In re investigation of an accident which occurred on the Seaboard Air Line Reil-way near Kittrell, N. C., June 30, 1917.

August 24, 1917.

On June 30, 1917, there was a head-and collision between two freight trains on the Seaboard Air Line Railway, about three miles south of Kittrell, M. C., which resulted in the death of four employees and the injury of two employees. After investigation the Chief of the Division of Safety reports as follows:

The Raleigh District of the Virginia Division of the Seaboard Air Line Railway on which this accident cocurred, is a single track line extending between Raleigh, H. C. and Morlina, M. C., a distance of fifty-eight miles. The general direction is north and south and trains are operated by time-table and train orders, under a manual block signal system. One train is allowed to follow another into a block only by a permissive block card issued upon authority of the Super-intendent.

The semaphore type of block signal is used, and when train orders are to be delivered at a station a red flag by day and a red lantern by night is displayed in addition to the block signal. Train orders are transmitted by telephone, the telegraph being used as an auxiliary in ease of necessity. The weather at time of accident was clear with slight overhauging fog.

The trains involved in this socident were southbound freight train No. 89, consisting of 39 loads and a caboose, houled by engine 317, in charge of Conductor Drake and Engineman Gasking, and northbound extra freight train No. 312, consisting of 48 loads and caboose, in charge of Conductor Elmore and Engineman Linkous.

Trein No. 89 left Portsmouth, Va. at 10.40 p. m., June 29th, on route to Raleigh, and at Norlina the north end of the Raleigh District, the orew in charge received train order No. 29, reading as follows:

"Engine 518 will run Extra Johnson St. to Morlina and meet No. 89, Engine 317 at Kittrell, and No. 85, Engine 316, at Norlina."

Train No. 39 left Norline at 5.00 o'clock a. m., June 30th, met No. 35 at Middleburg, stepped at Henderson and set off some care, then proceeded to Kittrell, where trein order No. 48 was received reading as follows:

"Extre 318 north will meet No. 69, engine 517, at Franklinton instead of Kittrell; Extre 318 will take siding on southward pass track."

This order changed the meeting point between train No. 89 and extra 312 from Kittrell to Franklinton, 8.5 miles ferther south. Train No. 89 passed Kittrell at abut 6.84 s. m., and when about three miles south of that point sollided with extra 512 at a speed generally estimated for each train of about 30 miles per hour.

Extra 512 north left Johnson St., Raleigh, en route to Richmond, Va., at 4.50 a. m., having received a copy of train order No. 29, above referred to, together with a number of other orders, and arrived at Wake Forest, 16.2 miles from Johnson St., at 5.15 a. m., pulled into the siding, met No. 1, and left at 5.50 a. m. This train stopped at Youngville for water and passed Franklinton, the only open telegraph office between Wake Forest and the point of accident, at about 6.20 a. m. under a clear block signal, colliding with No. 39 about five miles north of Franklinton.

The force of the collision crashed the front and of the boilers, tore the boiler from the frame of each engine, wrecked 26 freight cars and damaged four others. The engines and tenders fell to the west side of the track with the wrecked cars heaped upon them. The wreckege caught fire and 26 freight cars were burned up, causing heavy additional damage to the locamotives. The bodies of the two enginemen, one fireman and one brakemen, who were killed and caught under the wreckage, were partially cremated.

Approaching the point of collision from the south, there is a tangent over a mile in length which passes over far River, followed by a 3 curve to the left, 660 feet in length, through a deep rook out to the point of accident.

Approaching from the north there is a long tangent, followed by a 40° curve though a cut 6 feet deep to a tangent 500 feet long, at the south end of which the collision occurred.

The track is skirted on both sides by woods, except that at the point where the trains met there is a short open space of cleared land.

Train No. 89 had been descending a 0.71% grade for a distance of about 5 miles, and extra 512 north had descended a 0.72% grade about 4 miles to Ter River and had ascended the 0.71% grade north of Tar River about three-quarters of a mile when the collision occurred. The view of the approaching

trains was limited to about three car lengths by the deep rock out and woods on the inside of the curve. The engineman on the northbound train, being on the outside of the curve, sould not see the approaching southbound train for more than two car lengths. The view of the engineman on the southbound train could not have been much greater, as the engine on the northbound train had just moved out of the cut when the collision occurred.

