REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE PENNSYLVANIA RAILROAD NEAR BARBERTON, OHIO, ON MAY 28, 1928.

July 26, 1928,

To the Commission:

On May 28, 1928, there was a head-end collision between a Baltimore & Ohio freight train and a Pennsylvania freight train, on joint track of the two roads, the wreckage of which fouled a Baltimore & Ohio freight train on an adjoining track, near Barberton, Ohio, which resulted in the death of two trespassers and the injury of one employee and two trespassers.

Location and method of operation

This accident occurred on that part of the Akron Division extending between Hudson and Joyce Ave., Columbus, Ohio, a distance of 142.6 miles. Between Akron Junction and Warwick, a distance of 15.6 miles, within which territory this accident occurred, the single-track lines of the Baltimore & Ohio and the Pennsylvania Railroads parallel each other and are operated jointly as a double-track line under the supervision of the Pennsylvania Railroad, trains being moved by time-table, train orders and a manual block-signal system. The accident occurred at VD Block Station, 1.9 miles north of Barberton; approaching this point from the south there is a 10 30 curve to the right 386.1 feet in length, followed by tangent track for a distance of 4,034.4 feet, the accident occurring on this tangent at a point approximately 2,435 feet from its southern end. The grade at the point of accident is level.

There is a crossover between the main tracks opposite VD Block Station, the north crossover switch being located 101 feet north of the tower, while the block signal governing northbound movements is located on the east side of the tracks at a point 197 feet south of the tower; there is also a signal governing southbound movements located 200 feet north of the tower, both signals being controlled from the tower. A red flag aisplayed from the tower by day or a red flag and a red light by night indicates there are orders on Form 31, or else orders on Form 19 which restrict the rights of trains. A clear view of the signal south of the tower could be had from the engine of a northbound train for a distance of about 2,140 feet, while the tower could be seen a distance of about 2,337 feet.

A dense fog prevailed in the vicinity at the time of the accident, which occurred at about 11.09 p.m.

Description

Southbound Pennsylvania freight train AC-1 consisted of 34 cars and a caboose, hauled by engine 4514, and was in charge of Conductor Starner and Engineman Hodell. This train departed from South Akron yard, Bridge 16, 2.3 miles north of VD Block Station, at 10.38 p.m., the crew having in their possession a copy of train order No. 326, Form 19, giving their train rights over opposing trains on the northbound main track between Bridge 16 and VD Block Station. Upon its arrival at VD Block Station train AC-1 was brought to a stop on the northbound main track a short distance north of the crossover at about 10.52 p.m., and it was still standing at this point when it was struck by northbound Baltimore & Ohio extra 4241-4173.

Northbound Baltimore & Ohio freight train extra 4241-4173 consisted of 56 cars of iron ore and a caboose, hauled by engines 4241 and 4173, and was in charge of Conductor Wilson and Engineman Mitz and Fairhead. This train departed from Warwick, 8.8 miles from VD Block Station, at 10.48 p.m., moving on the northbound track, passed FR Block Station, 4.2 miles beyond and the last open office, at 10.59 p.m., passed the block signal south of VD Block Station which was displaying a stop indication, passed the tower, from which a red light was displayed, and collided with Pennsylvania train AC-1 while traveling at a speed variously estimated at from 4 to 12 miles per hour.

Southbound Baltimore & Ohio freight train extra 6192 consisted of 101 cars and a caboose, hauled by engine 6192, and was in charge of Conductor Ellis and Engineman Frye. This train departed from Akron Junction, 6.8 miles north of VD Block Station, at 10.35 p.m., moving on the southbound track, and was brought to a stop at the block signal north of VD Block Station at 11.01 p.m. Upon obtaining a clear signal indication, the train started to move but had proceeded a distance of only one-half its length when it was side-swiped by the wreckage of the accident between train AC-1 and extra 4241-4173.

Engine 4514, of train AC-1, was driven backward a distance of approximately 135 feet, although none of the three engines involved in the collision was derailed. The first six cars in train AC-1 were derailed and scattered on both sides of the track, and one car in the train of extra 4241-4173 was derailed. The wreckage from this accident fouled the southbound main track and resulted in daily, e to the 31st to the 38th cars, inclusive, in extra 6192; one pair of wheels of the 39th car, the 46th to the 50th cars, inclusive, and one truck of the 51st car were derailed.

