

August 23, 1912.

In re Investigation of Accident on the
Southern Railway, July 17, 1912.

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On July 17, 1912, there was a derailment of a passenger train on the Knoxville Division of the Southern Railway near Vance, Tennessee, resulting in the death of one mail clerk and the injury of 5 mail clerks, 3 dining car employees and 24 passengers. After an investigation of the nature and cause of this accident and the circumstances connected therewith, the Chief Inspector of Safety Appliances reports as follows:

The train involved in this accident was Southern Railway train No. 25, known as the "Washington-Memphis Special". On the date of the derailment this train left Bristol, Tenn., westbound for Knoxville, at 2:51 p.m., eleven minutes late. It was in charge of conductor Murray and engineer Brooks, and consisted of engine No. 1236, one mail car, one combination baggage and passenger car, one day coach, one dining car, two Pullman sleepers and one observation car. These cars were of all steel or steel underframe construction, with the exception of the Pullman sleepers.

The derailment occurred about 3:00 p.m., nine minutes after the train's departure from Bristol, at a point about 5 1/2 miles distant from that place. The wheels of the forward truck of the engine tender left the rails at the foot of a slightly descending grade to the west, as the engine was rounding a three and one-half degree curve to the right, and

while the cars of the train were on a reverse curve. The speed of the train at the time of the accident was variously estimated at from 35 to 70 miles per hour. At the place of derailment the track is laid on an 18 foot fill. After the accident the engine tender lay on its left side to the right of the track. The mail car fell on its left side across the track, at an angle of 45 degrees, and went down the embankment. One end of this car was rammed by the combination car immediately in its rear, and its superstructure above the steel underframe was ploughed off and completely wrecked by the impact of the combination car and the cars following it, none of which turned over, but all of which ploughed through the mail car as it lay upon the ground cross-wise of the track. The observation car at the rear of the train did not leave the rails and suffered no damage.

The track at the place of the derailment was in good condition. It was laid with 85-15. steel rails 33 feet long, on hardwood ties and rock ballast. The rails were new, having been laid only about five months previous to the time of the accident. The gauge and alignment of the track were good. The rails were single spiked but braces were used on the curves. The curvature at the point of derailment was three and one-half degrees, and the super-elevation of outside rail was three and one-half inches, which should be safe for a speed of from 40 to 50 miles per hour. An examination of all the trucks of the engine tender and cars failed to disclose any defect in the rolling equipment that might have caused the derailment. - -

That this derailment was caused by the excessive speed at which the train was running seems to be amply proved by the circumstances surrounding the accident, and the condition of track and equipment after its occurrence. The schedule speed of train 28 at the place of the accident is about 35 miles per hour. The train left its divisional terminal at Bristol eleven minutes late, and had proceeded five and one-half miles in 9 minutes when the accident occurred, although it was required by time card rule not to exceed a speed of ten miles per hour through the city limits of Bristol. After the wheels of the tender left the rails they ran along on the ties for a distance of 20 rail lengths before the tender went down the fill on the inner side of the curve. After the mail car left the rails and turned over on its side it was pushed along on the ground by the momentum of the train for a distance of fourteen rail lengths, the entire train going in this condition a distance of four hundred feet after the derailment. The track was very badly torn up for a distance of nearly four hundred feet, necessitating the use of 280 new ties and 19 new rails to place it again in servicable condition.

The statements of conductor Murray, engineman Brooks, and flagman Barchfield, who were in charge of train No. 28, are to the effect that the speed of their train was from 35 to 45 miles per hour. Track supervisor Wemple of the Southern Railway, who made an examination of the track conditions after the accident, stated that the track was "perfectly safe for a

speed of sixty miles per hour." Section foreman McCorkle and the men who were working with him in the vicinity stated their belief that the speed of the train exceeded sixty miles per hour, while a farmer living fifty yards from the track at the point of the accident, who was looking at the train when it left the rails, said that in his sixteen years residence at that place he had never before seen a train run at such a high rate of speed as this one did.

That there was not a much greater casualty list may be attributed to the modern equipment of the cars of this train.

Respectfully submitted,

Chief Inspector of
Safety Appliances.