INV. 314 ... January 7. 1916.

IN RE INVESTIGATION OF AN ACCIDENT WEIGH COURTED ON THE ATCHISON, TOPERA & SANTA PE RAILWAY, NEAR SCIENCE, CALIF., DEC. 18, 1915.

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On December 12, 1915, there was a head-end collision between a passenger train and a freight train on the Atchison, Topeka, & Sonta Pe Bailway, near Mormon, Cal., which resulted in the death of the engineers of the passenger train and the firemen of the freight train, and the injury of 5 employees of the railroad, 2 Pullman employees and 5 passengers. After investigation of this accident the Chief of the Division of Safety subsite the following reports

This part of the Atchison, Topoka & Sapta Fo Railway
is a single track line. No block signal system is in use, trains
being operated by time-table and train orders. Rule No. 93 of the
Rules and Regulations of the Operating Department of the Santa Fo
reads as follows:

"Stations having yard limits will be designated in special rule in time-table. All trains and engines will have the right to work within such yard limits regardless of second or third class trains or extras, but will give way as soon as possible upon their approach.

"All except first class trains will approach timits under central. The responsibility for secident at such points will rest with the approaching trains."

In eddition to this rule, first class trains, when 10 minutes or more late, are required to approach certain points - Moreon among them - under control. This requirement is a part of Special Rule No. 0 in the surrent time-table, and reads as follows:

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"First-class trains when ten minutes or more late are required to approach and leave Kern Function, Bekersfield, Corostan, Reedley, Calva-Fresho, Riverbank, Stockton-Mormon, Richmond-Ferry Point, and Cakland, under control, and responsibility for seeldent will rest with the first class train."

A Walley Hill

The collision occurred at a point 1,008 feet east of the east ewitch, and 1,452 feet inside of the eastern yard limit board. All of the track between the yard limit board and the ewitch, a distance of nearly one-half mile, is on a curve of 8 degrees leading to the left for westbound trains. Approaching this curve from the east the track is on a tengent about 3,400 feet in length and is practically level. From the firemen's side of the locomotive the point of accident could be seen a distance of nearly one mile. It was raining at the time of the accident.

Eastbound freight brain entra 498 was in charge of Conductor Pryor and Engineeran Scott. After train No. 5 passed Mormon,
at 3:06 p.m., the forward portion of extra 498, consisting of the
locomotive and 25 refrigerator cers, was pulled out of the icehouse
track on to the ladder connecting the various sidetracks with the
main line, the intention being to clear the switch leading to track,
No. 1, and then back up and couple to the rear portion of the train,
which was occupying that track. The main line switch is only 116
feet from the switch leading to No. 1 track, and therefore it was
necessary for extra 498 to pull practically all of the 25 cars out
on the main line before it could back in on track No. 1. No flagman was sent out to protect the movement, however, on account of
the fact that train No. 9 was more than 10 minutes late and therefore was required to be under control, secording to Special Rule.

No. 9, quoted above. It was just after extra 408 had pulled out on the main line and had some to a stop that it was struck by west-bound passenger train No. 9.

Westbound train No. 8 consisted of one combination mail and baggage car, one excking ear, two chair care, two tourist sleep-ine care, and one standard sleeping car, hauled by locamotive lill, and was in charge of Conductor Copeland and Engineeran Wing. It passed Burnham, Cal., 7.3 miles cast of Mormon, at Sild p.m., 50 minutes late, and collided with extra 498 at Si20 p.m. The average speed of the train had therefore been about 65 or 70 miles an hour between the two points. The speed at the time of the collision is estimated to have been about 35 or 40 miles per hour.

Both locomotives were derailed and badly damaged, locomotive 1211 being turned completely around. The forward end of the
commutation car was telescoped by the tender of locomotive 1211 and
was derailed on the north side of the track. The smoking car was
also derailed and quite badly damaged, while slight damage was susteined by all of the other cars in the train. One of the cars in
extra 498 was destroyed and two others were damaged.

