

INTERSTATE COMMERCE COMMISSION.

REPORT OF THE CHIEF OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE CHICAGO, ROCK ISLAND & PACIFIC RAILWAY NEAR PLAINS, KANS., ON APRIL 19, 1922.

May 19, 1922.

To the Commission:

On April 19, 1922, there was a head-end collision between two passenger trains on the Chicago, Rock Island & Pacific Railway near Plains, Kans., which resulted in the death of 2 employees, and the injury of 4 passengers and 2 employees.

Location and method of operation.

The sub-division on which this accident occurred extends between Pratt and Liberal, Kans., a distance of 136.2 miles, and is a single-track line over which trains are operated by time-table and train orders, no block-signal system being used. The accident occurred at a point 3.16 miles west of Plains. Approaching this point the track is tangent for several miles in each direction. The grade approaching from the east is 0.66 per cent ascending for a distance of about 1,700 feet, while approaching from the west it is practically level. The weather was clear at the time of the accident, which occurred at about 2.35 a. m.

Description.

Westbound passenger train No. 311 consisted of 1 baggage car and 2 coaches, hauled by engine 1230, and was in charge of Conductor Keene and Engineman Widaman. At Meade,

15.4 miles from Plains, the crew received a copy of train order No. 205, form 31, which provided for meeting train No. 312 at Kismet, 7.16 miles west of Plains. Train No. 311 left Meade at 1.56 a.m., 1 hour and 54 minutes late; at Plains the train-order board was in the stop or "31 order" position, but the orders for which it was displaced had been annulled and train No. 311 left plains, with a clearance card, at 2 27 a. m., 1 hour and 52 minutes late, and collided with train No. 312 while running at a speed variously estimated by the train crew to have been from 20 to 40 miles an hour.

Eastbound passenger train No. 312 consisted of 1 baggage car and 2 coaches, hauled by engine 1237, and was in charge of Conductor Vail and Engineman Frick. At Liberal, 21 miles from Kismet, the crew received a copy of train order No. 205, providing for a meet with train No. 311 at Kismet. On arriving at Kismet, the crew received a copy of train order No. 211, written on form 31, reading as follows:

"No three eleven 311 Eng 1230 get this order Hold main track meet No three twelve 312 eng 1237 at Plains instead of Kismet. Extra 1913 east run ahead of No three twelve 312 Kismet to Plains"

Train No. 312 departed from Kismet ahead of extra 1913 at about 2.24 a. m , 1 minute late, and collided with train No. 311 while running at a speed estimated by the crew to have been 35 or 40 miles an hour.

Both engines were considerably damaged, but remained upright. In each train the baggage car was telescoped by

the tender for the full length of the tender, while none of the other equipment was damaged. The employees killed were the enginemen.

Summary of evidence.

Under the rules of this railway, train orders on form 31 are made complete by the dispatcher to the operator as soon as the operator has repeated the order, it being left to the operator to secure the conductor's signature. When the train-order board is displayed, either at stop or to indicate that a train order on form 19 is to be delivered, no train may pass without a clearance card which specifies the numbers of the train orders accompanying it, and in the case of train orders on form 31 the operator must repeat to the dispatcher the numbers of the orders from the clearance card, after which the dispatcher gives an O. K., with the time and his initials, to be noted on the clearance card by the operator.

Eastbound stock extra 1913 was being delayed at Kismet on account of being unable to proceed farther against superior train No. 311. The telegraph office at Kismet was open only from 8.30 a. m. to 5.30 p. m., but in order to expedite the movement of this stock extra the dispatcher had instructed the operator at Plains to call Operator Noland at Kismet by telephone and request him to report for duty. When Operator Noland reached the office shortly after 2 a. m., the train dispatcher issued train order No. 210, form 31, placing it at Plains for train No. 311 and at

