of the employees involved indicated that it was customary for the dispatcher at Walnut Street to issue clearances to westbound trains without notifying Santa Fe Tower and that the operator at Santa Fe Tower would know nothing of the movements of trains until they arrived at his station. It also appeared that frequently it was necessary for the operator at Santa Fe Tower to ask the dispatcher what trains were coming and then go out into the yard and hunt them up in the endeavor to see whether or not they had arrived.

On the day of the accident Operator Feeney, at Santa Fe Tower, called the dispatcher at 7:00 a.m., and asked for a clearance for locomotive 99 to move eastbound to Walnut Street. Night Yard Master Teener handled the dispatcher's telephone at that time on account of the inexperience of Dispatcher Richards, who was working his first trick as dispatcher at Walnut Street, and the yard master instructed Operator Feeney to issue the necessary clearance to locomotive 99. Before this locomotive reached Walnut Street, locomotives 86 and 98 asked for clearances to allow them to proceed westwardly from Walnut Street to Henning Street. Dispatcher Richards had taken the telephone in the meantime and the

yard master told him to hold the two locomotives until locomotive 99 arrived. By this time locomotive 91 arrived at Santa Fe Tower and asked for a clearance to allow it to proceed to Walnut Street. The night yard master told the dispatcher to tell the operator at Santa Fe Tower, that another locomotive, No. 92, would soon arrive at Santa Fe Tower en route to Walnut Street and that locomotives 91 and 92 could then be moved to Walnut Street together. He then instructed the dispatcher to move locomotives 96 and 98, together with locomotive 95, down the hill to Henning Street. According to the block sheet, Dispatcher Richards issued clearances to locomotives 96 and 98 at 7:07 a.m. and 7:08 a.m., respectively, the clearance to locomotive 95 not being issued until 7:17 a.m., on account of that locomotive being delayed. Due either to a misunderstanding on the part of Operator Feehey, or an error on the part of Dispatcher Richards, locomotives 91 and 92 were given clearances at Santa Fe Tower when locomotives 96 and 98 arrived at that point, and they started up the hill toward Walnut Street a few minutes prior to the time locomotive 95 left Walnut Street, locomotive 91 colliding with locomotive 95 at 7:18 a.m., the collision occurring on a bridge, 350 feet in length, which carries the Kansas City Southern tracks over the Chicago & Alton Railroad tracks. Locomotive 91 was being operated backward, while locomotive 95 was running forward, and the employees killed and injured were switchmen riding on the footboards.

Neither locomotive derailed and only slight damage was sustained by each of them. The speed of the locomotives prior to the collision is estimated by the crews to have been about 5 miles an hour, but on account of the very dense fog it was impossible

for them to see more than a car length. On this account they were unable to stop their locomotives in time to avert the collision.

Dispatcher Richards stated that after the arrival at Walnut Street of locomotive 99, he issued a clearance to locomotives 88 and 95. In a few minutes the operator at Santa Fe Tower said that locomotives 91 and 93 were ready to proceed to Walnut Street and he told the operator that locomotives 88 and 95 were on the way and that locomotive 95 was ready to go. He stated that this was all the conversation he had with Operator Feeney. Locomotive 95 was ready in a few minutes and he then issued a clearance card to the foreman in charge. He stated that at no time did he say anything to Operator Feeney about giving clearances to locomotives 91 and 93; he did not tell the operator to hold those two locomotives and neither did he tell the operator to let them go after the arrival at Santa Fe Tower of locomotives 88 and 95. He also stated that at no time did he inform Operator Feeney that locomotive 95 was in the block and that the operator did not inform him when locomotives 88 and 95 arrived at Santa Fe Tower. Dispatcher Richards further stated that in addition to his duties as a dispatcher there was a switch in front of the office to be thrown by him in case a train coming up the hill did not want to stop. He had not been instructed to throw the two cross-over switches near the tower, or to flag the crossing.

Operator Feeney stated that at 7:10 a.m., the foreman of locomotive 91 asked for a clearance to go to Walnut Street. He called the dispatcher at the Walnut Street office and was told to

