INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN ACCIDENT ON THE PENNSYLVANIA RAILROAD AT PENN,PA., ON MAY 25, 1933.

June 16, 1933.

To the Commission:

On May 25, 1933, there was a rear-end collision between two freight trains on the Pennsylvania Railroad at Penn, Pa., which resulted in the injury of three employees.

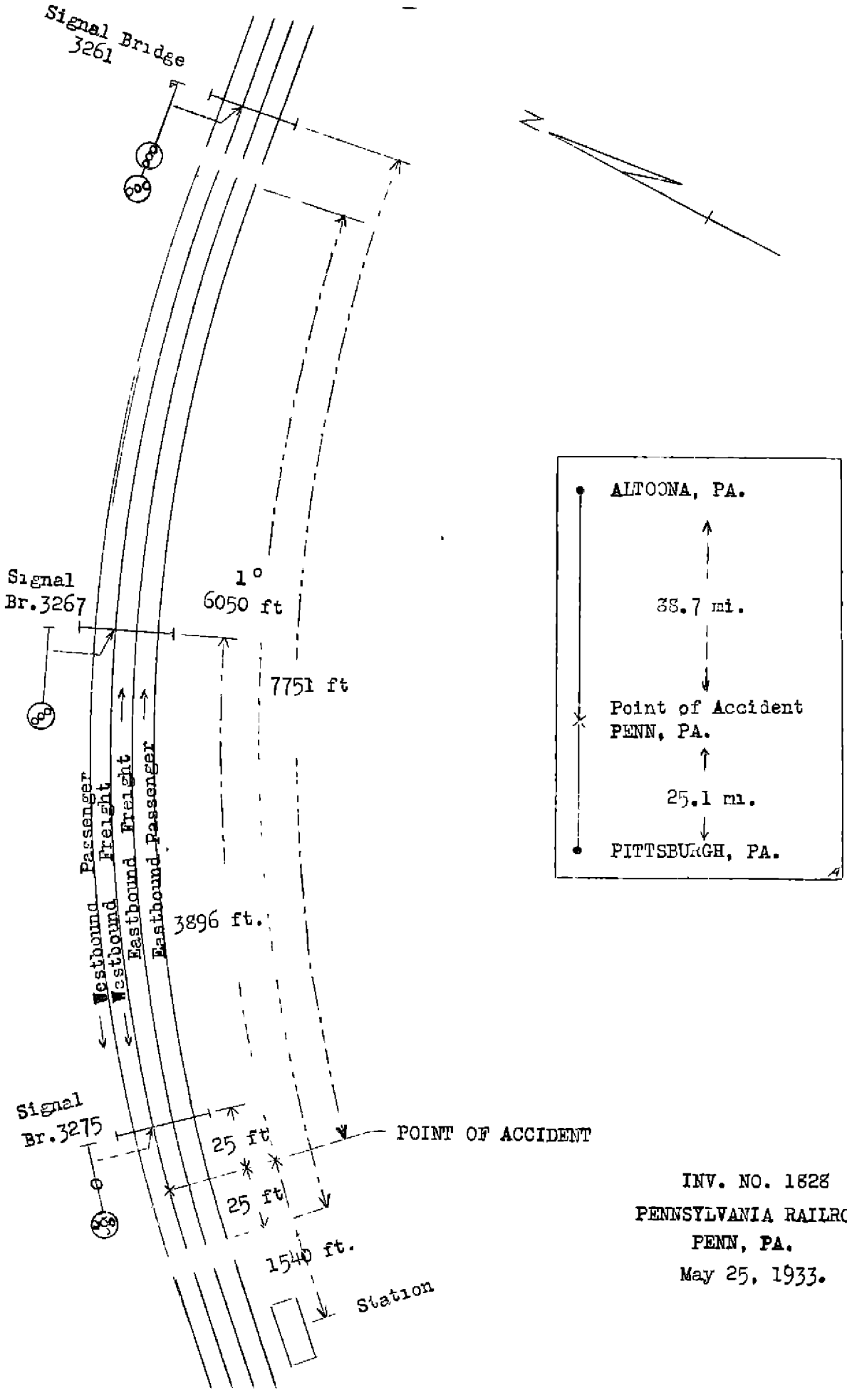
Location and method of operation

This accident occurred on that part of the Pittsburgh Division which extends between Pittsburgh and 30 Block Station, near Altoona, Pa., a distance of 113.8 miles. In the vicinity of the point of accident this is a 4-track line over which trains are operated by time table, train orders, an automatic block-signal system, and a cab-signal system of the continuous-code type. The tracks are designated from south to north as follows: 1, east-bound passenger; 2, east-bound freight, 3, west-bound freight, 4, west-bound passenger. The accident occurred on track 3 at a point about 1,540 feet east of the station at Penn, approaching this point from the east, there are 7,201 feet of tangent, followed by a 1° curve to the left 6,050 feet in length, the accident occurring on this curve at a point about 25 feet from its western end. The grade is generally descending for west-bound trains, having a maximum of 1.04 percent and at the point of accident it was 0.93 percent. The signals involved are mounted on signal bridges 3261, 3267 and 3275, located 7,751 feet, 3,896 feet and 25 feet, respectively, east of the point of accident, the signals are of the position-light type. The maximum authorized speed for the trains involved is 45 miles per hour.

