

Inv-2422

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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REPORT OF THE DIRECTOR  
BUREAU OF SAFETY

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ACCIDENT ON THE  
CLINCHFIELD RAILROAD

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HUNTDALE, N. C.

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APRIL 8, 1940

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INVESTIGATION NO. 2422

SUMMARY

Inv-2422

Railroad: Clinchfield  
Date: April 8, 1940  
Location: Hunt Dale, N.C.  
Kind of accident: Head-end collision  
Trains involved: Freight : Two engines,  
coupled  
Train numbers: 94 : Extra 728 North  
Engine numbers: 417, 405, 419 : 728, 407  
Consist: 72 loaded and 5  
empty cars and  
caboose  
Speed: 15-20 m. p. h. : 2-3 m. p. h.  
Operation: Timetable and train orders  
Track: Single; tangent; 0.15 percent  
ascending grade southward  
Weather: Clear  
Time: 5:07 p. m.  
Casualties: 2 injured  
Cause: Restrictive order addressed to  
train at point of restriction  
being delivered without stopping  
train and following prescribed  
procedure

May 29, 1940.

To the Commission:

On April 8, 1940, there was a head-end collision between a freight train and two engines, coupled, on the Clinchfield Railroad at Hunt Dale, N. C., which resulted in the injury of two employees.

#### Location and Method of Operation

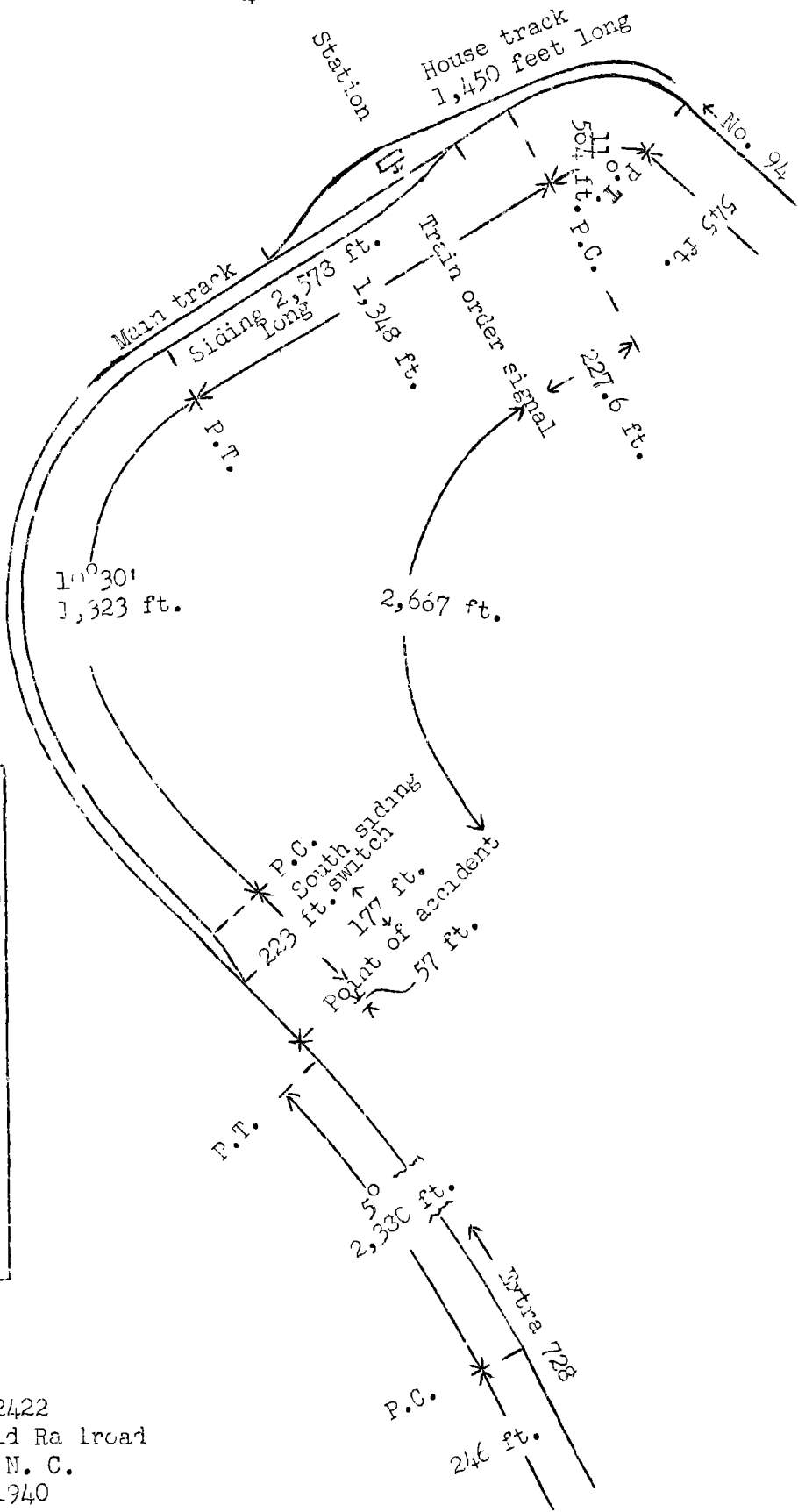
This accident occurred on that part of the railroad which extends between Erwin, Tenn., and Spartanburg, S. C., a distance of 141 miles. In the vicinity of the point of accident this is a single-track line over which trains are operated by timetable and train orders; there is no block system in use. Time-table directions, which are north and south, are used in this report. In the vicinity of the point of accident the track parallels the east bank of the Toe River and is laid in a series of cuts. The accident occurred at a point 2,667 feet south of Hunt Dale station. Approaching from the north there are, in succession, a tangent 545 feet in length, an  $17^{\circ}$  curve to the left 564 feet in length, a tangent 1,348 feet in length, a  $10^{\circ}50'$  curve to the left 1,323 feet in length, and a tangent 223 feet to the point of accident and 57 feet beyond. Approaching from the south there are, in succession, a tangent 246 feet in length, a compound curve to the left 2,380 feet in length with a maximum curvature of  $5^{\circ}$ , and the tangent on which the accident occurred. At the point of accident the grade is 0.15 percent ascending southward.

