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INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIFFCTOR OF THE BURFAU OF SAFETY IN RE INVER. GATION OF AT ACCIDENT WHICH OCCURRED ON THE TOLEDO, SA LOUIS & WESTERM RAILROAD NEAR COPELAND, OHIO, ON Dept. of Transportation

APRIL 2, 1923.

To the Commission

On April 2, 1923, there was a rear-end collision between two freight trains on the Toledo, St. Louis & Western Railroad near Copeland, Ohio, which resulted in the death of ore employee and the injury of four employees.

Location and method of operation.

This accident occurred on subdivision 1, which extends between Toledo and Delphos Yará, Onio, a distance of 72 7 miles, this being a single-track line over which trains are operated by time-table and train orders, no block-signal system being in use. Under the rules, trains in the same direction are spaced 10 minutes apart at open offices. The accident occurred at a point nearly 2 miles east of Copeland, approaching this point from the west there are 2,758 feet of tangent, a curve of 20 to the left which is 843 feet in length, 176 feet of tangent, and a curve of 20 to the right 1,408 feet in length, the point of accident being on this curve 312 feet from its western end. Approaching from the west there is an unobstructed view of the point of accident for a distance of nearly 3,000 feet. The grade is practically level. The weather was cloudy at the time of the accident, which occurred at about 11.55 p.m.

## Description.

The crew of engine 144, in charge of Conductor Flickinger and Engineman Stracke, were engaged in transfer service between Michigan Central Junction and Coreland, a distance of 3.6 miles, and before departing from Michigan Central Junction received a copy of train order No. 89, Form 19, reading as follows:

> "Eng. 124 run Extra MC Jct to Copeland and return to MC Jct meet Extra 151 east of Copeland"

This order was made complete at 10.20 p.m., and according to the train sheet extra 124 left Michigan Central Junction at

10.30 p.m. and arrived at Copeland at 11.15 p.m.; the cars in the train were set out and a train of 19 cars made up for the return trip to Michigan Central Junction. There is no record on the train sheet as to the time at which extra 154 departed from Copeland eastbound, but the testimony indicates it was between 11.40 and 11.45 p.m. It had proceeded a distance of nearly 2 miles, and was traveling at a speed of 10 or 15 miles an hour when it was struck by extra 151.

Eastbound freight train extra 151, consisting of 25 cars and a caboose, hauled by engine 151, was in charge of Conductor Bonon and Engineman Thomas. This train passed Copeland at 11.50 p.m. without receiving a copy of train order No. 89, previously quoted, which had been addressed to it at that point on Form 31, and collided with therear of extra 124 while traveling at a speed of about 25 miles an hour.

The capcose and the tenth car ahead of the caboose of extra 124 were demolished, while engine 151 and the first three cars in its train were derailed. The car immediately ahead of the caboose of extra 124 contained naptha, which caught fire and a portion of the wreckage was burned. The employee killed was the conductor of extra 184.

## Summary of evidence.

Engineman Stracke, of extra 134, said it was 11.15 p.m. when his engine arrived at the tover at Copeland after having rut away the train, that he immediately inquired as to the location of extra 151 and that the conductor told him it left Grand Rapids, Ohio, 18.7 miles from Copeland, at 11.05 p.m., but that they would proceed ahead of extra 151 to Michigan Central Junction. After pulling out on the main track he brought his train to a stop, received a proceed signal, and said it was 11.40 or 11.45 p.m. when his train left Copeland. His estimates as to its speed after departure varied from 8 to 12 males an hour, the speed limit for freight trains is 30 miles an hour, and he said there was no particular reason for the low rate of speed at which he was operating his train, it merely being customary in this vicinity. He knew extra 151 was behind his train, but said that the conductor felt they could make the run ahead of it, and that he had a shorter train than usual and everything was in their favor. He had not heard or seen anything indicating the approach of extra 151, and the first he knew of anything wrong was when the accident occurred. He further stated that he had looked back when leaving Copeland and at that time the mear marker on his side of the train was burning, and he also said that while at Copeland he had noticed that the three marker

lights were burning, one on each side of the caboose and one in the center. Engineman I Stracke stated that engine 184 was headed east on departing from Michigan Central Junction and that it was not turned at Copeland; also that in his opinion it was not necessary to wait for extra 151 east at Copeland before departing on the eastbound trip as all orders pertaining to extra 184 west had been fulfilled when he left Copeland. He also stated that no delays were encountered en route on the return trip. The statements of Fireman Gwin and Switchman Voorhees, who was head brakeman, practically corroborated those of Engineman Stracke.

