INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN ACCIDENT AT THE INTERSECTION OF TRACKS OF THE PENNSYLVANIA RAILROAD AND THE WHEELING AND LAKE ERIE RAILWAY AT VALLEY JUNCTION, OHIO, ON AUGUST 20, 1935.

October 16, 1935.

To the Commission:

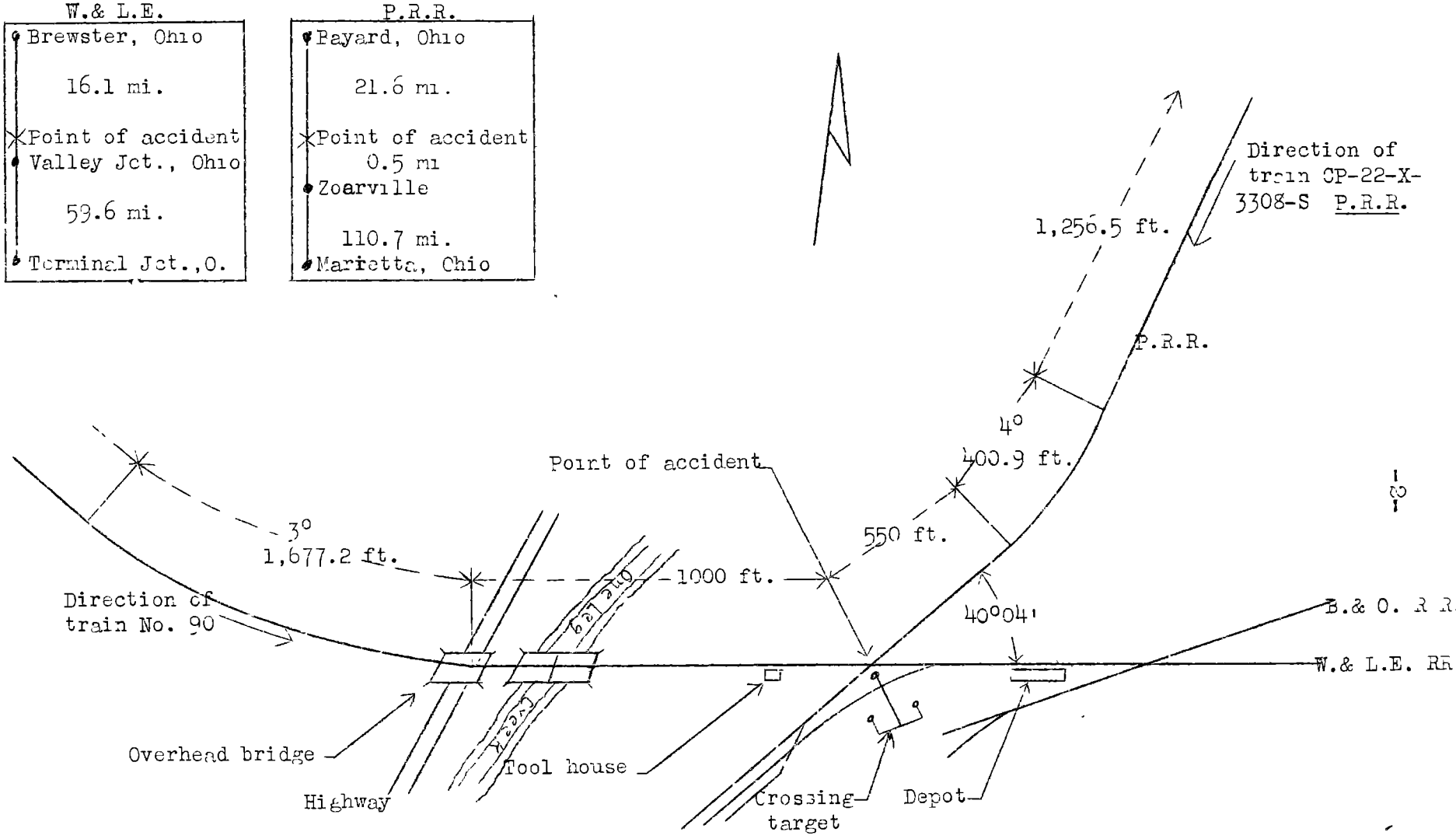
On August 20, 1935, there was a side collision between a freight train on the Pennsylvania Railroad and a freight train on the Wheeling and Lake Erie Railway at Valley Junction, Ohio, which resulted in the injury of one Pennsylvania Railroad employee.