At Hunt Dale a siding 2,578 feet in length parallels the main track on the east; the accident occurred 177 feet south of the south siding-switch. A house track 1,450 feet in length parallels the main track on the west and extends northward from a switch located 680 feet south of the station. The station is located between the main track and the house track and 88 feet south of the north siding-switch. A signal mast, on which are mounted a train-spacing signal and a train-order signal, is 25 feet 6 inches in height and is located between the station and the main track. Train-order stations are located at Erwin, Tenn. and Green Mountain, N. C., 16.7 and 7.2 miles, respectively, north and south of Hunt Dale.

Operating rules applicable to the movements involved read in whole or in part as follows:

5. \* \* \*

The time applies to the switch where  
an inferior train enters the siding; \* \* \*



- Erwin, Tenn. 12.3 mi.
- Poplar, N.C. 4.4 mi.
- x Hunt Dale (P. of A.) 7.2 mi.
- Green Mountain 6.3 mi.
- Toecane 6.1 mi.
- Iunday 10.5 mi.
- Spruce Pine 5.0 mi.
- Ridge, N.C. 39.2 mi.
- Spartanburg, S.C.

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 April 8, 1940

89. At meeting points between trains of different classes, the inferior train must clear the main track at least five minutes before the leaving time of the superior train, and when practicable must pull into the siding at the nearest end. \* \* \*

208. 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 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 superior train.

210. When a "31" train order has been transmitted, operators must (unless otherwise directed), repeat it at once from the manifold copy in the succession in which the several offices have been addressed, and then write the time of repetition on the order. Each operator receiving the order should observe whether the others repeat correctly.

Those to whom the order is addressed, except enginemen, must read it aloud to the operator and then sign it, and the operator will send their signatures preceded by the number of the order, to the train dispatcher. The response "complete" and the time will then be given by the train dispatcher. Each operator receiving this response will then write on each copy the word "complete," the time, and his last name in full, and then deliver a copy to each person addressed, except enginemen. The copy for each engineman will be delivered to him personally by the conductor.

