

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
KANSAS, OKLAHOMA & GULF RAILWAY AT KENEFICK, OKLA.,
ON MAY 20, 1931.

June 29, 1931.

To the Commission:

On May 20, 1931, there was a head-end collision between two freight trains on the Kansas, Oklahoma & Gulf Railway at Kenefick, Okla., which resulted in the injury of two employees.

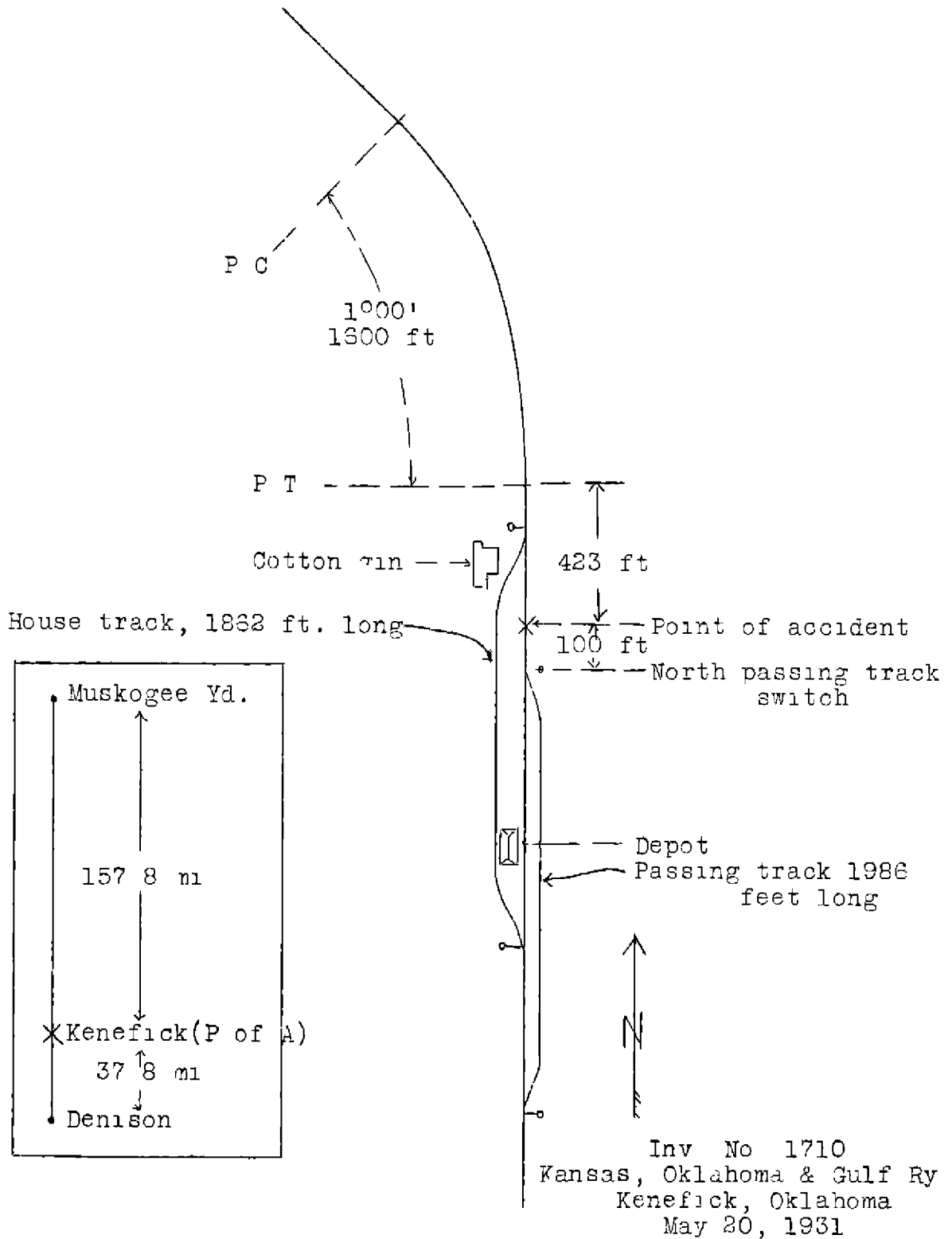
Location and method of operation

This accident occurred on the Southern District, which extends between South Junction, near Muskogee, Okla., and Denison, Texas, a distance of 191.3 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. The accident occurred at a point 100 feet north of the north passing-track switch at Kenefick; approaching this point from the north, the track is tangent for a distance of approximately $3\frac{1}{2}$ miles, followed by a 1° curve to the right 1,600 feet in length, and from this point the track is tangent for almost 2 miles, the accident occurring on this latter tangent at a point 423 feet from its northern end. The grade at the point of accident is 0.24 per cent ascending for southbound trains, although farther back it is gradually descending for nearly 4 miles. The passing track at Kenefick is 1,986 feet in length and parallels the main track on the east; there is also a house track which is 1,862 feet in length and parallels the main track on the west, the north switch of this track being located 479 feet north of the north passing-track switch. Northbound trains are superior to trains of the same class in the opposite direction.

The weather was clear at the time of the accident, which occurred about 10.25 p.m.

Description

Southbound freight train extra 501 consisted of 90 cars and a caboose, hauled by engine 501, and was in charge of Conductor Pond and Engineman Davis. This train departed from Allen, 56.8 miles north of Kenefick, at which point engine crews had been changed, at 7.55 p.m., and at Tupelo, 34.3 miles from Kenefick, the crew received a copy of train order No. 53, Form 19, reading in part as follows:



Eng 503 run Exa Denison to South
Jct take siding meet Exa 501 south
at Kenefick * * * Exa 501 south
look out carefully for Exa 503 Nth
doubling over at meeting point.

