

INV. 318
FEBRUARY 7, 1916.

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
TOLEDO, ST. LOUIS & WESTERN RAILROAD NEAR
VEEDERSBURG, IND., ON DECEMBER 24, 1915.

On December 24, 1915, there was a head-and collision between a passenger train and a freight train on the Toledo, St. Louis & Western Railroad near Veederburg, Ind., which resulted in the death of 1 engineman and 3 firemen, and the injury of 19 passengers. After investigation of this accident, the Chief of the Division of Safety submits the following report:

This part of the Toledo, St. Louis & Western Railroad is a single-track line, train movements being protected by a manual block signal system. The tower at Veederburg is located at the crossing of the C. C. C. & St. L. and C. & E. I. railroads and is about 150 feet west of the crossing of the C. C. C. & St. L. and T. St. L. & W. railroads. This tower controls a 32-lever interlocking plant, of which 21 levers are in operation. On the day preceding this accident the interlocking plant was put out of service by a derailment on the C. C. C. & St. L. Ry., and on the day of the accident a flagman was stationed at the crossover to assist the operator. In addition to telegraphic connections, the tower has numerous telephone connections.

Approaching the point of accident from the west, there is over three miles of tangent track; approaching from the east there is 200 feet of tangent, a curve of three degrees to the right, 200 feet in length, 200 feet of tangent and a curve to the left of two degrees 15 minutes, this curve being about 1,400 feet in length. The collision occurred near the middle of this last

curve, at which point the track is on an ascending grade for west-bound trains of .86%.

Eastbound passenger train No. 4 consisted of one empty baggage car, one combination baggage and express car, one combination mail and passenger car, and two coaches, all of wooden construction, hauled by locomotive 42, and was in charge of Conductor Vincent and Engineman Bennett. It left Charleston, Ill., at 12:36 p.m., 25 minutes late, and at Cates, Ind., the crew in charge received copies of train orders Nos. 66 and 68, reading as follows:

Train order No. 66.

"No. 4 eng. 42 wait at Cates until two forty 2:40 p. m. for No. 25 eng. 152."

Train order No. 68.

"No. 4 eng. 42 run forty-five 45 mins. late Cates to Frankfort. No. 42 eng. unknown meet extra 193 east at Frankfort. Meet extra 187 east at Clark's Hill."

Train No. 4 left Cates at 2:44 p.m., 45 minutes late, after having received the above orders, together with a clearance card Form A and caution card, which stated that the stop signal was for train orders Nos. 66 and 68 and that the block was clear.

At 2:53 p.m., when about 7 miles east of Cates, train No. 4 collided with westbound extra 174, while running at a speed estimated to have been about 35 miles per hour.

Westbound extra 174 consisted of 47 cars and a caboose, hauled by locomotives 174 and 184, and was in charge of Conductor Davidson and Engineman Bowser and Donaldson. It left Frankfort at 12:30 p.m. and arrived at Mallett at 2:24 p.m. At this point the crew in charge received an order that train No. 4 was running 45 minutes late. Extra 174 then left Mallett, at 2:28 p.m., and

arrived at the east switch at Veedersburg at 2:45 p.m., at which point it had been the intention to take the siding for train No. 4. Conductor Davidson called the operator at the tower for the purpose of getting orders on train No. 42, the next opposing train after train No. 4, and was told to proceed down the main track as there were orders for his train to meet train No. 4 at Gates. The train then started ahead and stopped at the crossover on account of the signals being out of order. A signal to proceed was then received from the flagman and as the train passed the crossover the operator handed to the crew copies of train order No. 70, reading as follows:

"No. 4 eng. 168 take siding and meet exa. 174 west at Gates."

The crew also received a clearance card Form A and caution card, which stated that the block was occupied by train No. 28, a second class westbound freight train. Extra 174 departed from Veedersburg at about 2:00 p.m., and when about 2½ miles west of that station, collided with train No. 4, while running at a speed estimated to have been about 20 miles per hour.

All three locomotives were considerably damaged, the empty baggage car on train No. 4 was destroyed, as well as several cars in the freight train, while others were less seriously damaged. The employees killed were the fireman of the passenger locomotive, and the engineer, fireman and a student fireman on the leading locomotive of the freight train. At the time of the accident a severe snow storm was raging, accompanied by a high wind.