210 (a). The engineman will read the order to the conductor and acknowledge receipt thereof by endorsing his name upon the corresponding copy of the order held by the conductor.

219 (a). In making meeting points, when practicable, one telephone station should intervene between those at which opposing trains receive meeting orders, and if this station is the meeting station, the operator there should, if practicable, receive a copy of the order as sent to the trains and order made complete before the order to either train is made complete.

221. A fixed signal must be used at each train order office, which shall indicate "stop" when there is an operator on duty, except when changed to "proceed" to allow a train to pass for which there are no orders. The signal must be returned to "stop" as soon as a train has passed. It must be fastened at "proceed" only when no operator is on duty. A train must not pass the signal while "stop" is indicated, without a Clearance Card.

\* \* \*

221 (b). Operators having orders for a train, or a middle order, must display train order signal. \* \* \*

446. At stations on heavy descending grades, or where the view is obstructed and the order-signal is near the switch which must be used by the opposing train, the train which is to be restricted must be stopped if the order is first issued for it at such points, unless it be at a station at which it is scheduled to stop, before the order is completed for the other train to go to such station.

Because of embankments and track curvature, the view of the train-order signal at Hunt Dale from the left side of the cab of a south-bound engine was restricted to a distance of 610 feet. At the point of accident the range of vision of the engine crews of either a north-bound or a south-bound train was restricted to 733 feet.

The maximum authorized speed for the trains involved was 35 miles per hour.

The weather was clear at the time of the accident, which occurred about 5:07 p. m.

#### Description

Extra 728 North, consisted of engines 723 and 407, coupled, with Enginemen Jennings and Larimer, respectively, in charge. This crew held a copy of train order No. 61, Form 19, which read in part as follows:

Eng 728 Run Extra Ridge to Erwin \* \* \*  
No 94 Eng 417 will run Two 2 Hours and  
Thirty 30 Mins Late Erwin to Lunday and  
Two 2 Hours and Twenty 20 Mins Late  
Lunday to Spartanburg \* \* \*

This train departed from Ridge, 35.1 miles south of Hunt Dale, at 3:30 p. m., according to the train sheet, and at Green Mountain the crew received a Clearance Card and a copy of train order No. 71, Form 19, which read as follows:

No 94 Eng 417 will wait at Hunt Dale until  
Five fifteen 5.15 pm for Exa 728 North

This order was made complete at 4:55 p. m. Extra 728 passed Green Mountain at 4:55 p. m., according to the train sheet, and, while preparing to enter the south siding-switch at Hunt Dale and moving at a speed of about 2 or 3 miles per hour, collided with No. 94.

No. 94, a south-bound second-class freight train, with Conductor Pruner, and Enginemen Harvey, Abel, and Jones in charge, consisted of engines 417 and 405, coupled, 72 loaded and 5 empty cars, helper engine 419, and a caboose, in the order named. At Erwin the crew received a copy of train order No. 57, Form 31, which read in part as follows:

No 94 Eng 417 \* \* \* will run Two 2 Hours  
and Thirty 30 Mins Late Erwin to Lunday  
and Two 2 Hours and Twenty 20 Mins Late  
Lunday to Spartanburg \* \* \*

This train departed from Erwin at 4:20 p. m., according to the train sheet, 2 hours 35 minutes late, and at Hunt Dale the two engine crews at the front end of the train received a Clearance Card and a copy of train order No. 71, Form 31, previously quoted. The train passed the train-order signal, which was displaying a stop indication, continued beyond the limit of the waiting point, and, while moving at a speed estimated at 15 to 20 miles per hour, collided with Extra 728.

The force of the collision moved engines 728 and 407 backward a distance of 109 feet. The front tender-truck of engine 728 was derailed and the tender was slightly damaged. The smoke-box of engine 728 was crushed, the air compressors and the headlight were destroyed, the engine frame was broken, the engine truck and the front cylinders were demolished, two pairs of driving wheels of the front driving unit were torn loose and demolished, and the cab was telescoped. Engine 407 was neither derailed nor damaged.

