## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE BUFFALO, ROCHESTER AND PITTSBURGH RAILWAY NEAR WEST FALLS, N.Y., ON APRIL 22, 1929.

September 19, 1925.

To the Commission:

On April 22, 1929, there was a head-end collision between a freight train and a work train on the Buffalo, Rochester and Pittsburgh Railway near West Falls, N.Y., which resulted in the injury of nine employees, one of whom died the following day. This investigation was made in conjunction with representatives of the Public Service Commission of New York.

Location and method of operation

This accident occurred on the Ruffalo Division, which extends between Buffalo Creek and East Salamanca, N.Y., a distance of 58.03 miles, in the vicinity of the point of accident this is a single-track line over which trains are operated by time-table, train orders and an automatic block-signal system. The point of accident was 6,120 feet south of the station at West Falls, or 3,670 feet south of block signal B-147. Approaching this point from signal B-147 the track is tangent for a distance of 1,500 feet, followed by a 30 30 curve to the right 500 feet in length, the accident occurring at a point about 100 feet from the southern end of this curve; approaching from the south the track is tangent for a distance of 575 feet, followed by the curve on which this accident occurred. The grade for southbound trains is 0.4 per cent ascending at the point of accident. Due to a high embankment on the west side of the track, the range of vision for crews of southbound trains is limited to about 495 feet, while that for crews of northbound trains is limited to about 893 feet.

The automatic signal system is of the absolute permissive type. The signal involved, signal B-147, is an absolute signal of the three-position, upper-quadrant semaphore type, with a square end blade. Under the rules when a train is stopped by an absolute block signal on

410. 3.

single track, it may proceed when a caution or clear indication is displayed, but if such an indication is not displayed immediately the conductor or engineman will confer with the train dispatcher; if unable to communicate with the train dispatcher, the train is required to proceed under protection of a flag, as prescribed by rule 99, to the next caution or clear signal in advance, expecting to find block occupied, a switch open or the track broken or otherwise obstructed. It is also provided, in rule 100-B, that when work trains are moving against opposing trains they must send out a second flagman before rounding curves.

The weather was clear at the time of the accident, which occurred at about 9.40 a.m.

## Description

Northbound work extra 414 consisted of eight cars, hauled by engine 414, backing up, and was in charge of Conductor Ranson and Engineman Lubold. At Springville, 15 37 miles south of West Falls, a copy of train order No. 205, Form 19, was received, realing as follows:

"Eng 414 works 6.45 a.m. until 7.01 p.m. between Springville and Yates. Work extra 414 protects against third class trains between Springville and Yates."

Yates is 3.63 miles north of West Falls. Work extra 414 proceeded northward, and at Glenwood, 7.30 miles south of West Falls, Flagman Finton was sent ahead on train No. 60 to Jewettville, between West Falls and Yates, with instructions to have all trains look out for work extra 414 between Loveland, just north of Jewettville, and Glenwood. Work extra 414 then proceeded to Colden, 5.04 miles south of West Falls, departed from that point at 9.26 a.m., according to the block record, stopped en route to pick up some men, passed permissive block signal B-153, which is 2,790 feet south of the point of accident and was displaying a caution indication, and collided with train No. 43 while traveling at a speed variously estimated to have been from 2 to 15 miles per hour.

Southbound third-class freight train No. 43 consisted of one car and a caboose, hauled by engine 384, and was in charge of Conductor Merkt and Engineeran Devans. At Buffalo Creek, 13.7 miles north of West Falls, a copy of train order No. 205, Form 19, previously

quoted, was received. The train departed from Buffalo Creek at 6.50 a.m., according to the train sheet, five minutes late, and at Jewettville the crew received instruction from the flagman to look out for work extra 414 between Loveland and Glenwood. This train then proceeded to West Falls, departing from that point at 9.38 a.m., 59 minutes late, passed absolute block signal B-147, which was displaying a stop indication, and collided with work extra 414 while rounding the curve at a speed estimated to have been between 20 and 25 miles per hour.

The tender of engine 414 was derailed and considerably damaged, while damage was sustained by all of the equipment in train No. 43. The employee killed was the conductor of train No. 43, while those injured were the engineman, fireman and two trainmen of train No. 43 and the fireman, conductor, hoisting engineer and laborer of work extra 414.

