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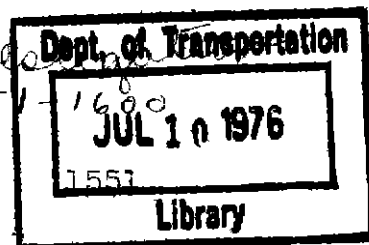
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Railroad accident investigation report EV. 321 no 1551-1600



U.S. INTERSTATE COMMERCE COMMISSION,

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC RAILROAD AT WADSWORTH, ILL., ON AUGUST 9, 1929.

November 18, 1929

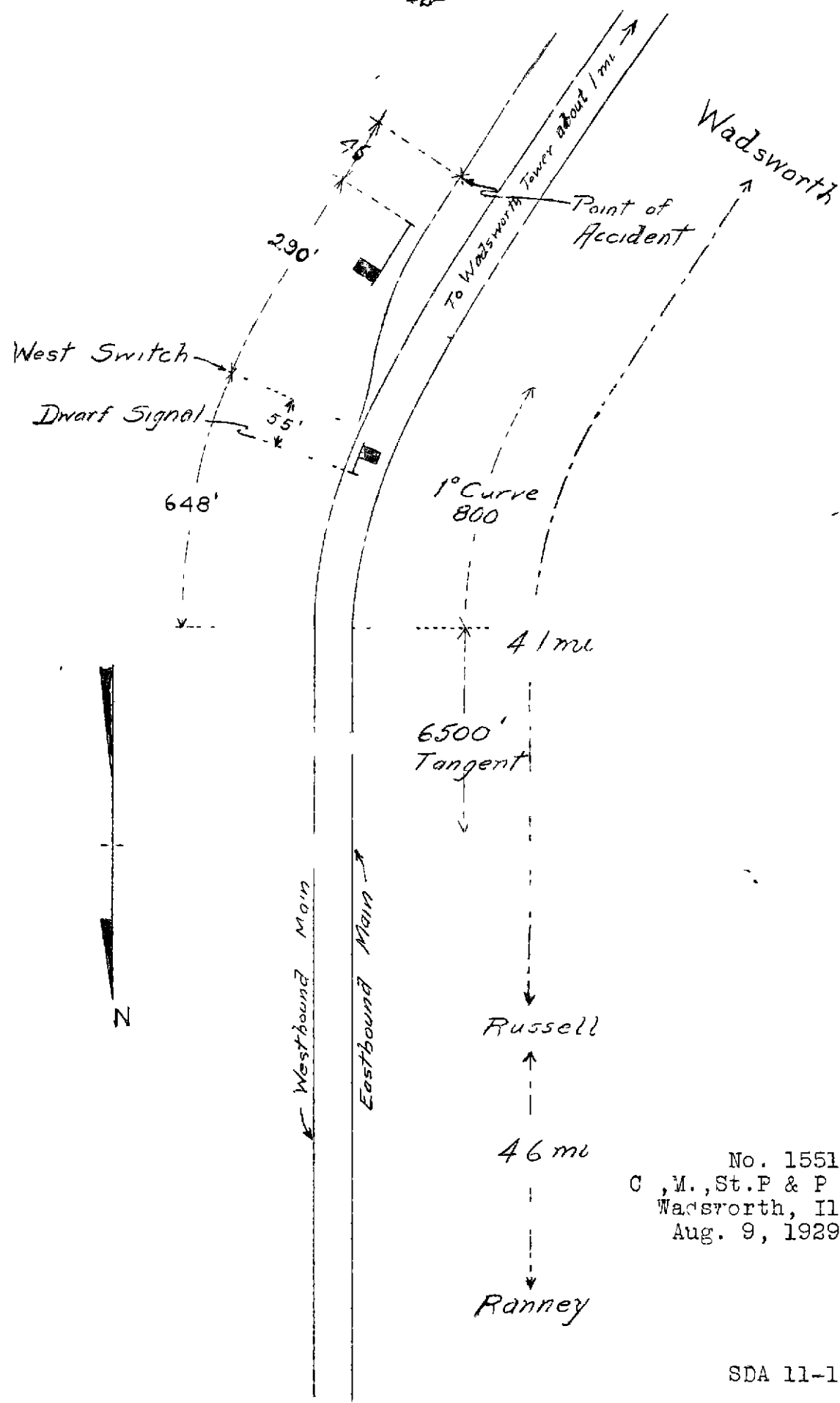
To the Commission

On August 9, 1929, there was a head-end collision between a passenger train and a freight train on the Chicago, Milwaukee, St. Paul & Pacific Railroad at Wadsworth, Ill., resulting in the death of 2 employees and 1 trespasser, and the injury of 20 passengers and 2 employees. This accident was investigated in conjunction with a representative of the Illinois Commerce Commission.

