

## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE  
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE  
PENNSYLVANIA RAILROAD AT SHAWMONT, PA., ON MAY 19,  
1930.

June 21, 1930.

To the Commission:

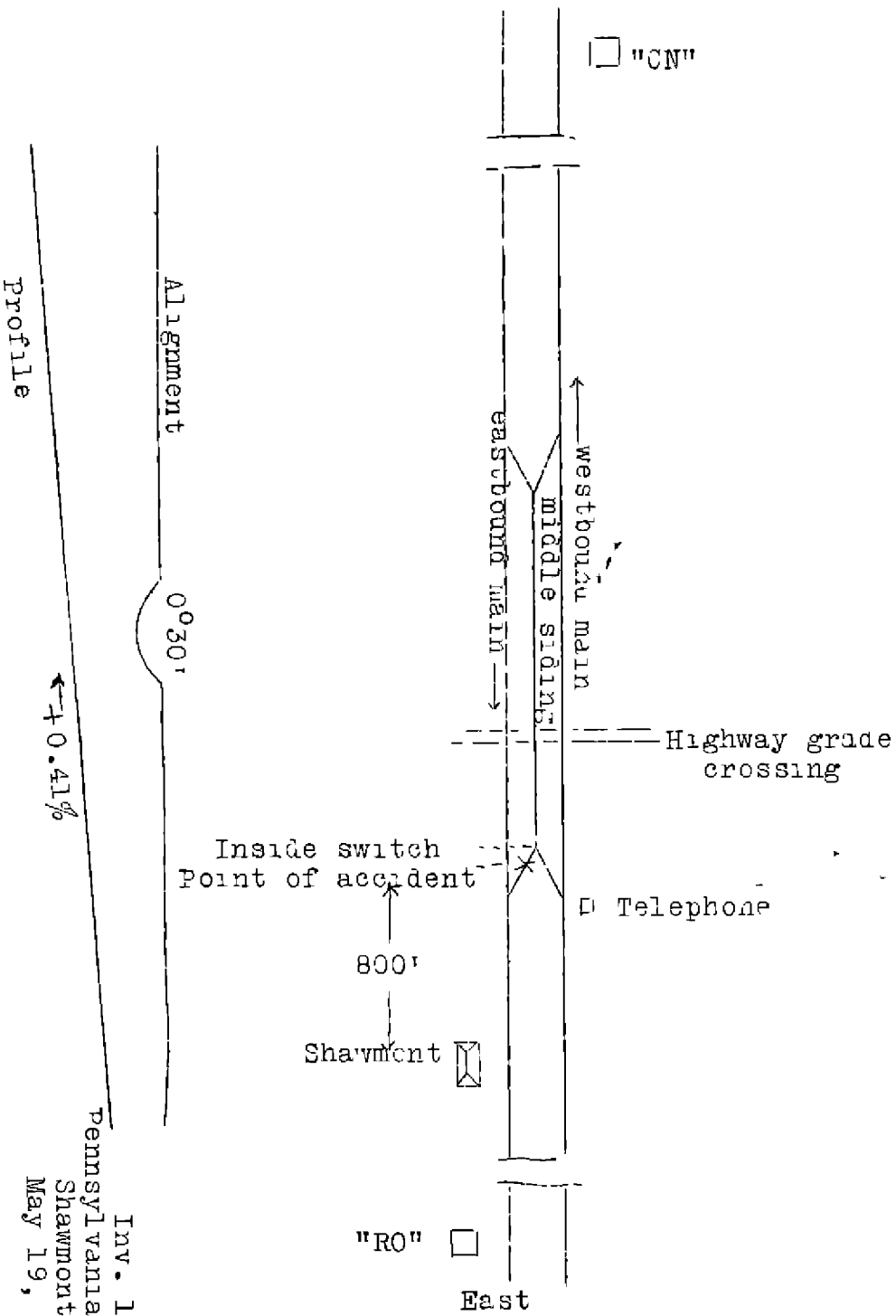
On May 19, 1930, there was a side collision between a passenger train and a work train on the Pennsylvania Railroad at Shawmont, Pa., resulting in the death of one employee, and the injury of two passengers, five employees, and five other persons. This accident was investigated in conjunction with a representative of the Pennsylvania Public Service Commission.