Dispatcher Jewell stated that train order No. 70 directed train No. 42, locomotive 168, to meet extra 174 at Gates,

and that it was issued simultaneously to the operators at Veedersburg, for extra 174, and at Cayuga, for train No. 43. When this order was repeated back to him, he did not notice anything wrong, and was positive that train order No. 70 was repeated to him by both operators as reading train No. 43 and not train No. 4.

Operator Denny, at Cayuga, stated that he received train order No. 70 from the dispatcher and repeated it back before it was repeated by the operator at Veedersburg. He stated that the order which he received read that train No. 43, locomotive 168, would take the siding and meet extra 174 at Cates. He further stated that when the order was repeated by the operator at Veedersburg he was busy issuing orders to the conductor of train No. 43 and could not say whether the operator at Veedersburg repeated it train No. 4 or train No. 43.

Operator Robbins, on duty at Cates, stated that train No. 4 arrived at that point at 3:45 p.m. and that he delivered train orders Nos. 66 and 68, together with a clearance card from A and caution card, which stated that the stop signal was for train orders Nos. 66 and 68 and that the block was clear. When asked how he knew that the block was clear, he stated that he "just took a chance;" that he rang the operator at Veedersburg three times for the purpose of getting the block for train No. 4, but could not get an answer, and so he took a chance and let the train proceed. He stated that he heard the train dispatcher send train order No. 70, but that he did not hear the operator at Veedersburg repeat the order back to the dispatcher; Operator Robbins further stated that the block rules required an operator to hold a train

when he can not get the block, but that it was the custom, when the operator was unable to obtain the block from the station next in advance, to ask the dispatcher if the block was clear. He stated, however, that he was busy at the time train No. 4 was at the station and so did not ask the dispatcher concerning the condition of the block. Operator Robbings further stated that he did not remember at what time train No. 25 cleared the block, and that he was unable to reach the operator at Veederburg to report the train as being clear of the block and to obtain the block for train No. 4. He also stated that as train No. 4 was leaving Gates, at 2:44 p.m., he again called the operator at Veederburg and reported that train No. 4 had entered the block and stated that the operator at Veederburg said something about an extra. In a few minutes the operator at Veederburg called him on the telephone and asked what he said about train No. 4 and he told him that it left Gates at 2:44 p.m. The operator at Veederburg then told him that he had an order for train No. 4 to meet extra 174 at Gates.

Operator Lucas at Veederburg tower, stated that he is employed by the Cleveland, Cincinnati, Chicago & St. Louis Railroad. It is the duty of the operator at this tower to handle all train orders for the Cleveland, Cincinnati, Chicago & St. Louis, the Chicago and Eastern Illinois, and the Toledo, St. Louis & Western Railroads; he operates the interlocking plant containing 31 levers and blocks trains on the Toledo, St. Louis & Western. In addition to the above, he is required to handle the business of the Western Union Telegraph Company. The tower is connected by telephone, with two outlying sidings on each of the C. C. & St. L. and the T. St. L. & W. Railroads; with the city exchange

and with the train dispatcher of each of the three railroads.

Operator Lucas stated that when the train dispatcher called him for the purpose of issuing train order No. 70, he was working with the Indianapolis Western Union Telegraph office. He had received the check of the message and knew that it was only a ten-word message and therefore finished taking it before answering the train dispatcher. He then copied train order No. 70 as requiring train No. 4, locomotive 168, to meet extra 174 at Cates, and repeated it to the dispatcher in that form. He did not hear the operator at Cayuga repeat the order to the dispatcher, as required by the rules, as the telephone bell rang when he had finished taking the order, and he at once answered the telephone. After giving the order to the crew of extra 174 as that train passed the crossover, he returned to the tower and called the operator at Cates over the telephone for the purpose of putting the extra in the block between Veederburg and Cates, and was told by the operator at Cates that train No. 4 had already left that point en route to Veederburg. He further stated that it was his understanding that in the case of following movements between freight trains it was permissible to issue a clearance card Form A and caution card, without asking for the block; that in this particular case he had secured the block for train No. 25, which left Veederburg 25 minutes ahead of extra 174, and that he felt safe in giving a clearance card to extra 174 without again asking for the block or ascertaining definitely whether or not there were any opposing trains in the block. He also stated that according to train order No. 70 as copied by him, extra 174 was to meet train No. 4 at Cates, and he therefore supposed that train No. 4 would be

held at that point until extra 174 arrived there. Train No. 4 had been losing time and when he copied train order No. 70, which indicated that locomotive 188 was hauling train No. 4, he supposed that locomotive 42 had failed and that locomotive 188 had been substituted. After he had returned from delivering the order to extra 174 and the operator at Cates told him that train No. 4 had entered the block, he tried to reach extra 174, but was not successful, as the engine at that time was about one-quarter of a mile beyond his tower.