Location and method of operation

That part of the Cleveland Division of the Pennsylvania Railroad which extends between Bayard and Marietta, Ohio, a distance of 132.8 miles, is a single-track line over which trains are operated by time table, train orders and a manual block-signal system. At Valley Junction, Ohio, this line crosses the Toledo Division of the Wheeling and Lake Erie Railway at grade, which extends between Brewster and North Terminal Junction, Ohio, a distance of 75.7 miles; this is a single-track line over which trains are operated by time table and train orders, there being no block-signal system in use.

The Pennsylvania Railroad and the Wheeling and Lake Erie Railway cross at an angle of approximately 40°; on the Pennsylvania Railroad this crossing is known as W.& L.E. Railway crossing, one-half mile south of Zoarville, Ohio, and 21.6 miles south of Bayard, Ohio. On the Wheeling and Lake Erie Railway this location is known as Valley Junction, Ohio, and is 16.1 miles east of Brewster, Ohio.

Movement of trains over this crossing is governed by a manually controlled signal, operated by the signalman on duty in the train order office on the second floor of the Wheeling and Lake Erie station. This signal and mountings, which were demolished in the accident, consisted of a wooden target blade, 10 feet in length, 14 inches in width and 1½ inches in thickness, painted red with a white stripe across near each end; this target was mounted on an arm about 2 feet long, extending from a pole 31 feet high, located at the south-east angle of the crossing, 8 feet east of the rail of the Pennsylvania Railroad and 7 feet south of the rail of the Wheeling and Lake Erie Railway. This target was suspended by a supporting arm at its center. The



Inv. No. 2005
Pennsylvania RR,
Wheeling & Lake Erie Ry.
Valley Junction, O.
August 20, 1935

position of the target is adjusted by gravity when tension is released on a single-wire connection between the signal and the operating lever in the office. For trains of the Pennsylvania Railroad the proceed position of this signal is horizontal, pointing across the tracks of the Wheeling and Lake Erie Railway and constituting a stop signal for trains of the latter line. For trains of the Wheeling and Lake Erie Railway the proceed position of this signal is vertical, constituting a stop signal for trains of the Pennsylvania Railroad. The position of the target is indicated at night by a red light at each end of the target blade.

At this crossing there are two electric lamps, one located about 20 feet north of the W.& L. E. track and the other about 12 feet south of the W.& L.E. track and 15 feet west of the P.R.R. track, both facing the operator at the W.& L.E. station, which the operator can light at night to determine whether the crossing is clear before operating the signal governing the crossing.

In the W.& L. E. Railway time table, under the caption of Special Instructions, the following extract from the Ohio State Laws is quoted:

Rule No. 50 — Ohio Laws Sec. 3333

> At Railroad Crossings and Junctions at grade, not interlocked, all trains will come to a full stop, not nearer than (200) two hundred feet, nor further than (800) eight hundred feet, from the crossing, and shall not cross until signaled to do so, or until the way is clear.

This rule has been modified in regard to Valley Junction crossing by Rule 140.

Rule No. 140. Valley Junction - W.& L.E. Trains, Except First Class, will approach crossings under full control, prepared to stop and may proceed over crossings at speed not greater than 15 miles an hour, if target is in proceed position and way is seen to be clear. First class trains will make the prescribed safety stop before crossing - Rule No. 50 modified accordingly.

Note: - Rule No. 140 has been in effect since February 8, 1934, by the authority of the Public Utilities Commission of the State of Ohio.

