

January 12, 1914.

In re Investigation of Accident on the Central Vermont
Railroad near Georgia, Vt., on November 16, 1913.

On November 16, 1913, there was a head-end collision on the Central Vermont Railroad near Georgia, Vt., which resulted in the death of a fireman and a trespasser stealing a ride, and the injury of 2 employees.

After investigation of this accident the Chief Inspector of Safety Appliances reports as follows:

Southbound freight train extra 777 consisted of 23 cars and a caboose, hauled by locomotive No. 777, and was in charge of Conductor Mussy and Engineer Randall. This train left St. Albans, Vt., at 11:50 a.m., having first received a copy of train order No. 104, reading as follows:

"Eng. 777 run extra St. Albans to Essex Junction,
take siding and meet 4 extras, 410, 413, 411 and
408 north at Georgia."

Extra 777 passed Oakland, the first station north of Georgia and 4.4 miles distant therefrom, at 12:16 p.m., and had reached a point about 2½ miles north of Georgia when it collided with northbound extra 410, the collision occurring at about 12:20 p. m.

Northbound extra 410 consisted of 27 cars and a caboose, hauled by locomotive No. 410. It left Essex Junction with an order giving it the right to run as an extra from Essex Junction to St. Albans and to meet southbound extra 768 at Colchester, a station 10.5 miles south of Georgia. While meeting extra 768 at

Colchester the crew in charge of extra 410 received a copy of train order No. 104, form 31, quoted above. Engineman Brown of extra 410 received his copy of this order as his train was pulling out of the siding, and in some manner read the meeting point named in the order as "Oakland" instead of "Georgia". The fireman, head brakeman and flagman did not read the order, while the conductor claimed that he did not receive a copy of it, and as no middle order was issued at Georgia the train-order board at that point was in the clear position when extra 410 approached, and Engineman Brown ran his train past that station with the intention of meeting extra 777 at Oakland, colliding with that train between Georgia and Oakland, as described above. The speed of each train at the time of the collision was believed to have been about 25 miles an hour.

Both engines were badly damaged, and 14 freight cars were either totally or partially destroyed, while considerable damage was done to the track.

This division of the Central Vermont Railroad was a single-track line. No block signal system was in use, trains being operated by train orders and time-card rights, orders being transmitted by telephone, with the telegraph as an auxiliary for use in case of emergency. The collision occurred on a curve of $1^{\circ} 10'$ leading to the left for northbound trains. This curve was 2,416 feet in length, and the collision occurred at a point about 1,300 feet south of the northern end. Previous to this curve there was a tangent about 2,000 feet in length. Approaching from the south there was about 1,900 feet of tangent before reaching the curve.

Rule No. 208 of the operating rules provides in part as follows:

"A train order to be sent to two or more offices must be transmitted simultaneously to as many of them as practicable.

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

"When not sent simultaneously to all, the order must be sent first to the operator at the meeting or waiting point and then to trains in the order of their superiority."

It will be noted that in this particular case there was an open telegraph office at Georgia equipped with all the necessary facilities which would make it practicable to furnish the agent, who handled orders at that point, with a copy of train order No. 104. Although there was no question but what it would have been practicable to have issued a middle order at Georgia, Dispatcher Stevens stated that he did not do so because the middle order was never used unless passenger trains were involved. No instructions that this was the manner in which rule No. 208 was to be obeyed had ever been given to him by the superintendent or trainmaster.

Superintendent Keefe stated that he had full knowledge that middle orders were not being issued when first-class trains were not involved. His predecessor had ruled that the requirement was not to be followed, and the custom had therefore been continued. He considered that the use of the middle order would increase safety in train operation, that it would be practicable, and he presumed that

it would be advisable to adopt the rule requiring its use.

Trainmaster Fitzgerald stated that at the time the present book of rules went into effect, June 18, 1911, he was given to understand that the middle order would not be used in the case of freight trains. He did not see any circular issued relative to the matter and did not remember where he secured his information, unless it was when he was writing up the book of rules.

Under date of November 1, 1913, circular No. 28, calling attention to the fact that certain operating rules were not being obeyed, was issued over the signature of General Superintendent of Transportation Russell. This circular read in full as follows:

"TO AGENTS, OPERATORS, CONDUCTORS, ENGINEERS, BRAKEMEN AND FIREMEN.