Extra 501 left Tupelo at 9.05 p.m., made a stop at Bromide Junction, 19.8 miles from Kenefick, left there with 72 cars and a caboose, and just after passing the north switch of the house track at Kenefick it collided with extra 503 while traveling at a speed variously estimated at from 10 to 20 miles per hour.

Northbound freight train extra 503 consisted of 49 cars and a caboose, hauled by engine 503, and was in charge of Conductor Harrison and Engineman Cook. This train left Denison, 37.8 miles south of Kenefick, at 9 p.m., the crew having received a copy of train order No. 53, Form 19, partly quoted above, and upon arriving at Kenefick it entered the passing track at the south switch preparatory to meeting extra 501, but as the siding was of insufficient length to accommodate the train it started moving through the north switch, it being intended to place the forward portion of the train on the house track, and it was while this movement out of the passing track was being made that the train was struck by extra 501.

The impact forced extra 503 backwards a distance of about 100 feet, derailing both engines and considerably damaging them. The tender of engine 501 was also derailed and partly overturned, the first car in this train came to rest on its left side, and the following four cars were demolished and bunched within a distance of about one car-length. The eighth car was broken in two and the forward end of the ninth car was telescoped. The tender and the first three cars of extra 503 were derailed; the first car was overturned but the second and third cars remained upright. The fourth car was off center at one end and the eleventh car had both draft gears broken. The employees injured were the engineman and fireman of extra 501.

Summary of Evidence

Engineman Davis, of extra 501, stated that he took charge of the engine when the train arrived at Allen, and after picking up several cars the train departed. The next stop was Tupelo, where the cars picked up at Allen were set off and others picked up, and where he received the train order to meet extra 503 at Kenefick, and the following stop was at Bromide Junction. When he reached a point about 1 mile from Kenefick he observed the headlight of the opposing train in that vicinity, and then began reducing speed by first making a brake-pipe