Conductor Drake, of train No. 89, stated that he received several orders at Norlina, among which was order No. 29, fixing a meeting point with extra 512 at Kittrell, and on arrival at Kittrell, order No. 49 was handed up to them, changing the meeting point to Franklinton and directing extra 512 north to take siding on the southbound passing track. Upon receipt of this order, they left Kittrell at about 6.20 a. m., expecting to meet extra 512 at Franklinton, and when about 5 miles south of Kittrell, his train came to a sudden stop. As the air brakes had gone on in the emergency, he thought an air hose had burst and he and his flagman hurried forward and found his train had collided with extra 512 at a point where his engineman could have seen the approaching train possibly only three car lengths. This statement was corroborated by his flagman.

Conductor Pimore, of extra 31% north, stated that he received train order No. 29 at Johnson Street Yard, Raleigh, together with several other orders left there at 4.30 a.m. and pulled into the siding at wake Forest about 5.15 a.m. to meet train No. 1. a southbound passenger train. After train No. 1 passed they left Wake Forest at 5.30 a.m., and stopped at Youngville for water. After leaving Youngville he and his flagman rode in the cupole of the caboose, he on the right side and his flagman on the left side, occupying these positions passing Franklinton and until the collision occurred. He stated further that the block signal at Franklinton was in the clear position and no train order signal was displayed.

Flagman Smith, of extra 312 north, stated that, owing to the delay at Wake Forest waiting for train No. 1, he was expecting to get an order at Franklinton to change the meeting point with train No. 89, but approaching Franklinton he observed the block signal in the clear position and no train order signal displayed. He "called" the signal to Conductor Elmore and received a response. As they passed the telegraph office at Franklinton, which was on his side of the tran, he observed the operator sitting at the table, turn his head and look at the passing train, but he made no other move.

Brakemen Jones, of extra 318 north, stated that approaching Franklinton he was riding on the fireman's seat box on the loft side of the engine and when they came in

sight of the block signal, it was stending in the clear position; no twain order signal was displayed. He called "White" to the enginemen and fireman, both of whom responded "White." He knew they had an order to meet train Ho. 89 at Kittrell. When coming out of the rook out about three-quarters of a mile north of Tar River, he saw train No. 89 approaching about one car length distan; he gave an alarm "look out." appears to the enginemen's side of the engine and jumped off, the collision occurring just about the time he struck the ground. The engine was using steam and he did not think the engineman who was sitting down, with his hand on the throttle, saw train No. 89 before the collision occurred.

Operator Clark, the third trick operator at Kittrell, working from 11.00 p. m. until 7.00 a. m., stated that between 6.06 and 6.10 m. m., the block between Kittrell and Franklinton having been cleared by southbound trains, he secured the block from the operator at Franklinton for trein No. 39, using Signal "37", as provided by Rule 323, signifying "Block northbound trains." At about 6.15 a. m. he received a "19" order for trein No. 89, changing the meeting point with extre 312 morth from Littrell to Franklinton. He heard the operator at Franklinton, in an even tone of voice, repeat the order sor-rectly except that he said "northward" instead of "southward" pass track, but when corrected by the dispatcher, asknowledged the mistake and corrected it. After Franklinton repeated the order, he also repeated the order and received complete from the dispatcher. He displayed the train order signal at 0.15 a. m. and handed the order up to train No. 89 while passing his station at 6.22 a. m. He then reported train No. 89 to the operator at Franklinton, who responded: "All right." A minute or two later the operator at Franklinton called him and inquired: "Is 89 by you?" Upon being told "Yes," he said: "I have played hell."

Dispetcher Restman, who works the third trick from 12.00 midnight until 5.00 a. m., stated that he issued train order No. 29 to train No. 89 at Norlins, and to extra 512 north at Johnson St., fixing a meeting point for these trains at Xittrell. Extra 512 north arrived at Wake Forest at 5.15 a. m., pulled into the siding, met train No. 1 and left at 5.50 a. m., then stopped at Youngville for water. Train No. 89 didits work at Renderson quicker than usual, and it was seen that it would expedite the movement of that train to change the meeting point to Franklinton.