hold the locomotive as two locomotives were coming down the hill from Walnut Street. In the meantime locomotive 68 had arrived at his tower and the foreman came in and asked for a clearance to Walnut Street. This foreman was also instructed by Operator Feeney to wait, as locomotives were coming down the hill. In about a minute or two, Operator Feeney went to the door and saw two locomotives coming. On account of the fog he could not see their numbers. He then asked the Walnut Street office for the numbers of the two locomotives that were coming and was told, 91 and 92. He then called the Walnut Street office again and said that locomotives 68 and 92 had arrived and that locomotives 91 and 92 were waiting for clearance, and he claimed that he was told to let them come if locomotives 68 and 92 had passed. He then went out of the tower to identify locomotive 68, which was taking water, while locomotive 92 had passed. He could not clearly see the number of the locomotive and as he gave the clearance to the engine foremen of locomotives 91 and 92, who were standing on the ground near the tower, he told them to look at it and that they could go if it was locomotive 68. At the same time, he walked nearer to locomotive 68 in order to identify it himself. He further stated that twice the Walnut Street office told him to let locomotives 91 and 92 come as soon as locomotives 68 and 92 arrived. Operator Feeney further stated that the Walnut Street office did not say anything to him about locomotive 92 until 1 or 2 minutes after locomotives 91 and 92 had left Santa Fe Tower. Then the dispatcher called on the telephone and asked what the matter was, and he replied that as far as he could tell, there was nothing the matter. He then inquired if

locomotives 91 and 92 had arrived at Walnut Street and was told that they had not. He was then instructed to go out and see if locomotive 93 had arrived. He did so but could not find it. Operator Feeney further stated that no record was kept at Santa Fe Tower of movements over the High Line and that the Walnut Street office had the right to let trains into the block without notifying the operator at Santa Fe Tower. He also stated that he had to flag trains across the crossing at the tower, but that when flagging trains in this manner he did not go very far from the telephone.

Night Yard Master Yeager stated that when the engine foreman of locomotive 99 asked for a clearance to go from Santa Fe Tower to Walnut Street, he took the telephone, on account of the new dispatcher not being as familiar with the work as he was, and authorized the issuance of the clearance. The foreman of locomotives 86 and 98 then asked for clearances and he stated that he instructed the dispatcher to hold them until locomotive 99 arrived. When the clearance was requested to allow locomotive 91 to come from Santa Fe Tower to Walnut Street, after locomotive 99 had arrived at Walnut Street, he instructed the dispatcher to tell Operator Feeney to hold locomotive 91, as locomotive 88 was coming toward that point and locomotives 91 and 88 could come to Walnut Street together and locomotives 86, 98 and 95 could go from Walnut Street to Santa Fe Tower. Clearances were then issued to locomotives 86 and 98.

Engineman Anderson, of locomotive 93, stated that after receiving the clearance, the foreman boarded the locomotive and he started down the hill toward Santa Fe Tower, running at a speed of

4 or 5 miles an hour. Just as the locomotive started across the bridge, he heard the switchman call to him and he then applied the brakes, reversed the engine and opened the sanders. Prior to the accident the locomotive was drifting, the headlight burning and the bell ringing. He further stated that when he first saw locomotive 91 it was not more than one-half engine length distant, while Fireman Hayner stated that it was about 10 feet distant when he first saw it.

Engineman Wright, of locomotive 91, stated that it was about 7:05 a.m. or 7:07 a.m. when his foreman asked for a clearance at Santa Fe Tower. The foreman was gone for 10 or 15 minutes and after locomotives 66 and 98 had passed, returned from the tower with the clearance. Engineman Wright stated that when he first saw locomotive 95 it was not more than one-half car length away. At this time he was working steam and he at once shut off steam, applied the brakes and reversed the locomotive. He thought the speed at the time when he first saw locomotive 95 was 4 or 5 miles an hour and stated that the headlight on the rear end of the tender of his locomotive was burning.

Engine Foreman Witherman, in charge of locomotive 82, stated that after he asked for a clearance at Santa Fe Tower for the purpose of going to Walnut Street, the operator called the Walnut Street office on the telephone and then told him that locomotives 66 and 98 were coming from Walnut Street, and that he could go when they arrived. The clearance was then given to him by the operator, at which time locomotive 66 had arrived, locomotive 98 arriving 3 or 4 minutes afterwards. He also stated that at this

time, Engine Foreman Thompson, of locomotive 91, was in the office and that Operator Feeney gave the same instructions to him.

Dispatcher Jenkins stated that the duties of the Walnut Street dispatcher, besides, dispatching, embraced the handling of the switch on the High Line and 3 cross-over switches, also the flagging of the street crossing when anything was coming. When leaving the telephone in this way, he would turn it over to an engine foreman in case one was around. He understood it was for the safety of the public using this street crossing that it was protected by the dispatcher, but stated that he had never received any direct instructions to do so.