The smoke-box of engine 417 was crushed; the air compressors, headlight, engine truck, deck castings, cylinders, and front driving wheels were demolished; the front portion of the right frame was broken and the left frame was bent; the cab was telescoped and the tender was demolished. Engine 405 was badly damaged but it was not derailed; the tender frame was bent and the cistern was slightly telescoped. The first, second, and eighteenth to twenty-eighth cars, inclusive, became derailed and stopped in various positions; the first car was destroyed, and the remainder of those derailed were badly damaged.

The employees injured were the front brakeman of No. 94 and the fireman of the second engine of No. 94.

#### Summary of Evidence

Engineman J. E. Jennings, of the first engine of Extra 728, stated that he had a copy of train order No. 61, Form 19, previously quoted. At Green Mountain, 7.2 miles south of Hunt Dale, he received a copy of train order No. 71, Form 19, previously quoted. When his engine was about 8 or 10 car lengths south of the south siding-switch at Hunt Dale he compared time with his fireman and it was then 5:05 p. m. He remarked to the fireman that there was ample time to get in the clear by 5:10 p. m. His fireman, who was prepared to handle the switch, gave warning of the proximity of No. 94, and he and the fireman both jumped just prior to the collision. He estimated that his train was moving 2 or 3 miles per hour and was at a point 3 or 4 car lengths south of the south siding-switch when the accident occurred. He said the accident occurred about 5:06 p. m. Being on the outside of a curve to the left, located just south of the tangent involved, he did not see No. 94 approaching. He did not know of any previous instance wherein a train order restricting the superiority of a train had been issued for delivery at the point of restriction. The usual speed of No. 94 passing Hunt Dale is 30 to 35 miles per hour. In his opinion a service brake-pipe reduction made at the station at Hunt Dale would not stop a train moving at a speed of 30 to 35 miles per hour short of the clearance point of the south siding-switch.



Fireman O. M. Jennings, of the first engine of Extra 728, corroborated in substance the statement of Engineman Jennings. He said that the weather was clear. He understood that Extra 728 had until 5:10 p. m. to clear for No. 94.

Engineman Laxner, of the second engine of Extra 728, stated that the speed of his train was about 2 miles per hour at the time of the accident, which occurred at 5:06 p. m. There was ample time for his train to clear the main track at Hunt Dale by 5:10 p. m. He did not see No. 94 prior to the accident.

Fireman Davenport, of the second engine of Extra 728, corroborated in substance the statements of the other members of his crew.

Engineman Harvey, of the first engine of No. 94, stated that a terminal air-brake test was made at Erwin; however, after the brakes were released, no one reported to him the condition of the brakes. He said that the air brakes were not used between Erwin and Hunt Dale. The air gauge indicated 80 pounds brake-pipe pressure. When his train was approaching Hunt Dale the speed was about 30 or 35 miles per hour. The fireman called a warning to him that the signal was displaying a stop indication. Engineman Harvey said that after his engine rounded the curve he observed that both arms of the train-spacing signal and the southward arm of the train-order signal were displaying stop indications. He sounded the engine whistle, and then saw the operator holding train-order hoops but did not see him give stop signals and he did not hear the fireman give warning that the operator was waving stop signals. The engineman said that the front brakeman caught the order and gave it to him. He immediately read the order, which was order No. 71, then looking at his watch, he saw that it was 5:05 p. m., and he applied the air brakes in emergency. At this time his engine was passing the house-track switch, located 1,987 feet north of the point of accident. He sounded the engine whistle for steam to be shut off on the second engine and soon afterward the collision occurred. He estimated that the speed of his train was 15 miles per hour at the time of the accident, which occurred about 5:06 p. m. This was the first instance he had received a train order restricting the superiority of his train at the point where the order was received. Under the rules an operator must stop a train for delivery of a train order, Form 31, then the conductor must sign for it and personally deliver it to the engineman. He said that this was the first instance he knew of a train order, Form 31, being signed by the operator. From the manner in which the train order was handled he assumed that the operator was delivering a train order, Form 19, effective at some point beyond. He said that his average running time between Erwin and Hunt Dale on No. 94 was about 43 to 45 minutes, and

that on this occasion his train left Erwin at 4:25 p. m. He did not know of any reason to reduce the speed of his train approaching Hunt Dale. He did not believe that an emergency air-brake application made at the station at Hunt Dale would stop a train, moving at a speed of 35 miles per hour, north of the south siding-switch.