reduction of about 8 pounds, followed by a second reduction of 7 pounds, with the intention of bringing his train to a stop before reaching the meeting point, but when about 75 car-lengths from extra 503 its headlight disappeared from view, which he said was the usual signal that the main track was clear, although he knew there was a cotton gin at Kenefick which had a tendency to obstruct the view. As soon as the headlight disappeared he released the brakes, whistled off, and started working steam, but upon reaching a point about 25 car-lengths from extra 503 its headlight reappeared and he immediately closed the throttle and applied the brakes in emergency; this application of the brakes did not take proper hold, however, on account of their having just been released from the previous application. He estimated the speed of his train as it approached Kenefick to have been about 30 miles per hour, this rate of speed was reduced by the service application and then had increased to about 25 miles per hour when he applied the brakes in emergency, this latter application of the brakes reducing the speed to about 10 miles per hour at the time of the accident. He considered that his train was under full control when he released the brakes and that he could have brought it to a stop short of the point of accident had not the disappearance of the headlight of the opposing train caused him to believe that that train was then into clear. He did not see any flagging signals displayed by the crew of extra 503 while his train was approaching the point of accident, and did not expect to receive such signals, as it was his understanding that when a siding is of insufficient length to hold a train, then that train will re-enter the main track against an opposing movement without flag protection when the crews involved hold a meet order similar to train order No. 53. He knew that a movement of this kind was against the rules, but said it had been the custom for some time to make movements of this character.

Fireman Robertson, of extra 501, stated that on account of his position on the outside of the curve north of Kenefick he could not see the headlight of extra 503, but the engineman informed him that that train had arrived and was doubling over, the engineman later stating that the headlight was being flashed indicating that the opposing train was then in the clear. As soon as his engine had rounded the curve a sufficient distance for him to see the reflection of the headlight he called to the engineman that something was wrong, and about the same time the engineman applied the brakes in emergency, but by this time the trains were only from 200 to 250 yards apart. He said his train was running between 30 and 35 miles per hour when the service application of the brakes was made while approaching Kenefick, which application had reduced the speed to 15 or 16 miles

per hour by the time the engineman released them; this was followed very closely by the emergency application, which further reduced the speed to 10 or 12 miles per hour at the time of the accident. The brakes appeared to function properly when the service application was made, but did not take hold satisfactorily when they were applied in emergency which he thought was caused by not having sufficient time for the train line to re-charge after the brakes were released from the first application. He thought the crew of extra 503 should not have attempted to double over without protecting by flag, as the order did not relieve them of this duty, they were, however, following the usual practice.

Head Brakeman Tope, of extra 501, stated that he was riding in the brakeman's cupola on the tender of the engine and when the train reached a point about 3/4 mile from the meeting point he noticed the headlight of the opposing train. The headlight did not remain constantly in view, but would disappear intermittently as his own train approached it. When he first observed the headlight his train was traveling about 20 miles per hour, but the brakes were later applied and speed reduced to 12 or 15 miles per hour. The engineman sounded a meeting-point whistle signal, then whistled off and released the brakes, at which time his train was about 40 car-lengths north of the passing track. He estimated the speed of the train at the time of the accident at 15 miles per hour.

Conductor Pond, of extra 501, stated that a terminal test of the brakes was made before leaving Muskogee, the initial terminal, and that when cars were picked up and set off en route he noted that the train line was cut through to the caboose. He received a copy of the train order at Tupelo to meet extra 503 at Kenefick, and while his train was approaching the latter point he was looking ahead from the right side of the cupola of the caboose to see if the opposing train had arrived. He observed a light when his train was about 2 miles away but was unable to determine whether it was the headlight of extra 503, due to its disappearing two or three times. His train was traveling at a speed of about 25 miles per hour at the time, but when it reached a point about 1 mile from the meeting point the speed was reduced until the train was traveling about 5 or 6 miles per hour. From his position on the train he thought the engine was entering the curve north of Kenefick when the brakes were released, allowing an increase of speed of 8 or 10 miles per hour; shortly afterwards he felt a slight jar, followed by the train coming to a stop. He said that while the meet order required his train to run carefully expecting to find extra 503 doubling over at the meeting point, yet he did not know how many cars that train

consisted of, and said that if it was necessary to double over, the train had no authority under the rules to occupy the main track north of the passing track without flag protection. He also said it was customary, however, to get meet orders similar to the order held on the date of the accident and on such occasions he had observed trains making these movements without sending a flagman ahead, and he had never been criticised for making such movements. In his opinion, however, orders of this kind do not relieve train crews from protecting while occupying the main track beyond the meeting point.

