## March 5. 1912.

MIMORANDOM TO COMPLEMIONER MCCHORD:

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Relative to accident on the Boston & Maine Railroad, October 9, 1911.

Draft submitted by the Chief Inspector of Sefety Appliances as a basis for the report of the Commission.

On October 9, 1911, the Boston & Maine Railroad reported by telegraph a head-on collision occurring near Hampstond, N. H. No investigation of this accident was made at that time on account of not baving aspectors available. On Movember 17, the Public Service Commission of New Hampshire began an investigation. At the re uset of the engineman held responsible this investigation was continued, and on December 18, the Public Bervice Commission to uested that a representative of the Interstate Commerce Co mission be present at the continuation of the investigation. Desiring to ecoperate as far as possible with state commissions in the investigation of accidents. I arranged to be present at this hearing, and on December 22 joined the rubble Service Commission at Concord, N. H., and assisted in exceleting the investigation. This investigation developed the following facts:

West-bound freight train No. 346, consisting of 18 loaded cars and a cabose, and rauled by engine No. 1492, left Dearing Junction, No. 1.3 eastern terminal, at 9:46 p. m. October 8, for Ayer, Mass. At 12:46 a. p. October 9, at Rochester, N. R., a station fifty miles west of dearing Junction, it received train order No. 6, re ulring it to writ at Hampstead until 5 a. m. for east-bound freight train 85. 307. On reaching Epping, N. R., a station tranty miles boyed dachester, at 8:03 a. m., it received train order No. 13, stating that 2 ain No. 307 had rights over it from Nashua. N. R., to dad we. N. H., Windhes being the second station west of Rampstead. Train No. 346 failed to observe train order No. 6 and parced Lampstead at 211e asst of Hampstead.

Train No. 207, consisting of nineteen ears and a ceboose, and hauled by engine No. 1471, left Nachua, N. M., its western terminal, at 1:47 a. m., October 9, for Portland, No. Prior to leaving Nachua this train received train orders Nos. 6 and 13 mentioned above. On its acriv 1 at Windhem at 2:35 a. m., having sufficient time on order No. 6 to make Hampstoad, six wiles distant, it proceeded to and the station, colliding with train No. 346.

This accident caused the death of the enginemen of train No. 307. Both engines were builty damaged, as well as about 20 cars.

This division of the Boston & Maine Railroad is a single track line, and at the point of the socident is straight, with a slight down grade to the west. The accident cocurred about 300 or

400 feet west of a three-degree ourse, which prevented the enginemen from discovering the danger until too late to materially reduce the speed of their trains, which was between thirty and forty miles per hour. Notwithstanding the fact that this is a very busy division, more than thirty-two trains daily passing over this single track line, there is no block signal system in use, trains being operated by train orders. Standard code rules are used, with a few variations.

Train order Mo. 6. which was made complete and delivered to train No. 346 at Rochester at 12:48 a. m., reads as follows:

"No. 346 wait at Sandown until 2:40 two forty a.m., for No. 307, at hampstead until 3:00 three c.m., for No. 307, and at Windham until 3:25 three twenty-five a.m., for No. 309."

Train order No. 13, which was made complete and delivered to train No. 346 at Epping at 2:03 a.m., reals as follows:

"No. 305 neet No. 330 at Rampstond instead of Procest and No. 348 at Sandown instead of Epping: No. 707 has right over Nos. 358 and 346 Nashua Union Station to Windham."

Under rule No. 200 of the Rules and Regulations of the Operating Department of the Boston & Maine Railroad, a train order once in effect a ntimues so until falfilled, supercoded or annulled. Train order No. 6, re wiring that train No. 346 abould wait at Hampstead until 2:00 a.m., for train No. 307, not raving been fulfilled, superceded or annulled, was in effect and train No. 366 Tould have been governed accordingly.

On receipt of train order No. 13 at E.ping, the conductor anded the order to the bend brakemen, who in turn delivered it to the engineeran. Bule No. 210 requires that the engineeran's copy of the order must be delivered to him personally by the conductor, and that the engineeran must read his order aloud to the conductor before proceeding. This rule was not complied with by the conductor and engineeran of train No. 346.

After leaving Nowing a question was raised by the firman as to the right of train No. 346 to pass Hampstead before 3:00 s.m., and in this inscussion between the engineman, fireman and head brakeman, who was riling on the engine, it was decided by the engineman that order No. 13 annulled that part of order No. 6 pertaining to writing at Hampstead until 3:00 s.m. The conductor, flagran and rear brakeman of train No. 346 also had a descussion as to their right to pass Hampstead before 3:00 s.m., but it was finally decided by the acclustor that order No. 13 superseded or or No. 6 and t erefere the rights of train No. 346 ore not restricted at Hampstead.

The engineeran and conquetor of train No. 307 complied fully with the rules of the company upon receipt of orders Nos. 6 and 13

at Nashua Union Station, had a full and complete understanding as to their rights, and proceeded past Windham with the understanding that order No. 6 was in effect, and that train No. 546 would wait for them at Hampatesd until 3:00 a.m.

The Boston & Maine Railroad adopted standard rules June 21, 1909, and at the time of their adoption a general circular was issued calling attention to a number of important changes from the rules then in effect. Conductors and engineers promoted prior to this time were not examined as to the new rules, but all employees promoted since their adopted were required to pass a written examination. The conductor and engineers at fault had been in service twenty and eighteen years, respectively. They had not been examined on the etandard code rules now in effect, neither have any of the employees on this division been examined unless promoted after the adoption of the same. To insure safety it is obvious that the officials of the Beston & Maine Railroad should see to it that employees have a full and complete knowlades of the rules under which they operate.

This accident was caused by the failure of the conductor and engineers in charge of train No. 346 to obey and be governed by train order No. 8, requiring them to wait at Hampstond for train No. 307 until 3:00 a. m.

Respectfully submitted,

Chief Inspector of Safety Appliances.