Extra 312 north was running so late that it had already missed the market, and he desired to give train No. 89 the preference in order to put it into Johnson St. on time. He then instructed the operator at Kittrell to let him know when train No. 89 was coming, entify papers a change

in the meeting point. At 6.12 or 6.15 a. m. the operator at Kittrell reported train No. 89 approaching about two miles away. He immediately asked the operator at Franklinton if he could hear extra 512 coming. Upon being told "Mo," he placed order No. 49 at Kittrell for train No. 89 and at Franklinton for extra 51k north and "Operator," changing the meeting point from Kittrell to Franklinton. The southward passing track at Franklinton being located north of the telegraph office, he considered the change of the meeting point to Franklinton perfectly safe, depending upon the delivery of the order to extre 312 north at that point. From long experience he had found Operator Jacobs, who was on duty at Frenklinton, reliable, and, having observed nothing unusual about his work during the night, took no extra precaution to insure stopping extra 312 north and delivery of the order which was placed at the meeting point, further than to merely address it to the "Operator" in addition to the train. He did not eak the coerator if he had his stop signals displayed or instruct him to take extra precaution to stop the extra.

He stated that about 6.22 s. m. Operator Jacobs at Franklinton, reported that extra 512 had run by but had stopped and was backing up, and he told him to "get him to sign that order right away and go in the southward pass track and clear." Dispatcher Eastman stated that he continued with his work, completing several other orders, when Operator Jacobs came in on the phone and said. The 512 didn't stop," to which he replied, "You mean to say he didn't stop?" and Operator Jacobs said, "Yes, I played hell and gave him a clear board." Within 5 or 4 minutes the wires went down, indicating that the trains had collided.

Second Trick Operator Richardson, at Franklinton who works from 4.00 p. m. to 18.00 midnight, stated that Operator Jacobs came to the office about 11.00 p. m., perfectly sober, and relieved him and the semaphore and train order signals were in good working condition at that time.

Welter Outlew, a colored station hand at Franklinton, stated that when he arrived at the station at 5.40 a. m., the signal was red and Operator Jacobs and an outsider by the name of Staunton were lying on the table in the office. Jacobs got up and pulled the signal "White." Outlaw further stated that Jacobs staggered and he smalled the odor of whiskey on him. He also noticed a pint bottle in Staunton's cost pocket and thought it contained whiskey. Later he went for a bucket of water for the office, during which time the train passed and upon his return Jacobs was sitting in the

chair and a train order was lying on the table in front of him.

Section Foreman Black stated that he went to the office at Franklinton about 6.55 or 6.60 a. m. The signal was "white" and he found Operator Jacobs sitting behind the table with his head in his hands. He inquired about trains and Jacobs told him he had let an extra in the block under a clear signal on train No. 89. He smalled the odor of whiskey and Jacobs seemed very nervous, staggered slightly and had to support himself by bolding to the wall while talking on the telephone. He stated that Staunton, whom he considered a man of bed repute, was also in the office.

First Trick Operator Brown stated that he arrived at the office at Franklinton about 7.50 s.m. and found Operator Jacobs trying to take an order for work extra 633, but when he went in the office Jacobs haid the telephone down without finishing the order and passed around on the opposite side of the table. Brown stated that he did not get close enough to Jacobs to smell whiskey on him, but his actions indicated that he was intoxicated. He found two copies of the order addressed to extra 512; the secaphore was "White" and no train order signal displayed.

Agent Moss at Franklinton stated that he want to the office just before 6.00 o'clock and that Operator Brown, who had relieved Jacobs, said that Jacobs had let an extrain the block on train Mo. 89 and that there was a bed wreak seroes for River. Jacobs, who was still in the office, remarked that he had the order for the extra and that it was his fault that it was not delivered. Agent Moss also stated that Jacobs was plainly under the influence of whiskey. Previously he had appeared to be a young man of good habits and he had never seen or heard of him being in that condition before. Staunton, whom he said bears a bed reputation, had left the office before he arrived.

