

December 29, 1913.

In Re Investigation of Accident on the Philadelphia,  
Baltimore & Washington Railroad at Washington,  
D. C., on October 31, 1913.

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On October 31, 1913, there was a derailment of a locomotive on the Philadelphia, Baltimore & Washington Railroad at Washington, D. C., resulting in the death of one employee and the injury of one employee.

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

This derailment occurred on a private side-track of the Washington Gas Light Company in its yard at 12th and M Streets, S. E. The train involved consisted at the time of the accident of Pennsylvania Railroad switch engine 5100, 3 loaded and 4 empty freight cars.

At about 11.00 a.m. on the date of the accident switch engine 5100, in charge of Conductor Donchue and Engineman Gladden, pushing three loaded freight cars, backed upon the side track for the purpose of taking off 4 empty freight cars which were standing over the coal dumps. After the coupling to the empty cars was made Fireman Burch started the engine forward toward the main line. The engine moved about 2 feet when it settled toward the left and then suddenly fell over on the outside of the curve to the ground 14-1/2 feet below and came to rest on the side of the boiler, all drivers being clear of the ground. The tender body and

front trucks were derailed on the same side of the track, falling bottom side up to the ground below. The rear trucks of the tender were left upright on the track.

At the point of derailment a side-track runs in a southerly direction from the main line into the yard of the Washington Gas Light Company, and is used for placing coal at the gas company's plant. That part of the siding within the gas company's yard is on a wooden trestle 523 feet in length and from about 10 to 18 feet high, bents being used for supports. Double girders support the ties and the blocks between them. Upon these girders 14-foot oak ties are laid four feet on centers, with supporting blocks 2 feet in length between the ties. The track is laid with steel rails weighing 85 pounds per yard. These rails were rolled in 1889 or 1890 by the Pennsylvania Steel Company and placed in the track shortly after the time they were rolled. The rails are tied together with tie rods 10 feet apart, and tie-plates are used on each tie. Approaching the point of derailment from the south there is a 15° curve to the east and a 1.75% descending grade.

This trestle was built about 1889 by the gas company, from plans approved by the railroad company; it is regularly inspected by the railroad company but the gas company makes repairs upon it when directed to do so by the railroad company. The tracks and ties, however, on this trestle, although the property of the gas company, were laid and are inspected and repaired by the railroad company.

The investigation disclosed that two short rails on the outside of the curve were broken into four pieces of the following lengths; 12 feet 2 inches, 6 feet 10 inches, 3 feet 4 inches, and 3 feet 9 inches. There were several flaws in the flange, web and ball of the rail. The investigation also disclosed that the ties at the point of derailment were badly decayed and wholly unfit for use.

Switch engine 5100 was of the 6-wheel connected type, built in the Pennsylvania Railroad shops at Altoona, Pa., in 1913. Its weight was distributed about as follows: on front drivers 31,000 pounds, and on each pair of rear drivers 50,000 pounds. It was about 12 or 15 tons heavier than the switch engines ordinarily used on this trestle, but had been on it several times before the accident.

Fireman Burch stated that he was on the engineman's side, operating the locomotive and that Enginemen Cladden was standing beside him; that he had just started the engine forward and it had moved but 2 or 3 feet when he felt it settle slightly toward the left; that he immediately put on the emergency brakes and before they could move the engine fell over toward the left to the ground at the base of the trestle. He stated that he did not notice anything wrong with the rail when he went upon the trestle. He stated that he had been on this trestle several times before with engine 5100. Conductor Donchus stated that he walked upon this trestle ahead of the engine and cars on the date of the accident and did not notice anything wrong with the rail.

He also stated that he had been on this trestle several times before with this engine.

Supervisor Faries stated that he had been supervisor of the division in which this side track is located for 3-1/2 months and that on or about June 20 he made a general inspection of this trestle and found it <sup>to</sup> be in good condition. He stated that just before that date about 50 new ties and about 50 new supporting blocks had been placed under the rails, and that he made a mental note to have the siding regularly inspected each month by the track inspector. He further stated that he examined the ties under the broken rails after the accident and found that two of them which were broken were in very bad condition.

Section Foreman Devers stated that he had been in charge of the track repair work on this trestle since April 17, 1913, and that he made monthly inspections of all the track under his supervision; that he inspected this track about three weeks before the accident and found some of the ties on the trestle in bad condition, although he did not consider them altogether unsafe. He stated that he reported these bad ties to Supervisor Faries but they were not replaced prior to the date of derailment.

While it was impossible in this case to ascertain with certainty the direct cause of this derailment, it is believed to have been due to the creasing of the rails under the locomotive; and on account of the bad condition of the ties at the point of derailment, the rail, after breaking, turned over, the

locomotive then falling from the trestle.

Since this accident occurred the trestle has been condemned as being unsafe for the operation of cars thereon and its use discontinued.

All of the employees on this switching engine were experienced men, with good records, and had not been working in violation of the hours of service law.