## Summary of evidence

Engineman Lubold, of work extra 414, stated that his train proceeded from Springville toward West Falls, doing the necessary work en route, and clearing the main track when necessary for superior trains. After passing permissive signal B-158, displaying a caution indication, he proceeded slowly and shortly afterwards Brakenan Neudeck, who was standing by the window on the fireman's side and had a clear view across to the station at West Falls, informed him that he could see train No. 43 at that point. Engineman Lubold continued to operate his train at a speed that would enable him to bring it to a stop within half his range of vision but had proceeded only a short distance before he saw the approaching train on the curve. He immediately applied the air brakes in emergency, opened the sinders, sounded one blast of the whistle, warned the other men to get off and then jumped off himself. He thought that his train traveled a distance of about six car-lengths after he airst saw train No. 43 and he estimated the speed of his train at not more than 2 miles per hour at the time of the accident. The statements of Firenan Wolford, of extra \$14, practically corroborated those of Engineman Lubold as to the operation of their train xcept that he estimated its speed to have been about 15 miles per hour approaching the point of accident, but he was not sure as to whether this was its speed when the accident actually occurred.

Conductor Ransom, of work extra 414, stated that he sent a flagman to Jewettville on train No. 60 with instructions to have all trains look out for work extra 414 between Loveland and Glenwood. He noticed signal B-158 displaying a caution indication, and said he thought the train was traveling at a speed of about 5 miles when the air brakes were applied in emergency. The statements of Brakeman Neudeck and Flagman Colf, as well as those of Engineerin O'Hara and Fireman Butler, of the hoisting machine, brought out nothing additional of importance.

Flagman Finton stated that he left the work train at Glenwood and proceeded to Jewettville on train No. 60 with instructions to have all trains look out for work extra 414 between Loveland and Glenwood. He flagged several trains, among which was train No. 43, and he said the engineman read there flagging instructions aloud to his fireman. Flagman Finton thought that train No. 43 departed from Jewettville at about 9.21 a.m.

Engineman Devens, of train No. 43, stated that after reading the flagging instructions at Jewettville his train proceeded to West Falls, received a clear indication at the permissive signal at the north end of the passing track, and then stopped at West Falls and consumed 12 minutes in switching. After doing this work his train again proceeded, and he said he called the clear indication displayed by signal B-147 and that the firenan repeated it, and Engineman Devans said it was still in the clear position when his train passed under it. On entering the curve on which the accident occurred he had shut off the throttle, and he then saw extra 414 about 8 or 10 car-lengths distant. He immediately applied the air brakes in energency and sounded the whistle. Engineman Devans estimated the speed of his train to have been betueen 20 and 25 miles per hour between West Falls and the point of accident, and admitted that he did not have it under control in accordance with the flagging instructions received at Jewettville, and he understood that even if signal B-147 had been in the clear position, as he stated, yet it did not relieve him of the duty of operating his train in the expectation of finding the work extra at any point.

The statements of Fireman McVeen, of train No. 43, substantiated those of Engineman Dcvans. He added that when the engineman called "clear block" he looked out and saw the clear indication himself; they were then about 2,000 feet from the signal and they passed it at a speed of about 15 miles per hour, this speed being increased later to 20 or 25 miles per hour, and the train was traveling at this latter speed when rounding the curve. Fireman McVeen had been raking the fire just before passing under the signal, but he thought the snoke should have been raised over the caboose so as not to obscure the vision of anyone riding in the caboose cupola.

Brakeman Phillips, of train No. 43, stated that he was riding in the cupola of the caboose on leaving West Falls but did not observe the position of signal B-147 on account of the fact that smoke from the engine obscured his view. He estimated the speed at the time of the accident to have been about 20 or 25 miles per hour. He further stated that he knew of the orders his train held and also of the flagging instructions received at Jewettville. The statements of Brakemen Coulter and McClellan and Flagman Seider brought out nothing additional of importance; none of them observed the position of signal B-147.

