IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE UNION PACIFIC RAILROAD WAR CORLETT JUNCTION, WYO., ON AUGUST 19, 1920.

September 4, 1920.

On August 19, 1920, there was a rear-end collision between two freight trains on the Union Pacific Railroad near Corlett Junction, Wwo., which resulted in the death of 2 employees. After investigation of this accident the Chief of the Bureau of Safety reports as follows.

This accident occurred on a double-track line over which trains are operated by time-table, train orders, and an automatic block-signal system. The signals are of the two-position, lover-quadrant type, the masts carrying alternate home and distant signals. The signals involved in this accident are home signal 5136, located 2,730 feet east of the junction switch at Corlett Junction; distant signal 5126, located 4,829 feet east of signal 5136, and home signal 5118, located 4,717 feet east of the caution signal. The track is tangent from Corlett Junction to the point of accident, a distance of about  $1\frac{1}{2}$  miles, with a descending grade for east-bound trains varying from 0.85 to 1.23 per cent. The weather was clear.

Eastbound freight train extra 3616 consisted of 64 cars and a caboose, hauled by engine 3616, and was in charge of Conductor Cannon and Engineman ReQuilhen. Extra 3616 left Corlett Junction at about 4-15 a.m., passed home signal 5136 in the clear position, distant signal 5126 in the coution position, and stopped at home signal 5118, which was in the stop position, the rear end of the train then being 848 feet east of distant signal 5126. The engineman then released the brakes and had just began to work steam when the brakes were applied as a result of the rear of the train being struck by extra 3604.

Eastbound froight train extra 3604 consisted of engine 3604 and a caboose, in charge of Conductor Talbot and Ingineran Brown. It arrived at Corlett Junction over the Colorado Division at about 4.15 a.m. There is no telegraph office at Corlett Junction, and before proceeding out upon the main line at that point it is recessary to obtain permission over the telephone from the main-line dispatcher to use the main line from that point to Cheyenne, a distance of about 4 miles. Conductor Talbot obtained the necessary authority to run over the main line to Cheyenne, Ayo., and after extra 3616 had passed the junction switch, extra 3604 headed out on the main lime, at about 4.20 a.m., and came to a stop at home signal 5136, which was displaying a stop indication Extra 3604 then proceeded, as allowed by the rules, passed distant signal 5126, which was displaying a caution indication, and collided with the rear end of extra 3616 at about 4.30 c m.

Slight damage was sustained by engine 3604, while the caboose and two cars of extra 3616 were destroyed and another car damaged. The employees killed were the conductor and flagman of extra 3616.

Enginemen McQuilken, of extra 3616, said he stopped for home signal 5118, released the brakes, and had just storted to move when the brakes began to stick and the train stopped. At that time neither he nor the firemen knew that there had been an accident. The enginemen thought the train had been stopped not more than 2 or 3 minutes, or about time enough for the brakes to be released, while the fireman thought the train had been stopped about 1 minute. The engineman said no trauble was experienced in starting the train from Corlett Junction and that no delays had been encountered until he recented distant signal 5126; he then began to reduce the speed, which had been about 15 or 20 miles an hour, in recainess to stop at home signal 5118.

Engineman From, of cutra 3604, stated that the markers on the cabbosk of extra 3616 were burning then it left Corlett Junction, which statement was verified by all the members of the crew of extra 3604. Ingluenan Brown said that after herding out on the main line and coming to a full stop at home tignal 5136, he proceeded slowly, shortly afterwards passing distant signal 5126 in the caution position, at this time he did not sie the markers of extra 3616 realized that extra 3616 was alread of him and said he was running slowly, looking sheed, but that he did not remember seeing the choose until he felt what no thought was the breaking of a rol, when he made an emergency application of the air brakes and found that his train had collided with the train sheed. He estimated the speed at the time to have been about 5 miles an hour. Engineers Brown as unable to account for net seeing the rear end of extra 3616, and although he said there was a possibility that he and foller raloop, still he did not think it massible as he distinctly remembered looking of the water glass and of the firemon within 10 or 15 seconds of the time of the accident. He was more inclined to think that on account of not noticing the morkers of extra 3616 he had been under the orinhubus impression that that train had presed around the curve near nome signal 5118 and that on account of that erroneous impression be too not votehing as closely as he should have bccn.