Summary of evidence

Engineman Hodell, of train AC-1, stated that when his train was ready to depart from Akron yard the conductor communicated with the operator at MN Block Station, about 1 mile north of Bricge 16, the latter point being located at the south end of Akron yard, and received an order to proceed from Bridge 16 to VD Block Station via the northbound main track, the conductor verbally apprising Engineman Hodell as to the contents of the order. The train then proceeded to VD Block Station as directed and was brought to a stop opposite the southbound block signal. Engineman Hodell said that as soon as his train came to a stop he proceeded to the tower where the operator handed him a train order and clearance card and as he was about to leave the tower the operator informed him that a northbound train had collided with his own train; Engineman Hodell did not hear the northbound train pass the tower nor did he hear the crash of the collision on account of the southbound train passing on the adjoining track at the time. ther stated that the signal governing southbound movements could be plainly seen as his train approached VD Block Station but on arriving there he noticed that the weather was foggy beyond that point.

Fireman Wagner, of train AC-1, stated that he was vorking around the engine from the time his train came to a stop at VD Block Station until the occurrence of the accident, being in the engine cab at the time of the accident and did not see the opposing train at any time.

Brakeman Bilderback, of train AC-1, stated that as soon as his train stopped he proceeded to the highway crossing located between this engine and the tower and remained at that point until extra 6192 started to pull by on the southbound track, and he then continued southward to the crossover for the purpose of lining the switches to permit his train to enter the southbound track as soon as extra 6192 had passed. He was at the crossover when he observed the northbound train approaching and immediately proceeded

to the northbound signal, which was displaying a stop indication, and started fiving stop signals. These signals were not acknowledged, and upon realizing that the approaching train could not be brought to a stop in time to avert an accident he started to return to his train for the purpose of warning the fireman but was overtaken by the northbound train by the time he had reached the highway crossing. He estimated the speed of the train to have peen 10 or 12 miles per hour at the time it passed him. Brakeman Eilderback said the fog was quite dense south of VD Block Station and that he observed the approaching train as soon as the headlight shone through the fog, about 25 car-lengths distant. He also said he heard no whistle signals sounded as the train approached the point of accident, nor did he attempt to afford flag protection prior to the time that train came into view because of the fact that the train order under which his train operated to VD Block Station restricted the rights of opposing trains beyond that point.

Conductor Starner, of train AC-1, stated that before leaving Akron yard he communicated with the operator at MN Block Station by telephone from the booth at Bridge 16 and received the train order directing his train to operate over the northogund main track to VD Block Station. This order was written by him on a piece of clip paper, there being no prescribed forms available, after which he read it back to the operator and then read it to his enginemen but did not deliver a copy of the order to the enginenan. Conductor Starner node in the caboose to VD Block Station, and was still located in the capoose at the time of the accident. Conductor Starner further stated that it had always been the practice to move trains from Bridge 16 under orders received by telephone, as there is no other vay of getting them in the prescribed form until the train reaches the first open office, which in this instance was VD Elock Station, and if his train were to continue moving against the current of traffic he would not pass the tower without obtaining the order in proper form. The statements of Flagman Neville, of train AC-1, brought out no additional facts of importance.

Engineman Mitz, of the leading engine of extra 12:1-4173, stated that several stops were made en route and that the air brakes operated efficiently, and that after leaving Warwick he encountered fog at different points. When approaching FR Block Station he partly closed the throttle and did not change its position after observing the signal at that point in the clear position. He heard the explosion of two torpedoes as his train passed Canal Siding, a short distance north of FR Block Station, and placed the throttle in the drifting position, the speed of his train then being about 25 miles per hour. On account of the fog he became confused as to his exact location and was attempting to locate land marks when his train suddenly

energed from the fog and he noticed the signal south of VD Block Station, apparently about 50 car-lengths distant, displaying a stop indication, and at about the same time he noticed the headlights of two southbound trains near the tower. He immediately applied the brakes in energency and opened the sanders but did not sound a whistle signal for the engineman of the second engine to do likewise, and he did not know what action was taken by that engineman. Engineman Mitz estimated the speed of the train at the time the brakes were applied in emergency at not more than 20 miles per hour and at the time of the accident at about 5 miles per hour. Engineman Mitz further stated that he did not have a copy of the order restricting his rights beyond VD Block Station and that had he received such an order he would have approabled that point more cautiously, although it was his understanding that reverse movements were permissible by train order and that the order given May be placed at the station to which such reverse movement is made.