Rear Brakeman Sharun, of extra 501, stated that he was riding in the cupola of the caboose approaching Kenefick, and when about 1 mile from that point he saw a light in the distance, but as it disappeared at intervals he did not know whether it was the headlight of an approaching train or an automobile headlight. His train had been traveling at a speed of 30 or 35 miles per hour, but this speed had been reduced to 12 or 15 miles per hour, which latter speed he thought was maintained until he felt a shock just before the train stopped. According to his statements, also, it is not the practice to flag at a meeting point when covered by an order similar to the one here involved.

Engineman Cook, of extra 503, stated that his train headed into the passing track at Kenefick, but on account of the siding not being long enough to hold the train it continued to move through the north switch without stopping, with the intention of clearing the main track at the south switch and then placing the head-end of the train on the house track. The train was moving at a speed of about 2 miles per hour, and just about the time the engine was fouling the main track he noticed the headlight of extra 501 coming around the curve, apparently about 30 car-lengths distant. As the approaching train appeared to be traveling at such a rapid rate of speed that it could not be stopped before a collision occurred, he shut off steam, applied the independent engine brake, and jumped off just before the trains collided. He said the headlight of his engine had not been shut off at any time and that it was burning brightly at the time of the accident. There was no flag protection afforded before the movement was started through the north passing-track switch as he understood that flag protection was not required in making movements of this kind under an order such as he held on the day of the accident. He was aware the rules required flag protection when a train stops or is delayed under circumstances in which it may be overtaken by another train, but as he had received similar orders on previous occasions he did not require that a flagman be sent ahead. On some of these previous trips there had been an official of the

company riding the engine but he had never received any criticism for making these movements.

Fireman Overbeck, of extra 503, stated that his train moved through the passing track at a low rate of speed, and as it approached the north switch he heard a whistle signal sounded by extra 501 and also saw the headlight of that train approaching at a distance of from 1/2 to 3/4 mile, he notified the engineman to this effect, but did not hear the engineman reply. While his train continued moving slowly, the head brakeman opened the switch and the train started out on the main track, being struck shortly afterwards by extra 501. To the best of his knowledge the headlight burned continuously from the time the train left Denison until the collision occurred, although it may have flickered to some extent. His statements verified others to the effect that the usual custom was being followed in doubling over under orders of the kind here involved.

Head Brakeman Romer, of extra 503, stated that he rode on the pilot of the engine while the train was moving through the passing track and as it approached the north switch he got off, ran ahead and opened the switch, but at the time he did not see the headlight of an approaching train, neither did he hear any whistle signals sounded. As soon as he threw the switch he crossed over to the west side of the track and he then saw the headlight of extra 501 approaching around the curve. Noticing that the train was traveling at a rapid rate of speed, he ran towards that train about a car-length and gave a stop signal, but as the signal was not acknowledged he turned and ran in the opposite direction for his own safety. He was certain that the headlight of his train was burning as it moved through the passing track and that it continued to burn after he opened the switch. Head Brakeman Romer was under the impression that the way the meet order was worded superseded the rules and relieved him from providing protection, although he had never been instructed to this effect.

Conductor Harrison, of extra 503, stated that he noticed a light some distance ahead while his train was moving through the passing track, but could not ascertain whether it was the headlight of extra 501 or some other light in that locality. He expected his train would stop before it re-entered the main track, and did not know that it had not done so until it came to a stop and he noticed the headlights of both trains were extinguished. He was familiar with the rules requiring that flag protection must be furnished when making crossover movements at meeting points, but as it had been the practice for some time, under a similar order, to make movements of this character without protecting, he did not think flag protection was necessary on the day of the

accident, and it was his idea that if these movements were not intended to be made without flagging ahead then the orders were misleading and should not be issued, in fact, he said officials had told him orders of the kind involved were enough to allow him to double over without flag protection.

Rear Brakeman Shippen, of extra 503, stated that as he understood orders of the kind here involved, it required extra 501 to stand back until his own train made the double-over movement. He was riding on the rear platform of the caboose, with the intention of closing the south switch as soon as the rear end of the train had cleared it, but the train stopped before reaching that point, and hearing a peculiar noise near the head end he knew that something had occurred, although at the time he did not know the nature of the trouble.