Fireman Chapman, of the first engine of No. 94, stated that as his engine rounded the curve north of Hunt Dale he saw the train-spacing signal and the train-order signal displaying stop indications, and the operator waving stop signals with order hoops. The fireman called twice to the engineman that the operator was waving stop signals but apparently the engineman did not hear the warnings. The speed of his train was about 30 to 35 miles per hour. The front brakeman caught the train order and handed it to the engineman who read it, looked at his watch, and immediately made a brake-pipe reduction of about 15 or 20 pounds; this application of the brakes reduced the speed to about 25 miles per hour. After the brake-pipe exhaust ceased and after moving about 8 or 10 car lengths farther, the engineman placed the brake valve in emergency position; however, the emergency application did not seem to be effective and the speed was about 20 miles per hour at the time of collision. When the operator delivered the train order by hoop the fireman thought the order would be effective at some point beyond Hunt Dale. He did not see the train order involved, but said that it was not handled in accordance with the rules. He did not know of any previous instance wherein a train order restricting the superiority of a train was delivered at the point of restriction. He said that his train left Erwin at 4:27 p. m.

Front Brakeman Goforth, of No. 94, stated that when his train was approaching Hunt Dale the speed was about 45 or 50 miles per hour. He thought the operator was giving stop signals and warned the engineman to that effect; however, the operator seemed to be untangling order hoops instead of giving stop signals. He caught train order No. 71 and handed it to the engineman; when he read the order over the engineman's shoulder. He said that it was 5:07 p. m. when he finished reading the order. He thought that the engineman made a service brake-pipe reduction at a point about 1,300 feet north of the point of accident. The engineman moved the brake-valve to emergency position when the opposing train was seen. He did not think an emergency effect was obtained on account of the previous service reduction. The fact that the operator was delivering the train order by hoop indicated that the order was not effective at Hunt Dale but at some point beyond.

Engineman Abel, of the second engine of No. 94, corroborated the statement of the crew of the first engine as to the

method of handling train order No. 71 at Hunt Dale. He said that it was 5:06 or 5:07 p. m. when he read his copy. He immediately closed the throttle of his engine. At this time his air gauge indicated that a brake-pipe service reduction had been made from the first engine. He said that the cut-out cock on his engine was closed. His train was moving at a speed of 50 miles per hour and he did not think that it was possible to stop it short of the south siding-switch at Hunt Dale even if an emergency application had been made at a point near the station.

Fireman Horton, of the second engine of No. 94, stated that he did not look at train order No. 71, but immediately gave it to his engineman. Soon afterward he saw the opposing train when it was about 8 or 10 car lengths away.

Engineman Jones, of the third engine, which was at the rear of No. 94, stated that he was unaware of what happened at the front end of the train; his engine was working steam when the accident occurred. The gauge on his engine indicated that about a 10-pound service brake-pipe reduction was followed by an emergency application. He said that he knew of several instances wherein a train order, Form 31, had been delivered to him under similar circumstances but only after the requirements of the order had been fulfilled.

The statement of Fireman Hatcher, of the third engine of No. 94, did not add anything of importance.

Conductor Pruner, of No. 94, stated that when his train was approaching Hunt Dale he was in the caboose and the speed of his train was 25 or 30 miles per hour just before the air brakes were applied. He did not know whether a service or an emergency air-brake application was made but the rear of the train stopped smoothly at 5:08 or 5:09 p. m. The usual running time between Erwin and Hunt Dale is 40 to 45 minutes for trains similar to No. 94. Where regular stops are made, train orders, Form 31, had occasionally been handed to him under similar circumstances without his signature for the order being obtained; however, he had never previously received a train order, Form 31, at the point of restriction, signed and delivered by the operator before the opposing train had reached the meeting point.