Fireman Barlow, of the leading engine of extra 4241-4173, stated that fog was encountered between Warwick and the point of accident, and it appeared to be the heaviest in the vicinity of Barberton. He first observed the block signal at VD Block Station displaying a stop indication when it was about 10 or 15 car-lengths distant, naving just returned to his position in the cab from the deck of the engine, and at the same time he also saw a neadlight a short distance ahead of his own train; the speed of his train was then about 15 or 18 miles per hour. He said his engine was not working steam as the engine an had closed the throttle upon encountering two torpedoes near Barberton. Fireman Barlow jumped from the engine just office to the accident, at which time the speed of his train had been reduced to about 8 or 12 miles per hour.

Brakeman Starns, of extra 4241-4173, who was riding on the lead engine, seld he observed the signal at VD Block Station as soon as his train emerged from the fog, about 25 or 30 car-lengths from the signal, moving at a speed of about 20 miles per hour. He immediately called the indication of the signal to the engineman but the engineman had already applied the brakes in emergency. Brakeman Starns also jumped from the engine at about the time the trains collided, and he estimated the speed of his train at that time at not more than 4 miles per hour. Brakeman Starns further stated that the engines had been uncoupled from the train at Warwick, and that when they were recoupled to the train he had connected the air hose.

Engineman Fairhead, of the second engine of extra 4241-4173, stated that at Warwick the engines were uncoupled from the train and then recoupled, and that the air brakes worked properly after leaving that point. While passing Canal Siding he heard the explosion of a torpedo and closed his throttle to drifting position, the speed of his train then being about 20 miles per hour. He did not see the block signal at VD block station until the engineman of the loading engine had applied the brakes in emergency at which time he saw the signal, about 20 car-lengths distant, and placed the brake valve on his own engine in the emergency position. It further appeared from the statements of Engineman Fairhead that although the weather was foggy between Warwick and the point of accident yet he could ascertain the position of his train within a distance of approximately 300 feet, and as he felt confident the engineman of the leading engine was aware of the location of his train he had supposed the train was being properly handled. Engineman Fairhead thought, however, that had he been on the lead engine he would not have approached Barberton guite as fast with the particular train they were handling.

Fireman Chesser, of the second engine of extra 4241-4173, stated that the speed of the train was 18 or 20 miles per hour while approaching VD Block Station and he estimated the speed to have been 10 or 12 miles per hour at the time it passed the block signal, although he could not see the signal from his position on the engine on account of fog and smoke and was unaware of anything wrong until his engineman instructed him to get off.

The statements of Conductor Wilson, Brakeman Kovanos, and Flagman Butchko, of extra 4241-4173, were to the effect that after the engines were recoupled to the train at larwick a slight brake-pipe reduction was made and all the brakes appeared to release, otherwise no brake test was made. At the time the air brakes were applied in emergency just prior to the accident a lighted fusee was thrown from the caboose and as soon as the train came to a stop the fusee appeared to be about seven or eight car-lengths from the caboose and was barely visible in the dense fog.

The statements of Engineman Frye, Fireman Jones and Brakeman Semon, of extra 6192, which was moving on the adjoining track, were to the effect that their train stopped at the signal north of VD Block Station at about 11 p.m., due to the fact that it was then displaying a stop indication. This signal cleared almost immediately, however, and their train proceeded southward and the engine had reached a point approximately 20 car-lengths south of the tower, traveling at a speed of about 15 miles per hour, when they observed the head end of the northbound train pass their engine on the adjoining track; none of them had previously noticed the approaching train on account of the dense fog

in that vicinity, although both Fireman Jones and Brakeman Semon were stationed on the left side of their engine. Shortly afterwards their train was brought to a sudden stop due to the air brakes having applied in emergency.

Operator Sweet, who was on duty at VD Block Station from 3 to 11 p.m. on the day of the accident, stated that he received train order No. 326, addressed to all north-bound trains at VD Block Station, and in accordance therewith he displayed a 31 order signal on the train-order board and left the northbound block signal in the stop position. Train AC-1 arrived at 10.52 p.m., and at 10.58 p.m. order No. 326, was annulled by order No. 328, but the dispatcher instructed him not to change the train-order signal in view of the fact that train AC-1 had not cleared the northbound main track.

