

## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN  
ACCIDENT ON THE CINCINNATI & LAKE ERIE RAILROAD NEAR  
SPRINGFIELD, OHIO, ON AUGUST 10, 1935.

October 14, 1935.

To the Commission:

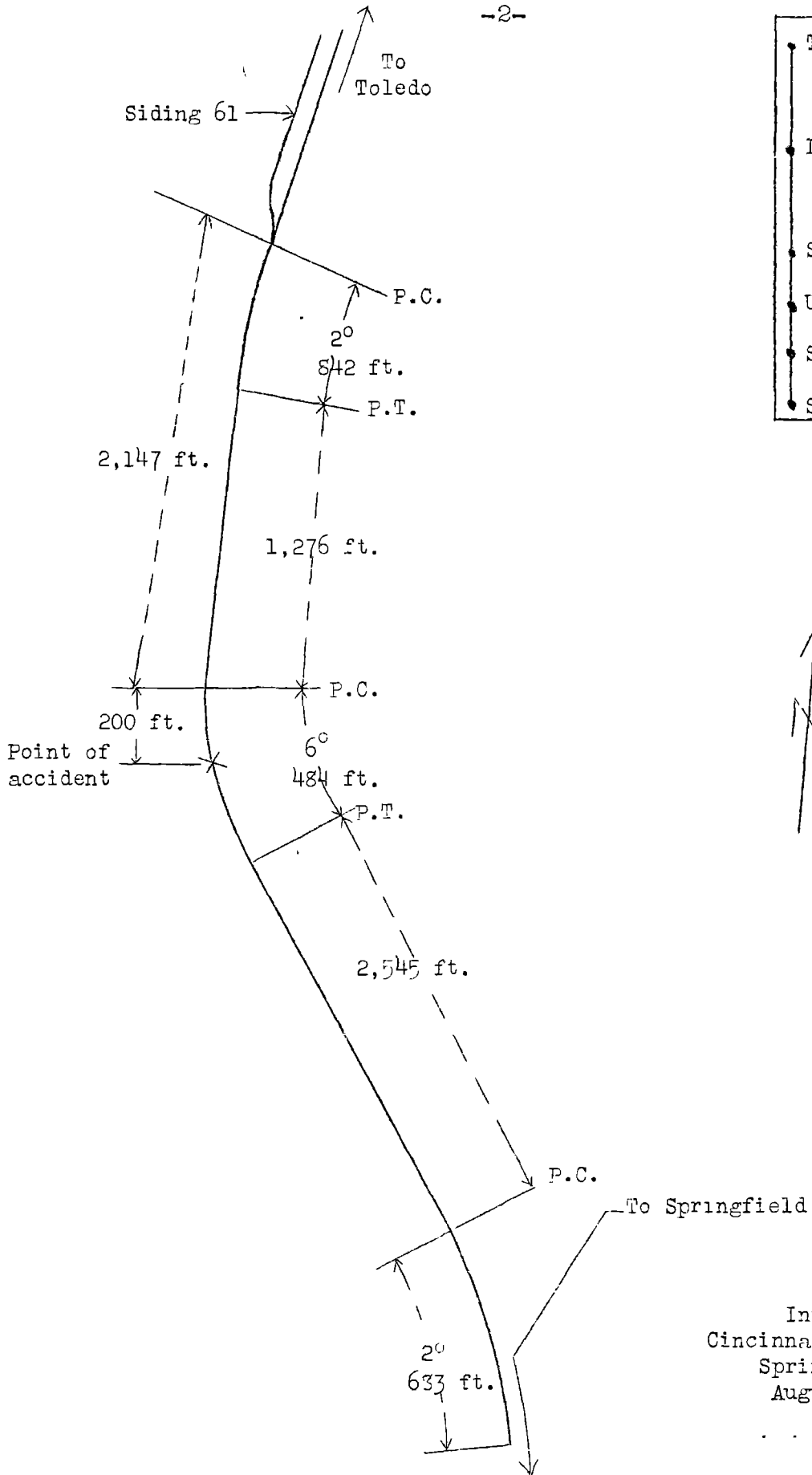
On August 10, 1935, there was a head-end collision between a passenger train and a work train on the Cincinnati & Lake Erie Railroad near Springfield, Ohio, which resulted in the death of 6 passengers and 1 employee, and the injury of 20 passengers, 2 employees and 1 person carried under contract.