Location and method of operation

This accident occurred on that part of the Schuylkill Division of the Eastern Region, extending between Wynnefield Avenue Station, Philadelphia, and Reading, Pa., a distance of 57.9 miles; in the vicinity of Shawmont, located 9.2 miles west of Wynnefield Avenue Station, this is a double-track line over which trains are operated by time-table, train orders, and a manual block-signal system. The accident occurred at a point approximately 800 feet west of the station at Shawmont, at the fouling point of the east end of the middle siding at that point with the eastbound track, approaching this point from the west, the track is tangent for about 1,300 feet, then there is a  $0^{\circ} 30'$  curve to the left about 375 feet in length, followed by about 1,575 feet of tangent, the accident occurring on this tangent at a point about 775 feet from its western end. The grade for eastbound trains is 0.41 per cent ascending at the point of accident.

The middle siding is about 3,800 feet in length, overall, and is located between the two main tracks, with hand-thrown switches leading to each end of the siding from both main tracks; the normal position of the inside switch at the east end of the siding is lined for movements from the siding to the eastbound track. The switch stand for this switch is of the low type and is located between the middle siding and the eastbound track; it is not equipped with a target. There is a telephone located

West



Inv. 1340  
 Pennsylvania Railroad  
 Shawmont, Pa.  
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on the north side of the westbound track, opposite the main line switch of the middle siding; this telephone is connected with RO Block Station, located 1.3 miles east of Shawmont, and is for the use of crews in obtaining information relative to their movements to and from the siding.

There was a light rain falling at the time of the accident, which occurred about 6.30 a.m.

#### Description

Work extra 1156 consisted, from west to east, of two tower cars, one tool car, three gondola cars, and engine 1156, headed west and coupled to the east end of the cars, and was in charge of Conductor Fenton and Engineman Bair. Work of installing an overhead electric catenary system was in progress and work extra 1156 left RO Block Station at 6.15 a.m., according to the train sheet, with engine 1156 shoving the cars westward to the east end of the middle siding at Shawmont, where it entered the siding in order to clear first-class westbound train No. 5941. After that train passed, work extra 1156 started to make a back-up movement, eastward on the siding, it being intended to back out on the westbound main track, but the inside switch had been restored to its normal position and the work extra started to move out on the eastbound track instead of the westbound track. The train was at once brought to a stop, with the tender fouling the eastbound main track, where it was struck by train No. 5920.

Eastbound first-class train No. 5920 consisted of four coaches, hauled by engine 4172, and was in charge of Conductor Davis and Engineman Fager. This train passed CN Block Station, located 3.7 miles west of Shawmont, at 6.23 a.m., according to the train sheet, and collided with the tender of engine 1156 while traveling at a speed estimated to have been about 20 miles per hour.

The tender of engine 1156 had the cistern torn from its frame and came to rest across the westbound main track, but the engine was not derailed or materially damaged. Engine 4172, its tender, the first coach, and the lead truck of the second coach, of train No. 5920, were derailed; engine 4172 and its tender came to rest on their right sides, parallel with and south of the main tracks, with the engine about 250 feet east of the point of collision, badly damaged. The first coach remained coupled to the tender and came to rest leaning at an angle

of about 45°. The employee killed was the engineman of train No. 5920, while the employees injured were the conductor and fireman of that train, as well as the conductor, engineman, and fireman of work extra 1156.

#### Summary of evidence

Flagman Care, of work extra 1156, stated that when his train entered the middle siding at Shawmont, he returned the inside switch to its normal position, after which he went across the eastbound track and behind a car that stood on a storage track, anticipating that he would return in ample time to personally provide protection to the contemplated back-up movement before it was started. While away, however, he saw westbound train No. 5941 pass, after which he saw eastbound train No. 5920 approaching and his own train backing out of the middle toward the eastbound track. He ran toward his train and shouted a warning of danger to his fireman, the accident occurring immediately afterwards.

Conductor Fenton, of work extra 1156, stated that after his train entered the middle siding, he was aware that Flagman Care returned the inside switch to its normal position. Conductor Fenton remained at the telephone and after westbound train No. 5941 had passed, he called the operator at RO Block Station, reported that train by, and requested permission to back out on the westbound track, which was granted. Then, in view of the fact that Flagman Care was not at the inside switch, Conductor Fenton motioned with one hand to Brakeman Kramer, who was at a highway grade crossing 300 feet west of the inside switch, or just west of where the west car in the work train stood, intending that Brakeman Kramer should come eastward, line the inside switch for a movement to the westbound track, and protect the back-up movement from the siding, however, the conductor said that the brakeman did not acknowledge this motion. Conductor Fenton stated that he did not have time to see whether the brakeman came down, but looked at his watch, opened the westbound main-track switch, and again went to the telephone to obtain the block in order to proceed; while there the conductor heard an engine moving and on looking in the direction of the inside switch saw that it was lined for the eastbound track and that his train was backing up. He immediately dropped the telephone receiver and ran across the track, shouting and waving stop signals, at which time he maintained that his engine had not reached the fouling point, but to no avail. Conductor Fenton emphatically maintained that he was aware that the inside switch was set in normal position at the time he beckoned to Brakeman Kramer.