Kismet for extra 1913, providing a meeting point between these two trains at Plains. He then issued train order No. 211, form 31 placing it at the same points, changing the meeting point between trains Nos. 311 and 312 from Kismet to Plains and permitting extra 1913 to run ahead of train No. 312 from Kismet to Plains. After issuing this order, he sent a message to the operator at Kismet to regard train order No. 211 as a form 19 order, however, upon this point there is a dispute, Dispatcher Forsyth claiming the message as sent referred only to extra 1913, while Operator Noland claimed that extra 1913 was not mentioned in the message, which made it applicable to both trains. When train No. 312 arrived at Kismet, the train-order board was in the position indicating a form 19 train order, Conductor Vail entered the office and was given train order No. 211, which he signed; he then saw the message to consider train order No. 211 as a form 19 order, and he was then given a copy of train order No. 211, together with a clearance card, which had not been OK'd by the train dispatcher; after getting this he returned to his train. While Conductor Vail was signing the order, Conductor Harvey, of extra 1913, entered the office and said that his train could not get out of Kismet ahead of train No. 312 without delaying it, and it was agreed between Conductors Vail and Harvey that train No. 312 should go ahead. When the train dispatcher learned that extra 1913 was not going ahead, he issued train order No. 212, form 31, addressed to the operator at Plains and to the operator and to extra 1913 at Kismet, annulling train

orders Nos. 210 and 211, in the meantime train No. 312 departed, expecting to meet train No. 311 at Plains. Operator Noland said that in view of the fact that train order No. 212 was addressed only to himself and extra 1913, he overlooked the fact that it also affected train No. 312, and it was not until he reported the departure of train No. 312 to the dispatcher that the error was discovered. Operator Noland said that inasmuch as under the authority of the dispatcher's message, train order No. 211 was to be handled as a form 19 order, he did not consider it necessary to get the dispatcher's O. K. to the clearance card for train No. 312, as required in the case of a form 31 order, and this is the view taken by Conductor Vail, of train No. 312, in accepting the clearance. Train Dispatcher Forsyth claimed that when he learned that extra 1913 could not proceed ahead of train No. 312, he asked Operator Noland if he still had train orders Nos. 210 and 211, and that Operator Noland replied train order No. 210 had been delivered to extra 1913, whereupon he issued train order No. 212 addressed to extra 1913 and to the operator. Operator Noland denied that this conversation took place. Dispatcher Forsyth stated that the first intimation that he received that train No. 312 had been delivered a copy of train order No. 211 was when Operator Noland asked for a clearance for extra 1913 and he learned that train No. 312 had departed at 2.24 a. m. It did not occur to him that train order No. 211 might be delivered to both trains as a form 19 order.

Operator Pickering, on duty at Plains, said he received the annulment order just prior to the arrival of train No. 311, which was at 2.26 a. m. He heard train orders Nos. 210, 211 and 212 repeated by Operator Noland, heard the dispatcher send a message about delivering some order as a form 19 order, but did not hear any conversation as to whether train order No. 211 had been delivered to train No. 312 or extra 1913.

The statements of the fireman and of the members of the two train crews indicate that the engine crews and train crews of trains Nos. 311 and 312 saw the electric headlight of the opposing train before departing from Plains and Kismet, respectively, and that in each case the engine crew commented upon it and thought the opposing train was waiting at the next station. As the trains departed from their respective stations, the firemen were on the decks of their engines and noticed nothing wrong until the enginemen applied the air brakes, when they looked out and saw the opposing train a short distance away. Both firemen said the headlights were burning brightly.

Conclusions.

The accident was caused by the improper handling of form 31 train order No. 211.