Location and Method of Observation.

This accident occurred on that part of the Chicago & North Western Division extending between Chicago, Ill., and Milwaukee, Wis., a distance of 85 miles. In the vicinity of the point of accident this is a double-track line over which trains ordinarily are operated by time-table, train orders, and a automatic block-signal system, however, as the eastbound main track was blocked during daylight working hours, in connection with the making of a fill for the extension of the eastbound passing track at Palmer, located 8.7 miles west of Wadsworth, it was necessary to establish a single-track zone, the westbound track being used for this purpose, with manual block operation.

The general direction of the track is north and south, but the time-table directions are east and west, and these latter directions are the directions used in this report. The accident occurred not in the interlocking limits of Wadsworth, at a point about 1 mile west of the tower, at the west switch of the passing track, a facing-point switch for trains moving against the current of traffic on the westbound track, the passing track parallels the main tracks on the north. Approaching from the west the track is tangent for a considerable distance, followed by a 1° curve to the right 800 feet in length, the switch being located on this curve at a point 152 feet from its eastern end. The grade for eastbound trains is slightly descending.



No. 1551  
 C, M., St. P & P R R.  
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The switch involved is controlled from the tower at Newbury, the tower being located on the south side of the main tracks and directly opposite the station. Dwarf signal 5, of the two-position, upper-quadrant type, is located 55 feet west of the switch and between the main tracks, it normally displays a stop indication, and governs reverse movements either on the main track or into the passing track. The automatic block-signal system functions only for trains moving with the current of traffic.

Rules 532, 670-A and 1093 of the rules and regulations of the operating department read in part as follows:

532. If, from any cause, a signalman is unable to communicate with the next block station in advance, he must stop all trains approaching in that direction. \*\*

670-A. On two or more tracks, trains moving against the current of traffic must reduce speed to not more than ten miles per hour and be under control when approaching and passing through interlocking limits, prepared to stop at a dwarf signal giving a "Stop" indication. The indications of these signals can be seen at a distance of approximately only 600 feet in clear weather.

1093. After receipt of a train order addressed to two or more offices each operator to whom the order is sent will check his copy with the first repetition. The operator repeating first will check with the next repetition. If a difference is found operators will immediately interrupt and call the dispatcher's attention to it.

The weather was clear at the time of the accident, which occurred about 3.05 p.m.

#### Description.

Eastbound passenger train No. 46 consisted of one milk car, one baggage car, one express car, three coaches and two parlor cars, hauled by engine 6159, and was in charge of Conductor Wybourn and Engineer Lorimer. The first and third cars were of steel underframe construction, while the remainder were of all-steel construction. At Ranney this train was crossed over to the westbound main track, against the current of traffic, and while passing the office, at 4.05 p.m., according

to the train sheet, 14 minutes late, the operator handed on a copy of train order No. 29, Form 19, reading as follows:

No. 46 has right over opposing trains  
on westward track Ranney to Wadsworth.  
Do not exceed 10 miles per hour through  
crossovers.

Train No. 46 passed Russell, 4.1 miles west of Wadsworth, at 5.02 p.m., according to the train sheet, at which point a clear indication was displayed on the train-order signal, passed dwarf signal 5, which apparently was displaying a stop indication, entered the open facing-point switch at the west end of the passing track at Wadsworth while traveling at a speed estimated to have been between 25 and 35 miles per hour, and collided with the head end of west bound freight train extra 8378, an 87-car train, in charge of Conductor Martin and Enginemen Kolly, which was standing on the passing track with the engine just east of the "holding" signal, near the clearance point, or about 336 feet east of the switch.

