INTERSTATE CONTERCE COMMISSION.

REPORT OF THE CHIEF OF THE BUPEAU OF SAFETY IN RE INVESTIGA-TION OF AN ACCIDENT WHICH OCCURRED ON THE TEXAS & PACIFIC RAILWAY NEAR CAMPS, TEX., ON NOVEMBER 10, 1921.

January 16, 1922.

To the Commission:

On November 10, 1921, there was a head-end collision between a passenger train and a freight train on the Texas & Pacific Railway near Camps, Tex., which resulted in the death of 1 employee, and the injury of 43 passengers and 4 employees.

Location and method of operation.

The Dallas Sub-Division of the Ft. Worth Division, on which this accident occurred, extends between Longview Junction and Fort Worth, Tex., a distance of 156 miles, and is a single-track line over which trains are operated by timetable, train orders, and a manual block-signal system. The accident occurred at a joint about 1 mile west of the west switch at Carps. Approaching from the east, beginning at the switch, there are 3,900 feet of tangent, followed ay a 1-degree 3-minute curve to the right 1,668 feet in length, the accident occurred on this curve at a point about 360 feet from its western end. Approaching from the west there are about 3.7 miles of tangent, followed by the curve on which the accident occurred. The grade in each direction is undulating, being 1.057 per cent descending for westbound trains in the im ediate vicinity of the point of accident. The view of engine crews of trains approaching the point of accident from either direction is limited to about 1,500 feet. The weather was clear at the time of the accident, which occurred at about 5.11 a. m.

Description.

Westbound passenger train No. 3 consisted of 2 baggage cars, 2 mail cars, 2 coaches, and 3 Pullman sleeping cars, in the order named, hauled by engine 700, and was in charge of Conductor Turner and Engineman Jarrett. Upon the arrival of this train at Longview Junction, 7.6 miles east of Camps, the conductor received from the operator a clearance card stating that the block was clear, and listing the numbers of the train orders attached, namely, slow orders Nos. 911

and 912, on Form 19, train orders Nos. 3 and 8, on Form 31, and train order No. 14, on Form 19, the last three orders reading as follows:

Train Order No. 3, Form 31:

"Eng 518 run second 67 Longview Joth to Ft. Worth, ahead of Nos 23 and 3 until overtaken"

Train Order No. 8, Form 31:

"No 3 Eng 700 waits Gladewater Five fifteen 515 am Wilkins Five twenty two 522 am Ferguson Five thirty five 535 am Hawkins Five fifty 550 am No. 23 Eng 707 waits Willowspring Five twenty five 525 am Gladewater Five thirty five 535 am Ferguson Six naught five 605 am No 3 Eng 700 runs ahead of No 25 Eng 707 Longview Jotn until overtaken"

Train Order No. 14, Form 19:

"No 3 Eng 700 waits Camps Five fifteen and No 23 Eng 707 waits Willowspring Five forty five 545 am for 1st 66 Eng 538"

According to the train sheet, train No. 3 left Long-view Junction at 4.55 a.m., 50 minutes late, passed Cames without stopping at about 5.10 a.m., and collided with train first No. 66 while traveling at a speed of 10 or 15 miles an hour.

Eastbound freight train first No. 66 consisted of 44 cars and a caboose, hauled by engine 538, and was in charge of Conductor Goode and Engineman Smith. This train left Mineola, 38.9 mHes west of Camps, with a copy of train order No. 8, Form 19, previously quoted, and approached Gladewater, 5.6 miles west of Camps and the last open office, prepared to enter the siding; on receiving a proceed signal, given by Operator Cloud with a lantern, no stop was made; and as the train passed the station, at 5.05 a.m. according to the train sheet, the crew received a copy of train order No. 14, Form 19, previously quoted, and a caution card reading in substance as follows:

"Ft Worth New 10th 1921 Train 1st 66 and Train 3 will meet at Camps As per Train Order No. 14 Train 1st 66 and Train 23 will meet at Willow Springs As per Train Order No. 14 Complete 449 am By WTL Trainmaster. Cloud Signalman."

As the train approached the curve Engineman Smith saw the reflection of the neadlight of the passenger train, and nad reduced the speed to 12 or 15 miles an hour when the accident occurred.

Both engines remained upright, but were quite badly damaged, while the boiler of engine 700 was loosened from its frame. For a distance of about 20 feet the rear end of the first baggage car, which was of wooden construction, was tele scoped by the following car, which was of steel-underframe construction. The first nine cars in the freight train were destroyed or badly damaged as a result of the collision and of the fire which broke out in the wreckage. The employee killed was the fireman of the freight train.

Summary of evidence.

