

INTERSTATE COMMERCE COMMISSION.

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
SOUTHERN RAILWAY NEAR STILTON, S. C., ON JANUARY 3,
1924.

April 11, 1924.

To the Commission:

On January 3, 1924, there was a head-end collision between a freight train and a light engine on the Southern Railway near Stilton, S. C., resulting in the death of five employees, and the injury of three employees. This accident was investigated in conjunction with the Railroad Commission of South Carolina.

Location and Method of Operation.

This accident occurred on that part of the Charleston Division extending between Charleston and Columbia, S. C., a distance of 128.8 miles; in the vicinity of the point of accident this is a single-track line over which trains are operated by time-table and train orders, no block-signal system being in use. Eastbound trains are superior by direction. The accident occurred at a point about $3/4$ mile west of Stilton, and about 3 miles west of Orangeburg, approaching this point from either direction the track is tangent for several miles, while the grade at the point of accident is slightly ascending for eastbound trains. There was a heavy fog at the time of the accident, which occurred at about 9.30 a. m.

Description.

Westbound light engine 483, with Engineman Dantzler and Conductor Youngblood in charge, was dispatched from Branchville with instructions to assist a freight train from Fort Motte to Andrews. Before departing from Branchville the crew received a copy of train order No 18, Form 31, reading as follows:

"Ex 723 get this order meet Ex 483 west
at Orangeburg Engine 483 run Extra
Branchville to Andrews"

Extra 483 left Branchville at 8.35 a. m., and entered a spur about $1/4$ mile east of Orangeburg where it met a scheduled eastbound train. The east switch of the passing track at Orangeburg is about 230 feet west of the station

and telegraph office, and the orders held by the crew of extra 483 required them to take siding on this passing track to meet extra 723 east. After meeting the passenger train, extra 483 backed out of the spur track, proceeded westward, sounded the station whistle-signal and was given a clear indication of the train order signal, passed Orangeburg at 9:25 a. m. without taking siding, passed Stilton, and collided with extra 723 while running at a speed of about 30 miles per hour.

Eastbound freight train extra 723 consisted of 65 cars and a caboose, hauled by engine 723, and was in charge of Conductor Ullrich and Engineman Brown. This train left St. Matthews, 12.6 miles from Orangeburg, at 8.25 a. m., and just before reaching Stilton collided with extra 483 while traveling at a speed estimated to have been about 20 miles an hour.

Both engines were badly damaged but remained upright. The tenders were torn from their frames, and 12 of the cars in extra 723 were badly damaged. The employees killed were both conductors and enginemen, and the fireman of extra 723.

Summary of Evidence.

Fireman Witherspoon, of extra 483, stated that when the engine was about ready to leave Branchville, Conductor Youngblood and Engineman Dantzler compared their orders. Fireman Witherspoon also read the orders, which provided for the meet with extra 723 at Orangeburg. Approaching Orangeburg, Engineman Dantzler called, "Clear board." Extra 483 continued on the main track and an engine on the passing track at this point whistled them down; the west switch was open, and the conductor thought that was the reason for the stop signals, remarking that if anything else was wanted they would signal again. Conductor Youngblood closed the switch and gave a proceed signal, after which Fireman Witherspoon stated that he inquired whether they were not going to back in on the passing track for extra 723, but the conductor said there was time enough to go to Stilton. Shortly after passing the west switch of the siding at Stilton the conductor shouted a warning, the accident occurring immediately afterwards. Fireman Witherspoon stated that he did not know why his engine failed to head in at the east switch at Orangeburg for extra 723.

According to the dispatcher's train-order book, train order No. 18 was addressed to extra 723 and the operator at Orangeburg, and to extra 483 at Branchville, on Form 51, issued at 7.58 a. m., and made complete at 8.01 a. m.

At the time this order was sent extra 723 had passed Kingville, the last night office west of Orangeburg, and as the dispatcher did not then know definitely the location of this train, this order was addressed to it at Orangeburg, the meeting point. The operator at St. Matthews went on duty at 8 a. m., and extra 723 arrived at this point at 8 18 a. m., and departed at 8.25 a. m. Several minutes after it had departed the operator at this point reported to the dispatcher its time of arrival and departure.

Dispatcher Rodgers stated he went on duty at 7 55 a. m. on the day of the accident. While making the usual transfer Dispatcher Pearce informed him of the disabled engine at Fort Motte and that arrangements had been made to dispatch engine 483 from Branchville to that point to assist a westbound freight train, but that orders had not been issued covering this movement. He was also advised that extra 723 had passed Kingville and th Orangeburg was the only place he could address an order to that train. Therefore, he issued train order No. 18, and maintains that he addressed it to extra 723 and the operator at the meeting point. Later, when the operator informed him that extra 483 was approaching Orangeburg, he said he told the operator to clear the train, and let it proceed to the west end of the passing track for extra 723, which would arrive at that point about 9.40 a. m. It was necessary to clear that train as the east passing track switch is west of Orangeburg station, and under the rules Dispatcher Rodgers said the operator should have held the train-order board at stop, issued a clearance card and handed that together with copy of order No. 18 to the crew of extra 483. Dispatcher Rodgers stated positively that he signalled the operator at Orangeburg to make 5 copies of order No. 18, that it was addressed to the operator as well as to extra 723, and that it was repeated correctly.

Dispatcher Pearce stated he was in the office when Dispatcher Rodgers issued train order No. 18 and that he heard it addressed to extra 723 and the operator at Orangeburg, but he did not hear it repeated by the Orangeburg operator.