Conductor Davidson, of extra 174, stated that while the head brakeman was opening the switch at Veederburg for the purpose of heading the train into the siding, he called the operator on the telephone and was told to proceed down the main line to the crossover, as there was an order for his train to meet train No. 4 at Cates. A stop was made at the crossover, on account of the interlocking plant being out of service, at which time the operator was talking with the fireman who had been stationed at the crossover, and the train proceeded, the operator handing on copies of train order No. 70 as the locomotives passed him. Conductor Davidson stated that he was riding on the second locomotive and handed to the engineman the copy of the order received by him. Both of them read it, and he remarked about locomotive 188 hauling train No. 4 instead of locomotive 42, and supposed that the locomotive had been changed.

Engineman Donaldson, of the second locomotive of extra 174, stated that when he received train order No. 70, and saw that locomotive 188 was on train No. 4, he supposed that it was acting as a helper on account of the severe snow storm.

The direct cause of this accident was an error on the part of Operator Lucas at Veedersburg in substituting train No. 4 for train No. 42, while copying order No. 70.

Operator Lucas claims he repeated the order as copied, but this is denied by the train dispatcher Jewell; the correct repeating of the order, therefore, is a question of veracity between these two employees.

Contributing to the cause of this accident is the failure of Operator Lucas, at Veedersburg, and of Operator Robbins, at Cates, to operate, in accordance with the rules, the manual block system designed to prevent accidents of this character.

The rules governing the operation of the manual block system require that an absolute clear block must be obtained in advance before permitting a train to enter. Had this rule been observed, train No. 4 could not have left Cates until a clear block had been given by the operator at Veedersburg, and extra 174 could not have left Veedersburg until a clear block had been given by the operator at Cates. In this instance Operator Robbins, when unable to communicate with the operator at Veedersburg, wilfully permitted train No. 4 to enter the block, without first knowing whether or not the block was clear, and, according to his own statement, "Took a chance." Operator Lucas permitted extra 174 to enter the block without communicating with the operator at Cates, and without knowing whether or not the block was clear, using as an excuse that he thought he was authorized to permit one freight train to follow a preceding freight train in the block on caution card without obtaining a clear block, when by the rule such a practice is specially prohibited. For such dereliction of duty on the part

of these two employees, there is no excuse.

In the rules governing the operation of the Manual Block System, under instructions is rule B-26, which reads as follows:

"The purpose of the telegraph block system rules, is to further safe-guard train movements, one with another, and as far as possible to the maximum of control by the absolute block; the use of the permissive block being restricted to exceptions warranted by conditions. To this end, Operators, Trainmen and others are required to co-operate with promptness and care."

A manual block system operated in the manner in which this system was operated in this instance fails entirely in its purpose, and is a block system in name only.

General rule 110 is in part as follows:

"Each operator receiving the order should observe whether the others repeat correctly."

A compliance with rule required that operator Lucas at Veedersburg and Operator Benny at Cayuga, should have listened while the other was repeating the order and had they done this, the error in order 70 would probably have been discovered.

The investigation of this accident discloses an error on the part of an operator in copying a train order; a disobedience of rules by an operator in permitting a train to enter a block that he did not know was clear, a misunderstanding on the part of an operator as to the application of the rule governing following movements, and a non-observance of a rule requiring operators to listen to orders being repeated in which they are involved. These conditions tend to show that there is a laxity in the observance of the operating rules of this railroad.

Operator Lucas has been employed at Veedersburg as an

operator since March 8, 1913, previous to which he had had 9 years' experience as a telegrapher. Operator Robbins had been employed as such since December 6, 1903, while Operator Denny had been employed as such at Cayuga since September, 1913, previous to which he had had 8 years' telegraphic experience. Dispatcher Jewell was employed as an operator in 1899 and resigned in 1904. He was re-employed in August of the same year and in November was promoted to dispatcher. The records of all of these men were clear and none had been on duty in violation of any of the provisions of the hours of service law.