The statements of Car Inspectors Martin and Branham were to the effect that they made a terminal test of the brakes of extra 501 before it departed from Muskogee and found them to be in proper working order. Car Inspector Foreman Hopwood stated that in company with Inspector Wagner he made an air-brake inspection and test on extra 503 at Denison and the brakes were then in good condition.

Trainmaster and Road Foreman of Engines Daniel stated that when he took office in February 1, 1929, it was the practice to make the crossover movements as was intended on the day of the accident under the same type of train order involved. He knew these movements violated the rules, but he offered no objections as he had never been questioned concerning them, and as every one seemed to understand thoroughly that protection was afforded by such orders. He thought the practice was established to expedite train movements at meeting points in order to save the time in sending a flagman ahead.

Chief Dispatcher Caldwell stated that he considered himself responsible for all train orders similar to the one involved in the accident, and said that the notation on the bottom of these orders was merely to convey the information to the crews that the siding at the meeting point would not hold the train required to occupy it, and would thus necessitate a double-over movement to some other track, and that such information would enable the crews to handle their trains without unnecessary delay. In his judgment it was much better to convey this information on the meet order rather than by message, as the message was more liable to be overlooked.

During the night of May 27, tests were conducted at Kenefick to determine the distance at which an engine-man of a southbound train could have a clear view of the headlight of an approaching northbound train. These tests were made by first placing an engine on the main track with its head end at the south passing-track switch, then placing it on the passing track about midway between the switches, and finally placing the engine at the approximate point of collision. Another engine was backed away in making the test, and it was found that the distances at which the headlight of the standing engine disappeared from view were 3,158, 2,347, and 2,539 feet, respectively. The passenger station and other buildings located in that vicinity accounted for the restricted range of vision.

Conclusions

Under strict interpretation of the rules, this accident was caused by extra 503 occupying the main track beyond the meeting point without flag protection for which Engineman Cook is primarily responsible.

The rules provided that when at meeting points between extra trains the train in the inferior timetable direction must take the siding unless otherwise provided, and in this case extra 503, superior by direction, had an order to take siding. The rules further provide that if necessary to back in, the train must first be protected. It is in view of these rules that Engineman Cook is at fault, but while the investigation developed that all of the employees involved understood these rules, yet it was clearly established that a practice had been in effect for years, with full knowledge of the officials, whereby an order similar to train order No. 53, requiring extra 501 to look out carefully for extra 503 doubling over at the meeting point, was interpreted as meaning that the latter train had authority to occupy the main track north of the meeting point without flag protection. It was so understood by Engineman Davis, of extra 501, and in view of the fact that such an interpretation of an order of this kind had assumed an official character, it is believed that the real blame should be attached to Engineman Davis. He was familiar with the contents of the meet order, and, as he did not expect to be flagged, he reduced speed approaching Kenefick until the disappearance of the opposing headlight caused him to think that extra 503 had cleared the main track, he then released the brakes and began working steam, and when he finally discovered that extra 503 was on the main track it was too late to stop in time to prevent the accident. In view of his full understanding of the order and of the situation as it affected the movements of the two trains, he should have held his train under complete

control until he definitely ascertained that the main track was clear.

Not only was it clear that the flagging rules were not enforced when doubling over at meeting points under authority of a meet order similar to the one here involved, but it appeared that there was laxness in the making of proper air brake tests, that many of the employees did not know where standard clocks were located, and depended entirely on semi-monthly watch inspections for correct time, and that they had not been examined on the rules for a great many years, in fact, since last hired or promoted, and the majority had never been examined on the current book of rules, which took effect in February, 1913. This is a small road, without great density of traffic, but this is no excuse for the general all-round slack conditions which were found to exist, and it is recommended that responsible supervising officials see to it that all rules are enforced and obeyed by all concerned.

All of the employees involved were experienced men, and at the time of the accident none of them had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

Director,
W. P. Borland.