

INV. 220
Sept. 18, 1915.

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON
THE NORFOLK & WESTERN RAILWAY, NEAR WELCH, W. VA., ON
AUGUST 28, 1915.

On August 28, 1915, there was a head end collision between a passenger train and a freight train on the Tug Fork Branch of the Norfolk & Western Railway, near Welch, W. Va., which resulted in the death of 1 employee, the injury of 4 employees and 7 passengers. After investigation of this accident the Chief of the Division of Safety submits the following report:

Westbound passenger train No. 1 consisted of 1 combination mail and baggage car, 1 express car, 3 coaches, and a Pullman sleeping car, hauled by locomotive 980, and was in charge of Conductor Wall and Engineman Culliney. It arrived at Tug Tower, .8 miles west of Welch, at 3:53 p. m., and departed at 3:54 p. m., 14 minutes late. It backed in on the Tug Fork Branch for a distance of about 400 feet, for the purpose of permitting the engine to be cut loose from the head end and run around to the rear end of the train. The front end of the engine was then coupled to the rear of the sleeping car, after which the train started, the engine backing up, and had proceeded approximately 1,000 feet when it collided with eastbound extra freight train 825.

Eastbound extra freight train 1311-825 consisted of 45 loaded coal cars and a caboose, with locomotive 825 on the head end of the train and locomotive 1311, being used as a pusher, on the rear end of the train, and was in charge of

Conductor Evans, Engineman Rickman on locomotive 825, and Engineman Caldwell on locomotive 1311.

On the forenoon of the day of the accident this train left Eekman, W. Va., a station on the main line 10 miles east of Welch, to go to Wilcox, 8.2 miles west of Welch, on the Tug Fork Branch, for a train of coal, and arrived at Wilcox about 2:00 p. m. After the engines had taken water, and the loads had been switched out, the train was made up in the following order: The caboose was coupled to the tender of engine 825, pilot of engine 825 coupled to the cars, and tender of engine 1311 coupled to the last car in the train. The train left Wilcox about 3:45 p. m., with both engines backing up, and pushing caboose ahead of the train. When within about two-thirds of a mile of Tug Tower, and about the middle of a 60° curve, it collided with passenger train No. 1, the speed of both trains at the time of the accident being estimated at from 5 to 8 miles per hour. At the time of the accident the weather was cloudy.

The caboose, which was ahead of tender of engine 825, was completely destroyed, and the tenders of engine 825 and 960 badly damaged, while slight damage resulted to the Pullman car and one freight car. The trucks of both tenders were derailed. Fireman Bailey of passenger train No. 1 was instantly killed, being crushed between the tender and the boiler head of engine 960.

The Division of the Norfolk & Western Railway on which this accident occurred is a single-track line, running from the main line at Tug Tower, W. Va., to Leekie, W. Va.,

a distance of 19 miles, and is known as the Tug Fork Branch, trains being operated by train orders and time card rights. Orders are transmitted by telephone, supplemented by the telegraph. Between Tug Tower and Wilcox an absolute block prevails for passenger trains following each other. Freight trains are allowed to follow passenger trains under a permissive card between these stations, but there is no block to govern the movement of freight trains with respect to each other.

The track leaving Tug Tower runs in a southeasterly direction, following the south bank of Tug River around the base of the mountain. After leaving the main line just east of the tower there is a 80° curve bearing to the right for a short distance, followed by a short tangent, then a 40° curve to the left, 955 feet long, followed by a tangent 410 feet long, then a 60° curve to the right approximately 1,548 feet in length, around the base of the mountain. The collision occurred about the middle of this curve and on a slightly ascending grade for westbound trains.

The make-up and method of operation of the two trains in question is the usual one followed by these trains on the Tug Fork Branch. On account of the physical connection of the tracks leading away from the main line at Tug, the engine of passenger train No. 1 is on the front end of the train when it is backed in on this Branch from the main line, the engine being then run around the train, backing up to Gary, its terminal, so as to have the engine on the head end of train when leaving that station. Coal trains going from Wilcox to

Tug with eastbound loads, back up on the Tug Fork Branch to the main line, so that when they come out on the main line west of Tug Tower for their movement east it places their engines in the proper position on the train.

Engineman Cullinoy of train No. 1 stated that upon arrival at Tug he backed his train in on the Tug Fork Branch and ran engine No. 980 around the train so as to have it on the head end of the train leaving that station. They started from there about 4:00 p. m., backing up, and had run but a short distance when he heard the blast of a whistle, and, looking over the tank of his engine saw the esboose of the approaching train. He saw that a collision was inevitable, and without applying the brakes jumped off just before the collision occurred. In his opinion his train was running between 6 and 8 miles an hour.