Engine 8378 was partly derailed and badly damaged, its boiler being torn from the frame, and the tender was also badly damaged. Four cars in the freight train were damaged, two being practically demolished. Engine 6139, its tender and the first three cars in the passenger train were derailed, engine 6139 was also badly damaged and its tender demolished. The milk car was demolished, and the baggage car considerably damaged, while the damage to the remaining six cars was confined principally to interior fixtures. The employees killed were the engineman and fireman of train No. 46, while the employees injured were the baggageman and flagman of that train.

#### Summary of evidence.

Dispatcher Tabbert stated that he issued train order No. 29 at 4.35 p.m., by telephone, simultaneously to Wadsworth, Russell and Ranney, it was addressed to all westward trains and the operator at Wadsworth on Form 31; to the crew of a work extra and the operator at Russell on Form 31, and to the crew of train No. 46 at Ranney on Form 19, the order sent in each case reading exactly as previously quoted. Immediately afterwards, and before train order No. 29 had been repeated by any of the operators, the dispatcher issued train order No. 30, as an extra precaution, addressing it to the operators at Wadsworth and Russell on Form 31, reading "hold

westward train." Dispatcher Tabbert stated that Operator Porter, at Wadsworth, correctly repeated both orders, and also assured him that extra 8378 was in the clear and being held on the passing track at that point. Dispatcher Tabbert also stated that for two or three days prior to the accident, train No. 46 had been run against the current of traffic from Ranney to Russell, and that Operator Porter had been involved in all of those movements. On this occasion, however, train order No. 29 specified "Ranney to Wadsworth", and in fact, it was the intention of the dispatcher to extend the order and run train No. 46 against the current of traffic all the way to Rondout, 10.6 miles east of Wadsworth, on account of another eastbound train having developed trouble between Wadsworth and Rondout. Dispatcher Tabbert further stated that prior to the time at which train order No. 29 was issued, and while in telephone conversation with the operator at Wadsworth relative to a westbound motor car, he told the operator to "let the motor car go and hold extra 8378 west for No. 46, running No. 46 wrong."

Operator Porter, on duty at Wadsworth, stated that he went on duty at 4 p.m., at which time extra 8378 was on the passing track. The motor car departed westbound at 4.27 p.m. and when it cleared the circuit he opened the west switch of the passing track, but about a minute or two later he closed the switch. At 4.35 p.m. he received train order No. 29, directing the movement of train No. 46 against the current of traffic on the westbound track. Operator Porter said that the order was transmitted at about the average speed, so that he could write it down as given, and that he had the order entirely written out before he started to repeat it; he repeated the order promptly to the dispatcher, but did not comply with the rules and check with the repetitions by the operators at Russell and Ranney. Operator Porter was questioned as to the procedure he followed in repeating the order to the dispatcher, and his statements in this connection were as follows:

- Q. In repeating order No. 29 to the train dispatcher, did you spell out the word 'Russell'?
- A. Had a little trouble with the telephone cutting in and out at times. It's my idea that when I spelled out the name of 'Russell' possibly the 'phone cut out and when I pronounced the station 'Wadsworth' he thought it was part of the repetition of the order. I reported the 'phone being out of order.

- Q. What do you mean, repeated 'Wadsworth'?
- A. As a finish of the repetition.
- Q. In other words, you repeated this 'Train No. 46 has right over opposing trains on westward track Romney to Russell - Wadsworth'.
- A. Yes, sir.
- Q. Is there anything in the rules pertaining to the handling of train orders by telephone that would make it necessary for you to pronounce the name of your station, practically in the body of a train order?
- A. We give name of station when we finish any business on the phone, as a rule.

. . . . .

- Q. Well, when the order was checked with you, you repeated it to the dispatcher and all of the testimony is to the effect that you repeated it 'Wadsworth'.
- A. I explained a while ago how the 'phone connection got cut off at times and I suppose when I repeated 'Russell' the 'phone cut out and he did not hear it and when I pronounced 'Wadsworth' he took it for the repetition of the order.
- Q. Do you actually know whether or not the order read 'Russell' or 'Wadsworth'?
- A. I thought he said 'Russell.'