Before Conductor Turner, of train No. 3, went into the telegraph office at Longview Junction, Operator Robinson had prepared copies of train orders Nos. 3, 8, 911 and 912, together with a clearace card which listed these four orders and stated the block was clear. After Conductor Turner signed for the orders, and they had been made complete, the dispatcher asked the operator when train No. 3 would be ready to depart, and was informed it would be at 4.55 a.m. or 5 a.m., Dispatcher Tucker then issued train order No. 14, on form 19, and instructed Operator Robinson to issue a caution card, giving him a serial letter for it. Operator Robinson, however, did not issue a caution card, he entered the number of the order on the original clearance card, instead of issuing a new card, and aid not change the card to show that the block was occupied. Operator Robinson said he did not issue a caution card, as the writing of a new clearance card and the issuing of a caution card would have delayed the train, and also as Conductor Turner had said it was unnecessary to have the caution card, with which opinion he agreed.

Conductor Turner said he received five train orders, together with a clearance card, and was told by the operator that the dispatcher had authorized a caution card, but that the opposing train would be at Camps and it would not be

necessary to issue a caution card; also that as the clearance card stated the block was clear, he assumed the freight train was into clear or that it was being held at Gladewater. Conductor Turner stated that after checking the orders, one set including clearance card and register check, was delivered personally to Engineman Jarrett, but they were not compared as required by the rules; he them handed his set of orders to Flagman Dehn to read. He said he was listening to hear the whistle sounded when approaching Camps, intending to give the engineman the communicating signal to stop, on account of the wait order, but failed to hear the whistle or to notice the train passing over the switches, and did not know Camps had been passed until after the occurrence of the accident. When Flagman Dehn roturned the orders to him after the accident, the clearance card was with them, but he himself lost it afterwards.

Engineman Jarrett, of train No. 3, stated that after delivering the orders, register check and clearance card, on which was listed only the four orders attached, the conductor immediately walked back toward the rear end of the train, which accounted for the orders not being compared; he was positive he did not receive a copy of train order No. 14 and that it was not listed on his clearance card, which said the block was clear. After checking and reading the orders he passed them to Fireman Hoffmeister, together with the clearance card and register check, and on returning them to him, minus the clearance card, the fireman made mention of the order to wait at Gladewater until 5.15 a.m. Engineman Jarrett the reflection of a headlight on the rails at the curve, made an emergency application of the air brakes and jumped. After the accident his copy of the clearance card and register check could not be located, but three orders were found in a pocket of his overalls, and the fourth order was later found by another employee. Fireman Hoffmeister stated that there was no register check or clearance card with the four train orders when he received them, although he observed that Engineman Jarrett had a clearance card and a paper resembling a register check in nis hand; train order No. 14 was not among those seen by the fireman.

Flagman Dehn said he only received four train orders and a clearance card from the conductor at Longview Junction, among which was the one requiring train No. 3 to wait at Gladewater until 5.15 a.m. Immediately after the accident he west back to Camps to flag, at which point he later returned the orders and clearance to Conductor Turner; he was not positive as to having checked the orders against the clearance card.

Engineman Smith, of train first No. 66, stated that or receiving a proceed signal from the operator at Gladewater, the train continued on the main track without stopping, the operator handing en a copy of train order No. 14, Form 19, a clearance card stating the block was occupied, and a caution card stating that trains Nos. 3 and first 66 would meet at Camps. Approaching the curve on which the accident occurred, he heard the fireman tell Brakeman Thornton that the passenger train was coming, the brakeman replied in ithe negative, but shortly afterwards Engineman Smith saw the reflection of the headlight of the opposing train, made an emergency application of the brakes, and jumped. Engineman Smith was of the opinion that in running against a superior train on a wait order, a 5-minute clearance was not required, but that the time could be used up to the expiration of the wait order, and said this had been the practice for 12 years. In this connection, it should be noted that the siding at Camps was not long enough to hold train first No. 56 and that it would have been necessary to send a flagman to stop train No. 3 preparatory to "sawing by". Conductor Goode said it was 5.02 a.m. just after the caboose passed Glade-water, while Engineman Smith said it was 5.04 a.m. when he passed the east switch.

Operator Cloud, on duty at Gladewater, had his receiving set on at the time Operator Robinson asked Train Dispatcher Tucker to clear train No. 3 at Longview Junction; the dispatcher first issued train order No. 14, Form 19, for train No. 3 at Longview Junction and train first No. 66 at Gladewater; after these orders had been completed, caution cards were issued for Longivew Junction and Gladewater. As train first No. 66 approached Gladewater, Operator Cloud gave a proceed signal, and the train continued on the main track, receiving the train orders as it passed the station at about 5.05 a.m.