Firemen Watson, of train No. 5, stated that when he first saw the freight train, about one-half mile distant, he told the enginemen that there was a train should but that he did not know whether or not it was on the main line, and that he had better reduce the speed, which at this time was 60 miles an hour, or more. The enginemen immediately placed the brake valve in the service position. The firemen stated that he then put his head out of the window in order to get a better view, and in a few seconds he saw

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that the freight train was on the main line and told the enginement to apply the energency brakes, which he did. At this time the train was rounding the curve. Then the trains were four or five comen lengths apart he saw that a collision was inevitable and told the enginement to jump. He then get off, and stated that he thought the speed of the train at this time was 55 or 40 miles as hour. Firemen Vatson further stated that when leaving Riverbank, the last stopping point, a running test was made of the six brakes and that they worked all right. He said that while the brakes held when the emergency application was made, account in to Mormon, they did not seem to hold as well as they should. He further stated that at the time he first saw the freight train, no smoke was issuing from the locametive, but he was quite positive that after he first saw the train it moved at length over 10 car lengths toward his own train.

cation of the air brakes, followed shortly by the impact of the collision; he did not think the brakes had been applied in emergency. He estimated the speed at the time the brakes were applied to have been at least 60 miles an hour, and stated the accident occurred between 3:19 and 3:20 ph. Head Brakesan Heaster, who was riding in the smaking car, stated that there were two applications of the air brakes, the last one, which was the heaviest application, coming within a few seconds of the first application. He knew that the engineers had used all the six he had end when he heard a whistle counted he thought there was something sheed and slid down and brough himself between the seats in the ear. He thought that the train was about at the beginning of the surve at the time that

second application of the brakes was made, and that the speed was of tell volles an hour, Braness Seaster etated further that be observed the terminal mir brake tests made by the improstors at Riverback and that a running test of the brakes was made leaving that station. Flagmen Adelson stated that a running test of the air brokes was sade leaving Eiverbank and the train was slowed down to a speed of about 5 miles am hour from a speed of 20 miles an hour, before the brakes were released. The speed had been between 60 and 65 miles an hour when the brakes were applied at a point more than a mile east of the gord limit board, reducing the speed probably 10 miles as hour, and then released. Just before the yard limit board was passed, a heavy application of the brakes was made, the collision occurring a few seconds afterwards. He thought that the speed of the train was about 35 miles an hour when near the yard limit board, and that is was reduced to 25 or 28 miles an hour at the time of the collision.

Engineman Scott, of extra 498, stated that when his train was ready to be pulled out on the main line for the purpose of getting the train together on track No. 1, the head brakemen asked him if he would have to fing and he told the brakemen that he would not have to do so, as train No. 2 was more than 10 minutes late. The head brakemen then exceed the switch and he pulled the 25 refrigerator care out on the main line. He stated that he was looking sheed carefully to see if train No. 2 was coming, but that on account of trees it was nearly impossible to see a train soming unless its locomotive was making some smoke. Then his train had just cleared the switch he saw train No. 2 coming about 1,000

the yard limit board, at a speed of 60 miles on hour So then eterped his train, using the independent brake, stating that he did not use the energency brake because it would have taken longer to release the brukes and be wanted to back his train out of the way of train No. 4 as seen as possible so as not to delay 10. He realized that his locamotive was quite a distance beyond the east switch and when he saw the speed at which train No. 9 was coming he thought they would be fortunate if they stopped without colliding with his train. He then told his firemen to enuse the engine to make so that the orew of train No. 9 could see them. In a few excounts train No. 8 was well incide of the yord limit board and he told the firemen that he did not think they would be able to stop. When train No. 9 was within 15 car lengths of his train he told the firemen to Juny, at the same time getting out of the sab window. He thought the speed of the train was 35 or 40 miles an hour at the time of the collision, and stated that his locomotive was standing and that he did not make any attempt to back his train, because with the 25 cars being bandled there was not sufficient time to get then moving backward fast enough to do any good.

arrivel of train No. 5 he instructed his beed brakemen that as soon as the train passed Mormon he should pull out on the main track and double their train over on track No. 1. He stated that he thought he would have planty of time to make this move without delaying train No. 9. He stated further state special rule No. 9 in the time-table was there for the express purpose of permitting -

protection, and that in making this movement he was following the usual practice, as the rule required all first-class trains, if ten minutes or more late, to approach such yards under full control. He was in his schools at the time the accident occurred and did not see train No. 5 approaching.

This accident was caused by the failure of Engineeran Wing, of train No. 5, to have his train under control approaching Mormon. His train was more than 10 minutes late, and he should have been governed by that part of Special Rule No. 9, current time-table, which requires first-class trains 10 minutes late, or more, to approach Mormon under control, and which specifically states that responsibility for accident will rest with the first class train.

Enginemen Wing had been employed on the Horthern Pacific Rellway as firman and enginemen from 1884 to 1888, when he resigned to enter the service of the Atchison, Topeka & Santa Fe Reilway as an enginemen. He had a good record, and at the time of the accident had been on duty about two hours.