

INTERSTATE COMMERCE COMMISSION

REPORT OF THE CHIEF OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE LAKE ERIE & WESTERN RAILROAD NEAR DENVER, IND., ON NOVEMBER 9, 1922.

December 22, 1922.

To the Commission:

On November 9, 1922, there was a head-end collision between two freight trains on the Lake Erie & Western Railroad near Denver, Ind., resulting in the death of one employee and the injury of two employees.

Location and Method of Operation.

This accident occurred on that part of the Indianapolis Division extending between Peru and Michigan City, Ind., a distance of 85.5 miles; in the vicinity of the point of accident this is a single-track line over which trains are operated by time-table and train orders transmitted by telephone, no block-signal system being in use. The accident occurred approximately 1.4 miles north of Denver, approaching this point from the south, beginning at mile post 83, there are 1,505 feet of tangent, followed by a compound curve of approximately 1° to the right 2,506 feet in length, the accident occurring on this curve at a point about 1,650 from its southern end. Approaching from the north ~~the~~ the track is tangent for 984 feet, followed by the curve on which the accident occurred. The grade is ascending for northbound trains for a considerable distance in each direction from the point of accident, varying from 0.458 to 1.172 per cent, being at its minimum at the point of accident. Owing to trees growing near the right of way, vision is limited to approximately 1,300 feet. Under the rules, northbound trains are superior to opposing trains of the same class, unless otherwise specified. Freight trains are restricted to a speed of 30 miles an hour. The weather was cloudy at the time of the accident, which occurred at about 5.26 a.m.

Description.

Northbound freight train No. 82 consisted of engine 5528, 36 cars, a caboose, and helper engine 5532, in the order named, and was in charge of Conductor Van Ness and Engineman West. At Peru, the initial terminal, the crew received copy of train order No. 3,

Form 31, as follows:

"No. 82 Eng 5528 Wait at Denver until
5:20 am for No 83 Eng 5539 Order No 2
is annulled"

Train No. 82 departed from Peru at 4.55 a.m., 3 hours and 10 minutes late, passed Denver, 8 miles beyond, at 5.22 a.m., and collided with train No. 83 while traveling at a speed estimated to have been about 15 miles an hour.

Southbound freight train No. 83 consisted of 34 cars and a caboose, hauled by engine 5539, and was in charge of Conductor Bell and Engineman Parish. On passing Rochester, 15.8 miles north of Denver, at 4.42 a.m., the crew received a copy of train order No. 3, on Form 19, providing that train No. 82 would wait at Denver until 5.30 a.m., the train was approaching Denver when it collided with train No. 82 while traveling at a speed variously estimated to have been between 30 and 50 miles an hour.

Engines 5528 and 5539 were derailed and badly damaged, but remained upright, while the first two cars in train No. 82, and the first 12 cars in train No. 83, were derailed and practically destroyed. The employee killed was the engineman of train No. 83.

Summary of Evidence.

A close examination of the copies of train order No. 3 held by the crew of train No. 82 disclosed that while the time shown was apparently 5.20 a.m., the second figure of the time was in reality a figure 3, but made in such a manner that with any ordinary reading it would appear to be a figure 2.

When Train Dispatcher Wilson issued train order No. 3, previously quoted, it was simultaneously recorded in the train dispatcher's train-order book, and copied by Operators McCarty and Quinn, stationed at Peru and Rochester, respectively. As train No. 82 was the superior train, Operator McCarty repeated the order first, and according to Dispatcher Wilson he spelled out the numerals in which the time was stated, thus: F-I-V-E-N-A-U-G-H-T T-H-R-E-E. After he had finished, Operator Quinn repeated the order. After repeating the order, Operator McCarty did not wait to hear Operator Quinn repeat it, as he should have done, but immediately removed the telephone receiver from his head. On receiving the original and one carbon copy of the order, Conductor Van Ness, of train No. 82, handed Engineman West a copy, and while