Switchman Welte, who was flagman on extra 124, said that at Copeland he walked along the train, coupling the air hose, while the conductor went to the tower. After brake-pape pressure had been pumped up, the train proceeded out on the main track and he asked Conductor Flickinger if he should place a torpedo on the rails, and was told not to do so. After pulling out on the main track, Switchman Welte threw, the derail and closed the switch, and noted that the red lanterns serving as markers on the sides of the caboose were burning; also the red lantern which was in the window in the center of the mear of the caboose. He further stated that Conductor Flickinger took down the red lantern which was hanging in the window and then sat aideways in the window, facing north. There was some conversation concerning extra 151, Switchman Welte remarked that that train was coming with only a few cars and did not stop at Copeland, and the conductor said that if he saw them coming he would throw off a fusee. Switchman Welte said Conductor Flickinger sat in the window all of the time and that he himself then ate lunch, after telling the conductor he was going to do so, and shortly after this he sawopposite the trank a reflection of a headlight, and was getting out of the caboose when the accident occurred, at which time the speed of his train was about 10 miles an hour. He further stated that he noticed the conductor just before getting off and that he had his arms folded and appeared to be dozing; that Conductor Flickinger was in the habit of throwing off fusees himself, or else telling the flagman to do so, and that he supposed the conductor would attend to this duty or this occasion. Switchman Welte stated that he did not remember whether it was 11.43 or 11.48 p.m. when he closed the switch after the train had pulled out on the main track at Copeland.

Engineman Thomas and Head Brakeman Cattell of extra 151 stated that approaching Copeland the engine whistle was sound ed for the interlocking, and train order signals, and after both of these signals were cleared, steam was worked; they estimated speed at about \$5 or 30 miles an hour when they passed Copeland at about 11.50 p.m. Road crossing signals were sounded on two codssions, and on reaching the long tangent air roaching the point of accident they were looking ahead but their first knowledge of the train ahead was when they saw the electric headlight of their engine shining on the caboose of extra 134, only about 5 or 8 car lengths away, at which time speed was about 30 miles an hour. Engineman Thomas shut off steam, and aplied the air brakes in emergency, and they jum ed just before the accident occurred. Engineman Thomas stated that although he was looking forward all the time he did not see any markers or reallights on the caboose of extra 1.4, nor any flag.an. Head Brakehan Cattell stated that then he first saw the train he thought it was standing, and was positive in his statement that none of the Marker lights was burning.

Fireran Fuerst said he was on the deck of the engine most of the tire, put in one or two fires after passing Copeland, and was about to put in another fire when the engineman told him to get off, he did not see any red lights on the caboose of extra 124.

Conductor Bonon, who was riding in the caboose, verified the state ents about the clearing of the signals for his train at Copeland, and as to the time at which the train passed that point. He estimated the speed at this time at 40 miles an hour and said it was then increased to not more than 30 miles an hour. His first knowledge of anything wrong was then the air prakes were applied in emergency, just before the accident occurred, and he thought the speed at the time of the accident had been reduced to 40 miles an nour. The air brakes on extra 151 worked properly en route. Flagman Powell, who was riding on the left side of the cupola of the caboose, thought the speed of the train passing Copeland was about 45 miles an hour. His further statements practically corroborated those of conductor Bohon.

Operator McCormack, stationed at Copeland, stated that at about 11.15 p.m., Conductor Flickinger came into the office and reported the arrival of extra 124, and, as he considered this coppleted train order No. 55, after reporting their arrival to the dispatcher, he filed his copy, which was addressed to extra 151 east at the meeting point, as had been the practice at this point for years. Operator McCormack told Conductor Flickinger that extra 151 had departed from Grand Rapids, 18.7 miles distint, at 11.15 p.m., then he heard the

conductor remark to a member of the crew that they could easily make Michigan Central Junction ahead of that train. Extra 124 then proceeded to the east end of the yard. He said that he saw them down in the yard sometime after 11.25 or 11.30 p.m., but at 11.38 p.m., there was no indication of them being in the yard and therefore he was certain they had departed at this time. He maintained that as he was positive extra 124 had departed at 11.38 p.m., and as extra 151 did not pass Copeland until 11.50 p.m., the ten minute spacing rule had been complied with, also that he did not show the departing time of extra 124 on the train sheet, not report their departure to the dispatcher, as he did not know what time they actually left.