Approaching the point of accident from the north, the track of the Pennsylvania Railroad is tangent a distance of 1,256.5 feet, followed by a 4° right-hand curve 400.9 feet in length, then tangent for 550 feet to the point of accident. The grade is 0.75 percent descending for south-bound trains this entire distance, then level and tangent for one-half mile beyond the point of accident to the station at Zoarville, Ohio. A thick growth of trees in the vicinity of the crossing restricts the view of the track of the Wheeling and Lake Erie Railway in each direction, especially obscuring the view of W.& L.E. trains approaching from the west.

Approaching the point of accident from the west, the track of the Wheeling and Lake Erie Railway is tangent 1,528.3 feet, followed by a 3° curve to the left, 1,677.22 feet in length, then tangent approximately 1,000 feet to the point of accident. The grade for east-bound trains is 0.270 percent descending for 2,400 feet, 0.406 percent descending for 1,600 feet, level 200 feet to the point of accident, then level and tangent for a considerable distance. An overhead bridge and a left-hand curve restrict the view of the target from locomotives of east-bound trains approximately to 1,034 feet from the engineman's side and to 1,580 feet from the fireman's side. A heavy growth of trees and brush at the north side of the track restricts the view of south-bound trains on the track of the Pennsylvania Railroad until nearly on the crossing.

Time-table directions of the Pennsylvania Railroad are north and south, and of the Wheeling and Lake Erie Railway are east and west.

The weather was clear at the time of accident, which occurred at 4:45 p.m.

Description

Extra 3308, a south-bound freight train of the Pennsylvania Railroad, consisted of 12 cars and a caboose, hauled by engine 3308, and was in charge of Conductor Kline and Engineman Scott, enroute from Canton to New Philadelphia, via Bayard, Ohio; this train left Magnolia, 6.9 miles north of the point of accident, at 3:50 p.m., made the required stop at W.& L.E. Crossing, received the proceed indication of the target and, while moving over the

crossing at estimated speed of from 5 to 10 miles per hour, was struck by an east-bound freight train of the Wheeling and Lake Erie Railway.

Train No. 90, an east-bound second-class freight train of the Wheeling and Lake Erie Railway, consisted of 22 cars and a caboose, hauled by P. & W. V. engine 1000, and was in charge of Conductor Martin and Engineman Stevens, employees of the Pittsburgh and West Virginia Railway Company operating over the line of the Wheeling and Lake Erie Railroad; this train passed Bolivar 7 miles west of the point of accident, at 4:34 p.m., according to the train sheet, 44 minutes late, proceeded to Valley Junction, and while moving at estimated speed of 5 to 20 miles per hour, struck the sixth car of a Pennsylvania Railroad freight train which was moving over the crossing.

The sixth car of the Pennsylvania Railroad train was derailed and overturned to the east and front truck of the seventh car was derailed eastward. The locomotive of the Wheeling and Lake Erie Railway train was derailed to the right and stood upright on the track of the Pennsylvania Railroad; the tender and cars of this train were not derailed. The employee injured was the conductor of Extra 3308 of the Pennsylvania Railroad.

Summary of evidence

Engineman Scott, of Pennsylvania Railroad Extra 3308, stated that his train approached the crossing of the Wheeling and Lake Erie Railway at Valley Junction at a speed of about 20 miles per hour. He stopped and then whistled for the target, which was set immediately to permit his train to proceed. He started the train and was moving over the crossing at a speed of about 10 miles per hour when his train was struck by Wheeling and Lake Erie Railway Train No. 90. When his engine was on the crossing he observed No. 90 approaching. Being doubtful that No. 90 could stop in time to avert collision, he attempted to increase speed and clear the crossing. His engine and five cars had passed over the crossing when the engine of the Wheeling and Lake Erie Railway train struck the sixth car, derailing it and the seventh car. He had heard the whistle of No. 90, but trees prevented him from seeing that train until his engine was on the crossing. Soon afterward he was informed by the engineman of the Wheeling and Lake Erie train that, when rounding the curve west of the crossing, the fireman and brakeman informed him that the target was clear and he released his brakes, and when he observed that the target was set against his train he was unable to apply the brakes again.

