

**In Re Investigation of Accident on the Baltimore
& Ohio Railroad near Rowlesburg, W. Va.,
on August 13, 1913.**

October 21, 1913.

On August 13, 1913, there was a collision between two freight trains on the Baltimore & Ohio Railroad near Rowlesburg, W. Va., resulting in the death of 3 employees.

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

At the place where this accident occurred the Baltimore & Ohio Railroad is a double track line running each end west, and is operated under the manual block system. The westbound track, on which this accident occurred, is laid with 100 pound rails 33 feet long, with an average of 18 oak ties to the rail and about 6 inches of crushed stone ballast. On curves of 3 degrees or more tie plates are used, and there are three spikes to each tie plate. Going west from Rowlesburg the track is laid along the side of a mountain with an ascending grade of 2.2 per cent. After passing mile post P255 west of Rowlesburg there is a short tangent followed by a curve toward the south; then there is a curve of 10 degrees 10 minutes toward the north which is immediately followed by a 4-degree 30-minute curve toward the south about 500 feet in length. The accident occurred near the end of this curve on which the track is laid around the base of a deep rock cut. Following this curve there is a tangent of about 1900 feet.

The trains involved in this accident were extra 1844 west, consisting of three engines, 73 empty coal cars, and a caboose, and extra 1838 west, consisting of an engine and caboose. When extra 1844 reached the top of the grade, nearly five miles from Rowlesburg, the train broke in two and the rear portion, consisting of 40 empty cars and a caboose ran away down the grade, colliding with extra 1838 about half a mile from Rowlesburg at about 4.56 a.m. Engine 1838 was running backwards; its tender was completely demolished and the engine itself was stripped and turned over on its side. The caboose of extra 1844 was entirely destroyed and 31 of the coal cars were piled up in a mass of wreckage.

Extra 1844 west left Cumberland, Md., at 6.19 p.m., August 12th, arriving at M & K Junction, which is half a mile from Rowlesburg, at about 3.30 a.m., August 13th. There engines 1844 and 1824, which were on the head end of the train, were cut off for the purpose of taking coal and water. After this had been done they were again coupled to the train, which was pulled down to M & K Junction shop where the train was parted behind the 31st car for the purpose of coupling Mallet helper engine No. 2413 into the train. Engine 2413 was headed east; it coupled to the rear portion of the train consisting of 42 cars and a caboose and then backed up and coupled to the front portion of the train. The train then left M & K junction at 4.21 a.m., arriving at Blazer, the summit of the grade, at 4.54 a.m., and stopped for the purpose of cutting out helper engine No. 2413. After this engine had been

cut out the middle brakeman discovered that only two cars remained of the rear portion of the train.

Conductor Lynch, who was in charge of this train, stated that when helper engine 2413 was coupled into the middle of the train the couplings were made by middle brakeman Snellings under his personal supervision, and that he told engineman Lowther, who was in charge of engine 2413 to wait until the brakes were released before attempting to move the rear portion of the train. He then told Brakeman Snellings that in case the flagman had not returned to the train and was not on the caboose he would give a stop signal, and directed the brakeman to watch out for that signal. As the train started out he noticed that a brake near the rear end of the train was sticking; he got on the car, bled the brake, and then got off and caught the caboose. Upon entering the caboose he noticed that the air gauge showed a pressure of only 22 pounds; opening the valve there was only a very light flow of air. He then closed the valve, secured a brake club and began setting the brakes, starting with the caboose brake, setting the brakes on 7 cars as tightly as he could, and then he placed himself near two more brakes so that he could set them in case the cars broke off. In the meantime he had been giving the stop signals but they were not heeded.

When the train reached the summit of the grade at Blaser he felt a shock and the cars began to run backward down the grade. He stated that he set five more brakes, making 12 in all. By this time, however, the cars had attained a speed which he estimated

to be 30 or 35 miles an hour, and he then jumped from the train.

Brakeman Snellings stated that after leaving Rowlesburg he did not see any signal from the rear end, and therefore assumed that everything was all right. He was riding on the Mallet helper engine; the weather was foggy and he saw the caboose at only one point, just outside of Rowlesburg.

