

## INTERSTATE COMMERCE COMMISSION

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REPORT OF THE CHIEF OF THE BUREAU OF SAFETY IN RE INVESTIGATION  
OF AN ACCIDENT WHICH OCCURRED ON THE DELAWARE & HUDSON  
RAILROAD AT SIDNEY, N.Y., ON OCTOBER 18, 1922.

November 15, 1922.

To the Commission:

On October 18, 1922, there was a head-end collision between two freight trains on the Delaware & Hudson Railroad at Sidney, N.Y., resulting in the death of 1 employee, and the injury of 3 employees. This accident was investigated in conjunction with representatives of the Public Service Commission of the State of New York.

Location and method of operation.

That part of the Susquehanna Division on which this accident occurred is a double-track line over which trains are operated by time table, train orders, and an automatic block-signal system. The accident occurred at a switch located about 60 feet south of the New York, Ontario & Western Railway crossing, opposite GX Tower within interlocking limits; this switch is a trailing-point switch for northbound trains and leads off the northbound main track to the east to a siding, movements from the siding to the main track being governed by dwarf signal 28, located at a point about 215 feet south of the switch. At a point 153 feet north of the tower is a facing-point switch for northbound trains, leading to a stub-end siding. Approximately 73 feet north of the facing-point switch is located the south switch of a crossover connecting the two main tracks. Approaching the point of accident from the south the track is tangent for more than a mile; the grade is practically level.

The northbound home interlocking signal at Sidney is of the three-position, upper-quadrant type, normally displaying a stop indication, there are three arms, the middle arm not being used, while the lower arm is a calling-on-signal. It is located about 325 feet south of GX Tower; approximately 5,125 feet farther south is the distant signal, known as signal 104.1, an automatic block signal of the three-position, upper-quadrant type, normally displaying a stop indication. No derails are used on the main tracks of the Delaware & Hudson Railroad in connection with the interlocking plant. The weather was clear at the time of the accident, which occurred at about 4.53 a.m.

### Description.

Southbound freight train extra 1209 consisted of 30 cars and a caboose, hauled by engine 1209, and was in charge of Conductor Mooney and Engineman Enslin. On arrival at Sidney, at 4.45 a.m. the train was brought to a stop on the southbound main track, within interlocking limits, at which point the engine and 12 cars were cut off. After proceeding through the crossover to the northbound track, the engine headed in at the trailing-point switch leading from the northbound main track to the siding, stopping with the rear car opposite dwarf signal 28, the switches for these movements being operated from GX Tower. On receiving a back-up signal from the rear, and a clear indication of dwarf signal 28, the engine was reversed for the purpose of backing the cars in on the stub-end siding, via the northbound main track; however, when the engine had reached a point almost clear of the trailing-point switch moving at a low rate of speed, it was struck by extra 870.

Northbound freight train extra 870 consisted of 48 cars and a caboose, hauled by engine 870, and was in charge of Conductor Pratt and Engineman Toal. This train left Nineveh, 15.48 miles south of GX Tower, at 4.15 a.m., passed signal 104.1, which was displaying a caution indication, passed the home signal, which was displaying a stop indication, and collided with extra 1209 while traveling at a speed variously estimated to have been between 12 and 35 miles an hour.

Both engines were considerably damaged, as were the first six cars in extra 870, two of these being practically demolished. The employee killed was the engineman of extra 870.

### Summary of evidence.

On account of watching for back-up signals, Engineman Enslin and Fireman Darrah, of extra 1209, did not notice the position of the home signal, nor did they hear the approach of extra 870, as the safety valve of their engine was open and made considerable noise while the back-up movement was being made. None of the employees on the engine was aware of anything wrong until Engineman Enslin shouted a warning, immediately after he observed extra 870 approaching, at which time it was about opposite the home signal, traveling at a speed which he estimated to have been between 12 and 15 miles an hour. Head Brakeman Norris, however, estimated the speed of extra 870 to have been between 30 and 35 miles an hour at the time of the accident. Conductor Mooney had delivered some freight way-bills to the yard office and

as he was returning to his train heard the crash of the collision, he looked at the home signal immediately after the accident and at that time it was displaying a stop indication and all of the lights were burning brightly