Superintendent Streeter stated that the only printed instructions governing the movements of trains on this High Line, other than the clearance cards, are contained in paragraph 4 of the Special Instructions published in the time-table of the Terminal Division, which paragraph reads as follows:

"Time table rights are void on the High Line between Walnut Street and Santa Fe Street. Movement of all trains between these stations will be governed by Block Clearance Form 573 issued at Walnut Street to northbound trains, and at Santa Fe Street to southbound trains, except that transfers for Henning St. via C. B. & C. connection will move on verbal orders of Operator Walnut St. through Operator at C. & A. tower."

No regular examination is given to new men when placed in service at Walnut Street or Santa Fe Towers, but they are given a practical examination and instruction at the office at which they are to work. He further stated that under a former superintendent, the operators on duty at Walnut Street have been instructed to flag the crossing but that this had not been required in recent times.

This accident was caused by locomotive 91 being allowed

to enter the block when it was occupied by an opposing train. The dispatcher at Walnut Street insisted that at no time did he authorize the issuance of the clearance to the engine foreman in charge of locomotive 91, while the operator at Santa Fe Tower is equally insistent that the dispatcher authorized the issuance of the clearance to the engine foreman of locomotive 91 as soon as locomotives 66 and 93 had cleared the block. In view of the conflicting statements of the two men directly involved, it is impossible to tell which one is at fault.

Dispatcher Richards had been employed as a dispatcher at Walnut Street only one night, previous to which he had received instructions for about 2 or 3 hours on 4 nights. He had been employed in train service as brakeman and conductor from 1893 until 1909, leaving train service on account of injuries. Since June 2, 1915, he had been employed as a crossing flagman, 5 weeks as a towerman, and then as a dispatcher at Walnut Street, this accident occurring during his first night on duty. Operator Feeney was 62 years of age, and had been 18 years in the service of the Kansas City Southern Railway as switch man, train pilot and towerman, and since July 27, 1915, had been employed as operator at Santa Fe Tower.

Neither of these employees had been on duty in violation of any of the provisions of the hours of service law.

This investigation develops the fact that there are many features connected with the methods of dispatching and blocking trains on the Terminal Division of this railway which are not conducive to safety. The records show that there is an average daily movement of 35 or 40 trains and locomotives over this High Line District. Notwithstanding the frequency of these movements, no

block records are kept at Santa Fe Tower and dispatchers issue clearances and send trains into the block without communicating in any way with the operator at the opposite end of the block. The lax method of train operation is also disclosed by the various duties of the dispatchers and operators, who are called away from their posts to act as flagmen and crossing watchmen and to attend switches, other employees assuming their duties while they are thus absent.

The only printed rule governing the operation of trains on the High Line District is contained in paragraph 4, of the special instructions in the current time-table, quoted above, and it will be noted that this paragraph sanctions a dangerous practice when it authorizes the movement of transfers for Henning Street via the C. B. & Q. connection on verbal orders of the dispatcher at Walnut Street, sent through the operator at C. & A. tower.

As previously stated, the dispatcher at Walnut Street, in addition to handling trains over the High Line District, also directs the movement of trains over the Air Line and Subway districts. On September 26, 1912, there was a head-end collision on the Air Line District, due to a misunderstanding of orders by a conductor, who was killed in the accident. The investigation of that accident developed that Rule No. 103, requiring all messages and orders respecting the movement of trains to be in writing, was entirely disregarded, all orders to the crews of about 3 trains operated each day being communicated verbally and no record of them being kept. In that report it was stated that:

"The operator at Walnut Street, who dispatches trains on this division, also acts as switch tender, crossing watchman and telephone exchange operator, and he receives switching orders and directs switching movements. His records consist of a block sheet containing a record of only such trains as are reported by telephone to his office; he stated that he kept this record for the convenience of dispatchers."

In the conclusion of that report it was stated that:

"The Kansas City Southern Railway Company has permitted to grow up and continue in vogue on this division loose and slipshod methods of operation which led directly to this collision. These dangerous practices should be abandoned immediately and some safe method of operation should be adopted before a more disastrous accident occurs."

It is apparent that the operating officers of this railway failed to profit by the warning contained in that report, as the dangerous conditions were permitted to continue, producing their natural result. It is to be hoped that another accident of this character will not be necessary to bring about the elimination of such conditions as are herein pointed out. If trains on this High Line District are to be operated under manual block rules, such rules should be strictly adhered to, and the usual written block records should be kept by the operators at each block station.

The dispatcher at Walnut Street has a great many train movements to handle on the three short districts under his supervision and he should not be placed in charge of an office of this character until examination has proven him to be thoroughly familiar with the duties and requirements of the office and competent to handle any situation which may arise; neither should these duties be such as to call him away from his office, leaving the same in charge of yardmen, store and engine foremen, as appears to be the practice at this tower.