Engineman Bair, of work extra 1156, stated that Conductor Fenton advised him that as soon as train No. 5941 had passed, their own train would back out of the siding at Shawmont. Shortly after that train passed, the conductor, who had been using the telephone, opened the westbound main-track switch and gave a back-up signal, Engineman Bair remarking to Fireman Wilt to that effect; the automatic bell ringer was then put in operation and the back-up movement started. Engineman Bair was unaware of anything wrong until he saw the tender of his engine moving back toward the eastbound track, instead of toward the westbound track, and he immediately applied the air brakes in emergency, reversed the engine, opened the throttle, and at the same time endeavored to release the brakes, but it was then too late to avert the accident. Engineman Bair said that the rear end of the tender stood about 6 or 8 feet west of the switch points of the inside switch before the back-up movement was started; he was fully aware that the normal position of the inside switch was for the eastbound track, but said that on account of the tender, which was of the high type and loaded with coal, that he could not see the switch points; he did not know that the inside switch had been returned to its normal position. Engineman Bair emphatically maintained that Conductor Fenton gave a back-up signal, using both hands to do so, and said that on receiving the back-up signal, he presumed the way was clear and acted accordingly.

Fireman Wilt, of work extra 1156, stated that after the engineman told him that the conductor had signalled to back up, he got off his seat box in order to put some coal on the fire and that just as he was about to step on the tender he heard shouting and on looking out saw Flagman Care giving stop signals. Brakeman Kramer, in addition to claiming that he did not see the conductor beckon to him, maintained that it had not previously been the practice for the conductor to beckon to him to come such a distance in order to throw switches on such occasions as this, and said that the conductor would only have had to walk a short distance in order to have personally lined the inside switch.

Acting Assistant Yardmaster Lord, who was supervising the work of the construction force on the wire train, stated that the construction work for this particular shift had been completed when work extra 1156 entered the siding at Shawmont; he informed Conductor Fenton accordingly and then walked eastward, along with some of the members of the force, to the station at Shawmont, where

he was standing looking eastward when the accident occurred. Statements of various other witnesses, including the operators at RO and CN Block Stations, members of the construction force, and members of another work extra, 4113, which also stood on the middle siding, west of work extra 1156, brought out nothing additional of importance.

Fireman Youtz, of train No. 5920, was riding on his seat box approaching Shawmont, but was unaware of anything wrong prior to the accident. Conductor Davis was riding in the first car, he estimated the speed to have been about 20 miles per hour at the time of the accident, saying that the speed had been reduced preparatory to making the station stop at Shawmont. Statements of other members of this crew developed nothing additional.

#### Conclusions

This accident was caused by a misunderstanding of hand signals, resulting in work extra 1156 using a switch which was not lined for the movement intended.

It appears that after work extra 1156 moved from the westbound track to the middle siding, in order to clear train No. 5941, Flagman Care returned the inside switch to its normal position, i. e., lined for a movement to the eastbound track. The flagman then went some distance away, anticipating that he would return in time to personally attend to his duties. During the interim, train No. 5941 passed and then Conductor Fenton telephoned to the operator at RO Block Station, obtaining permission to use the westbound track. Conductor Fenton maintained that he then beckoned to Brakeman Kramer, who was beyond the opposite end of the work extra, at a highway grade crossing, intending that the brakeman should come eastward and line the inside switch for the contemplated back-up movement to the westbound track and afford protection for the same, in the absence of the flagman. Conductor Fenton claimed that he merely beckoned to the brakeman, using only one hand to do so; Brakeman Kramer said he did not see the conductor give any sign, and Engineman Bair claimed that the conductor did not beckon, but gave a regular back-up signal, using both hands to do so. The low switch stand of the inside switch, which is not equipped with a target, was located on the opposite side of the cab from the engineman, who said he could not personally determine whether the switch was properly lined for the contemplated movement without getting off his engine,

and he was unaware that it was not lined for the westbound track until it was too late to avert the accident. There is a possibility that Conductor Fenton was laboring under the impression that the flagman left the inside switch lined for a movement back to the westbound main track, and that this was why he himself opened the main-line switch and gave a back-up signal, although the conductor emphatically maintained otherwise. If he knew this switch had been restored, however, then he should have allowed Brakeman Kramer to handle both switches and then afford such protection as was necessary, instead of misleading the engineman by opening the main-line switch and giving a signal that was taken for a back-up signal.

All of 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 service law.

Respectfully submitted,

W. P. BORLAND,

Director.