The members of the crew of troin No. 43 except Engineman Devans, also stated that since the installation of automatic block signals it had not been customary for work trains to send out a second flagman when moving around curves, which statement was concurred in by all the members of the crew of work extra 414 with the possible exception of Flagman Finton, and he could not recall that he had ever been sent out as a second flagman.

Engineman Bader and Fireman Widner, of southbound train No. 3 stated that as they approached West Falls about 30 minutes after the occurrence of the accident the permissive signal at the north end of the siding signal B-139-was in the caution position and signal B-147 was in the stop position.

Signal Supervisor Darrow stated that shortly after arriving at the scene of the accident he went to a point of the embankment in order to obtain a view of signal B-147 and this signal was then in the stop position. Supervisor Darrow, in company with Signal Maintainer Colling and Assistant Superintendent of Police Connelly, inspected the relay box containing the relays for signal B-147, and the position of the relays indicated that the signal had been set to stop by the northbound train. Supervisor Darrow and Maintainer Colling, together with Division Engineer Hoyt and Readmaster Salinsky, walked back to signal B-158, inspected the relays, and found them in good condition. Supervisor Darrow remained at the scene of the accident until the track had been cleared and observed that the block signals cleared up properly. He then observed that the movement of train No. 6 from Colden, the first northbound train to move after the track had been cleared, caused signal B-147 to change to the stop position, where it remained until the rear end of that train had passed it. About a minute after this train had cleared signal B-147, extra 600, northbound, departed from Colden, and signal B-147 again went to the stop position and remained in that position until the train had passed, when the signal again assumed the proceed position. Scon afterwards train No. 59, southbound, approached, and once more he observed signal B-147 working properly.

The statements of Signal Maintainer Colling verified those of Supervisor Darrow as to the operation of the signals. He further stated that he stayed at West Falls all night, checking train movements in both directions, and found no irregularities whatever in the operation of signal B-147. The statements of Assistant Superintendent of Police Connelly, Master Mechanic Donaldson, and Roadmaster Salinsky brought out nothing additional of importance, being generally of a corroborative nature.

Assistant Superintendent McCarthy stated that he had not made it a practice to accompany work train except when picking up coal, wreckage, etc., and snow plows, and the trains he accompanied had complied with rule 100-B. He also said that all trainmen and enginemen are examined on the book of operating rules every two years and this particular rule is made clear to them, and there has been no change in the rule since the installation of the automatic block signals.

## Conclusions

This accident was caused by the failure of Engineman Devans and Fireman McVeen, of train No. 43, properly to observe and obey the stop indication of absolute signal B-147, and by the failure of Engineman Devans to operate his train under full control in accordance with flagging instructions.

Engineman Devans and Fireman McVeen said signal B-147 was in the clear position when their train passed it. This could not have been the case unless the signal were out of order, in view of the fact that extra 414 had entered on the control circuit at Colden several minutes prior to the departure of train No. 43 from West Falls. Examination of the signal mechanism shortly after the accident showed that the signal had been placed in the stop position by a northbound train, which could only have been extra 414; no repairs to the signal system were necessary as a result of the accident and subsequent checking and observation of its operation after the track had been cleared for the movement of trains indicated that it was operating properly, while signal B-147 also was displaying the proper indication when a following southbound train approached it shortly after the occurrence of the accident. Under the circuastances therefore, it is believed that this signal was in the stop position when train No. 43 left West Falls and that for some unknown reason its indication was not observed and obeyed.

Instructions had been received at Jewettville from the flag an of the work extra to look out for the work extra in the territory in which the accident occurred. Under these circumstances it was incumbent on Engineman Devans to operate his train under full control expecting to find the work extra at any point within the specified limits. Had he done so, instead of proceeding at a speed of 25 miles per hour at a point where his view was very much restricted, he should have been able to stop his train in time to avert the accident.

The majority of the members of the crews involved stated that since the installation of outomatic block signals it had not been customary for work trains running against opposing trains to send out a second flagman when moving around all curves, as required by rule 100-B, although on the other hand the assistant superintendent said his experience showed that rule 100-B had been observed. If the statements of these employees are correct, it has not been their practice to obey this rule, and it is incumbent upon the operating officials to take the necessary action to see that this practice does not continue and that the rules are properly obeyed by those whose actions they govern.

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.