## Location and method of operation

This accident occurred on the Toledo Division, an electric line extending between Toledo and Springfield, Ohio, a distance of 138.9 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, no block-signal system being in use. A siding, known as Siding No. 61, parallels the main track on the west; the accident occurred at a point 2,347 feet south of this siding, or 4.2 miles north of the station at Springfield. Approaching the point of accident from the north, there is a 2° curve to the left 843 feet in length, then tangent track for a distance of 1,276 feet, followed by a 6° curve to the left 484 feet in length, the accident occurring on the latter curve at a point approximately 200 feet south of its northern end. Approaching from the south, there is a 2° curve to the left 683 feet in length, from which point the track is tangent for a distance of 2,545 feet, followed by the curve on which the accident occurred. The grade for south-bound trains is 2.43 percent ascending at the point of accident.

Owing to a highway, which parallels the railroad on the east and is about 3 feet higher than the track, and to trees and an embankment on the east side of the highway south of the point of accident, the view of opposing trains is restricted to a maximum of about 1,900 feet.

It was raining at the time of the accident, which occurred about 2:42 p.m.



• Toledo, Ohio
73.2 mi.
• Lima
38.2 mi.
• Siding No. 38
14.1 mi.
• Urbana
8.8 mi.
• Siding No. 61
4.6 mi.
• Springfield, Ohio

Inv. No. 2003  
 Cincinnati & Lake Erie RR,  
 Springfield, Ohio  
 August 10, 1935

Description

Train First No. 401, a south-bound passenger train, consisted of motor car 128, of all steel construction except the floor which was of wood, and was in charge of Operator Eastep. This train departed from Lima, Ohio, 65.7 miles north of Springfield, at 12:40 p.m., and met Train No. 402, in charge of Operator Zimmerman, at Siding No. 38, 38.2 miles south of Lima, where each operator transferred to the opposing train. Train First No. 401 left that point at 2 p.m., 24 minutes late, and upon arrival at Urbana, 14.1 miles south of Siding No. 38, train order 30 was delivered to Operator Zimmerman reading:

"Train No. X Car No. 204 No and Train No. 1/2/401 Car No. 128/121 will meet at 59. Train No. 1/401 Car No. 128 and Train No. X Car No. 710 will meet at 61. Train No. 2/401 Car No. 121 and Train No. X Car No. 204 will meet at 59. Train No. 2/401 Car No. 121 and Train No. X Car No. 710 will meet at 61."

This order was made complete at 2:25 p.m., and Train First No. 401 departed from that station at 2:26 p.m., according to the train sheet, 29 minutes late, passed Siding No. 61 and collided with Train Extra 710 while moving at estimated speed of about 45 miles per hour.

Extra 710, a north-bound work train, consisted of line motor car 710, of wooden construction, and was in charge of Operator Allen. At Springfield the operator received a copy of train order 31, reading:

"Train Nos. 1/2/401 Car Nos. 128/121 and Train No. X Car No. 710 No will meet at 61. Train No. X Car No. 710 No and Train No. X Car No. 647 So will meet at 61. Train No. X Car No. 710 No and Train No. X Car No. 204 So. will meet at 61. Car 710 run extra from Spfld to Belft."

This order was completed at 2:23 p.m.; the train departed from Springfield at 2:28 p.m., and was approaching Siding No. 61 at an estimated speed of between 10 and 20 miles per hour when it collided with Train First No. 401.

Neither car was derailed, but the forward ends of both cars were telescoped for a distance of about 12 feet, the floor and

roof of car 710 sliding over those of car 128. The employee killed was the operator of Train First No. 401 and the employees injured were the operator of Extra 710 and a lineman, who was riding on the latter train.

#### Summary of evidence

Operator Eastep, of Train First No. 401, stated that he operated the train from Lima to Siding No. 38 and had no difficulty with the operation of the train during the trip. Upon arrival at the latter point he changed over with Operator Zimmerman, of north-bound Train No. 402; the operators exchanged train orders and read them to each other but did not receipt for them. He noticed nothing unusual about the condition of Operator Zimmerman and believed that there was a thorough understanding as to the trains to be met.

Train Porter Bull, who is carried under contract and was injured in the accident, stated that he worked on Train No. 402 between Springfield and Siding No. 38, where he changed to Train First No. 401 for the return trip to Springfield. He talked with Operator Zimmerman once or twice when the train stopped at stations and he appeared to be normal. The operator got off at Urbana for orders but Porter Bull did not know what their requirements were. Standing at about the third seat from the front end of the car as the train approached the curve on which the accident occurred, he saw the line car approaching and, realizing that a collision was imminent, he ran toward the rear end of the car. He estimated the speed of his train at the time of the accident at about 45 miles per hour.

