## INTERSTATE COMMERCE COMMISSION

REPORT OF THE CHIEF INSPECTOR OF SAFETY APPLIANCES COVERING HIS INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE PENNSYLVANIA LINES WEST OF PITTS-BURGH, NEAR DRESDEN, OHIO, ON DECEMBER 3, 1912

FEBRUARY 18, 1913

TO THE COMMISSION

On December 3, 1912, there was a rear-end collision on the Pennsylvania Lines West of Pittsburgh, near Dresden, Ohio, which resulted in the death of 9 passengers and 2 employees and the injury of 3 passengers, 3 employees, and 1 mail clerk. After investigation of this accident and of the circumstances connected therewith, I beg to submit the following report

Westbound passenger train No 125 consisted of 1 combination mail, baggage, and express car and 1 coach, both of wooden construction, hauled by engine No 9828. The train was in charge of Conductor Sapp and Engineman Zeisloft. It left Trinway, Ohio, at 540 p. m., 22 minutes behind its scheduled time, and left Dresden at 549 p. m., 27 minutes late. At 555 p. m., when 3½ miles west of Dresden, the train was brought to a stop by the breaking of the pipe which supplies the air-whistle signal with air from the main air drum this broken pipe causing the air brakes to be applied. While repairs were being made by the engine crew the rear of the train was struck by train No 43

Westbound passenger train No 43 consisted of 1 combination mail, baggage, and express car and 2 coaches, all of wooden construction, hauled by engine No 9713—It was in charge of Conductor Evans and Engineman Bryant—This train left Trinway at 547 pm being five minutes late, and left Dresden at 554 pm, eight minutes late and five minutes behind train No 125—At 555 pm.—16 collided with train No. 125, as previously stated

The engine on train No 43 telescoped the coach on train No 125 for about two-thirds its length. All of those killed were in this car Engine No 9713 was considerably damaged, while both baggage cars were slightly damaged. None of the trucks was derailed under

any of the cars or under engine No 9713 It was estimated that the train was driven ahead 200 or 300 feet by the force of the collision

The Zanesville division of the Pennsylvania Lines, on which this accident occurred, is a single-track line No block system is in opera-Under rule No 91, trains running in the same direction are spaced five minutes apart except when closing up at stations The accident occurred about 350 feet west of a 2° curve 1,371 feet in length Approaching this curve from the east the track is straight for about three-fourths of a mile This straight track is on a descending grade for westbound trains From the beginning of the curve to some distance beyond where the accident happened the track is practically In the vicinity of the point of accident the track is in a cut about 300 feet long The walls of this cut are about 6 feet high on the south side and 12 feet high on the north side The view farther east is obscured by tiees. At the time of the accident it was dark and clear

The investigation of this accident disclosed the fact that train No 125 when running at a speed of 45 to 50 miles per hour was brought to a stop by the breaking of the pipe supplying air to the air-whistle signal This pipe had been reported on the preceding night as needing repairs Nothing was done, however, on account of the necessary material to make repairs not being available and the engine was sent out on its run in a defective condition estimates of the employees as to how long the train had been stopped prior to the collision varied from three to five minutes As soon as the train came to a stop the flagman started back with lanteins and to pedoes to protect his train, walking part of the time and part of He had probably reached a point from 1,000 to the time running 1 200 feet to the real of his train when he was passed by train No The engineman of that train could see him but a short distance 43 on account of being on the outside of the curve The fireman could have seen the markers of the train ahead a distance of about 1,500 feet had he been looking out on his side of the engine, but it appears that he had been putting in a fire and had just finished his work when the engineman applied the brakes The speed of train No 43 prior to the application of the brakes was estimated to be about 55 miles The engineman stated that when he saw the flagman he at once made a 10-pound reduction, immediately afterwards he saw the markers of train No 125, placed the brake valve in the emergency position, and reversed the engine

According to the time-card rule the speed of trains over this portion of the road is limited to 40 miles per hour. From the testimony of the crews of the trains here involved it appears that both exceeded the speed limit between Dresden and the point of collision, and that the speeds attained were not unusual.

All of the employees involved were experienced men with good records, and none had been on duty in violation of the provisions of the hours of service law

The direct cause of this accident was the inability of Flagman Koon to get back a distance sufficient to protect his train, coupled with his failure to use every means at his disposal in order to stop the approaching train. He went back as far as possible in the few minutes which elapsed between the time the train stopped and the collision, however, rule No 99A provides that when protecting a train a fusee must be used when the conditions require it. Flagman Koon kept his fusees in his train box, which was in the smoking compartment of the coach, instead of having them at the rear of the car where they would have been available for use in an emergency like this. He knew that train No 43 was following his train closely and had he kept fusees at the rear of the train and had he taken one with him and lighted it when going out to flag, the engineman of train No 43 might have seen its reflection in time to have brought his train to a stop and thus averted the collision

Conductor Sapp, under rule No 703, which holds conductors responsible for the conduct and proper attention to duty of trainmen under their supervision, is also to blame for not seeing to it that the flagman had all of his stop signals ready for use in case of emergency

Engineman Davis failed to obey the time-card rule limiting the speed of trains over this part of the division to 40 miles per hour Proper observance of this rule would have placed him in position to have stopped his train in a much less distance than was possible at the excessive rate of speed at which it was running. It seems evident, however, from the statements of employees that this time-card rule is not generally observed.

The railroad company failed to maintain engine No 9828 in proper repair and allowed it to be used when it was known to be in need of repairs. There appears to be no reasonable excuse for the occurrence of accidents of which one of the chief causes is equipment previously known to be defective.

In previous accident reports attention has been called to the inadequacy of certain standard code rules. Rule No 91 of the Pennsylvania Lines West of Pittsburgh, which is the same as the corresponding standard code rule, reads as follows

Unless some form of block signal is used, trains in the same direction must keep at least five minutes apart except when closing up at stations

This rule provides proper spacing of trains only in the vicinity of open stations. Should these open stations be far apart a fast train could easily overtake a slow train, while should a train come to an unexpected stop, as was the case in this instance, it might be im-

possible for the flagman to go back the distance necessary to protect his train. This rule is believed to be entirely inadequate to insure

proper protection

In the absence of some adequate form of block-signal system providing a space interval between trains, the time interval of five minutes provided by rule No 91 is not sufficient protection, and the rule should be changed so as to provide a greater time interval between trains running in the same direction

Respectfully submitted

H W Belnap, Chief Inspector of Safety Appliances

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