Train Dispatcher Tucker stated that train first No. 66 left Big Sandy at 4.40 a.m. and he expected it would arrive at Gladewater 5 a.m. or 5.01 a.m., and that if it proceeded it would be necessary for it to be into clear at Camps, 5.6 miles distant, by 5.10 a.m. He further stated that the speed permitted for freight trains in this vicinity was 25 miles an hour, with a 5-mile variation, waking a maximum speed of 30 miles an hour. It is to be noted that even had the train passed Gladewater at 5.01 a.m.it would have had to travel approximately 40 miles an hour in order to be into clear at 5.10 a.m.

Superintendent Knightlinger said there had been no instructions issued modifying the 5-minute clearance rule.

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Rule 89, which governs this particular feature, provides that at meeting points between trains of different classes, the inferior train must clear the superior train at least 5 minutes.

Conclusions.

This accident was caused primarily by the failure of train No. 3 to wait at Camps for train first No. 66, in compliance with the provisions of train order No. 14.

Conductor Turner knew of the requirement of train order No. 14 that his train should wait at Camps until 5.15 a.m., but permitted it to pass at 5.10 a.m., saying he did not know it had passed that point until after the accident occurred. It was also the duty of Conductor Turner to know that Engineman Jarrett received a copy of the order and was acquainted with its contents, but aside from his own statement there is no evidence that either the engineman or fireman saw the order or knew that such an order had been issued.

Engineman Jarrett is positive that train order No. 14 was not among those delivered to nim and that its number was not shown on his clearance card. Had Conductor Turner and Engineman Jarrett compared their orders before departing from Longview Junction, as required by the rules, the absence of train order No. 14 in doubtedly would have been discovered and the accident averted.

Conductor Goode and Engineman Smith, in charge of train first No. 66, are also at fault for allowing their train to depart from Gladwater without sufficient time to reach Camps and clear the time of train No. 3. The distance between the east switch at Gladewater and the west switch at Camps is nearly 5 miles and according to Engineman Smith's statement he did not pass the east switch at Gladewater until 5.04 a.m. When it is also considered that the siding at Camps is not long amough to hold a train of the length of train first No. 66 and that it would have been necessary to saw by, the chances being taken by these amployees are clearly apparent.

Operator Robinson, on duty at Longview Junction, is also involved in the responsibility for this accident for issuing a clearance card stating that the block was clear when it should have stated that the block was occupied, also for failing to issue a caution card when the rules required one should be issued and he had been instructed by the train dispatcher to do so. Had the clearance gard been properly

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filled out and a caut on card issued, it is possible that the absence of train order No. 14 would have been discovered by Engineman Jerrett. Conductor Turner should have refused to accept the plearance card which he knew was improperly made out and should have insisted that a caution card be given him.

Dispatcher Tucker is also open to criticism in connection with this accident. According to his own statement ne expected train first No. 56 to run a distance of 5.6 miles in 9 minutes when the maximum speed permitted for freight trains is 25 miles per hour. In issuing a wait order under these circumstances he encouraged the crew of train first No. 66 to violate the rules with respect to speed and clearance. Dispatcher Tucker openly violated the rules when he permitted train order No. 14 to be delivered to train No. 3 on form 19; the use of such form to restrict the superiority of a train at a station where no telegraph operator is located is expressly prohibited.

This investigation disclosed the fact that Engineman Smith did not have a correct understanding as to the clearance time required of an inferior train on a wait order. This is a reflection upon those officials whose cuty it is to see that all employees in train service have a correct and uniform understanding of operating rules.

Under the circumstances as they existed immediately prior to the occurrence of the accident, train order No. 14 was the most important order which had been issued and yet not one person handled it correctly with the exception of the operator at Gladewater and the possible exception of the flagman, Dispatcher Tucker issued the order on an improper form, Operator Robinson failed to issue the caution card required in view of the order, and issued an improper clearance card; Conductor Turner and Engineman Jarrett made no attempt to compare orders; Fireman Hoffmeister read the crders, but did not check them against the clearance card, while the flagman had not completed reading the orders when the accident occurred. It is also noted that the conductor of train first No. 66 delivered orders to his engineman by means of the flagman instead of delivering them personally.

The manner in which Operator Robinson and Conductor Turner dealt with the clearance and caution cards indicates that they are not observing closely the rules with respect to the operation of the manual-block system.

Proper supervision would have disclosed the misunderstanding and non-observance of rules disclosed by this accident, and the Texas and Pacific Railway should take such steps as will result in a correct and uniform understanding and observance of its operating rules.

All of the employees involved were experienced men. At the time of the accident the engine crew of train No. 3 had been on duty about 2 hours, after about 60 hours off duty; the train crew had been on duty about 5 hours, after about 20 hours off duty. The crew of train first No. 66 had been on duty about 9 hours, after about 14 hours off duty.

Respectfully submitted

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Chief, Bureau of Safety.