Operator Tison, on duty at Orangeburg at the time of the accident, stated that train order No. 18 was transferred to him by Operator Jones, shortly after 8 a. m., but that this order was not addressed to the operator. When extra 483 approached he notified the dispatcher and was instructed to "clear him and let him go to west end passing track."

He knew extra 483 had the meet order, and as he had no additional orders for that train he cleared the train order board, expecting that extra 483 would enter the east switch of the passing track in accordance with train order No. 18. He admitted that in substance train order No. 18 was a middle order, but as it was not addressed to the operator nor was it in 5-copy form, only 3 copies having been made, he did not regard it as a middle order. He stated, however, that an operator should be able to ascertain from the contents of an order whether it is a middle order, and admitted that under the circumstances he should have stopped extra 483.

Operator Jones, on duty at Orangeburg at the time train order No. 18 was issued, stated that he was instructed to copy 3, that this order was addressed to extra 723 but not to the operator, and was repeated in this form. He stated that from the contents of train order No. 18 he would consider it as a middle order, whether or not it was addressed to the operator, and accordingly would have held the first one of these trains to arrive at Orangeburg; also, that a middle order should be addressed to the operator at the meeting point, and in the event the dispatcher failed to issue it in this form it is the operator's duty to call attention to the fact, but that he did not do so in this instance.

Operator Von Lehle, at Branchville, stated he heard the dispatcher address the order to extra 723 and the operator at Orangeburg, but as he was otherwise engaged he did not notice the address of this order when it was repeated.

Operator Witherspoon, at Powesville, stated that he heard the dispatcher tell the operators at Orangeburg and Branchville to copy 3, and that train order No. 18 was addressed to extra 723 and the operator at Orangeburg. He heard the operator at this point repeat this order, but as repeated it was not addressed to the operator.

Chief Dispatcher Fox stated that the record in his office showed that train order No. 18 was properly issued, but the order at Orangeburg seemed to be slightly imperfect. Concerning meet orders issued at meeting points it is his practice to instruct operators to flag trains as an extra precaution, in addition to using the train order board; he also said that when he issued the order he would have impressed upon the operator at Orangeburg to protect at the meeting point. Even though not properly addressed, the operator should have understood from the contents that this order was in fact a middle order and carried out the same as if it were addressed to him.

Superintendent King stated that he was at Branchville when Conductor Youngblood, of extra 483, signed for his orders and as they walked out of the office together Conductor Youngblood told him extra 483 would meet extra 723 at Orangeburg.

Mr. J. C. Street, who was a patient in the hospital where Engineman Dantzler of extra 483 was taken, stated that he knew Engineman Dantzler personally, and that prior to his death he said he had overlooked meeting extra 723 at Orangeburg.

Conclusions.

This accident was caused primarily by the failure of the crew of extra 483 to obey a train order fixing a meeting point for their train; contributing causes were the failure of Operator Tison to issue a clearance card and deliver a copy of the meet order to extra 483, and an error in the transmission, receipt or repeating of this order by Dispatcher Rodgers and Operator Jones.

The evidence is conclusive that the crew of extra 483 were fully aware of the contents of train order No. 18, why they did not comply with this order is not known. The requirements of this order were clear and unmistakable; had they been complied with by the crew of extra 483 this accident would not have occurred.

Rule 208 reads as follows:

A train order to be sent to two or more offices must be transmitted simultaneously to as many of them as practicable. When not sent simultaneously to all, the order must be sent first to the superior train.

The several addresses must be in the order of superiority of trains, each office taking its proper address, and when practicable must include the operator at the meeting or waiting point.

Copies of the order addressed to the operator at the meeting or waiting point must be delivered to the trains affected until all have arrived from one direction.

A train order must not be sent to a superior train at the meeting point if it can be avoided. When an order is so sent, the fact will be stated in the order and special precautions must be taken to insure safety.

The order in this case was sent to the superior train at the meeting point and in accordance with the rule this fact was stated in the order. The error in transmission, receipt or repeating of this order consisted of the omission from the address of the operator at the meeting point and the fact that only three copies were made instead of five which would be required in order to comply with the third paragraph of rule 203. The dispatcher's record indicates that the order was addressed to the operator; the operator's copy, together with the fact that only three copies were made, indicates that it was not. The evidence indicates that Dispatcher Rodgers addressed this order to the operator as well as to the trains involved but that Operator Jones in copying the order omitted "operator" from the address and that this error was not discovered when the order was repeated. Had this order been properly addressed and the required number of copies made it is probable a copy would have been delivered to the crew of extra 483 at Orangeburg, thereby reminding them of their meet at that point. Notwithstanding the fact that the order as transferred to him by Operator Jones was not addressed to the operator, Operator Tison knew from the contents that this was a meet order and that it was issued to the superior train at the meeting point. He should therefore have handled it accordingly and have taken special precautions as required by the rules. Instead of clearing the order board, had he delivered a copy of this order, together with a clearance card, to the crew of extra 483 as that train passed his station, this accident would undoubtedly have been averted.

The circumstances surrounding this accident again direct attention to the inherent weakness of the train-order system of operation and the opportunities thereunder for mistakes to occur which are likely to lead to disastrous results. Had an adequate system of automatic train control been in use on this line, this accident would undoubtedly have been prevented.

All of the employees involved were experienced men. At the time of the accident none of them had been on duty in violation of any of the provisions of the hours of service laws.

Respectfully submitted,

W. P. BORLAND.

Director.