The statement of Flagman Hicks, of No. 94, added nothing of importance.

Dispatcher Coward, stationed at Erwin, stated that he relieved the first-trick dispatcher at 4 p. m. The first-trick dispatcher had issued train order No. 57, which required No. 94 to run 2 hours 30 minutes late Erwin to Lunday, and 2 hours 20 minutes late Lunday to Spartanburg. Under the requirement of

the run-late provision contained in that order, No. 94 was due to leave Erwin not earlier than 4:15 p. m., and Hunt Dale not earlier than 4:54 p. m. Dispatcher Coward said that while he was reading the transfer, the conductor of No. 94 informed him that his train would leave about 4:25 p. m. The dispatcher estimated that No. 94 departed at 4:30 p. m. About 4:52 p. m., when Extra 728 North reported at Green Mountain, he decided to advance Extra 728 to Hunt Dale, as the average running time of No. 94 between Erwin and Hunt Dale is 45 minutes. According to his train-order book, at 4:54 p. m. he simultaneously sent train order No. 71 on Form 31 to Hunt Dale and on Form 19 to Green Mountain. This order required No. 94 to wait at Hunt Dale until 5:15 p. m. for Extra 728 North. The operator at Hunt Dale gave the "X" response at 4:54 p. m., and the operator at Green Mountain repeated the order and the dispatcher made it "complete" at 4:55 p. m.; the operator at Hunt Dale then repeated the order and the dispatcher instructed him to sign Conductor Pruner's name to the order and to mark it "complete" as of 5:05 p. m. Immediately after issuing the order he instructed the operator to call by telephone the section foreman at Poplar, 4.4 miles north of Hunt Dale, and to ascertain when No. 94 passed that point. He instructed the operator to be sure to flag and to stop No. 94 if Extra 728 were not in the clear on the siding, but if Extra 728 were in the clear, for him to hand on the order without stopping No. 94. At the time the order was sent, No. 94 had been en route 24 minutes. Extra 728 departed from Green Mountain at 4:56 p. m.; about 4:58 p. m. the operator at Hunt Dale informed him that No. 94 was passing Poplar. The dispatcher said that when he issued order No. 71 he expected that Extra 728 would be in the clear at Hunt Dale at 5:10 p. m. or 5 minutes before the wait order expired, and that No. 94 would not arrive at Hunt Dale before 5:15 p. m. During his 20 years of service as dispatcher he had never previously issued an order to the operator at Hunt Dale similar to order No. 71. He understood the rules required that a middle order be issued when practicable. He addressed order No. 71 to No. 94 and to the operator at Hunt Dale. His reason for instructing the operator at Hunt Dale to sign Conductor Pruner's name was to keep No. 94 moving if Extra 728 were in the clear; however, he knew that this procedure was not in accordance with the rules. The reason for making the order complete at 5:05 p. m. was that he assumed the operator would be providing flag protection for No. 94 from the time the order was repeated until the time Extra 728 entered the siding. He thought that No. 94 would arrive at Hunt Dale after 5:15 p. m. and for that reason he instructed the operator at that point to make order No. 71 complete. He said that he had not been at Hunt Dale for some time and that he was unfamiliar with the physical characteristics in that vicinity; however, he instructed the operator to provide No. 94 with adequate stopping distance by flag protection in addition to displaying the train-order signal at stop.

