In re Investigation of an accident which occurred on the line of the Delaware & Hudson Company, near Cemetery, N. Y., on July 30, 1916.

On July 30, 1916, there was a side collision on the line of the Delaware & Hudson Company near Cemetery, N. Y., between a locomotive running light and a locomotive hauling one express car, both locomotives being operated backing up at the time of the collision, which resulted in the death of two employees and the injury of two employees. After investigation of this accident the Chief of the Division of Safety submits the following report:

Between Albany and Colonie, a distance of about five miles, this railroad is a double track line, equipped with normal danger, automatic block signals, indicators being placed at all hand-thrown switches. Commencing just north of Cemetery, there is a third track, which extends from this point to a point just south of Watervliet, about two miles distant. About 2.000 fest north of the station at Cemetery is a crossover connecting the north and southbound main tracks. Just north of this erossover is another crossover connecting the northbound main track with the third track, which is on the east side of the main tracks. Just north of this crossover switch is a switch leading from the third track to the Colonie shop yard. At the time of the accident the locomotive backing up with the express car had reached the third track, having backed out from the yard, and had stopped on the crossover connecting the third track with the northbound

main track, fouling the northbound track, when its tender was struck by the tender of the light locomotive, which was backing up on the northbound track. The view at the point of accident was unobstructed for a distance of about 3,000 feet, while the weather was clear.

Locomotive 850, in charge of Engineman Baugh and Fireman Wood, arrived at North Albany, hauling a freight train, at about 1.30 a.m. The locomotive was out off and at about 1.31 a.m. it was started, backing up, toward Colonie, using the northbound main track. On account of there being no oil in the lamp on the rear of the tender, a brakeman was riding on the rear, carrying his lighted lantern. On reaching the cross-over connecting the northbound main track with the third track, locomotive 850 collided with the tender of locomotive 428.

Locomotive 428, in charge of Conductor Benjamin and Engineman Weters, was to make the movement from the yard to the third track, and thence across the northbound main track to the southbound main track. The locomotive nad reached the third track, passed through the north crossover switch, and had stopped, fouling the northbound main track, when the collision occurred.

Both tenders were overturned, the fireman and brakeman on locomotive 850 being crushed under the wreckage and instantly killed.

Engineman Baugh, in charge of locomotive 850, stated that approaching the point of accident all of the signals

were clear, while the switch light on the facing point crossover switch leading from the northbound main track to the third track was also in the clear position. He stated that he was working steam, and that the speed of his locomotive was about 15 miles an hour; and the bell was ringing. He was sitting on the window sill, matching for signals, when the collision occurred. His locomotive started to swing, as though it was going to turn over, and he jumped.

Engineman Waters, of locomotive 428, stated that the switchtender threw the first switch of the crossover leading from the third track to the northbound main track, then proccoded to the next switch and set his lantern down, and no supposed that the switchtender was throwing the switch. The locomotive was backing up at a speed of about three miles an hour, and suddenly Conductor Benjamin came up on the left side of the cab and told him to wait a few minutes. He stopped and then saw the switchtender running across the track. Knowing that something must be wrong he tried to move shoad, but the wheels slipped, and before the locomotive could be moved out of the way the collision occurred. Enginemen Waters further stated that he did not at any time see anything of locomotive 850, and that the only signal given to him by the switchtender was a backup signal given when coming out of the yard. He depended on the fireman to watch out on the left side of the locomotive for the purpose of observing the northbound main track and the position of the switch. In this case, however, the firemen was in the tender and did not give him any signals. He knew that he was fouling the main track,

but stated that it was not his oustom to cross over any switches before he was positive that they were set, and in this case he sulposed they were set for the advance be was making. After the accident he asked the switchtender if he could see locomotive 350 coming, and he replied that he did see it coming and that he did not give any signal to back up.

Firewan Derrick, of locomotive 428, stated that he was in the tender at the time; that he did not see any light or other indication of the presence of locomotive 850, and that the first he knew of the collision was when it occurred. He had not noticed the position of any of the switches, and did not give any signals to the engineman. Fireman Derrick also stated that the locomotive was standing at the time the accident occurred, and that the headlight on the rear of the tender wes lighted.

Conductor Benjamin, in charge of locomotive 428, stated that he was on the left side of the baggage car looking from the north to see if enything was coming. Just before the first switch was reached everything was clear and he got off the baggage car and started for the locomotive. He boarded the pilot and in a short space of time saw a faint light, and then hurried to the cab on the firements side and told the enginemen, who was working steam at the time, to stop. Conductor Benjamin further stated that he did not at any time notice the position of the switches, transmit any signals, or see any signals given by the switchtender.

