In reinvestigation of an accident which occurred on the Great Northern Reiling near Twoed, Mont.. Movember 11, 1917.

Pecemb r 12, 1917.

On November 11, 1917, there was a head-end collision between two freight trains on the wrent Northern Ballsay near Tweed, Mont., which resulted in the death of two employees and the injury of one employee. After investigation the Chief of the Survey of Safety reports as follows:

The Second District of the 4 limpell Division upon which this accident occurred extends from Whitefish to Troy, Mont., a distance of 134.6 miles, and is a single trace line ov a which trains are operated by time table and train orders, no block signal system using in use. It in orders transmitted by telegraph and by telephone.

Estound extre 3063 consisted of 54 loaded owns, I coach and a c boose, with a tonnege of Z,200 tons, haulad by locometive 3063, and was in charge of Canductor Malker and Enginemen Lortcher. This train left Troy t 1.00 p. m., passed extend, 41 miles and of Troy, at 4.30 ... m., where the crew received train opens No. 23, reading as follows:

Extra 3063 east meet extra 130% west at Ural. Upon arrival at ral, 9.9 miles east of Farland, the enginement saw extra 1300 on the passing tr ex there which he mistook for extra 1304, passed Ural vithout reducing speed at about 4.43 p. m., and collided with extra 1304 at a point bout 4 miles east of there while manning at a speed of 25 or 30 mil s as hour.

Testbound extra 13% consisted of 65 cers and a onboose, having a tone so of 1,850 tone, housed by locomotive 1374, and was in charge of Conductor Penjamin and Enginemen Gutensohn. It last whitesist at 2.55 s.m., and uson arrival at Stonehill, 5.6 miles and of Tweed, the crew r ceived arein order No. 237, above voted, lest there at 4.36 p.m. and collided with extra 3063 at a joint about 6 miles went of Stonehill and a short distance west of Tweed, at about 5.00 p. m., while running at a speed of about 75 miles an hour.

The enginement and firement of struction that the killed. Locometive 3063 are considerably damaged, its trucks term offered driver derailed, and the cabent its fixtures destroyed; the tender disterness to loose from its frame and thrown to the right of the track; the tender frame was proken to se from the locometive, budy bent and broken, and came to rest to the left of and bout 20 feet from the locometive; the first four ears behind the locometive were destroyed with their

contents. Locomotive 1324 was badly damaged, its trucks and drivers depailed, entitle cab destroy d, while the tender distern we term from its frame. The first seven dars, which were of wooden construction, were destroyed; the eighth or, which was of steel construction, was thrown to the left of the trock about 30 feet but not seriously damaged; the up or structures of the forty-second and forty-third cars, which had steel underframes, were destroyed, while the forty-fourth, forty-fifth, and forty-sixth cars, which were of wooden construction, were destroyed.

The treek in this vicinity follows the Kootenai liver and is made up of a series of curves and is precically level at point of accident. There are renges of mountains covered with timber on both sides of the river, but the right of way is cleared of timber for a distance of about 60 feet on each side of the track. Approaching the point of accident from the west there is a tangent, 2,900 feet long, followed by a 56-minute curve to the right, 6,400 feet long, the collision occurring on about the center of this curve. On account of the curves and trees it is probable that approaching anginemen could not see each other at a distance greater than 600 feet. The weather at the time was cloudy.

Anginemen Lortcher stated that when he reached Unal he saw a train with a 1300 class engine standing there and he was trying to ascertain the number of the engine when the enginemen on extra 1300 called out something to him which he thought was 1324, and assumed that the train there was extra 1324. He stated that he passed through Unal at a speed of about 25 miles an hour and passed by the locanotive there within four or five feet of it. He said the engine number on extra 1300 was not distinct on account of being covered with dirt. He did not see extra 1374 until within about 15 car lengths of it, and then applied the air brakes in emergency and jumped.

Conductor Walker, of extra 3063, stated that he received a copy of train order No. 239 at extrand to meet extra 1374 at Ural, and has his train passed through Ural at a speed of about 25 miles an hour he was riding on the rear platform of the caboose and saw a train with a 1300 class engine on the passing track there, but could not and the number on the engine. When he passed the obboose of the train Conductor Ramey of that train called out something to him about "the 24" and he answered him with a hand signal indicating that he matter was all right, went back into the caboose thinking that the train he had passed was extra 1324, and did not know differently until the accident co-curred. He said he did not notice the indicators on the caboose of the train standing at Ural, but felt a timbled

at the tile that he had passed eltra 1324, and on account of it being Sunday he had no idea there was any other train on the line. He said it was cloudy and dark when they passed through Ural and the engine number being almost obscured by dirt prevented him from properly identifying that train, but admitted he should have identified the train standing there before proceeding further.

Hend Brokeman Kelley, of extre 3063, said he was standing in the gangway on the engineman's side when his train pessed through Ural, new a locomotive standing there with a figure 13 on it, heard the enginemen on that locomotive call out something that sounded like 1374, and assumed that it was extra 1324.

hear Brakemen Chapman, of extra 306), stated he was riding on the rear platform of the occose of his train as it parsed Ural, new a train standing there with a figure 13 on the locomotive and assumed it was extra 1374. He said he could not see the number on the locamotive distinctly on account of escaping steem.

Fireman Payne, of extra 3063, stated that he did not the the mumber on the localotive standing at Ural, but as they pased there Engineman Lortoher said "The are in the clear" and he assumed that the train there was extra 1324.

Conductor hamey, of extra 1300, atated that his train was standing on the passing track at Ural when extra 3063 passed there, and knowing that that train as to most extra 324 there and thinking his train might be mistaken for extra 1374, he called to the conductor of extra 3063 that his train was extra 1300 and not extra 1324. Then extra 3063 passed him the crew called to him they were not soing to stop and when it hid not stop he thought he had been mistaken bout extra 3063 and extra 1324 meeting at Ural and made no front to stop extra 3063.

This coident was caused by the failure of the orew o extra 3 63 to obey a train order and meet extra 13% at Ural.

The oraw of extra 3063 received and understood train order No. 339 and spected to seet a re 1374 at Ural. Upon their arrival their they saw extra 1300 on the passing track and erroneously assumed that it was extra 1374 and passed through U at at a speed of about 75 miles on hour without making sure of its identity. They all stated that the engine number on as re 1370 was not distinct, and taking that in connect on with the speed at which they passed extra 13.0, about 5 f a sway from it and as it was no rely dark at the time, they were prossly carcless in not positively indentifying the train on the passing track at Ural before passing there.

Such dereliction of cuty on their part is inexcusable and was the direct cause of this accident.

Conductor Talker was employed as brakemen on September 30, 1914, and promoted to conductor on October 3, 1916. He had had about eight ye r's experience as a brakemen before entering the service of the Great Northern Redley. Incinemen Lortcher was employed as a firmen on May 11, 1910, and promoted to enginemen on September 23, 1916. Grakemen Chapman was employed as a brakemen on Ceptember 22, 1914. Drakemen Kelley was employed as a brakemen on August 1, 1917, after having had three year's experience on another redread. Firmen Payme was employed as such on May 23, 1917, resigned on August 25, 1917, and re-employed on October 16, 1917. All of these employees had good records and at the time of the accident they had been on duty about six hours.

J. O. T.