Mayor Ford, of Franklinton, stated that he issued a warrant for Jacobs' arrest, charging him with being drunk in a public place and tried him shortly after 10 o'clock the morning of the accident and that Jacobs was under the influence of whiskey at that time. He then issued a second warrant charging manslaughter and had Jacobs committed to jail at Raleigh. This statement is corroborated by Chief of Police Duke of Franklinton. At the time of the investigation of this accident Operator Jacobs had been committed to jail and his counsel declined to permit him to make a statement.

General Rule 219-A of the Seaboard Air Line Railway reads as follows:

"In making meeting points, when practicable, one telegraph station should intervene between those at which opposing trains receive meeting orders, and if this station is the meeting point the Operator there should, if practicable, receive a copy of the order as sent to the trains and his understanding received and order made complete before the order to either train is made complete."

Observance of this rule would have required the order changing the meeting point to be sent and delivered to extra 518 north at Wake Forest, the next open telegraph office south of Franklinton, and a copy to the Operator at Franklinton, the meeting point. Dispatcher Eastman admitted that this rule was not complied with and stated further that its observance has not been required by the officers in charge of the Virginia Division.

## Rule 219-B reads as follows:

"Meeting orders must not be sent for delivery to trains at the meeting points, if it can be avoided. If it cannot be avoided, special presentions must be taken by the Train Dispatchers and Operators to insure safety, and the order shall specify the train which is to get its copy at the meeting point."

Dispatcher Bastman also disregarded this rule.

While the rule does not specify the nature of presaution contemplated, a proper regard for safety should have
prompted the dispatcher to satisfy himself, by inquiring from
the operator at Franklinton, that stop signals were properly
displayed and instructed him to place a torpedo on the rail
a reasonable distance south of the office. A high degree of
care thus shown by the dispatcher might have aroused the
operator at Franklinton to a realization of his duty and
of the responsibility resting upon him and resulted in the
signal being displayed and possibly the accident averted.

## Rule 526 readst

The block signed must never be fastened in the clear position except when the office is closed for the night, but must always be held at that position when it is desired to clear a train until the rear car of the train has passed."

This rule was violated by Operator Jacobs, as the evidence indicates the signal was clear when extra 512 north came in sight of it and remained clear until Operator Byonn came on duty at 7.50 a. m.

## Rule 221-D reads as follows:

"Operators, in changing position of semaphore signal from 'stop' to 'proceed' should do so, only when the movement can be seen by the Engineman. If the Engineman fails to see the movement of the arms or light, he must stop and not proceed, until after receiving a clearance card."

The evidence clearly indicate that the schaphore was standing in the proceed position and was not changed from the stop to proceed position after extra 512 came in sight of it. Had Engineeus Linkous stopped for a clearance card, as required by the rule under such conditions, the order might have been discovered and the accident averted.

The direct cause of this eccident was the failure of Operator Jacobs to display a stop signal at Franklinton and deliver train order No. 49 to extra 518 north. His failure properly to perform his duty was undoubtedly caused by the fact that he had been drinking.

Dispatcher Eastman is at fault for not complying with rule 219-& requiring an intervening telegraph station between those at which opposing trains receive meeting orders; also for his failure to comply with rule 219-B, requiring extra presentions to be taken to insure safety when meeting orders are sent to a train at the meeting point.

This investigation developed a number of violations of operating rules contributory in a measure to the accident, hardly coincident to this particular instance, but undoubtedly the result of frequent developing of duty, one of the most important of these being frequent disregard of Rule 219-A

To insure safety in train operation, those charged with the operation of this railroad should take immediate steps to enforce a strict observance of its operating rules.

The service record of Operator Jacobs showed that he was employed as operator on November 27, 1913, and that he was demonited in two instances, one for sleeping on duty and allowing a train to pass without his knowledge, the other for irregular handling of orders, both occurring in 1915. He was considered a competent employee and those who knew him, testifying at this investigation, stated that they had never seen or heard of him drinking intoxicants before.