Fireman Kennedy, of P.R.R. Extra 3308, stated that his train was stopped for the Wheeling and Lake Erie crossing, at which time the target was set for W.& L. E. trains. His engineman

whistled for the target; immediately receiving a proceed indication of the target, his train started and was moving slowly over the crossing when he observed the W.& L. E. train approaching about 5 or 6 car lengths distant.

Conductor Kline, of P. R. R. Extra 3308, stated that his train was stopped at Valley Junction and the whistle was sounded for the target. Upon receiving the proceed indication of the target his train started and was moving about 5 or 6 miles per hour when struck by a train of the Wheeling and Lake Erie Railway. Riding on the rear platform of the caboose, he was unaware of impending danger until he was thrown from the caboose to the ground. Trees interfere with the view of W.& L. E. trains approaching from the west so that it is impossible to see such trains until the caboose is nearly on the crossing.

Front Brakeman Ward, of P. R. R. Extra 3308, stated that he was riding on the right side of a tank car, fourth car of the train, as his train passed over the crossing. He saw the W.& L. E. train approach at speed of about 15 miles per hour and, realizing that the W.& L. E. train could not be stopped in time, he got off the car just before the collision occurred.

Flagman Mourer, of P. R. R Extra 3308, stated that his train made the required stop at Valley Junction, then proceeded over the crossing at speed of about 5 to 10 miles per hour and was struck by a W.& L. E. train. He was riding with Conductor Kline on the rear platform of the caboose and knew nothing of the impending danger until the train was separated by the force of the collision.

Engineman Stevens, of Wheeling and Lake Erie Train No. 90, stated that the air brakes of his train were inspected at Brewster prior to departure from that point at 4:10 p.m. The brakes functioned properly when stops were made at B.& O. crossing and at Harmon, and when speed was reduced at other points. Approaching Valley Junction at speed of about 35 miles per hour, when the engine reached a point just west of the overhead bridge he shut off the steam, whistled for the target and made a service application of the air brakes. Rounding the curve east of the overhead bridge, the engine popping loudly, he understood either the brakeman or the fireman to say that the target was "set", after which he released the brakes, speed having been reduced to about 12 to 15 miles per hour. After proceeding from 3 to 5 car lengths, he saw that the target was about 20 car lengths distant and set against his train; he then applied the air brakes in emergency but, having just been released, the brakes did not function properly. He reversed his engine and sanded the rails but, when speed was reduced to 5 or 6 miles per hour, his engine struck the

Pennsylvania Railroad train on the crossing. He stated that only once in four months prior to this accident has he found the target set against his train or a Pennsylvania train using the crossing. The weather was clear and vision was good at the time of the accident.

Fireman Sweetall, of W.& L. E. train No. 90, stated that brakes functioned properly when stops were made at B.& O. Crossing and at Harmon. Approaching Valley Junction, on the curve west of the overhead bridge, the engineman made a service application of the air brakes and reduced speed of the train from about 35 miles per hour to about 25 miles per hour. After the engine passed the overhead bridge he observed the position of the target and both he and the brakeman informed the engineman that the target was against them, but the engineman evidently misunderstood and released the brakes. Again he called to the engineman that the target was against them; he crossed over to the engineman and directed him to apply the brakes in emergency, which he did. The engineman opened the sanders and reversed the engine, reducing speed of the train to about 7 or 8 miles per hour at the time of the accident. He thought that the engineman endeavored to stop the train as soon as he realized that a train was on the crossing. His engine was about 13 or 14 car lengths distant when the Pennsylvania train entered upon the crossing. The weather was clear and vision was good at the time of the accident.