In an attempt to transform a form 31 train order into a form 19 order, Dispatcher Forsyth sent a message to Operator Noland to consider train order No. 211 as a form 19 order; whether this message referred to extra 1913 alone,

as claimed by Dispatcher Forsyth, or whether the mention of any particular train was omitted, as claimed by Operator Noland, is a question of veracity between these two employees and cannot be definitely determined. The dispatcher's copy, which was made from memory sometime afterward, mentions extra 1913 specifically, while the operator's copy, which was copied by him as it was being sent by the dispatcher, makes no mention of extra 1913. These facts would seem to give Operator Noland's statement the greater weight. Regardless of whether or not Operator Noland made an error in copying the message, the changing of a train order from form 31 to form 19 by message is an act entirely unwarranted either by rule or practice, and as it was this act on the part of Dispatcher Forsyth that made the accident possible, he must bear the responsibility.

While there is no authority contained in the rules for changing a form 31 train order into a form 19 train order, Operator Noland and the crew of train No. 312 can not be criticized for handling train order No. 211 as a form 19 order in view of the positive telegraphic instructions received from the train dispatcher, their immediate superior and directing officer.

Had Dispatcher Forsyth handled this movement by a form 31 train order in accordance with recognized practice, the opportunity for error and misunderstanding as occurred in this instance would not have been presented. The only object gained by issuing a form 19 train order instead of

a form 31 train order was the possible saving of a few minutes delay to extra 1913.

Pegardless of the wording of Dispatcher Forsyth's message, had Operator Noland been alert he probably would have discovered the dangerous situation created by the annulment order and would have taken steps to protect the situation. It is quite probable that this failure on the part of Operator Noland was due to his physical and mental condition at the time he was called upon to perform this service. Investigation developed that Operator Noland had been on duty on April 18 as agent and operator at Kismet from 8.30 a. m. until 5 30 p. m. with 1 hour out for lunch; that he retired shortly after 9 p. m. and had fallen asleep when he was called at about 11 p. m. to go to his office and secure orders for extra 1959 against opposing trains. He remained at the office some 15 or 20 minutes when he returned to his home and again retired. He was awakened a second time at about 2 a. m. and was requested to go to his office and secure train orders for extra 1913 to help it against train No 311. Under these conditions it is not to be wondered at that Operator Noland was not mentally alert and active when he reported at the office the second time. This conclusion seems to be borne out by the fact that when Operator Noland reached his office, he failed to light the lamp in the train-order signal or to use a lantern or other means to indicate that he had train orders on hand to be delivered.

The practice of awakening operators from their sleep to report for duty and handle train orders upon trivial occasions is dangerous and should be discouraged. In this instance there was no emergency, and nothing more serious was involved than the delay to freight trains.

The power of the train dispatcher to issue instructions authorizing deviation from the prescribed rules and practices can not be questioned. During his tour of duty, all the authority of the superintendent relative to the movement of trains is vested in the dispatcher and instructions issued by him in proper form are absolute, but the practice of instructing subordinate employees to deviate from the prescribed rules and regulations upon trivial occasions as evidenced in this case is an abuse of such power and is strongly condemned.

Any means taken by a train dispatcher to supplement or deviate from the contents of a train order other than by the issuance of another train order nullifies the safeguard secured by the rules in requiring train orders to be repeated and reduces such orders to a message status and such a practice if continued sooner or later results disastrously.

This accident again calls attention to the inherent weakness of train operation by the train-order system. Had there been an adequate block system in operation on this line, there would have been a check against the errors which occurred in this case and the accident would have been prevented.

An unusual feature of this accident is the fact that the track between Kismet and Plains is tangent and both engines were equipped with electric headlights which were burning at the time of the collision. As the engine-men of both trains were killed, any attempt to say why they failed to discover each other and stop their trains before colliding would be merely a matter of conjecture.

Train Dispatcher Forsyth entered the service of the Chicago, Rock Island & Pacific Ry. as an operator in June, 1919, prior to which he had had about 17 years' experience as an operator on other roads; he was promoted to train dispatcher in June, 1921. At the time of the accident he had been on duty 2 hours and 35 minutes.

Respectfully submitted,

W. P. Borland,

Chief, Bureau of Safety.