Dispatcher Laubenthal stated that he issued the round trip order to extra 124 on this occasion as a matter of conven lance, rather than nutting out two orders for the movement intended. Dispatcher Scott stated that he arrived at the office at about 11.45 p.m., and that Dispatcher Laubenthal was with him making the transfer until almost 12 o'clock. Both of these dispatchers were of the opinion that when extra 124 arrived at Copeland the order had been fulfilled. They also admitted it is the practice, at times, for crews engaged in transfer service to return to Michigan Central Junction ahead of the train they are supposed to meet at Coxeland. Dispatcher Laubenthal stated that train order No. 89 was placed at Copeland, the meeting point, to extra 151, the superior train, with the idea that extra 124 would make the round trip, returing to Michigan Central Junction before extra 151 arrived at Copeland, and then it would not be necessary to stop extra 151 at Copeland for the order, otherwise the order would have been placed to extra 151 at some point west of Cofeland, and the train stopped to receive this order. Dispatcher Scott stated that Operator McCormack reported extra 124 as having arrived at Copeland at 11.15 p.m., but that no report was made as to the time of their departure from that point. Also that extra 151 passed Copeland before he was through making out the dispatcher's transfer.

The caboose of extra 124 was a built-over box car with a door in the center on each side and one window in the center of each end, as well as windows on the sides. The brackets for supporting the markers were located just to the rear of the side doorways, or about a half a car length from the rear of the car, and of course, when the caboose was rounding a curve, the outside marker would not be visible to a following train. At the time of the accident the markers were red lanterns. Trainmaster Druckemiller said a set of standard markers had been furnished the crew for use on this caboose and did not know that they had been changed by the crew, this having been done without permission a few days prior to the accident.

## Conclusions.

This accident was caused primarily by the failure to provide proper flag protection for the mean of extra 154, for which Conductor Flickinger and Flagman Welte are responsible.

The flagging rule of this railroad requires in part that when a train is moving under circumstances in which it may be overtaken by a following train, the flagman must take such action as may be nesessary to insure full protection. The evidence indicates that there was some conversation between Conductor Flickinger and Flagman Welte, after leaving Copeland, to the effect that extra 151 was coming with only a few cars and not stopping at Copeland, also that the conductor remarked he did not think the crew of that train would see extra 124, but if he saw them he would throw off a fuse. Yet in view of this condition he removed the red light from the pear window of the caboose and sat in the window, while Flagman Welte ate lunch, had these employees protected their train in accordance with the rules, this accident undoubtedly would have been prevented.

Although the testimenty is conflicting as to the time extra 124 departed from Copeland, Operator McCormack admitted he did not know what time they actually did depart, and the weight of evidence is that the trains involved were not spaced ten minutes apart as required by the rules.

Rule 229-10, relating to the duties of inspatchers, provides that as far as possible they shall avoid issuing round trip orders. In this instance the dispatcher issued the round trip order as a matter of convenience and in accordance with common practice. A check of the records disclosed that very frequently round trip train orders, identical in substance with train order No. 89, are issued to crews engaged in transfer service, addressed to the superior train at the meeting point, and are handled in the same manner as was done on this occasion. Sometimes the train inferior at the time of the issuance of the order follows the superior train from Copeland to Michigan Central Junction, but at times makes the round trip before the superior train arrives at Copeland.

Under rule 208a, a train order must not be sent to a superior train at a meeting point when it can be avoided, but

when so sent the fact will be stated in the order. In this case train order No. 89, on Form 31, was sent to extra 151 at the meeting point and there was nothing in the order to indicate that such was the case.

The lax operating methods and nonconformity to rules disclosed by this investigation should be given thorough consideration by responsible officers of this company and proper corrective measures should promptly be taken.

All of the employees involved were experienced men. At the time of the accident the crew of extra 134 had been on duty less than 3 hours, and the crew of extra 151 less than 5 hours, previous to which they had been off duty for more than 15, and 20 hours, respectively.

Respectfully submitted,

W. P. BORLAND,

Director.