

INTERSTATE COMMERCE COMMISSION.

REPORT OF THE CHIEF OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE SOUTHERN RAILWAY NEAR MIDDLETON, TENN., ON JUNE 7, 1922.

June 28, 1922.

To the Commission:

On June 7, 1922, there was a derailment of a freight train on the Southern Railway near Middleton, Tenn., which resulted in the death of 1 employee.

Location and method of operation.

This accident occurred on that part of the Memphis Division extending between Memphis, Tenn., and Sheffield, Ala., a distance of 145.9 miles, over which trains are operated by time-table and train orders, no block-signal system being in use. The point of accident is about $1\frac{1}{2}$ miles east of Middleton. Approaching this point from the east there is a curve of 1° to the left 1,005 feet in length, followed by tangent track extending beyond the point of accident. The accident occurred 900 feet west of the point of tangent. The grade is ascending and then level, followed by 2,400 feet of 0.88 per cent descending grade. The track is on a 6-foot fill, and is laid with 85-pound rails, 33 feet in length, with about 20 oak ties to the rail-length, ballasted with about 2 feet of mixed gravel, slag, and cinders. There is a creek in this vicinity which passes under the track from north to south at trestle 482; its course is then eastward parallel with the track for about half a mile to trestle 481.6, where it passes under the track to the north side and flows eastward on the north side of the track to a point near trestle 481.1 before turning northward away from the track. At trestle 481.1 this creek receives overflow water from drainage ditches on the south side of the track as well as from higher ground on that side. The accident occurred just west of trestle 481.1. The weather was clear at the time of the accident, which occurred at about 2 a.m.

Description.

Westbound freight train extra 567 consisted of 36 cars and a caboose, hauled by engine 567, and was in charge of Conductor Wilson and Engineman Stewart. It left Corinth,

Miss., the last open office, 23.8 miles from Middleton, at 1.05 a.m., and was derailed at a washout just west of trestle 481.1 while traveling at a speed estimated to have been about 25 miles an hour.

The engine and first 14 cars were derailed, the engine remaining upright and not being materially damaged. The employee killed was the fireman.

Summary of evidence.

The crew of extra 567 had received no notice of high water, and Engineman Stewart said that as the electric headlight was burning brightly, he would have seen any water which might have been over the track in time to have stopped. The first he knew of anything wrong was when the engine began to jump and he then made a heavy service application of the air brakes, followed by an emergency application. Head Brakeman Wilson was riding on the left side of the engine and did not notice any high water, but after the train stopped saw that the water was near the ends of the ties.

Operator O. A. Turner, on duty at Middleton from 3 p.m. to 11 p.m., said it began to rain at 7.15 p.m., and that he notified the dispatcher at 8.15 p.m. that it was raining hard, receiving the dispatcher's O. K. to this information. When relieved shortly after 11 o'clock by Operator Crawford, he told him it had rained about 2½ hours, and that the dispatcher had been notified at 8.15 p.m. According to the statements of both operators, Operator Crawford inquired of the dispatcher as to the next train, and on being told it would be a westbound extra told the dispatcher there had been a heavy rain, almost a cloud-burst, and Operator Crawford also said he told the dispatcher that he had better warn the crew of the extra to be careful in the territory in the vicinity of where the accident occurred, known as Cypress Creek Bottom, as well as at another point west of Middleton. Operator Turner also said he heard the dispatcher acknowledge the conversation concerning the heavy rain by his O. K. Operator Crawford could hear the roar of the water, and at about 12.15 a.m. he started to ask the dispatcher about the matter but something came up to divert his attention and he concluded that one warning was sufficient. He did, however, call the operator at Grand Junction, west of Middleton, using the Western Union wire in order not to offend the dispatcher, and asked that operator to warn eastbound trains. In a letter to Chief Dispatcher Bryan, the operator at Grand Junction said the operator at Middleton called him at about midnight and said to warn eastbound train No. 52 to look out for high water in the vicinity of Middleton; that he had notified the dispatcher at 11.10 p. m., but that they would wait until some one got hurt and then say nothing had been said about it.