Operator Allen, of Extra 710, stated that on the day of the accident, he was operating the line car or work train, his regular duty. The car first moved southward from Bellefontaine to Springfield, where there was power trouble. After repairs were made he received train order 31 by telephone, for the return trip, which required his train to meet trains First and Second No. 401, and Trains Extra 204 and 647 at Siding No. 61. At the time he received this meet order he heard the dispatcher issue orders to the operators of the other four trains and the operators repeated their orders correctly, which assured him that the way was clear as far as Siding No. 61. The brakes functioned properly after leaving Springfield in making two stops for the purpose of removing tree limbs from telephone wires. On account of a heavy storm which had just abated, it was rather dark although it was not necessary to use the headlight. Approaching the point of accident at a speed of approximately 35 miles per hour, he observed the opposing train and immediately applied the brakes in emergency but did not have time to reverse the motor before the collision occurred. He estimated the speed of his train at the time of the accident at 10 or 15 miles per hour.

Lineman Grubbs, of Extra 710, stated that after repairs were made to electric and telephone wires at Springfield the train started the north-bound trip. He was standing in the front end of the car while approaching the curve on which the accident occurred when he saw the opposing train about 500 or 600 feet away; he shouted a warning to Operator Allen, who applied the brakes. Lineman Grubbs then opened the door to get off before the collision occurred and, when the trains were about 100 feet apart, he jumped off. He estimated the speed of his train at the time he first saw the south-bound car at 35 to 40 miles per hour, and at the time of collision at 15 to 20 miles per hour. After the accident he walked northward beyond the point of collision and noticed by the condition of the rails that the brakes of Train First No. 401 had been applied.

Dispatcher Mason stated that he has been employed as a dispatcher at Lima since October, 1913, was on duty on the day of the accident and issued all train orders given from that office between 7 a.m., and 3 p.m. Two sections of Train No. 401 were operated southward from Lima, the first section being car 128 and the second section being car 121; these trains departed from Lima about on time but were later delayed by power trouble due to a storm. Upon arrival of Train First No. 401 at Siding No. 38 Operator Zimmerman, who had operated north-bound Train No. 402 to that point, took charge of Train No. 401 and continued the trip southward. When the train arrived at Urbana the operator called for orders and was given train order 30, previously quoted. He issued this order to both sections of Train 401 and it was made complete before he completed train order 31 to the operator of Extra 710 at Springfield. He said that he had no difficulty in making any of the operators of the trains involved understand their orders, all of whom repeated the orders back to him. Dispatcher Mason stated that he had previously issued train order 22 to Train First No. 401 at Lima, fixing a meet with Train Extra 204 at the north end of Springfield; but, on account of the delay to the superior train, order 30 was issued, changing the meeting point of these trains to Siding No. 59, which he considered superseded order 22 although in the second order he did not use the words "instead of", as required by the rules, these words not always being inserted when issuing superseding orders. He could not see where failure to insert these words in this order might confuse the operator. As these two trains met at Siding No. 59, Extra 204 arriving at that point first, he could not account for Operator Zimmerman's failure to comply with that part of the order requiring his train to meet Extra 710 at Siding No. 61. Dispatcher Mason stated that he had not been examined on the book of rules during the past four or five years but was familiar with the proper forms of issuing train orders and admitted that the wording of the orders involved was not strictly in accordance with the rules. A train receiving a meet order must remain at the meeting point until the opposing train is met or the order superseded or annulled, he said.

Superintendent of Transportation Duncan stated that he was in the dispatcher's office and heard train order 30 issued; this order was according to rule except that it should have contained the phrase "instead of North End Springfield", but at that time he was not paying particular attention and did not learn that this order was improperly issued until after the collision occurred. He had not reviewed the dispatchers record book for some time prior to the accident although it was a part of his duties to do so. Since the accident, however, he examined the books and in practically all cases the orders were issued according to the rules, except when meet orders are changed the phrase "instead of" was sometimes omitted and the numbers and wording did not always correspond as required by the rules. It is the general practice to put out orders to all trains affected under the same number when practicable; but, after the dispatcher has put out an order several times, the order is reissued in part under another number and the wording changed to some extent which, he said, was to avoid rewriting the full order, so there is less chance of the dispatcher making an error. This system of putting out train orders is not provided for, but he considered it safer practice than to insist that all orders be issued according to rule. It has been the practice ever since he has been with the company, a period of about 18 years, and he considered it the best way to dispatch trains when several are operating in each direction, which was the case on the day of the accident. He had never suggested this method of handling train orders to his superior officer, as he understood that it existed before he took charge and thought it was a safe practice; therefore, he did not insist that the rules governing the issuance of orders be strictly complied with. The reason that Operators Eastop and Zimmerman were instructed to exchange trains at Siding No. 38 was to return both employees to their home terminals at the completion of their day's work. The operator of Train Extra 710 was within the limits of his train order, he said, and the operator of Train First No. 401 was entirely responsible for the occurrence of the accident.