The weather was clear at the time of the accident, which occurred about 3:50 p.m.

Description

West-bound freight train extra 4464 consisted of 62 cars and caboose, hauled by engine 4464, and was in charge of Conductor Close and Engineman McCutcheon. It passed RG Block Station, 2.8 miles from Penn, at 3:32 p.m., and stopped with the caboose just west of signal bridge 3275 about 3.35 p.m., due to a burst air hose. The air hose had been replaced, and the train had started to move when its rear end was struck by extra 4260.



INV. NO. 1828

PENNSYLVANIA RAILROAD

PENN, PA.

May 25, 1933.

West-bound freight train extra 4260 consisted of 57 loaded and 20 empty cars and caboose, 3,900 tons, hauled by engines 4260 and 3665, and was in charge of Conductor DuVall and Enginemen Potter and McDowell. This train departed from BO Block Station, Altoona, at 1.06 p.m., passed RG Block Station at 3:46 p.m., and collided with extra 4464 while traveling at a speed estimated to have been from 18 to 20 miles per hour.

The caboose and four rear cars in extra 4464 were derailed, the cars being badly damaged and the caboose demolished. Engine 4260 was not derailed but its front end was badly damaged; there was no damage to the tender or to the second engine. The fifteenth to the twenty-third cars were derailed and more or less damaged. The employees injured were the engineman and fireman of engine 4260, and the engineman of engine 3665.

Summary of evidence

Conductor Close, of extra 4464, stated that his train was stopped at 3:35 p.m. with the caboose about half a car length west of signal bridge 3275, by a burst air hose on the twenty-third car. Repairs had been made and the flagman called in, and his train had moved about 2½ car lengths at the time the collision occurred, about 3:50 p.m. Conductor Close was near the station at Penn when his train started and not in position to observe the approach of extra 4260.

Flagman Rath, of extra 4464, stated that when his train stopped he immediately went back to flag, going back about 35 car lengths, where he put down torpedoes. When recalled he returned towards his train but before reaching the caboose the train started and about that time he heard the approaching train. He looked back and saw extra 4260 and about the same time heard a whistle for brakes and after giving two or three stop signals with his flag he got out of the way. Flagman Rath estimated that when he heard the call for brakes he was 6 or 8 car lengths from his caboose and that extra 4260 was from 15 to 18 car lengths east of him, there was no whistle signal in answer to his flag. He saw no decrease in the speed of the train, and estimated it to have been about 25 miles per hour at the time it passed him.

Engineman Potter, in charge of engine 4260, lead engine coupled with engine 3665, and handling the air brakes on this train, stated that as he passed signal bridge 3261, with signal in approach-restricting position, he was operating his train at a speed of 35 to 40 miles per hour. He made a brake-pipe reduction of 7 or 8 pounds, which did not seem to retard the speed of his train, and just before passing signal bridge 3267, where an approach indication was displayed, with the

train still moving at a speed of about 35 miles per hour, he made an additional brake-pipe reduction of 10 pounds. This second reduction did not reduce the speed of his train as he thought it should and for this reason, when about 30 car lengths west of the approach signal, he applied the brakes in emergency, exploding torpedoes shortly afterwards. Before they collided he jumped off and he thought the speed was 18 or 20 miles per hour at that time. Engineman Potter heard the second engineman call for brakes, but he said this was after he had placed his brake valve in emergency. He was familiar with the grades in that vicinity and had no reason to feel that the brakes were not working properly up to that point. He thought an angle cock in the train might have been tampered with which would explain his inability to stop the train. His train had not made any stops after leaving Altoona, but he had used the brakes at Lilly, Portage and AO Block Station, and they functioned properly, and he said that after releasing he had no difficulty in recharging the brake pipe to 90 pounds pressure, and that he had 90 pounds pressure on his brake-pipe gauge when he started braking at signal bridge 3261. The cab signals functioned properly. The statements of Fireman Eckenrode substantiated those of Engineman Potter.

