

In re Investigation of an accident which
occurred on the Gulf & Ship Island
Railroad near Bond, Miss., on
July 7, 1916.

On July 7, 1916, there was a derailment of a passenger train on the Gulf and Ship Island Railroad near Bond, Miss., which resulted in the death of 2 employees and injury to 1 employee and 1 mail clerk. After investigation of this accident, the Chief of the Division of Safety reports as follows:

The Gulf & Ship Island Railroad is a single-track road, extending between Gulfport, Miss., and Jackson, Miss., a distance of 160 miles, train movements over which are governed by time-table and train orders, no block signal system being in use. The accident occurred on tangent track, about 1,320 feet beyond the northern end of a 3-degree and 54-minute curve, 653 feet in length. The grade is about 1 per cent. descending for northbound trains. There are no speed restrictions for passenger trains on the main line of the Gulf & Ship Island Railroad other than special rule No. 5 in time-table, which reads as follows:

"The speed of passenger trains will be that prescribed on the time-table but in cases of delay requiring greater speed in order to enable trains to make meeting points to secure connections or to gain time lost the speed may be so moderately increased above that prescribed on the time-table as in the judgment of the conductors and engineers in charge of the trains may be entirely safe and prudent, due consideration being always given to condition of track, weather and all the circumstances."

The track extending through the territory where the

accident occurred is laid with 75-pound rails, 30 feet in length, on about 17 or 18 beech, pine, gum, poplar and cypress ties to the rail, the rails being single-spiked inside and outside. Tie plates are used on curves, while the rails are also partly tie-plated on tangents. The track is unevenly ballasted with cinders, gravel and sand from practically none to a depth of about 18 inches. The accident occurred at the northern end of a fill 10 feet high at its highest point and at the southern end of a cut about 8 feet in depth. At the time of the accident it was raining.

The train involved in this accident was northbound passenger train No. 4, en route from Gulfport, Miss., to Jackson, Miss. This train consisted of 1 combination mail and baggage car, 2 coaches and 1 combination buffet and parlor car, all of wooden construction, hauled by locomotive 12, and was in charge of Conductor Dear and Engineman Thompson. It left Gulfport at 6.54 a. m. on time, and passed Bond, a station about 2.2 miles south of the point of accident at 8.21 a. m., 4 minutes late; the train stopped for about 2 minutes at Fruitland Park, a station about 1.4 miles north of Bond. The train left that point and at about 8.40 a. m., while traveling at a speed estimated to have been from 15 to 20 miles an hour it was derailed on account of a washout.

The accident resulted in the derailment of the engine and tender which left the track to the west and after skidding almost clear of the roadbed and plowing into the side

of the cut, came to rest on their left sides about 150 feet from the point of derailment. The locomotive was considerably damaged. The combination mail and baggage car was also derailed to the west side of the track and came to rest on its left side against the side of the cut, this car being very badly damaged. The forward trucks of the first coach dropped off the rails and sustained slight damage. The track was torn up for a distance of 240 feet, rails being badly bent and 25 or 30 ties being broken.

At a point 120 feet south of the washout there had formerly been a bridge to allow the water to pass through from the east to the west side of the track, but in 1911 this passage had been filled in and an eighteen-inch vitrified pipe placed under the track. In this instance the pipe proved inadequate to take care of the large body of water which concentrated there during a heavy rain, and the roadbed under the track was washed out for a distance of 25 feet, the opening being 4 feet in depth. On July 10th, while conditions in this vicinity were being investigated, there was a heavy rain which lasted for about 2 hours and as a result, the water on the east side of the fill formed a pool approximately 400 feet in length, 100 feet in width and 6 feet in depth. Undoubtedly the water in this instance would have risen up over the track had it not been for the hole which had washed through under the track on July 7th and which caused this derailment.

The section on which the accident occurred consists

of 9 miles of main track and about $1\frac{1}{2}$ miles of side track and is maintained by Section Foreman Richards and a crew of 6 men. On the night of July 6th the sectionmen were patrolling the track, but owing to the fact that prior to July 7th there had never been a washout at the point where this accident occurred, they were giving their attention to what they considered more dangerous places.

Conductor Dear stated that about 800 feet south of the point of derailment the engineman made a service application of the air-brakes, checking the speed of the train considerably, but was using steam at the time of the accident. He also stated that he had received no orders on that trip other than a clearance card when leaving Gulfport.

Both the engineman and fireman of train No. 4 were killed in the derailment.

Operator Henry at Bond stated that the wires had been down north and south of his station from about 2.00 p. m. July 5th, until after the derailment and further stated that it had rained almost continuously from the afternoon of July 6th until July 7th.

The last train to pass over the track at the point of accident ahead of train No. 4, was freight train No. 32 between 4.00 a. m. and 4.30 a. m., July 7th.

This accident was caused by the roadbed being washed from under the track for a distance of approximately 25 feet, due to a bridge being filled in and ample piping not being

put under the filling to take care of the surplus water which accumulated on the east side of the track during a heavy rain.

Considering the condition of the roadbed and the light equipment used, it is not believed that the speed of train No. 4 would have been excessive under normal circumstances. However, owing to the recent heavy rain storms along the line and communications being out of for two days prior to the accident, it would seem that more precaution should have been used and a lower rate of speed maintained.

In order to provide proper safety and to guard against such accidents, galleries or sluiceways of sufficient dimensions should be placed under fills of the kind involved to allow excess water to escape fast enough to prevent the formation of dangerous bodies of water so that the track will not be overflowed or the roadbed washed away as in this instance.