

**In re investigation of an accident which occurred on the Norfolk & Western Railway near Cincinnati, O., on January 20, 1917.**

On January 20, 1917, there was a derailment of an engine and two cars on the Belt Line of the Norfolk & Western Railway near Cincinnati, O., which resulted in the death of the engineman and injury to the conductor, fireman and two brakemen. After investigation of this accident the Chief of the Division of Safety submitted the following report.

This accident occurred upon a Belt Line used by the Norfolk & Western Railway as a delivery track between Idlewild, O. and Ivorydale, O., a distance of 3.5 miles. This belt line is a single-track railroad, train movements being protected by a manual block system under the direction of the operators located at Idlewild and Ivorydale. Communication is by means of the telephone and following movements are permitted.

On this track are a number of industries, one of which is a coal yard located at the point where the Belt Line crosses over a street, the tracks at this point being elevated above the street. Near this point leading off from the main track to the east, is located a stub track, 335 feet long, about 150 feet of which is on a trestle and is known as the Earl Coal Tipple. Approaching this switch from the west is a 4-degree curve, 625 feet in length, followed by a piece of tangent track 140 feet in length. The track is practically level and the weather at the time of the accident was clear.

The train involved in this derailment was eastbound N. & W. transfer engine 791, consisting of 9 loaded and 3 empty cars. It left Ivorydale yard at 11.15 a. m., in charge of Conductor Kincaid and Engineman Kiser. The last stop immediately preceding the accident was made at BH tower, the draft of cars passing that point at 11.27 a. m. At about 11.30 a. m. it was derailed by entering an open switch leading onto the Earl Coal Tipple, upon which stood an empty coal car with which it collided, pushing it along to the end of the trestle where both engine and car dropped to the street below, the engineman being killed. The car immediately following the engine was also derailed. The speed of the train at the time of the accident is believed to have been about 20 miles an hour.

Conductor Kincaid stated that after leaving Ivorydale yard a stop was made at the Canal draw bridge; that the train came nearly to a stop at BH tower and reached the place of accident about 11.30 a. m. He stated that he was riding on the left side of the engine and on account of the curve, did

not notice the position of the switch as the train approached it. The first he noticed was when the engine jerked as it was turning into the tipple track; he then shouted to the engineman that the switch was open and about the same time the engineman made an application of the air brakes. He stated that owing to the construction of the locomotive, he could not see the engineman and had no conversation with him. Conductor Kincaid stated further that there was no steam to obscure his vision and thought the speed of the train was about 18 to 20 miles an hour.

Brakeman Cramer stated that he was riding on the fireman's seat immediately behind the conductor and did not observe the position of the switch. The first intimation he had that anything was wrong was when the conductor shouted for him to jump and at that time the engine was heading into the stub track. He stated that in his opinion the speed of the locomotive at the time it entered the switch was between 35 and 40 miles an hour, as they had only a short train and were making a run for the hill.

Fireman Huxell stated that when approaching this switch he was working on his fire when some one shouted something about the switch and he looked out the gangway just as the engine was heading in on the tipple track and jumped off. He stated further that he did not make an examination of the switch after the accident, but did notice that it gave a red indication.

Rear Brakeman Jordan stated that approaching the place of accident he was riding in an empty coal car on the rear end of the train and that he felt the air brakes go on and upon looking ahead, saw the engine heading in on the tipple track. He stated that he immediately went to the forward end of the train and found that the switch leading from the main track was set for the tipple track. The switch lock was open and lying on a tie. There was nothing wrong with the switch itself as the points fitted perfectly. Brakeman Jordan stated further that his crew had been over this track three times on the morning of the accident, but that they had not used this switch that day.

Car Inspector Kerkhoff, who has a shanty located about 300 feet west of this siding, witnessed the accident and stated that it was caused by the switch being left open, but by whom he could not say. He stated further that during that morning he passed this switch four times for the purpose of inspecting and repairing cars on the tipple track and thinks that he would have observed the position of the switch had it been open. He said that after the accident he saw the switch lock lying on the headblock, but that at none of the

times when he passed by the switch could he recall having looked at the lock. He stated further that he carries a switch key, but that he did not open the switch for any purpose on the morning of the accident and that after the cars had been pulled away he tried out the switch and the switch lock and that there was nothing wrong with either of them.

Section Foreman Calvin stated that he arrived at the scene of the accident at about noon and found a part of the train standing on the main track and part on the siding. After the train was moved off of the switch, he made a careful inspection of both it and the switch lock and found them both in perfect condition. He stated that he had a colored track walker working on this piece of track that day and that he considered him a reliable and competent man. He was supplied with a switch key and that it was his duty to keep all switches clear of snow and ice.

Colored Track Walker Oliver stated that he inspected this piece of track on the morning of the accident; that his duties were to inspect the track, tighten up nuts, sweep snow from the switches, and clean switch lamps. He stated that he stopped on his westward trip at the tipple switch at 8.00 a. m. to clean the switch lamp, but that he did not use his key to unlock the switch for any purpose. He stated further that he did not observe whether the switch lock was in the heap when he was cleaning the switch lamp or whether it was lying on the head-block where it was found immediately after the accident. He stated further that on his return trip that while he did not stop at this switch he did observe that it was properly set for the main track.

General Yardmaster Payne stated that he arrived at the scene of the accident at 11.45 a. m. and immediately made a personal examination for the purpose of determining the cause of the accident. He stated that he found the switch open and latched, showing a red indication. There was no evidence to indicate that the switch had been run through as the points fitted perfectly. Yardmaster Payne stated further that the last time this switch had been used was about 3.00 p. m. on the previous day and that no crew had any occasion to use it since that time. At that time a switching crew had placed a car of coal on the coal tipples. This crew stated that they closed and locked the switch when through using it and quite a number of trains passed and repassed the switch since that time. Yardmaster Payne stated that the switch indication could be seen by an engine-man for a distance of about 600 feet and by a fireman a distance of about 300 feet, and that there were no speed restrictions, except to approach highway crossings under control and use ordinary precaution in handling trains over street crossings.

This accident was caused by some person opening a facing point switch leading from the Belt Line main track to the Earl Coal Tipple track. In what manner and by whom this switch may have been opened is not known.

The switch leading to the Earl Coal Tipple track is equipped with what is known as the Pennsylvania Steel Company New Century Stand, of the dwarf type located to the side of the rail 3 feet and 10 inches to the left. The center of the target of this switch is about 15 inches above the level of the head-block. The red blade is about 13 x 6 inches with the corners cut off; the white indication is about 9 x 6 inches with oval ends. On account of the curve in the track the indications of this dwarf switch can only be seen a distance of about 600 feet by the enginemen and 300 feet by the firemen of approaching trains.

It would seem to be a much better and safer practice in the installation of facing point switches, to place the switch indication on the side of the enginemen of the approaching train, and in this instance on account of the short range of vision approaching the switch it is obvious if a high switchstand had been used in place of the dwarf one used, a much better opportunity would have been afforded the enginemen to read the switch indication, and it is possible that he would have seen it in time to have brought his train to a stop and thus avert this derailment.