After having received the order, he said he put a copy on the hoop and threw one copy in the waste basket. Shortly afterwards, Dispatcher Tabbert issued another train order, No. 32, giving train No. 46 right over opposing trains on the westbound main track from Wadsworth to Rondout, which Operator Porter repeated at 4.44 p.m. After getting this order, Operator Porter again opened the west switch of the passing track, of his own accord, with the intention of letting extra 8378 depart westward as soon as train No. 46 had cleared at Russell, having in some way formed the opinion that train No. 46 would only run against the current of traffic as far as Russell end and that the dispatcher then would let extra 8378 depart from Wadsworth. Operator Porter then left the office for the purpose of delivering train order No. 32 by hoop to the crew of train No. 46, but in a few minutes, or about 5 p.m., he returned to the office and started calling Russell on the telephone, in order to

ascertain whether train No. 46 had crossed over to the eastbound main track at that point, so that he could let extra 8378 depart from the passing track; the operator at Russell did not answer until nearly 5.05 p.m., and it was during the course of this conversation that Operator Porter first realized that train No. 46 was moving against the current of traffic to Wadsworth. He looked at the train indicator in the tower and saw that train No. 46 was heading in at the west switch and although he changed the lever controlling the switch it was then too late to avert the accident. Operator Porter said that the dwarf signal lever in the tower was in the stop position at all times. A short time after the accident a copy of train order No. 29 was found in the waste basket, it was hardly legible, bore erasures and changes, and read as follows:

- ~~Train~~ No. 46 has right over opposing trains on westward track Ranney to Russell.

It will be noted that this copy of the order read, "Ranney to Russell", instead of "Ranney to Wadsworth". Operator Porter acknowledged that he did not include in the order that part reading "do not exceed 10 miles per hour through crossovers". Further questioning of Operator Porter indicated that he was considerably disturbed by personal affairs, and that his wife had been in the office at the time he copied train order No. 29. It also appeared from his statements that a freight train was passing the tower at the same time, that it made a great deal of noise, and that if he made any error in copying the order it must have been due to this noise. He felt, however, that the only mistake he had made was in opening the switch for extra 8378 without having any knowledge as to when that train would be allowed to depart. Operator Oskins, who had been relieved by Operator Porter at 4.p.m., said it was clearly evident that there was something on Operator Porter's mind when he came on duty, and that he did not seem to be paying any attention when the transfer was made; the situation was so unusual that Operator Oskins gave it considerable thought on his way home, but at the time he did not feel that there was any danger in turning over the office to Operator Porter.

Operator Newyear, stationed at Russell, stated that he checked his own copy of train order No. 29 as it was repeated by Operator Porter to the dispatcher, and he was positive that the order was repeated correctly, spelling out the word "Wadsworth". Operator Newyear also checked his own copy of this order when Operator Thompson, at Ranney, repeated it, saying that that operator also repeated it correctly. Operator Newyear stated that train No. 46 was reported to him as having left Ranney

at 4.55 p.m., and that he at once endeavored to get in telephone communication with the operator at Wadsworth, several times, but to no avail, and when train No. 46 approached the station at Russell, instead of stopping it and getting into communication with the dispatcher as he should have done, he permitted it to pass his office under a clear train-order signal without first having obtained the block from Wadsworth, feeling at the time that it was perfectly safe to do this, in view of the contents of train orders Nos. 29 and 30, and feeling that the operator at Wadsworth knew train No. 46 would be on the westbound track from Ranney to Wadsworth. After train No. 46 passed Russell the operator at Wadsworth rang the telephone and at this time Operator New-year informed Operator Porter that train No. 46 had passed Russell at 5.02 p.m. on the westbound track.

Operator Thompson, stationed at Ranney, left the telephone after receiving train order No. 29, in order to line up his plant for a Chicago & North Western train, and therefore did not completely check his own copy of the order as it was repeated by the operator at Wadsworth, returning to the telephone just as that operator was finishing. Operator Thompson did, however, check his own copy of the order at the time it was repeated by the operator at Russell.