The following is an extract from Rule 210, page 36, Book of Rules and Regulations, relating to '31' orders:

'The conductor of the train addressed will read the order aloud to the operator and sign it. The operator will then send the signature, preceded by the number of the order, to the train dispatcher. The response 'Complete', and the time, with the initials of the superintendent or trainmaster will then be given by the train dispatcher. After receiving this response, the operator will write on each copy, the word, 'Complete', the time, and his last name in full, and deliver a copy to each person addressed, except engineers. The copy for each engineer must be delivered to him personally by the conductor, who will require the order to be read aloud for comparison, and engineer will then sign conductor's copy.'

Rule 204, page 34, makes it incumbent on conductors and engineers to require brakemen and firemen to know the contents of all train orders.

Investigation develops that some operators are delivering orders to brakemen and firemen, the latter are accepting them, and conductors and engineers are permitting it to be

done; also when light engines are run over the road and accompanied by a flagman, not a qualified conductor, it has occurred that the operator has permitted the flagman to sign for the engineer and the latter has accepted the order without question,--

Conductors and engineers, for the protection of yourselves and crew, also passengers and property entrusted to your care, you are forbidden to allow this.

Hereafter an operator who permits anyone to sign an order other than the conductor of the train, engineer of light engine or qualified conductor pilot, a conductor who allows the brakemen or fireman to do so, or an engineer who accepts order from any one other than the conductor (except in case of light engine without qualified conductor pilot), as well as the brakeman or fireman involved will be dismissed from the service, and this warning is given with the desire that employees concerned may heed it, and avoid necessity for such action."

Agent Boyce, located at Colchester, stated that extra 410 arrived at that point at 11:05 a.m. Some time after its arrival he was notified by the dispatcher that the latter had an order for extra 410, as well as three other extras which were following that train. The statements of Agent Boyce as to what he did immediately afterwards were conflicting. He first stated that he went out to the station platform and told a man sitting there that he had an order for him; that the man had been sitting there ever since extra

410 arrived, and that he assumed him to be the conductor of that train. Agent Boyce afterwards stated that he first asked the man if he was the conductor of extra 410, and that the man replied in the affirmative. In any event he stated that the man came into the office while he was repeating the order back to the dispatcher, and as soon as he had finished repeating the order he handed two copies of it to this man, who had signed the name "Holland", procured a clearance and departed. Agent Boyce did not put the train-order board in the stop position as soon as he was notified by the dispatcher that there was an order for the northbound extras because southbound extra 768 was then approaching and he did not want to stop that train. As a matter of fact, however, he did display the train-order board before extra 768 had entirely passed the station. It was seen by the conductor and flagman of that train and when their train came to a stop at 11:45 a.m. on account of the switch at the south end of the passing track being blocked the conductor went to the office to sign the order he supposed was to be issued for his train. He was then told by the agent that the latter did not intend to display the signal until extra 768 had passed, as the order was for the northbound extras, and was given a clearance card. Agent Boyce further stated that he did not read the order to the man he supposed to be the conductor of extra 410, as the latter was in the office when he was repeating the order back to the dispatcher and must have heard its contents at that time. The man did not read the order back to him, as required by the rules, neither did he ask him to do so. Agent Boyce further stated that extra 410 was pulling by the station at this time, that the train-order board

was still displayed, that he did not come out of the office to close the passing-track switch after it had left, and that at no time while extra 410 was standing at the station did Conductor Holland come to the office.

Conductor Holland of extra 410 stated that on the arrival of his train at Colchester Flagman Bronson went forward and he told the flagman to have the engineman signal him by means of the whistle if the train-order board was displayed. This signal was not given and he supposed that there were no orders for his train. Leaving Colchester he was on the rear of the caboose on the side nearest the station, at which time the train-order board was in the proceed position. When the flagman got on the caboose as it was passing the station he did not give the conductor a copy of train order No. 104, and did not say that he had signed or received any orders. Conductor Holland asked the flagman for orders, and the flagman replied asking the conductor to let him see an order which they had received at a previous station. Flagman Bronson then left him and went into the cupola of the caboose, having made no direct response to the conductor's inquiry about orders. Conductor Holland further stated that sometimes the brakemen and sometimes the operators signed orders, and that often he would receive an order without knowing who had signed it, although occasionally he would ask who signed it. When circular No. 28 was issued he told his brakemen about it and had impressed upon them that they were not to sign any more orders.