Front Brakeman Cross, of W.& L. E. Train No. 90, stated that between Brewster and Valley Junction the brakes of his train functioned properly. He rode on the engine as his train approached Valley Junction at speed of about 40 miles per hour. The engineman whistled for the target and applied the brakes and, after passing the overhead bridge, he observed that the target was set against their train and warned the engineman. He continued to watch the target, expecting that its position would be changed. Near the creek bridge he called again to the engineman that the target was set against them; but he received no response and was uncertain what action was taken to stop the train, though he knew that sand was on the rail and the engineman attempted to reverse the engine. He left the engine before the collision occurred.

Conductor Martin, of W.& L. E. Train No. 90, stated that brakes of his train were inspected at Brewster and functioned properly at various places enroute. Seated at his desk when approaching Valley Junction, he heard the engine whistle sounded when a short distance west of the overhead bridge and felt the brakes apply. Speed of the train at that time was about 35 miles per hour and was reduced to about 12 to 20 miles per hour at the time of the accident, which occurred at 4:45 p.m. He felt no severe shock upon the caboose and he was then unaware there was an

accident to his train. Soon afterwards he was informed by Engineman Stevens that he understood the fireman and brakeman to say he had received the proceed indication of the target, whereupon he released the brakes and, upon making a second application, the brakes did not function very well.

Flagman Diehl, of W.& L. E. Train No. 90, stated that speed of his train was approximately 40 miles per hour until the brakes were applied just west of the overhead bridge. He felt no emergency application of the air brakes or shock on the rear of the train, and he was unaware that an accident had occurred until he observed the target mast falling.

Operator Conrad stated that he was on duty at Valley Junction at the time of the accident. He called the train dispatcher of the Wheeling and Lake Erie Railway to ascertain movement of No. 90 and was informed that train had passed Bolivar at 4:34 p.m. About the same time, a Pennsylvania Railroad train approached and made the required stop for the crossing and, as he neither saw nor heard No. 90, he gave the proceed indication of the target to the Pennsylvania train, which proceeded immediately. After the engine and one car of the P. R.R. train had passed over the crossing he saw No. 90 approaching. He believed that No. 90 would stop before reaching the crossing; but that train continued and struck the P. R.R. train, which was moving over the crossing at estimated speed of 5 to 10 miles per hour. The weather was clear and vision was good at the time of the accident.

Discussion

General Notice No. 8 of the Wheeling and Lake Erie Railway Company, dated February 2, 1934, directs that the target controlling the movement of trains over the Wheeling and Lake Erie and Pennsylvania Railroad crossing at Valley Junction, Ohio, shall be set in proceed position for Wheeling and Lake Erie trains at all times when not in use by Pennsylvania trains. All trains operating over the Pennsylvania tracks are required to stop before passing over this crossing. All freight trains operating over Wheeling and Lake Erie tracks must approach this crossing under full control, prepared to stop, but may proceed over the crossing at a speed not greater than 15 miles per hour if the target is set for them and the way is seen to be clear.

The evidence discloses that Extra 3303, of the Pennsylvania Railroad, stopped before entering upon the crossing, received the proper signal indication, and proceeded slowly until the sixth car was upon the crossing, when the accident occurred.

Engineman Stevens, of Wheeling and Lake Erie Railway Train No. 90 experienced no previous difficulty in controlling his train. With steam shut off and the engine popping, his train approaching Valley Junction at speed of about 35 miles per hour, on slightly descending grade, he applied the brakes; but, misunderstanding the warning of the fireman and the brakeman whose view was less restricted, he released the brakes and was unable to regain control of the train when he attempted again to apply the brakes; obviously he was not approaching this crossing under full control, prepared to stop, as required by rule.

Conclusion

This accident was caused by failure of Engineman Stevens, of Wheeling and Lake Erie Railway Train No. 90, properly to control the speed of his train and to approach the crossing at grade of the Pennsylvania Railroad prepared to stop as required by rule.

Respectfully submitted,

W. J. PATTERSON,

Director.