General Superintendent Curtiss stated that at the time Trains First No. 402 and First No. 401 met at Siding No. 38 the unfilled orders were transferred and those pertaining to the operation of Train First No. 401, received by Operator Zimmerman were found afterward by a State highway patrolman. Train Order 30 was later issued directing Trains First and Second No. 401 to meet Train Extra 710 at Siding No. 61, while Extra 710 had an order containing the same information, but issued under a different train order number; this was not in accordance with the rules, as instructions are to the effect that the same train order number must be used to all trains addressed in consecutive order. Dispatchers are instructed to write all train orders in a book provided for that purpose at the time issued, underscoring each word when repeated by the operator or conductor receiving same. Orders are sometimes issued to trains to report at sidings or stations so that the dispatcher may keep in contact with them when he anticipates some movement in the opposite direction which has not yet been called or is not ready to leave the terminal. The

last meeting with employees was during 1931, since which time there has been a great reduction in force and those remaining have been in the service from 12 to 30 years; however, the rules have been discussed with individual employees. At the time a new book of rules was issued, effective May 1, 1935, and on account of it being a reprint of the rules previously in effect, trainmen were not examined in groups but were instructed by bulletin to familiarize themselves with it, this bulletin calling their attention to the fact that there was no change so far as the operation of trains was concerned.

Passenger car 128 was built in 1930 and had a length overall of 44 feet 10 inches; it was equipped with straight air brakes with emergency features. The last general repairs were made to this car July 19, 1935. Car 710 was built for passenger service in 1900, converted into a line car in 1922 and rebuilt in 1927. This car was 44 feet 8 inches in length and was equipped with straight air brakes only. The last general repairs to this car were made September 29, 1934. The buffer of the passenger car was seven inches lower than that of the line car.

#### Discussion

Under the provisions of the meet orders, Trains First Nos. 401 and Extra 710 were required to meet at Siding No. 61. While train order 30, issued to Train First No. 401, and train order 31, issued to Extra 710, were not in compliance with the rules, that part of train order 30 relative to the meet with Train Extra 710 should have been fully understood by Operator Zimmerman. Why he failed to stop at the meeting point is not known as he was killed in the accident.

The rules require that each train order must be given in the same words to all persons or trains addressed; train orders are numbered consecutively each day beginning with No. 1 at midnight. Orders once in effect continue so until fulfilled, superseded or annulled. Any part of an order specifying a particular movement may be either superseded or annulled. Superseding an order will be given by adding the words "Instead of - - -". The investigation disclosed that there was general lack of understanding by some officials and trainmen of the requirements of the operating rules in connection with the movement of trains by train orders. The Superintendent of Transportation said that orders or parts of orders are issued under the same number provided there is only one train to be met, but if there is more than one train at the meeting point the orders are issued under different numbers to avoid a possible error by the dispatcher in rewriting the original order. In superseding an order or part of an order the words "instead of" are sometimes omitted. A train order of a

lower number is sometimes used to supersede an order of a higher number provided the train order of the lower number is the last order to be made complete to the employee receiving the order; this system of handling train orders has been in effect since he has been with the company and was handed down by preceding officials, and he considered it a safer practice than that provided by the book of rules. The general superintendent said that the last general discussion with employees was in 1931 although a new book of rules had been issued since that time; but, as there was no change concerning the operation of trains and as the trainmen now employed have had considerable experience, he did not deem it necessary. Train orders which were not in conformity with the requirements of the operating rules have been issued frequently; a situation of this kind should be given immediate attention and corrected by the officials of this railroad.

#### Conclusion

This accident was caused by failure of Operator Zimmerman, of Train First No. 401, to obey a meet order.

Respectfully submitted,

W. J. PATTERSON,

Director.