Flagman Bronson of extra 410 stated that when the train stopped at Colchester he went forward to look it over and then went to the

engine and remained there until the train-order board was displayed. He could not remember whether or not the head brakeman had said that there was an order for their train, and stated that before he left the caboose the conductor said nothing to him about having the engineman signal him by means of the whistle if there was an order for his train. When the train-order board was displayed the train was about ready to start and he at once went to the telegraph office, at which time the agent was repeating the order back to the dispatcher. The dispatcher evidently said something to the agent about Conductor Holland, as the agent replied that Holland was right there. On account of the train being ready to leave and several extras being immediately behind it Flagman Bronson was in a hurry, and as the conductor was not around he signed the order as soon as the agent had finished repeating it, took two copies of it, together with the clearance, and started out of the door. When he signed the order the agent did not ask him if he was Conductor Holland and did not read the order to him, neither did he read it back to the agent. When he left the station his train was already under way and he signaled the engineman to slow down and gave him a copy of the order, not waiting to have the engineman read it to him or to read it himself; neither did he stop to have the engineman sign the conductor's copy. He further stated that he might have told the engineman that the meeting point was Oakland, but was not positive about it. When the caboose came along, at which time the train-order board was still displayed, he got on the rear steps. The conductor then asked him what he had and he handed the other

copy of the order to him, together with the clearance card. The agent had previously told him that he would attend to the switch, and after giving the order to the conductor he did not stop to read it over with him, but went up into the cupola and as soon as the agent gave him a signal that the switch was closed he signaled the engineman and the train proceeded on its way. During this time Conductor Holland was on the rear steps of the caboose and if he had not received a train order and a clearance card or a caution card, should have stopped the train, inasmuch as the train-order board was displayed. At some point between Colchester and Georgia he asked the conductor for the order and the latter replied that he did not have it, and the only knowledge Flagman Bronson had of the meeting point named in the order was his understanding that the operator had said Oakland. He stated that he occasionally signed orders for conductors in order to avoid delays, that Conductor Holland had never approved or disapproved of this practice and that for years he had frequently signed orders for Conductor Holland.

Head Brakeman McCarty of extra 410 stated that when the train reached Colchester he opened the passing-track switch and then got on the train at about the third or fourth car from the head end. When it came to a stop he got down, walked back a few car lengths, and then went to the station platform and sat down. After a while the agent came out and asked him if he was the conductor of extra 410. He replied that he was not, but that he would get the conductor, the agent saying he had an order, form 31, for that train.

Brakeman McCarthy then went to the engine and asked the engineman to call the conductor for orders. The latter did not do so, however, but Flagman Bronson, who was on the engine, at once got off and went toward the telegraph office. When the train was ready to leave Brakeman McCarthy opened the main-line switch and got on the train when about two or three cars had passed the switch. After receiving the all-right signal from the rear end of the train he went forward to the engine. He heard the engineman state that the meeting point in the order was Oakland, but did not read the order himself and did not ask the engineman to permit him to read it.

Engineman Brown of extra 410 stated he first saw extra 777 when about ten car lengths distant. He at once shut off steam, applied the emergency brakes, called to the fireman to jump, and did so himself. On account of receiving a train order and clearance card he stated that he might have overlooked the train-order board when leaving Colchester and for that reason was unable to state whether or not it was displayed at that time. When Flagman Bronson handed the order to him, at which time the train was proceeding slowly, he understood the flagman to say that they would meet at Oakland. He read over the order and misread the meeting point, reading it as Oakland instead of Georgia. After reading the order he held it out toward the fireman, but the latter was working on the fire and did not take it, saying that it was all right, and inasmuch as the head brakeman was not on the engine the result was that no one on the head end of the train was correctly informed as to the meeting point, on account of the engineman having misread

the order. Engineman Brown further stated that it frequently happened that he would accept train orders from brakemen, and sometimes without signing a copy for the conductor; neither did he always read the order aloud to the conductor or to the person from whom he received it. It had formerly been quite customary for brakemen to sign orders for conductors, but lately this practice was supposed to have been done away with; it had not, however, been discontinued entirely. He could not say positively whether or not Flagman Bronson had ever delivered train orders to him on previous occasions, but thought it possible that he had. He stated, however, that on several occasions when Conductor Holland had been the conductor of his train he had received train orders when they had not been signed by the conductor.