Dispatcher Enoch, on duty from 4 p. m. until midnight, said the information that it was raining pretty hard, given by Operator Turner at 8.15 p. m., was all that was said to him about the weather, and that the crew of eastbound train No. 26, passing Middleton at 9.35 p. m., and Corinth at 10.15 p. m., made no report of high water between these points. Although he knew there had been several instances of high water recently, and acknowledged that this should have made him more careful, yet from the information he had received he did not think it had rained at Middleton any more than it had at his office in Sheffield, where the rain had lasted about half an hour. Dispatcher Thompson, on duty from midnight until 8 a. m., did not know there had been any rain in Middleton.

Section Foreman W. D. Turner, who lives near the station at Middleton, said it was raining slightly when he retired at about 7.50 p. m., that he was exhausted from hard work and worry incident to illness in his family, and that he knew nothing of the heavy rain until he was called at 2.40 a. m. to go to the scene of the accident. It appears that Operator Turner had made no effort to notify the section foreman, while Operator Crawford said that as it had rained about 5 hours at the time he came on duty, he assumed that the necessary precautions had already been taken.

Examination of the track showed that the first point where the track was washed out was about 170 feet west of trestle 481.1, this washout extending westward a distance of about 12 feet and having a depth of from 8 to 12 inches; there was then a space of 10 feet where the track had not been disturbed, and then for a distance of 15 feet it was washed out to a depth of about 2 feet, it being at this point that the first wheel mark appeared on the ties. It also appeared that the water had been over the track not only at the point where the accident occurred, but at three other points between trestles 481.1 and 482.

The drainage ditches in this vicinity are obstructed by vegetation and waste material, while deposits of mud have been allowed to accumulate under the trestles to such an extent as to restrict materially the flow of water. According to Section Foreman Turner there was a similar washout in this vicinity only 3 weeks prior to the accident, while Supervisor Sneed said that although the drainage was sufficient to take care of ordinary rains, he did not think it sufficient for heavy rains, and that washouts resulted in this vicinity under such conditions, but that no accidents had occurred recently due to the fact that the washouts had been discovered in time.

Conclusions.

This accident was caused by a washout.

The evidence is clear that the weather conditions had been such that the crew of extra 567 should have been notified, but in view of the dispute as to whether Operator Crawford told Dispatcher Enoch at 11.10 p. m., that there had been an unusually heavy rain, it is impossible to say definitely who is primarily responsible for the failure of the crew of extra 567 to receive proper warning. Regardless of this fact, however, Dispatcher Enoch had been notified early in the evening that it was raining hard at Middleton, and knowing the conditions existing in that vicinity he should have exercised particular care to protect against any dangerous conditions that had developed. Operator Turner was on duty during all of the heavy rain, and is at fault for failing to notify the section foreman so that he might patrol the track and guard against the occurrence of an accident. It would also appear that in view of the continuance of heavy rain over a period of two or more hours, Operator Turner should not have been satisfied with the first information he had given the dispatcher, but should have again communicated with him and notified him of the continuance of heavy rains. In the case of Operator Crawford, he knew it had rained hard for some time and could hear the roar of the water, yet he knew nothing as to whether the section foreman had been called, nor did he make any inquiries about him.

The railroad company is also at fault for permitting the existence of a condition where the drainage is not sufficient to take care of heavy rainfall. This section appears to have been particularly susceptible to trouble in times of heavy rain, and previous washouts have occurred, the last one having been within a few weeks prior to this accident, yet no material improvement in drainage was made, nor were the openings under the trestles properly cleaned of mud and salt which had accumulated. Knowing by previous experience of the dangerous condition existing at this point, effective measures should have been taken to remedy this condition, and had such steps been taken this accident undoubtedly would not have occurred.

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

Respectfully submitted,

W. P. BORLAND,

Chief, Bureau of Safety.