Conductor Wall of train No. 1 stated that upon backing in upon the Tug Fork Branch the brakeman cut off the engine, ran it through the siding to the rear of the train, and coupled on to the sleeper; when the train started he began to collect fares and was about the middle of the front coach when the collision occurred.

Brakeman Farris of train No. 1 stated that after running the engine around the train at Tug Tower he coupled it to the sleeper; that after the train pulled out and had gone about 15 car lengths the collision occurred. In his opinion the train was running at a speed of about 8 miles an hour at the time of the accident.

Engineman Rickman, on engine, 825, stated that when

their train had been made up at Wilcox and they were ready to go forward that the conductor gave him order No. 52, reading as follows:

"Engine 1311 will run extra Wilcox to Tug." He stated that when the conductor gave him this order he called the conductor's attention to other trains, as well as to the fact that there was a flagman holding him for engine 835. Upon the arrival of engine 835 the conductor went to the telephone and ascertained that that was the engine for which the flagman was holding him, and so notified him. Upon the arrival of train 161 a short time later the conductor said for him to go and he thought no more about train No. 1 and pulled out upon the main track. He stated that the only train order he had was an order to run extra Wilcox to Tug, which he received something like 40 minutes before his train left Wilcox, and that he had train No. 1 in mind when he mentioned the other trains just before the conductor went to the telephone to find out whether he was being held for engine 835 or engine 833; after that the first he knew of train No. 1 was when he came in sight of it on the curve when it was about two car lengths away, and that he immediately applied the air brakes, but too late to stop his train and prevent the collision. Engineman Rickman estimated the speed of his train at 6 or 8 miles an hour.

Engineman Caldwell, in charge of engine 1311, stated that the conductor gave him order No. 52 about 2:50 p. m. He stated further that his engine was on the rear end of the train and that after leaving Wilcox he pushed the train hard about two miles and then went out and asked the brakeman who was riding

on the pilot what they had on train No. 1. The brakeman was a new man and said he did not know. Engineman Caldwell stated that he knew the engineman on the rear end of a train was as responsible for the safety of his train as the engineman on the head end, and that his train was on the time of train No. 1, but was under the impression that the conductor and engineman on the front end must have had time on that train. He stated that the engineman on an engine pushing a train on the rear end does not know what they are going to do, and that it was the regular custom for enginemen on the rear end of trains to leave without getting orders. When the collision occurred his engine was not using steam, but was drifting, and in his opinion they were running about 4 or 5 miles an hour.

Conductor Evans stated that he received two copies of order No. 52 at Wilcox to run extra Wilcox to Tug, and that he delivered a copy to each of his enginemen, after reading it to them, but that nothing was said by either of them about any passenger trains. He stated that when he got ready to go he had a talk over the telephone with the Wilcox yard office for the purpose of ascertaining the number of the engine that the flagman holding his train was protecting, and found out that the flagman was to flag for engine 835, and so notified Engineman Rickman. A few minutes later, upon the arrival of passenger train No. 161, he left Wilcox, having entirely overlooked train No. 1. The first intimation that he had of anything wrong was when he saw the passenger train a little more than a car length away. In his opinion the speed of his train at the time of the collision was about 5 miles an hour.

This accident was caused by extra 1311-825 occupying the main track on the time of train No. 1, a superior train, without orders or protection, for which Conductor Evans and Enginemen Rickman and Caldwell are responsible.

General rule No. 86 reads as follows:

"An inferior train must keep out of the way of a superior train."

Under this rule extra 1311-825, having no orders against No. 1, should not have left Wilcox. Conductor Evans and Enginemen Rickman admit that they entirely overlooked this train.

General rule No. 310-b reads as follows:

"Enginemen of helper engines, when assisting a train, must have a copy of all orders affecting its movement. When coupled in rear of a train they will not be required to sign for orders."

This investigation disclosed the fact that it is not the custom for enginemen on pusher engines to receive copies of orders affecting the movement of their trains, as required by this rule. Enginemen Caldwell, of engine 1311, knew he was on the time of train No. 1 leaving Wilcox, but supposed that the conductor had received time on that train. If he had complied with this rule he would not have left Wilcox unless he had received a copy of an order permitting his train to use the main track on the time of train No. 1, and this accident would not have occurred.

Conductor Evans was employed as a freight conductor in July, 1911. Engineer Rickman was employed as fireman in December, 1902, and promoted to enginemen in 1907. Engineer Caldwell was employed as fireman in February, 1905, and promoted to enginemen in April, 1910. All these employees' records were good. They had been on duty 4 hours and 20 minutes at the time of the accident.