

July 10, 1914.

In re Investigation of Accident on the Missouri, Kansas  
& Texas Railway Company of Texas, near West Point,  
Texas, on May 27, 1914.

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On May 27, 1914, there was a derailment of a freight train on the Missouri, Kansas & Texas Railway Company of Texas, near West Point, Texas, resulting in the death of two employees.

After investigation of this accident the Chief Inspector of Safety Appliances reports as follows:

Train No. 97, a local freight running from Smithville to Houston, Texas, consisted of 14 cars and a caboose, hauled by locomotive 507, and was in charge of Conductor Collins and Engineman McElroy. This train left Smithville at 6:20 a. m. and was derailed at about 6:58 a.m. about two miles north of West Point while running at a speed of from 5 to 10 miles per hour.

The locomotive and first four cars were derailed on the inside of the curve while the front trucks of the fifth car were derailed. Locomotive 507 came to rest on its left side about 140 feet south of the point of derailment, while the first car turned on its side with its rear end lying on the tender. The second car was leaning to the left at an angle of 45° and practically parallel with the first car, the third car remained in an upright position in the rear of the first two cars and at right angles with the track, while the fourth car landed in the opening made by the fill sliding. The engineman and fireman were pinned under the locomotive and first car, respectively, and killed. The damage to the equipment was slight. The weather at the time was cloudy.

The division upon which this accident occurred is a single-track line, trains being operated by the train-order system. Approaching the point of accident from the north there is a 4° curve leading to the right, followed by about 200 feet of tangent, and then a 4° curve leading to the left. The derailment occurred on this second curve. At the point of accident there is a descending grade of 1% for southbound trains.

The track on either side of the point of accident is laid with 30-foot rails, weighing 66 pounds to the yard, on oak and pine ties, 18 to the rail. On the curve tie plates were used and the rails single spiked inside and outside, except in places on the outside of the curve, at which places they were double spiked. The track was ballasted with gravel and cinders, from 30 to 36 inches deep, and fairly well maintained. The surface and alignment in nearby cuts are in poor condition on account of lack of drainage. At the point of accident the track is laid on a fill in a ravine at the base of a hill. This fill is largely composed of a soapstone formation which, when wet, has little holding qualities. The hills to the west of the track drain eastward and at the point of accident a pocket is formed by the fill which catches the water and forms a pool. This pool was about 75 feet long with an average width of 35 feet and 7½ feet deep in places. The water in this pool was within about 2 feet of the crown of the fill for a distance of about 45 feet.

The records of the Weather Bureau show that the rainfall in this vicinity for the past 90 days was 24.7 inches and wash-outs and derailments due to soft track were frequent.

On May 27th, several slow orders were issued, among them being order No. 600, reading as follows:

"Account heavy rains having damaged road bed in numerous places, rendering it impracticable to cover them by slow orders, Engineers must run carefully around curves and down hills and lose time when in their judgment it is necessary to insure absolute safety, and will use extreme caution in heading in, backing out of siding, and handling trains on frog and turnouts carefully."

Conductor Collins of train No. 97 stated that at the time of the accident he was riding in the cupola of the caboose and had a good view of the track ahead. There was nothing to attract his attention to its dangerous condition, his first intimation that anything was wrong being when he saw the locomotive leaving the track, at which time he applied the air brakes from the caboose. He said he had received a copy of slow order No. 600 and at the time of the accident the speed of his train was about 8 miles per hour. He stated that the fill seemed to slide out from under the track and after the accident it kept falling off in small pieces. There was water all over the ground at the point of accident and the fill seemed to be saturated with it. He said he passed over this piece of track on the evening prior to the accident and apparently it was in good condition.

Brakeman Rech of train No. 97 stated that he was riding on the third car from the locomotive and on looking ahead saw the locomotive leaving the track, the speed of his train at that time being about 5 or 10 miles per hour. Prior to the accident he had been looking ahead and noticed nothing wrong with the track, and said that if it had been out of alignment to a very great extent he would have noticed it. In his opinion the accident was caused

by the fill having too much water under it, causing it to give way under the weight of locomotive No. 507. After the accident the water from the pool beside the track ran through the opening in the fill, and there seemed to be a great quantity of water all over the ground in that vicinity.

Section Foreman Highsmith, in charge of that section of track upon which this accident occurred, stated that there was a very heavy rain on the evening before the accident and a great amount of water was on the right of way. He passed over this piece of track at about 6:30 and 9:00 on the evening prior to the accident and noted nothing wrong. He had never had occasion to put out a slow order over this particular piece of track and considered it one of the best pieces of track in his section.

Roadmaster Crook stated it to be his opinion that the accident was caused by the fill becoming soft and sliding out from under locomotive 507. He thought the slide would have occurred even had there not been a pool of water beside the track because the fill was composed of joint clay and when saturated by the heavy rains had very little holding qualities. He did not know whether or not there was a drain under the fill and thought the water in the pool would have to be about five feet deep before it would drain out. Trainmaster Hanna and District Engineer Hill expressed similar opinions as to the cause of the accident.

Passenger train No. 25 passed over the point where the accident occurred about 40 minutes before train No. 97, running at a speed of 20 or 25 miles per hour. The engineman of that train stated that he noticed nothing unusual in the track.

As both the engineman and fireman of train No. 97 were killed in the accident, it could not be determined what part of the locomotive or train was first derailed, but it is believed that this accident was caused by the fill sliding, on account of the non-resisting formation of the material of which it was composed, which had been softened by the protracted and excessive rainfall. This condition was also aggravated by the lack of proper drainage. The superelevation of the track at the point of accident was about four inches, and on account of the low speed of train No. 97, it is believed the greater portion of its weight was placed on the lower rail, causing that side of the fill to give way.

All of the employees involved in this accident had good records, and none had been on duty in violation of the hours of service law.