in the office read the order aloud, reading the time as 5.20 a.m., in the presence of Operator McCarty and Engineman West. Neither the conductor nor the engineman had heard how the operator repeated the order to the dispatcher. Operator McCarty said that when the conductor read the order he did not check it against a copy of the order, but from memory. He stated that he received the time in the order as 5.20 a.m., and copied it as such and knew that the crew of train No. 82 so understood it. About 30 minutes afterwards he discovered that in copying the order only one sheet of carbon was in the pad, which resulted in his making only two copies of the order, both of which were delivered to the crew of train No. 82, leaving him without an office copy. Upon making this discovery, he made another copy of the order from memory, after putting the signature of Conductor Van Ness on the copy he placed it on his file and in doing so allowed the spindle of the file to pierce the order in such a manner as to obliterate the second figure of the time so that it was impossible to tell whether it was a figure two or figure three,

When about 35 car lengths apart, each engine crew saw the reflection from the headlight of the opposing train, at which time emergency brake applications were made, and the members of these crews jumped just before the accident occurred. Immediately after the accident, Conductor Van Ness went back to the telephone at Denver and informed Dispatcher Wilson of the accident, also that the order he held read to wait at Denver until 5.20 a.m., and was then told it should have read 5.30 a.m. Shortly afterwards Dispatcher Wilson called up Peru and inquired as to the reading of train order No. 3, and said Operator McCarty at this time informed him it read 5.30 a.m. Operator McCarty insisted he received the figure in question as a two, copied it as such, intended it should be read and understood this way by the crew of train No. 82, and that at no time did he inform Dispatcher Wilson that it was a three. He also stated that as Conductor Van Ness was standing at his desk at the time, he did not secure his signature to this train order until after it had been made complete.

Conductor Van Ness stated that at the time he informed Dispatcher Wilson of the accident, which was shortly after its occurrence, he listened in on the telephone while Dispatcher Wilson communicated with what he thought was Rochester, and he heard the operator say the order he held read 5.30 a.m., Conductor Bell had also listened in and verified Conductor Van Ness' statement. However, Operator Quinn said he had no conversation with Dispatcher Wilson in regard to this train order, except to repeat it immediately after it was issued. Operator Quinn further stated that to the best of his recollection

Operator
McCarty, who was the first to repeat, spelled the figures, giving the time as 5.30 a.m., and thought that had he given it as 5 20 a.m., the discrepancy would have been discovered at that time.

Operator McCarty makes his figures for a two or a three, as the case may be, in a manner very different from each other, and careful examination of the order delivered to the crew of train No. 82, comparing the figure in dispute with other twos and threes occurring in the same order, indicates very clearly that Operator McCarty intended to write 5.30 a.m., but wrote it so poorly that the time shown on the order appeared to be 5.20 a.m.

Conclusions.

This accident was caused by failure to write a train order in a legible manner, for which Operator McCarty is responsible.

The weight of evidence indicates that train order No. 3, Form 31, as sent to train No. 82 at Peru, directed that train to "Wait at Denver until 530 am," and that Operator McCarty received and repeated it as such, that this train order as delivered to Conductor Van Ness apparently showed this time as 5.20 a.m., and that when Conductor Van Ness read it aloud as "Wait at Denver until 520 am," the error was not discovered, at which time Operator McCarty maintains he was checking it from memory.

Operator McCarty admitted being in telephone conversation with Dispatcher Wilson immediately after the accident. Although he maintains that at no time did he state or intend that this train order should read other than 5.20 a.m., the evidence indicates he was the person Conductors Van Ness and Bell heard inform Dispatcher Wilson that the train order read 5.30 a.m., as Operator Quinn, stationed at Rochester, had no conversation over the telephone with Dispatcher Wilson in regard to this train order.

The operating rules of this railroad did not require the time in a train order to be shown except in figures. Had they required it to be shown in words, as well as in figures, it is probable that the time would have been read correctly and this accident would not have occurred. Subsequent to this accident, bulletin instructions have been issued requiring that time shown in the body of train orders be shown in words as well as figures.

This accident again emphasizes the inherent weakness of the train order system of operation, had an adequate block-signal system been in use on this line, this accident undoubtedly would have been averted.

At the time of the accident none of the employees involved had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. Borland,

Chief, Bureau of Safety.