Conductor Wybourn, of train No. 46, stated that approaching the interlocking limits at Wadsworth the speed of his train was about 40 miles per hour, and that a service air-brake application was made, reducing the speed of the train to 25 or 30 miles per hour when about one-fourth to one-half mile west of the switch; the conductor felt certain that the train could be brought to a stop without incident provided the dwarf signal was displaying a stop indication. The air brakes were held applied following the application, and went into emergency immediately prior to the collision; he estimated the speed of his train to have been about 25 miles per hour on entering the switch. The air brakes had been tested at Milwaukee and worked properly en route. Conductor Wybourn further stated that the speed of his train did not exceed 40 miles per hour at any time between Ranney and the point of accident, and that he was thoroughly familiar with rule 670-4, relative to having the train under control prepared to stop at a dwarf signal displaying a stop indication. After the accident he examined the switch and it was open, with the dwarf signal in the stop position. The statements of other members of the crew developed nothing additional.

Members of the crew of extra 3378 estimated the speed of train No. 46 to have been between 25 and 35 miles



per hour on entering the switch. Their testimony was to the effect that they did not know that train No. 46 was being run against the current of traffic, and that the dwarf signal did not display a proceed indication at any time while their train stood on the passing track.

#### Conclusions.

The direct cause of this accident was an open switch, but there were a number of incidents leading up to its occurrence which need to be noted. Dispatcher Tabbert issued an order directing train No. 46 to run against the current of traffic from Ranney to Wadsworth, and reducing speed to 10 miles per hour through cross-overs, but Operator Porter, at Wadsworth, wrongly copied the order as reading from Ranney to Russell, and omitted the provisions containing the speed restriction. Operator Porter admitted that he left out the speed-restriction provision, but said he was sure the rights of train No. 46 on westbound track extended only from Ranney to Russell. Even under these circumstances, however, the accident would not have occurred had not Operator Porter opened the west passing-track switch with the idea that the extra on the passing track would be allowed to depart westward as soon as train No. 46 had crossed back to the eastbound track at Russell. Operator Porter then left the office with the expectation of delivering orders to the crew of train No. 46, and remained out of the office for a period of probably two or three minutes, during all of which time the passing track switch was allowed to remain open, although there was nothing to be gained by opening this switch until the extra on the passing track had actually been authorized to proceed. Operator Porter's only statement in this connection was that it was not customary to line up a route in this manner, and the only explanation for the way in which he handled this switch, which was the direct cause of the accident, and for the manner in which he copied train order No. 29, probably can be found in the fact that he clearly was not in the mental condition necessary to enable him to attend properly to his duties.

Operator Newrear, on duty at Russell, failed to obtain the block from Wadsworth for train No. 46, but said he thought it was safe to allow the train to proceed under a clear block-signal indication, because of the fact that under the orders which had been issued he supposed the operator at Wadsworth knew that the train was moving against the current of traffic from Ranney to Wadsworth. No reasonable excuse can be offered to justify his action, and it is only necessary to point out that had Operator

Newyear had a proper conception of his duties, it is more than probable that the accident would have been prevented.

Under the rules, Engineman Lorimer, of train No. 46, also is at fault for his failure to reduce the speed of his train to not more than 10 miles per hour when approaching interlocking limits against the current of traffic, and for his further failure to bring his train to a stop before passing dwarf signal 5. All of the evidence available indicated that this signal was in the stop position at all times, but under the circumstances, it is impossible to say what it was that caused Engineman Lorimer to fail to see the indication of this signal in time to stop his train.

The facts surrounding the occurrence of this accident give one more illustration of the necessity for strict adherence to the rules provided for the safe operation of trains. Each of the three employees above mentioned failed to perform his own duties properly, and yet any one of them could have prevented the accident. This has been the story of innumerable accidents in the past. Various safety devices have been adopted with the idea of reducing accidents to the greatest possible extent, but there will always remain the human element for which no substitute can be found. The only answer is to guard continually against the taking of chances, against the inclination to act upon assumption, and against the idea of one employee that he can wink at the rules himself and depend on the other man's carefulness to prevent the occurrence of an accident. If each employee would see that his own performance was strictly in accordance with the rules, accidents of this character would not occur.

Operator Porter and Engineman Lorimer had had over 30 years' experience, and Operator Newyear had had over 10 years' experience. The other employees involved were also experienced men, and at the time of the accident none of them had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. BORLAND,

Director.