The investigation of this accident discloses the fact that the air brakes of extra 1844 were inspected and tested at Cumberland, Md., prior to the departure of that train, and that they were found in good condition. The brakes were again tested at Terra Alta before descending a 12 mile grade extending to M & K Junction. This test was made by opening the angle cock on the rear end of the caboose to see that air flowed through the train line. After engine 2413 was coupled into the middle of this train at M & K Junction no test of the brakes was made. Conductor Lynch stated that when the Mallet helper engine was coupled into the train and the angle cocks properly turned that that was considered a sufficient test. He stated that in this case the customary practice was followed, and that the officials in charge were familiar with this practice and that it had been followed ever since the system was adopted.

Helper engine No. 2413 was a very heavy Mallet Articulated Compound Locomotive. The air brake train line on this class of locomotives has a hose connection between the high and low pressure engines. A cut-out valve is located in this train line so as to enable the air to be cut off in case the hose becomes defective.

After the accident occurred an examination of the air brake equipment on engine No. 2413 was made, and it was found that this cut-out cock had been closed, cutting off air from the front end of the locomotive and consequently from all the cars which were attached to the front end of the locomotive. This had evidently been done on account of a leak where the rear end of a hose in the train line attached to the train line pipe; this hose had been attached to the train line pipe by a wire. It was stated that the leakage of air on account of this defect was about the same as from a bursted hose.

On the night of August 10th this engine had made two trips up this hill, and on the second trip the hose became defective; Engineman Vreeland, who was in charge, stated that he then closed the cut-out cock. He further stated that he reported this defect in the engineer's report book on his return to M & K Junction, and that he saw the repairs made.

Shop Foreman Overby at M & K Junction shops stated that on August 12th he made a thorough examination of engine 2413 when it was in the shop for the purpose of having its boiler washed out; he stated that the air brake equipment was thoroughly gone over and found to be in good condition, and this statement was corroborated by night foreman Frazier and Machinists Dean and Dressman. Engineman Lowther and Fireman Smith who were in charge of this engine at the time of the accident both stated that they had not turned the cut-out cock in the train line at any time during the night; the first they knew of this cut-out cock being closed

was after the inspection following the accident.

Conductor Lynch and Brakeman Snellings stated that they did not notice the position of this cut-out cock when engine 2413 was coupled into the train at M & K Junction.

This accident was caused by the cut-out cock in the train line of engine 2413 being closed, cutting off the air supply in the train line from that point to the front end of the engine and on the 42 cars and the caboose which were coupled to the front end of the engine, rendering the air brake appliances on these cars inoperative.

The responsibility for this accident rests primarily with Conductor Lynch and Engineman Ambrose, who were in charge of this train, for failure to make an air brake test after engine 2413 had been coupled into the train before leaving M & K Junction as required by the rules; Engineman Lowther, who was in charge of engine 2413, was also at fault on account of his failure to inspect his engine thoroughly and make sure that the air brake appliances on his engine were in proper condition before coupling into this train.

Rule No. 13 of the Special Rules printed in time table No. 24, effective May 25, 1913, provides in part as follows:

"At all initial stations and at any point where change is made in train, air must be tested by engineers making application of brakes. Train crew or air brake inspectors must be properly stationed for noting and correcting defects. . ."

In this case this rule was not observed at Rowlesburg after the Mallet helper engine had been coupled into the train,

and the evidence in this case very strongly indicates that it was not customary to observe this rule.

Unless the railroad company and its employees take steps to insure that proper air brake tests are made when the make-up of trains is changed, and to insure that the air brake apparatus is in proper working condition before trains are operated on heavy grades, accidents of this character may be expected to occur. This accident was similar in many respects to the accident which occurred on the Sand Patch grade on December 12, 1912. Following the occurrence of that accident, which resulted from failure to make proper air brake inspections and tests, due regard for the safety of operation on grades should have induced the Baltimore & Ohio Railroad Company and its employees to correct similar unsafe practices which might exist on any portion of the road.

The employees involved in this accident were experienced men. All of them had been employed on this division for considerable periods, and their records were good. None of them had been on duty contrary to the hours of service law.