Operator Hefner, at Hunt Dale, stated that at 4:54 p. m. the dispatcher instructed him to copy train order No. 71 on Form 31 for No. 94, and instructed the operator at Green Mountain to copy order No. 71 on Form 19 for Extra 728. Operator Hefner said that after he repeated the order, in compliance with the dispatcher's instructions, he called the section foreman at Poplar and was informed that No. 94 was passing that point. About 5 p. m., he informed the dispatcher of this fact and then the dispatcher instructed him to sign Conductor Pruner's name to order No. 71, and to make it complete at 5:05 p. m. The dispatcher instructed him also to give No. 94 a "steady" signal and to hand on order No. 71 as the train passed, which he did. The train-spacing signal and the southward train-order signal displayed stop indications. He said that the dispatcher did not instruct him to flag No. 94. He copied the order on a typewriter and repeated it from the manifold precisely as he had copied it; the order was addressed to No. 94 only. He said that train order No. 71 was not handled in accordance with the rules because when a Form 31 train order is received, the train to which the order is addressed must be stopped; in addition, the conductor must sign the order and repeat it to the operator, then personally deliver a copy to each engineman of his train, who in turn must read it to the conductor and acknowledge receipt by endorsing the copy held by the conductor. He was aware that it was a dangerous practice to deliver a train order, Form 31, to a moving train, but he did not want to disobey the instructions of his superior, the train dispatcher. He said that No. 94 passed Hunt Dale about 3 minutes after the order was made complete and was moving about 35 miles per hour. He flagged with the order hoops to slow it down, and, as the engines passed, handed on the orders. He knew of one previous instance wherein a train order, Form 31, had been issued in a similar manner, but to his knowledge such an order had not been handled in this manner at Hunt Dale during the past 10 years. He did not remember when he had last attended a book-of-rules class.

Operator Young, at Green Mountain, stated that he copied train order No. 71 on Form 19, which was transmitted simultaneously to Hunt Dale and to Green Mountain. The order was made complete to him at 4:55 p. m., and he delivered copies of it together with a Clearance Card to Extra 728 as it passed his station. He reported to the dispatcher that Extra 728 passed Green Mountain at 4:56 p. m., and at that time the dispatcher and the operator at Hunt Dale were talking on the telephone about train order No. 71. Soon afterward he heard Operator Hefner tell the dispatcher that No. 94 was passing Poplar; then the dispatcher told Operator Hefner that No. 94 would arrive at Hunt Dale about 5:08 or 5:09 p. m., and instructed him to signal it to reduce speed for delivering the order. During the time that he

was listening he did not hear the dispatcher tell the operator at Hunt Dale that if Extra 728 was in the clear on the siding to deliver the order to No. 94 without stopping that train.

Operator Wilson, at Toecane, stated that about 5 p. m. he heard the dispatcher tell the operator at Hunt Dale to "slow him down and hand it up;" he assumed that these instructions were in reference to a train order.

Trainmaster Moss stated that in regard to rule 446 the view from a south-bound engine of the train-order signal at Hunt Dale is considerably restricted but the signal is not located near the switch where an inferior train would take siding for a south-bound train; however, he said that the signal is located too close to the south siding-switch to permit a south-bound train moving at a speed of 35 miles per hour to stop before reaching that switch. When operators are examined or re-examined they are instructed orally that, when it is necessary to issue a wait order affecting a scheduled train for delivery at the point of restriction, the operator, in addition to displaying the train-order signal, is required to use torpedoes and a red flag by day, in accordance with the requirements of rule 99; however, such instructions are not contained in the book of operating rules. He could not state definitely when Operator Hefner was last examined on the operating rules. Trainmaster Moss said that he was last over the road in 1934 for the purpose of re-examining and instructing operators and he thought that possibly Operator Hefner was instructed at that time. He said that the management neither sanctions nor permits a restricting train order to be issued in the manner in which order No. 71 was issued on this occasion. He said that even if the dispatcher failed to instruct the operator at Hunt Dale to flag No. 94, it was still the duty of the operator to flag that train.

Superintendent McIntyre stated that it is difficult to maintain the schedule of No. 94 and all employees are continually impressed with the importance of avoiding all possible delay to trains operating on this schedule and that such trains must be given preference; however, safety of operation is the first consideration.

According to data furnished by the carrier, the average daily movement of trains in the vicinity of the point of accident during the preceding 30-day period was 13.63 trains.

#### Discussion

According to the evidence, Extra 728 North held a train order which stated that No. 94 would wait at Hunt Dale until 5:15 p. m. Extra 728 had reduced speed to about 2 or 3 miles per hour

to enter the south siding-switch when it collided with No. 94 about 5:07 p. m. at a point 177 feet south of the switch. Under the provisions of this order, Extra 728 could occupy the main track south of the south switch until 5:10 p. m.

