IN HE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE CHEMAPHAKE & ONIO HAILWAY, AT KESSICK, VA., HOVEMBER 2. 1915.

On November 2, 1915, there was a rear-end collision between two extra freight trains on the Checapeake & Obio Railway at Keswick. Va., which resulted in the death of 3 employees.

After investig tion of this accident the Chief of the Division of Safety submits the following report:

The Piedmont District of the Richard Division of the Chesapeake & Chio Railway, on which this accident cocurred, is a single track line. The movement of trains is governed by time-table, train orders and a manual block signal system, orders being transmitted by telephone, an planented by the telegraph. Freight trains are permitted to enter an occupied block with a caution card authorized by the disputcher. Unless protected by block signals following movements are spaced ten minutes apart. The point of collision was about 14 feet west of the station at Eeswick, on a curve of \$ legrees, 1485 feet in length, this curve leading to the right for eastbound trains. On account of a bluff on the inside of the curve the maximum range of vision is limited to about 800 feet. The price is this point is 0.68 percent descending for eastbound trains. The weather was clear.

Rastbound freight train extra 663 consisted of 13 cars and a deboose, hauled by localitive 665, and was in charge of Conductor Jentry and Engineers Millard. It left Charlottesville, Va., as about 10:15 p.m., and in 10:19 p.m. stopped for orders at Kenwick, the first station each of Charlottesville, and 7.3 miles

distant therefrom. The train had been standing at Kesvick about one minute when it was struck by eastbound freight train extra 599.

Eastbound froight train extra 500 consisted of locomotives 500 and 517, backing up, and hauling a cabcose, and was
in charge of Conductor Souder. Engineers Vass on Locomotive 500,
and Engineers Canzert on Locomotive 510. This extra left Charlottesville shortly after extra 565, baving received train order
No. 32 to run extra Charlottesville to Lindsay, as well as eaution card, form 8, reading as follows:

"Charlottesville Block Station 11/9/1915. Time 9105 P.M. Conductor and Engineers Tr. No. 509 East will proceed sauticusly from Charlottesville to Esswick, expecting to find the last Eastbound train Ex. No. 563 that passed here at M. Shackleford, Jignulpan."

(Conductor end Tagineman must each bave copy of this card.)

at Kewrick extra 500 collided with the rear end of exton 385 while running as a speed of about 18 miles yer hour. The anginesses and the firemen on the leading locomotive, 590, were killed, as were also the head brakemen, who was riding on this locomotive.

As a result of the collision, locametive 55% was turned over down a 30-foot fill on the right side of the track, coming to rest better upward about 40 feet from the track. The cobsceed and the rear our of extra 563 were demolished and consumed by a fire that started at the time of the accident, and the second car from the rear of this train was badly damaged and was destroyed by the wrecking craw.

Conductor Gentry, of extra 563, stated that he started from Charlottesville at 10:15 p.m., leaving the switch at the

east end of the yard in charge of the eres of extra COS, and arrived at Keswick at 10:20 p.m. As soon as his train stopped at Keswick he told his flagman to go back and lock out for the following train, although he had not seen extra 500 at any place between Charlottesville and Keswick, and the flagman got a fusce immediately and started back on a run. He further stated that he heard the approaching extra sound one black of the whichle, but he could not say how far the extra was from his eshouse at that time. The cabonse markers were burning at the time of the applicant, which occurred at 10:30 p.m.

Enginemen Dillard of extre 563 stated that they lef Charlottesville at 10:10 p.m., that he did not know exactly what time they arrived at Keswick, but that the order they received at that point was signed at 10:30 p.m. He stated that he did not whistle out a flag when he sto, ped at Keswick and that he had been standing at the station but a very short time - not more than two minutes - when the accident occurred.

Charlottesville at 10:19 p.m., arrived at Koszick at 10:39 p.m., and was strick by extra 70% to 10:00 p.m. He stated that so soon as his train sloved up he sot a torpedo, white lentern and a fusee, which he lighted, and when he reached the rear platform of the caboose he heard extra 500 coming. He jusped off and started back on a run, but at this time he could not see extra 500 because of the cut and the hill on the incide of the curve. He stated that he run back about 400 fact from his caboose, giving step signals with his fusee, and that he heard one short blast of the which in answer to his signals. He stated that the brakes on extra 500

were applied and the wheels sliding, and in his opinion the train was running about 18 miles an hour when it passed him.

Head Brakeman Duke of extra 505 stated that his train left Charlott eville at 10:15 p.m., arrived at Kaswick at 10:29 p.m., and that the accident bappened so he was getting on the loomastive to deliver to the engineers an order received at Keswick. He stated that his train had been there possibly a minute or two.

Conductor Jouder of extra 590 stated that 15 was 10:15 time when his train are leaving the yard at Charlottesville. He stated that he showed the caution card to Engineers Concert on the second locumotive, and then gave it to Engineeum Veum on the loading locomotive. He further stated that before leaving Charlottesville he handed the caution card to Engineers Vanu and said: "Hore's the card, Ice, we are going to follow this man," but that he said nothing to him as to how to regulate his speed. He stated that he told the orew of extre 555 to go ahead, that he would close the switch for them, as his train was going to use it: had not seen the orders held b- Condustor Gentry and did not know that extra 360 would stop at Keswick. His understanding as to the apped of a train running on a caution eard was that it should be under control, and, considering the grades and ourses, he thought that his train was not being run in accordance with good judgment and the requirements of the rules, and intended to remonstrate with his enginemen. He further stated that there was no reston why he could not have used the conductor's emergency valve to stop the train, as the air one out through from the leading locomotive to the esboose. He stated further that he know that, in accordance with instructions on the esution card. his train