Engineman McDowell, of engine 3665, had noted his brake-pipe gauge and stated it showed a pressure of 95 pounds, and that the brakes had reduced the speed when used en route. Brake-pipe reductions were made at the approach-restricting and approach signal locations but he did not observe his gauge and could not say how heavy these reductions were, however, he stated that they did not seem to retard the speed of the train. About 15 or 20 car lengths west of the approach signal he whistled for brakes and made an attempt to apply the brakes in emergency, but found they were already applied from the lead engine, apparently about the time he whistled.

Fireman Spohn, of engine 3665, stated that the speed of his train was nearly 40 miles per hour at the approach signal, having been only slightly reduced since passing the previous signal, without his having noticed any application of the brakes. Shortly afterwards he saw the stop signal and called its indication to Engineman McDowell; he thought the speed of the train was reduced to 18 miles per hour at the time they collided.

Conductor Duvall, of extra 4260, stated that he received his train at Altoona, and that a terminal test of the air brakes had been made by the inspectors at that point who gave him a card indicating that all air brakes were working. He was riding in the caboose leaving Altoona and the air gauge indicated 90 pounds pressure. The air brakes were

used at Cresson, Lilly, Portage, and AO Block Station, and he felt satisfied that they were working properly. He noticed an application of the air brakes in the vicinity of Jeanette, 1.5 miles east of Penn, the pressure on the air gauge being reduced from 90 to 75 pounds, and he stated the speed was reduced from 38 miles per hour to 25 or 30 miles per hour. There was another application in the vicinity of the approach signal, and shortly thereafter a sudden stop. Following the collision he inspected the train and found no angle cocks closed and nothing tampered with, and the pistons were out on all the brake cylinders. After relief engines coupled to the rear end of his train he assisted in making a terminal test of the brakes on the 54 rear cars and he stated that all of them were working properly. He rode this part of his train from Penn to Pitcairn, Pa., and stated that the brakes worked properly en route.

Assistant Foreman of Car Inspectors Harkness personally supervised a terminal test of the air brakes of the 54 rear cars of extra 4260 on their arrival at Pitcairn, and found all of them working properly. The 12 head cars were moved into Pitcairn later and tested by the night men and all air brakes were reported working properly.

A report submitted by Assistant Master Mechanic Batson stated that all cars were inspected at Penn and all angle cocks were found in open position except on PRR container car 473667, the sixteenth car in train, which was upset and derailed in the accident. On this car the angle cock, nose and pipe nipple had been torn off on the east end. The angle cock handle, which was self locking, was turned crosswise, but the marks on it indicated that this occurred in the accident.

Conclusions

This accident was caused by the failure of Engineman Potter, of extra 4260, properly to obey signal indications.

The rules provide that a train receiving an approach-restricting signal should approach the next signal at not exceeding one-half its maximum authorized speed, and that a train receiving an approach signal must approach the next signal prepared to stop, and if exceeding one-half its maximum authorized speed at point involved must at once reduce to not exceeding that speed. The evidence indicates, however, that Engineman Potter was operating his train at a speed of 35 to 40 miles per hour on passing the approach-restricting signal on signal bridge 3261, that he made a brake-pipe reduction of 7 or 8 pounds, passed the approach signal on signal bridge 3267 at a speed of 35 miles per hour at which time he made an

additional brake-pipe reduction of 10 pounds and that he did not move the brake valve to emergency position until it was too late to stop at the succeeding signal, which was at stop. Terminal air-brake tests made before and after the accident, and the use of the air brakes at various points en route showed that the air brakes in this train were in good working order, and it is apparent that Engineman Potter did not do any effective braking soon enough to enable him to have his train under proper control.

Engineman McDowell, on the second engine, had seen the approach-restricting and the approach signals and had noted the speed of his train, but made no effort to signal the lead engineman or to apply the brakes from his own engine until his fireman called the stop indication on signal bridge 3275, after they were some distance west of the approach signal, he then whistled for brakes and made an attempt to apply them himself but found that they already had been applied.

The necessity for taking action toward bringing trains under control when passing restrictive signals has been discussed in many previous reports, in fact, in our report covering the rear-end collision on this same railroad at Tyrone, Pa., on December 24, 1932, the following statement on this subject was made and it has full application in the case of the accident here under investigation:

"Attention has been called in previous accident investigation reports to the necessity of taking immediate action at the caution or approach signal location toward bringing trains under control, and the special time-table instructions of this railroad in substance provide for such a procedure. The rigid observance and enforcement of rules of this character should result in a train being brought under such control as to make it a simple matter to stop if necessary before passing the next signal, and the danger of the occurrence of such accidents as the one here involved would be materially lessened."

Respectfully submitted,

W. P. BORLAND,

Director.