Conductor Ingham and Flagman McConnell of southbound extra 768 stated that when the engine of their train passed the station the train-order board was not displayed, but that it was displayed when all but four or five cars of their train had passed. Soon after extra 768 came to a stop extra 410 departed, Conductor Holland being seen standing on the rear platform of the caboose. At that time the train-order board was displayed, as it had been ever since extra 768 arrived.

The engineman, fireman and head brakeman of extra 777 did not see extra 410 approaching around the curve until the trains were but a few car lengths away. They at once jumped from the engine, the emergency air brakes first having been applied.

It is to be noted that the statements made by the employees concerning many of the important details connected with this acci-

dent are very conflicting. It is believed, however, that when Agent Boyce was notified by the dispatcher that there was an order for extra 410 he went out of the office and asked the man sitting there, who was Brakeman McCarthy, if he was the conductor, saying that he had an order, form 31, for his train. Brakeman McCarthy then went to the engine with the intention of having the engineman summon the conductor for the purpose of having him sign the order. Engineman Brown, however, did not summon the conductor, but Flagman Bronson left the engine, went to the telegraph office and signed the order. Flagman Bronson then returned to the engine, gave the engineman his copy, and got on the caboose when it came along. The question of whether or not Flagman Bronson gave Conductor Holland a copy of the order is a matter of veracity between the two men. The statements made by other employees, however, especially the conductor and flagman of extra 768, indicate that Conductor Holland was on the rear end of his caboose when the train departed from Colchester and that the train-order board was displayed at that time. If he had not received an order, as well as a clearance card, Conductor Holland was disobeying the rules in allowing his train to pass this train-order board without having a clearance card or a caution card.

The direct cause of this accident was the failure of Conductor Holland and Engineman Brown to comply with the order fixing Georgia as the meeting point of these trains.

If Conductor Holland received a copy of the order then he allowed his train to pass the meeting point named therein, while if he

did not receive a copy of it he should not have allowed his train to leave Colchester when the train-order board was displayed in the stop position unless furnished personally by the agent with a clearance card form "A" or caution card form "C", even though train orders might have been received by him. Conductor Holland also failed to comply with any of the requirements of that part of rule No. 210 quoted in circular No. 28, ignored that part of circular No. 28 prohibiting the signing of orders by brakemen, disobeyed that part of rule No. 204 requiring that conductors know that brakemen are familiar with the contents of all orders, and failed personally to deliver a copy of the order to the engineman and to require the engineman to read the same and then sign the conductor's copy.

Engineman Brown also violated rule No. 204 by not requiring the fireman and head brakeman to be fully acquainted with the contents of train order No. 104; violated rule No. 210 and circular No. 28 by not reading the order aloud for comparison when he received it, by not signing the conductor's copy, and by accepting the order from a brakeman instead of the conductor.

There were, however, several other causes contributing to this accident in a greater or less degree. The most important of these was the failure of Dispatcher Stevens to issue a copy of train order No. 104 to the operator at Georgia, as required by that part of rule No. 208 previously quoted. In his failure to obey rule No. 208, however, Dispatcher Stevens was merely following a custom which had prevailed upon this railroad for an indefinite period.

Flagan Bronson was to blame for signing train order No. 104 in violation of rule No. 210 and circular No. 28. Having

assumed the duties of the conductor he was also to blame for not reading the order to the agent before signing it, for not having the order read to him by Engineman Brown when he gave the engineman his copy of the order, for not requiring the engineman to sign the conductor's copy, for not reading over the order with the conductor and for not making himself familiar with the contents of the order.

Agent Boyce failed to obey rule No. 210 and circular No. 28 by delivering train order No. 104 to the flagman instead of to the conductor of extra 410; he was also to blame for not requiring Flagman Bronson to read the order to him before signing it and for not obeying that part of rule No. 221 requiring operators to display the stop signal immediately upon receipt of notification from the dispatcher that there are orders for a train.

