

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
NEW ORLEANS & NORTHEASTERN RAILROAD, SOUTHERN RAILWAY
SYSTEM, LINES WEST, NEAR MOSELLE, MISS., ON APRIL 16,
1921.

May 5, 1921.

On April 16, 1921, there was a derailment of a passenger train on the New Orleans & Northeastern Railroad, Southern Railway System, Lines West, near Moselle, Miss., which resulted in the death of 1 passenger and the injury of 4 passengers, 2 employees and 1 Pullman porter. After investigation the Chief of the Bureau of Safety reports as follows.

Location.

The Southwestern District on which this accident occurred extends between Meridian, Miss., and New Orleans, La., a distance of 202 miles. In the vicinity of the point of accident this is a single-track line over which trains are operated by time-table, train orders, and an automatic block-signal system. The accident occurred at mile post 71; approaching this point from the north the track is tangent for 1,200 feet, followed by a 30-minute curve to the left 1,000 feet in length, and a tangent extending beyond the point of derailment, about 85 feet distant. For about a mile the grade is from 0.736 to 1.114 per cent descending for southbound trains and at the point where the engine was derailed it is 0.851 per cent descending. The track in this vicinity is laid with 75-pound rails, 33 feet in length, with 20 untreated pine and oak ties to the rail, single-spiked, and tie-plated on curves, it is ballasted with slag.

At the point of derailment there was a fill about 7 feet high. Within a quarter of a mile from the scene of derailment four culverts pass under the track and drain swampy area to the east of the roadway into a creek on the west side. A very heavy rain had fallen in this vicinity between 5.30 and 7.00 a. m., but had moderated when the accident occurred at about 7.20 a.m.

Description.

Southbound passenger train No. 41, en route from Cincinnati, O., to New Orleans, was in charge of Conductor Cooke and Engineman Hawkes, and consisted of engine 6979, 1 mail car, 1 express car, 1 baggage car, 2 coaches and 4 Pullman sleeping cars, in the order named. It left Meridian, Miss., at 5.05 a. m., 40 minutes late, passed Ellisville, the last open office, at 6.58 a. m., 49 minutes late, and while traveling at a speed of about 15 miles an hour ran into a washout at mile post 71, 7.3 miles south of Ellisville and 1.7 miles north of Moselle.

The engine and first three cars were derailed, the engine coming to rest on its right side on the west side of the track and at the foot of the embankment. The tender was also derailed to the west, while the mail car lay across the track and the express car turned over to the right; the baggage car had its front truck derailed. The two coaches and the sleeping cars remained on the track for several minutes. After they had been standing at this point for from 3 to 10 minutes, the left side of the roadway was

washed away from under the first and second sleeping cars, causing them to turn over to the left and fall to the foot of the embankment on the east side of the track.

Summary of evidence.

Train No. 41 was descending the long hill south of Ellisville at a speed of about 35 miles an hour when the engineman and fireman both saw the weakened track where the sleeping cars afterwards were derailed. The fireman called out and the engineman immediately applied the brakes in emergency. Passing over the weakened place the engine lurched, then righted itself and continued an additional distance of approximately 300 feet to a point where the fill had been washed away, leaving the track suspended over a torrent of water rushing through the break in the fill. At this point the engine and first three cars were derailed. Fireman Ellis started toward Moselle and on the way met a track walker whom the Section Foreman at that point had started out after he discovered the unusual weather conditions.

Conductor Cocke stated that as soon as the rear of the train came to a stop, he got off and at that time saw torrents of water striking the east side of the track opposite the sleeping cars, the water then turning to the left and running southward along the track to the point where approximately 75 feet of the fill had been washed away. The rear end of the train stood for a time variously estimated from 3 to 10 minutes, by the end of which time the left side of the track

had been so undermined by the water that the first and second sleeping cars began to settle slowly and then turned over into about 6 feet of water.

Investigation developed that the track in this vicinity was well maintained and that no previous trouble with high water had been experienced at this point, and the statements of the various witnesses, including those of Supervisor of Bridges and Buildings Steadham, Section Foreman Spear and Former Section Foreman Reeves, as well as those of several people residing in the vicinity, were to the effect that up to the time of the accident the drainage facilities provided had always proved ample. Supervisor of Bridges and Buildings Steadham also stated that he had never seen very much water in this vicinity and had never known of the culverts being full. The testimony also indicated that the rainfall was the greatest known at this point.

In the vicinity of the point of accident and to the east of the roadway are several small swamps or basins, surrounding these basins are a number of hills covered with a pine growth and draining into the basins. Starting at a distance of about one-half mile east of the right of way and leading into one of these basins, there is a small creek, fed by springs, crossing under the roadway through a brick culvert 5 feet in diameter located about 800 feet north of the point of derailment. On either side of this creek the ground is wet and running water is visible in numerous places.

On the morning of the accident a great volume of water came down from the hills and the culvert at this point was not adequate to drain it off; consequently the surplus water flowed along the east side of the track for a distance of about 250 feet into another basin, washing the roadbed as it went. A 23-inch pipe passing under the track to drain that basin was insufficient to take care of all the water, at the south end of this basin the flow was retarded by a sharp rise of the ground and the water was forced against the fill at that point, washing it out for a distance of about 75 feet to a depth of 9 feet, leaving the ties and rails suspended.

Southbound train No. 55 had passed over this portion of the track a few minutes ahead of train No. 41, and had not found any alarming amount of water along the track, which at that time was apparently in a safe condition.

Conclusions.

This accident was caused by a washout, due to high water resulting from a cloudburst.

The washing out of the roadway was due to the fact that the drains under the track, while ample for ordinary occasions, were not of sufficient size to take care of the unusual volume of water that had fallen on the morning of the derailment. It is probable that the derailing of the engine at this point had a material bearing on the washing out of the track under the two sleeping cars, inasmuch as the derailed engine fell into the path of and retarded the flow

of water through the place where the roadway was already washed out.

At the time of the accident the crew of train No. 41 had been on duty a little more than 3 hours, after being off duty for about $13\frac{1}{2}$ hours.