should proceed carefully in following extra 563 from Charlottesville to Keswick. He stated that just befor the scaldent oucurred Brakeman Smith, who was sitting on the right side of the oupole, called to him to "look out," and then applied the sirbrakes by using the emergency valve in the caboose. Previous to this he had not heard any chistle signals sounded by the engineeen of his train, and had not felt any application of the brakes. He did not see the flagmen of extra 563 until after the accident occurred. It was his opinion that extra 863 may have left Charlotteeville at 10:05 pen. or a few minutes afterwards, but he thought 10 minutes had elapsed after it loft before his train pulled out. He stated that he knew the speed permitted trains when breking up was only 15 giles on hour, an. that his train was running from 30 to 25 miles an hour from Charlotteeville to Reswick, and thought that the speed of the train it the time of collision was about 1 miles an hour. He did not know exactly what time the accident occurred, as he did not look at his son at that time. He looked a few minutes afterwards, no ver, the it was then 10:04 p.s.

Engineers Cantert, on locomotive 517, the second locomotive of extra 599, Statelish to be had forgotten what time they left Charlottesville. He list act now what time extra 562 left, we he did not see it depart. He knew his train was running on a caution care following extra 1861, and in his opinion waited 18 minutes before they ulled out. He stated that approaching Essaich. Engineers Vans shut off thempose bout 350 yeards went of the point of the accident. Engineers Take whistled for brakes, and his firemen called to him the the saw the flagman. He stated—

that he felt the brakes being applied on his locomotive, that the condition of the brakes was good, and they did not look. He himself saw the flegman on the north side of the track just before the accident occurred; he was about 150 feet west of the cobcese, and was giving stop signals with a Burning fusce. He thought the speed of his train at the time of the accident was about 8 miles an hour and considered himself jointly responsible with any engineman with whom he might be double-heading for any violation of rules or orders.

between 10:10 p.m. and 10:1° p.m. when his train left Charlottesville, following extra 563 under a coution card. He did not know what sime extra 563 left, but he know that it left just shead of his train. He stated that approaching Keswick the exposes of extra 563 was about 8 our lengths away when he saw the markers, and at the same time he saw the fi-gman. He told his engineers that he saw the flagman giving stop signals with a fuses. He thought the s sed between Charlottesville and Keswick was over 15 miles an hour.

Flagman Delth , of entre 599, said that he looked at his watch at Chirlottowille when he and the conductor coupled the caboose to the locomotive, and it was then 10:10 p.m. He thought it took a couple of minutes to get out on the main track and three the switch, and that the train left between 10:10 p.m. and 10:12 p.m. He stated that I minutes must elapse before one freight train may follow another in the same block on a caution

mord, and thought extra 563 had been some from Charlottesville 6 or 8 minutes before his train left the cent and of the yarde He thought extre 500 was running from 15 to 80 miles an hour between Charlottenville and Keswick. and know the speed pormitted locometives backing up was but 15 miles an hour. He thought Enginemen Vacs exceeded the speed limit in some places, and so stated to Conductor Souder. He stated there was no reason why Condustor Souder could not have stopped the train, or reduced the speed with the emergency valve, if he had wanted to, but that he made no affort to do so. He stated that the engineers shut off then approaching Keewick, and that he saw the flagmen of extra 583 just before the accident cocurred, giving violent stop signole with a fusce, and thought he was about 6 or 7 car lengths from the ceboose. He stated that he did not bear any whictle signal. sounded by his enginemen, por iid be feel any application of the sir-brakes until he him olf a lit d them by using the emergency Talve.

Conductor Centry of extra 383 received his orders about 6:64 p.m., and that he incorrected the productor that the block would be clear upon the arrival of train No. 85. He did not know what time extra 563 left Charlottecville, but attered the time as \$10:15 p.m.," in accordance with report as make by Conductor Centry at Ea wick. He stated that when he gave a make 500 the saution eard he did not show on the eard the time extra 500 the saution eard he did not show in the eard the time extra 500 left Charles Ald not enter on the brook book the time extra 500 left Charlottesville.

Rule No. Fil of the Chesopeake & Ohio Railway provides

es follows:

when it is necessary to allow a train to follow another into a block, the signalman will leave caution card (Form B) when authorized by the train dispatcher or by Rule 319. A train shall not be allowed to enter a block cocupied by a passenger train, except as provided in Rule 310, or by special order.

In accordance with this rule a coution card was issued to extra 500, and it was permitted to follow extra 500 in the block, proceeding with caution, expecting to find the block occupied by that train. Time-table rule D limits the speed of

"Eninges running backward, with or without orrs, 15 miles per hour."

This investigation discloses that extra 563 left isradictely after. The erew of extra 599 admit that their train was moving at a speed in excess of that paralited by rule, and it is obvious that but very little attention, if any, was being paid to the requirements of the caution eard under which they were operating. The investigation further discloses that the air-brakes were in good working order, and there was no reason why Conducter Couder could not have controlled the speed of his train by means of the conductor's valve in the asboone, had he so desired. Extra 555 had been at Keswick only a minute or two, the flagmen had promptly started back to protect against the following extra, and had only been able to get back a short distance from his caboose when the following train ran past bin at a speed of 18 siles an hour or more, and collided with his train.

This ancident was equaed by the failure of the crow of extra 559 to run between Charlottesville and Koswick as required by caution ours, form B, which they received at Charlottesville,

permitting them to enter the block shile it was compled by extra 503, together with their failure to observe time-table rule D, which required them to run not to exceed 15 miles an hour while moving backward. for which Conductor Souder and Engineers Vase and Consert are responsible.

All the deployees connected with this decident were experienced men with good records, thoroughly familiar with the district over which they were operating, and had been on duty about two hours to the time of the accident.