Fireman Kimball of extra 410, who was killed in the collision, and Brakeman McCarthy of the same train were also open to censure for not making themselves familiar with the contents of train order No. 104, as they should have done had they observed the requirements of rule No. 204.

Engineman Brown was employed as such on October 10, 1905, previous to which he had been an engineman for six years on the New York Central & Hudson River Railroad. For responsibility in connection with accidents he had been suspended for 30 days on three occasions and once for 5 days. He had also been reprimanded once for the same cause. His last suspension of 30 days was on October 31, 1913, but this suspension was lifted on November 13.

Flagman Bronson was employed in 1900 as a brakeman, and on April 2, 1908, was dismissed for responsibility in connection with an accident. On June 25, 1908, he was re-employed, his record since that time being clear with the exception of a suspension of 5 days on December 1, 1911, for rough switching.

Conductor Holland had been with this railroad since 1880, with the exception of a leave of absence from 1887 to 1889, as brakeman and conductor. Brakeman McCarthy had been employed since January 15, 1912; Fireman Kimball since October 13, 1910, and Agent Boyce since November 17, 1912. The records of all four of these employees were clear, while none of the employees involved in this accident had been employed in violation of any of the provisions of the hours of service law.

The investigation of this accident developed the fact that the following employees connected with these two trains had not been examined on the operating rules: Fireman Johnson of extra 410 who had been in service since April 29, 1911; Brakeman McCarthy of extra 410 who had been employed since January 15, 1912, and Flagman Denning of extra 777 who had been employed since April 1, 1913, about seven and one-half months, and had been flagging for about two weeks. Brakeman Smith of extra 777 had only been employed since November 3, 1913. He was given a book of rules and put to work, no instructions of any kind being given to him. He had not been examined on the rules, neither has his eyesight nor hearing been examined.

From the facts developed in the investigation of this accident it is manifest that the crew of extra 410 violated the rules; that they had done so in the past to a greater or less extent, and that the officials were more or less cognizant of this fact. There is no excuse for the negligence in the performance of their duties displayed by these employees. The officials of this railroad, however, are responsible for their failure properly to enforce rule No. 208 and for the manner in which other operating rules were often disregarded by the employees. It can not be considered sufficient merely to call attention to the fact that rules are not being observed; it is the duty of the officials to know whether or not the rules are observed, and if they find that they are ignored in any way whatever, effective measures looking to a remedying of the dangerous situation thus created should be taken at once. In this connection attention is called to the report of the Commission covering the investigation of the accident which occurred on the New York, New Haven & Hartford Railroad near North Haven, Conn., on September 2, 1913, wherein it was stated that:

"It is not sufficient for a railroad company merely to provide signals and rules to govern the operation of trains, to issue bulletins calling attention to the necessity for observing such signals and rules, and to interview and caution employees regarding the observance of signals and rules. But it is an absolute duty of a railroad company to know beyond question whether or not signals are obeyed and rules are rigidly lived up to. Only when this is done can a railroad company provide that measure of protection to which the traveling public is entitled."

In what manner or by whose authority the use of the middle order came to be disregarded in cases where first-class trains were not involved did not definitely appear; it seems to have

been one of the altogether too frequent cases of a rule being disregarded to such an extent that it became a universal custom, no attention being given to the matter until a disastrous accident focused attention upon it. The officials stated that the middle order was used in the case of first-class trains because of the greater safety afforded, and it is pertinent to inquire why its use should not afford equal safety in the case of other trains. In fact the officials and employees agreed that had the rule requiring the use of the middle order been followed in this case the collision undoubtedly would not have occurred. Previous accident investigations have developed similar situations of non-enforcement of rules, for one reason or another, and in the report covering the investigation of the accident on the New Haven road, above referred to, it was stated that:

"Dereliction of duty by those who are charged with the making and with the enforcement of safety regulations can not fail to weaken respect for all rules and to render nugatory to a large extent all efforts to maintain effective discipline. Rules that are not intended to be enforced have no proper place in a railroad company's code of regulations, and when the operating officers of a railroad permit rules which have been established to secure safety to be violated with impunity they can not reasonably expect to escape responsibility for the consequences of such violations."

This statement applies with full force to the situation developed in the investigation of this accident.

For the prevention of similar accidents it is recommended that immediate steps be taken looking to the proper observance and enforcement of the operating rules of this railroad.