The order involved was addressed to No. 94 at Hunt Dale. The order was picked up by the members of the crew on the front end while the train was proceeding at a speed of 30 or 35 miles per hour and this train was only a short distance north of the south siding-switch, as the distance from the station to the south siding-switch was 2,190 feet and from the station to the clearance point only about 2,350 feet, when the members of the crew on the front end of the train learned the order required their train to wait at Hunt Dale until 5:15 p. m. for Extra 728 North. The speed of No. 94 had been reduced to about 15 or 20 miles per hour when the collision occurred. The crew of No. 94 did not have advance warning that they would receive an order at Hunt Dale. Because of track curvature and embankments, the train-order signal at Hunt Dale could be seen from the left side of a south-bound engine a distance of only 610 feet; from the right side of an engine the distance was considerably less.

About 4:52 p. m. the dispatcher received information that Extra 728 was about to enter the siding at Green Mountain, 7.2 miles south of Hunt Dale, for No. 94, which had left Erwin, 16.7 miles north of Hunt Dale, about 4:30 p. m. The dispatcher estimated that No. 94 would not reach Hunt Dale before 5:15 p. m.; however, this train left Erwin about 4:27 p. m. and used only 40 minutes to go to Hunt Dale. To advance Extra 728 from Green Mountain to Hunt Dale, the dispatcher issued an order on Form 31 addressed to No. 94 at Hunt Dale and on Form 19 addressed to Extra 728 North at Green Mountain. There was no train-order station between Erwin and Hunt Dale. By specifying that No. 94 would wait until 5:15 p. m., he knew that Extra 728 would be required to clear the main track at Hunt Dale not later than 5:10 p. m. To ascertain the progress of No. 94, the dispatcher instructed the operator at Hunt Dale to telephone the section foreman at Poplar, 4.4 miles north of Hunt Dale; about 4:53 p. m. the operator informed the dispatcher that No. 94 was passing Poplar. The dispatcher then instructed the operator to sign the conductor's name to the Form 31 order and to make it complete at 5:05 p. m.

The statements of the dispatcher and the operator with regard to the method of delivering the order to No. 94 were conflicting. The dispatcher said that he instructed the operator to provide adequate stopping distance by flag protection for No. 94, unless Extra 728 was in the clear. The operator said that the dispatcher instructed him to give No. 94 a "steady" signal.

Two other operators listening on the telephone to the conversation between the dispatcher and the operator involved said the dispatcher told the operator to signal No. 94 to reduce speed for delivering the order. According to the trainmaster, when a restrictive order is sent to the point of restriction, such as an order for a south-bound train at Hunt Dale, because of the short distance the train-order signal can be seen, the operator is required to flag the train in accordance with the flagging rule and the operators are so instructed. The operator signalled with order hoops for No. 94 to reduce speed. The front brakeman warned the engineman of the first engine that the operator was giving stop signals but the engineman did not hear the warning. The action of the operator led the crew of No. 94 to believe that they were about to receive a Form 19 train order which would be effective at some point south of Hunt Dale. If the operator had gone 701 feet north of the station to flag No. 94, he would have been at the south end of a section of tangent track; from this point undoubtedly he could have been seen a sufficient distance to permit the train to be stopped short of the south siding-switch.

The rules of this railroad require that the conductor must sign a Form 31 train order; a dispatcher is not authorized to instruct an operator to sign a conductor's name and the operator is not authorized to sign a conductor's name to a Form 31 order. After this form of order has been issued and repeated or the "X" response given by the operator, the conductor's signature must be produced or the order must be annulled. The operator said that he knew he was not complying with the rules in signing the conductor's name on the order and delivering it without stopping the train, but he followed the instructions of the dispatcher.

#### Conclusion

This accident was caused by a restrictive order which was addressed to a train at the point of restriction being delivered without stopping the train and following the procedure prescribed by the rules.

Respectfully submitted,

S. N. MILLS,

Director.