Operator Johnson, who was on duty at VD Block Station at the time of the accident, stated that he relieved Operator Sweet at 11 p.m., and at that time he noticed there were trains in the block but no orders were on hand for delivery. He also noticed the north-bound block signal set in the stop position, and he left the 31 train-order signal displayed as a matter of precaution. Extra 4241-4173 entered the block at FR Block Station at 10.59 p.m., but on account of the fog he did not see that train approaching and did not hear it pass his tower due to the noise caused by a train passing on the adjoining track, his first know-ledge of anything wrong was when he heard the crash of the collision, which occurred at 11.09 p.m.

Dispatcher Witwer, who was on duty at the time of the accident, stated that he issued train order No. 326 through the operators at VD and MN Block Stations at 10.33 and 10.34 p.m. respectively, authorizing train AC-I to use the northbound main track between Bridge 16 and VD Block Station, the order being addressed on Form 31 to all northward trains at VD Block Station; he did not consider it necessary to provide in the order that such trains would receive this order at the point where their rights were restricted, as is required under the rules. He also understood that the rules provide that an order must not be sent to a superior train at the meeting point if it can be avoided, and said that he had ample time in which to have put out the order at one or two stations in advance, although this had not been the practice when making reverse movements on double track since the block-signal system was installed 20 or more years ago, it being the custom to issue such orders at the crossover point, which he said was done for the purpose of avoiding delay to trains as much as possible; this rule is always followed, however, in single-track territory. Dispatcher Witwer further stated that he issued order No. 328 annulling order No. 326 at 10.58 p.m.,

giving as his reason for doing so the fact that he considered that train AC-1 had fulfilled the order, although that train had not cleared the northbound main track; he did, however, instruct the operator at VD Block Station to continue to display the 31 train-order signal.

Conclusions

This accident was caused primarily by the failure of Engineman Mitz, in charge of the lead engine of extra 4241-4173, to approach the block signal at Barberton under oroper control, resulting in his failure to bring his train to a stop before passing the signal in the stop position.

The evidence indicated that the block signal governing northbound movements at VD Block Station was displaying a stop indication, and that the train-order board at the tower was also displayed. It further appeared that fog was encountered at intermittent points between Warwick and the point of accident, the fog being very dense just south of VD Block Station, and Engineman Mitz said that he became temporarily confused as to his location. He ade no attempt to bring his train under proper control, however, until it emerged from the fog a short distance south of the signal, it then being too late to bring the train to a stop in time to avert the accident.

Engineman Fairhead, who was in charge of the second engine of extra 4241-4173, said that while the weather was foggy he could determine the position of his train at all times within a distance of approximately 300 feet, yet he made no attempt to warn the lead engineman of the fact that they were too close to the signal to stop in case it should be displaying a stop indication. Had he sounded the whistle the lead engineman undoubtedly would have had ample warning and would have had an opportunity to bring the train under proper control.

Train order No. 326 authorized train AC-1 to use the northbound main track between Bridge 16 and VD Block Station and was put out to all northward trains at the latter point; the conductor wrote it out on a piece of paper while the engineman had only verbal information on which to make a movement against the current of traffic. This order was annulled by order No. 329, addressed to the operator, while train AC-1 was still occupying the northbound main track and before extra 4241-4173 had passed the last open office, the crew of the latter train not having received a copy of either order. The rules, however, provide that a train order must not be sent to a superior train at the meeting point if it can be avoided,

when an order is so sent the fact will be stated in the . order and special precautions must be taken to insure In this instance the dispatcher had ample time to have issued both orders at a station in advance of VD block station, but according to his own statements, where reverse movements are made by train-order authority, this rule has not been complied with for many years; the block-signal and the train-order signal apparently are relied on to afford protection. Incidentally, by annulling train order No. 326 before train AC-1 had entered the southbound main track it created a situation whereby that train was occupying the northbound main track without authority. Had train order No. 326 been issued to the crew of extra 4241-4173 at a station in advance of VD Block Station, it is probable that the accident would have been prevented. The dispatcher appears to have followed the usual practice in handling these trains; but the practice of having dispatchers depend on the block system for protection against accidents which may involve their own failure to obey the rules is no more desirable than the action of a flagman in depending on the block system to protect the rear of his train from an accident which may involve rule 99. Train order rules, block-signal rules, and general operating rules, should be enforced at all times; the fact that no previous accidents have resulted from the dispetching methods followed in this case, as was stated by Dispatcher Witwer, does not justify continuance of the practice.

The employees involved were experienced men and at the time of the accident none of them had been on duty in violation of any of the provisions of the hours of scrvice law.

Respectfully submitted,

W. P. BORLAND,

Director.