Switchtender Herrissey stated that no saw locomotive 428 coming out of the yerd and started for the switch. He then heard locomotive 350 whistle for the road crossing at Cemetery and stood at the awitch until locomotive 850 was about half way between Cemetory and the first switch leading from the northbound to the southbound win trees. He then threw the first switch of the crossover on the third track leading to the northbound rain track, and attried to walk toward the next switch. He then heard locomotive 428 working steem, and, turning around quickly, gave Engineern Waters a stop signal. This signal was not observed, and he whistled and again gave him a stop signel. Locorotive 428 was then stopped, fouling the northbound main track, the collision occurring almost immediately thereafter. He stated that he had not given any proceed alguals to Engineman Waters. Rule No. 104-B. of the rules for the government of the transportation department, provides as follows:

"While a train is waiting to cross over and during the passage of another train on any main track, both switches of any crossover leading to such track must be secured in the normal position."

When asked if he was aware that the switches were always to be left normal when a train was passing, Switchtender Morriesey stated that he had always handled them as in this case, lining up the switches as fer as the cain track, and having locomotives stop clear of the main track. Le also stated, however, that a few days previously he had been instructed never to give a proceed signal until both switches

had been thrown, but that he had never heard of rule No. 104-B until after the accident, and that he had not been examined on the rules.

The investigation developed a disagreement between Switchtender Morrissey and Enginemen Waters as to the manner in which the crossover switches were ordinarily handled. Rule No. 503-E reads as follows:

"Both switches of a crossover must be opened before a train starts to make a cross-over movement, and the movement must be completed before either switch is restored to normal position."

Switchtender Morrissey claimed that he always threw the first switch, regardless of the position of the switch indicator, while Engineman Waters claimed that never before had be known of the switch tender throwing the first switch until they were ready to make the full crossover movement. The fact remains, however, that Enginemen Waters started to make the crossover movement after the first switch had been thrown, and was prevented from completing it only by Conductor Benjamin telling him to stop.

It also developed from the statements of Enginemen
Waters and Switchtender Morrissey that the movement by extra
428 was to be made vithout rotection, in violation of rule
No. 152, which reads as follows:

"(Double, three or more tracks) When a train erosses over to, or obstricts snother track, unless otherwise provided it must first be protected as prescribed by rule 99, in both directions on that track." The switchtender stated that regardless of weather conditions, no protection to crossover movements at this point was ever afforded, and this statement was agreed to by Engineeran Waters, while Trainmaster Griffin stated that he had known of rule No. 152 being violated.

This accident was caused by Switchtender Morrissey disregarding the position of the switch indicator and opening the oresever switch connecting the third track with the north-bound main track when he knew that extra 850 was approaching on the main track, this action being in violation of rule No. 104-B which requires that both crossover switches be secured in the normal position during the passage of a train on the main track.

Over movement before both of the crossover switches had been opened, this being in violation of rule No. 503-E. Engineman Waters, together with Conductor Benjamin, is at fault for starting the crossover movement without rotestion, in violation of rule No. 152. According to his own statement, Conductor Benjamin was in the door of the express car looking out, and he should not have allowed the crossover movement to start until it had been properly protected.

It clearly appears that there has been permitted to grow up at this point a loose and dangerous method of nandling train movements, rules provided for the purpose of affording adequate protection to such movements being habitually disregarded, while in the case of the rule requiring protection

officials, accidents of this character may be expected to officials, accidents of this character may be expected to officials.

Switchtender Morrissey was employed as a trummen in July, 1913, and resigned in October of the smae year. He was employed as a switchman in September, 1914, and resigned in November, 1915. On July 20, 1916, he was recomployed as a switchtender, and had been in service since that date. With regard to Ewitchtender Morrissey's knowledge of the rules, Superintendent Leany stated that in employing switchtenders it was the practice to break them in under the men they are to relieve, and also to have the yardmasters in charge instruct them in the different duties, and he stated that it was his understanding that this was done in the case of Switchtender Morrissey.

Engineman Waters was employed as a fireman in 1887, and in 1890 was promoted to engineman. Conductor Benjamin was employed as a trainman in 1898 and was promoted to conductor in 1912. The records of these employees were good.

At the time of the ecoldent, Switchtender Morrissey had been on duty nearly 8 hours, after a period off duty of 12 hours. Engineman Waters had been on duty about 9 hours,

after a period off duty of about 11 hours. Conductor

Benjamin had been on duty about 8-1/2 hours, after a period

off duty of nearly 12 hours.