Firsman Buffington, of extra 3604, was on his sent box looking ahead when passing distant signal 5126, getting down on the deck of the engine just before the accident occurred. He was unable to recount for the fact that at no

time had he seen the markers of extra 3616. The conductor and two brokemen of extra 3604 were riding in the caboose at the time of the accident; they estimated that the speed was about 5 or 6 miles an hour.

Conductor Connon, Flagman Burke, and Head Brakeman Dennington, went off duty at 10.30 c.m., August 18, after having been on duty  $7\frac{1}{4}$  hours. According to Brakeman Dennington they then vent to a restaurant and returned to their caboose, the flagman and head brakeman going to bed at 11.00 c.m., while the conductor did not go to bed until about noon. At about 3.00 p.m. same other employees came into the caboose and were talking with them, and they finally got up at 4.30 p.m. Brakeman Dennington said that the conductor and flagman then went to nother caboose; he then went to est and returned to his caboose, but did not see the conductor and flagman again until after they were called to go on duty at 8.30 p.m. on the trip on which this acci est accurred.

Although the engine crow of extra 3604 did not notice the markers of extra 3616 perfore the accident occurred, all the members of the crow of extra 3604 saw them when extra 3616 departed from Carlett Junction, he which time they were builting brightly. After the accident the capola light was found to have been denolished, but the two markers were found on the ground, one on each side of the track, and there was oil in each of them. In view of this fact, it is believed that they were pursuing at the time of the accident, and that for some unknown reason they were not observed by the engine crow of extra 3604.

This accident was exused by the failure of Conductor Cannon and Flagman Burke, of extra 3616, properly to protect their train, and by the failure of Engineman Brown, of extra 3604, experly to be governed by signal indications and to maintain a proper watch of the track sheed. Fireman Buffington, of extra 3604, knew of the indications of the signals passed by his train, and was on his sect box looking sheed just before the accident occurred. Under these circumstances he must also share in the responsibility for this accident.

Rule 99 of this rollroad reads in part as follows.

"When a trun is moving under circumstaices in which it may be overtaken by another train, the flagman must take such action as may be necessary to insure full projection. By night, or by day when the view is obscured, lighted fusees must be thrown off at proper intervals."

When being brought to a stop at nome signal 5118, extra 3616 was in danger of being overtaken by another train,

and a proper regard for sofety should have prompted Flagman Purke to threw off a lighted fusee. There is no evidence, however, to indicate that any attempt was made to comply with the rule referred to above. Conductor Cannon unbrubtedly was in the cabases with Flagman Burke, the bodies of both men being found in the wreelage of the cabose, and is equally responsible with the flagman for not seeing to it that proper protection was provided. Had either of these implayees complied with the rule, it is possible that this acci out hight have been prevented, in spite of the negligance of the engine erow of extra 3604.

Neither Engineers are reason for their failure to see the markers of extra 3616. They had observed the nutomatic signals displaying the proper indications, and knew that there was another than immediately should of them, and in view of the straight track, favorable weather conditions, and the fact that the electric healight with which their engine was equipped was burning properly, there can be no excuse for their failure to see the markers of extra 3616 in time to avert the accident.

Conflictor Calmon was employed as a brakeman in March, 1917, and promoted to conflictor in November, 1918. Flagman Burke was captured as a brakeman in July, 1920; he had had previous experience on other railreads. Engineman Brown was employed as a fireful in 1898 and promoted to engineers in 1903. Fireful Buffilgton was employed as a fireman in 1916. The records of all of these captures were good.

The crew of extra 3616 had been an duty about  $8\frac{1}{2}$  hours, provious to which the engine crow had been off duty 8 hours or a record the train error  $9\frac{1}{2}$  hours. The crew of extra 3604 had been in duty about  $11\frac{1}{4}$  hours, provious to which angineman Brown had been off duty about 42 hours, Fireman Buffington about  $10\frac{1}{2}$  hours, and the train crow nearly 12 hours.