Approaching Sidney, Head Brakeman Powell of extra 870 was riding on the left side of the engine, he stated that after passing signal 104.1, which was displaying a caution indication, Engineman Toal shut off steam. When about 900 feet south of the home signal, which was displaying a stop indication, he called its indication and Engineman Toal replied that he saw it. As there was a car to be set out and it would also be necessary to take water at Sidney, he then inquired of Engineman Toal as to which would be done first and was told it did not matter. The air brakes were not applied in emergency until the home signal was reached, at which time Engineman Toal told him to jump. He estimated the speed of the train at this time to have been between 18 and 20 miles an hour. Head Brakeman Powell was of the opinion the accident was caused by Engineman Toal misjudging the distance and applying the air brakes too late to avert the accident. Fireman Casey was working on the fire and did not see the distant signal; however, he stated the engine was working steam after passing this signal. His first knowledge of anything wrong was when the air brakes were applied in emergency, at which time the train was near GX Tower. On looking ahead he saw extra 1209, also the bottom arm of the home signal, which was red, but did not see the other two arms at this time. Engine 870 is of the double-cab type, and Fireman Casey had not talked with the engineman after leaving Nineveh. Conductor Pratt said no trouble was experienced in bringing the train to a stop on a heavy descending grade in the vicinity of Belden, 20.2 miles south of Sidney, for the purpose of performing work on an overheated journal, nor in reducing speed at SW Cabin, 5.3 miles beyond, at which point a train order was received, after which the air brakes were not used until just before the accident occurred. On passing signal 104.1 a caution indication was displayed; he did not see the home signal, and the first knowledge he had of anything wrong was when the emergency air brake application was made. Immediately after the accident, Conductor Pratt and Brakeman Baker looked at the home signal and it was displaying a stop indication.

Towerman Somerville stated the headlight on engine 1209 was burning brightly and the home signal was displaying a stop indication. Engine 1209 was backing the 12 cars in on the stub-end siding when he first noticed extra 870 approaching. He was of the opinion the engine of extra 870 was working steam just before the accident occurred.

The air brakes on extra 870 had been tested and worked properly, and a test made subsequent to the accident, of all the cars in this train with the exception of the six cars that were damaged, showed them to have the required percentage of operative air brakes. On examining the engine immediately after the accident the brake valve was in the emergency position, although a portion of the handle was broken off, while the cut-out cock was in normal position.

#### Conclusions.

This accident was caused by the failure of Engineman Toal properly to obey automatic block-signal indications.

Rule 663a of the book of rules reads in part as follows:

#### ENGINEMEN AND TRAINMEN

"Trains must not pass a home interlocking signal in Stop position without receiving a Caution Card, Clearance Card, or a train order authorizing them to do so."

Engineman Toal apparently was in full possession of his faculties in the immediate vicinity of Sidney, and according to Head Brakeman Powell saw the stop indication of the northbound home signal in ample time to have brought extra 870 to a stop before it was reached. No reason can be put forth for his total disregard of the stop indication this signal displayed.

This accident again calls attention to the necessity for automatic train control. In this case the conditions were favorable for the observation of the signal indications, and all the evidence is to the effect that the engineman observed them, also that he was in no way disabled so that he could not properly have performed his duties, yet for some unknown reason he failed to apply the air brakes until his train had practically reached the home-signal. Had an adequate train-control system been in use, this accident would not have occurred.

Engineman Toal entered the service of this railroad in March, 1908, the record shows that on two previous occasions he failed properly to observe signal indications. At the time of the accident the crew of extra 870 had been on duty about 5 hours and the crew of extra 1209 about 4 hours, after having been off duty 12 hours or more.

Respectfully submitted,  
W. P. Borland,  
Chief, Bureau of Safety.