INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED AT THE INTERSECTION OF THE TRACKS OF THE CHICAGO & NORTH WESTERN RAILWAY AND THE CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC RAILROAD AT JANESVILLE, WIS., ON JANUARY 18, 1930.

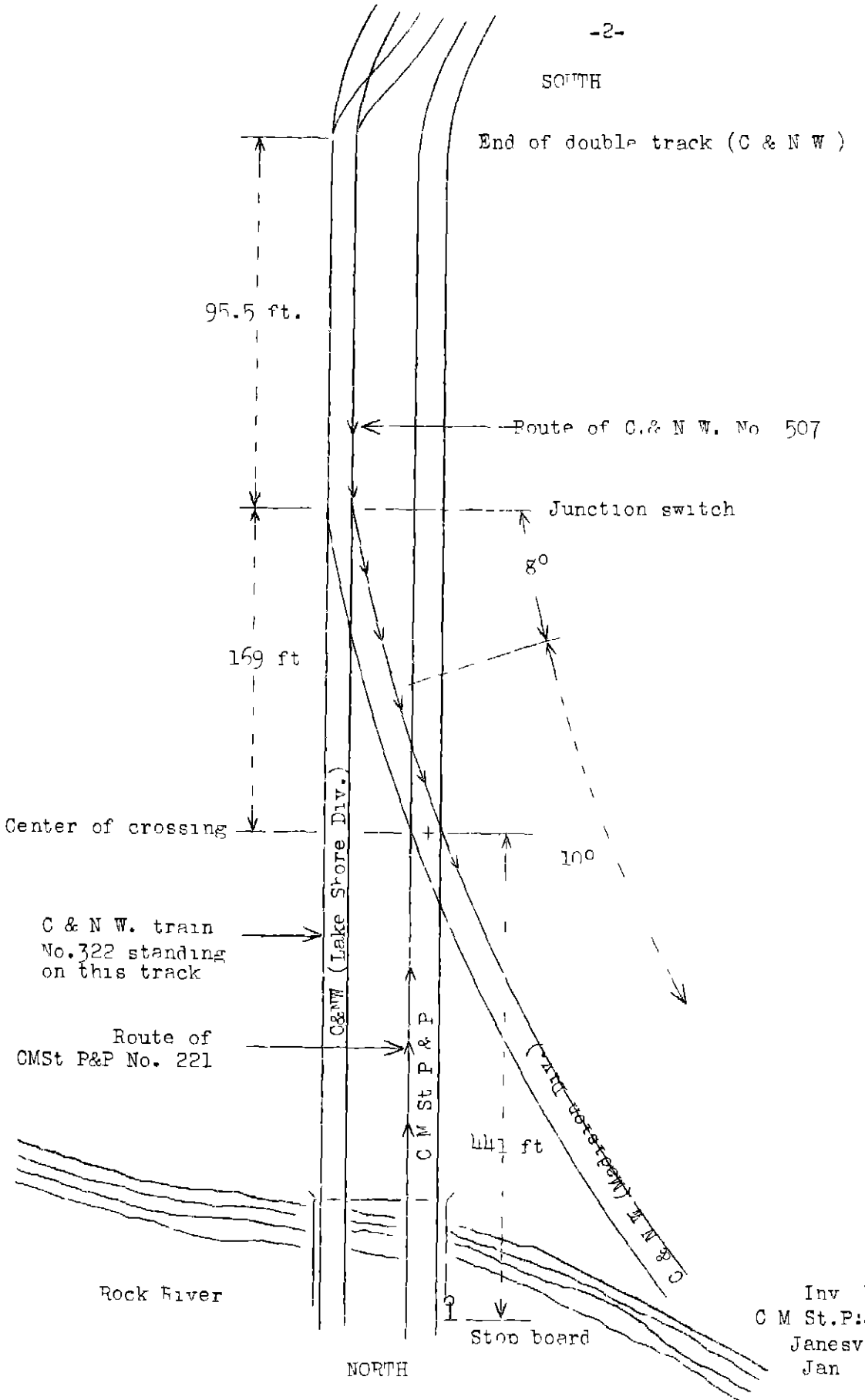
March 10, 1930.

To the Commission.

On January 18, 1930, there was a side collision between two passenger trains at the intersection of the tracks of the Chicago & North Western Railway and the Chicago, Milwaukee, St. Paul & Pacific Railroad at Janesville, Wis., resulting in the injury of four employees.

Location and method of operation

This accident occurred at the intersection of the tracks of the Madison Division of the C&NWRy and the Madison Division of the CMStP&PRR, near Race Street and between River Street and Franklin Street; in the immediate vicinity of the point of accident both roads are single-track On the C&NW lines in each direction there are automatic block signals but for a distance of 366 feet adjacent to the crossing train movements are governed by time-table and train orders, trains of the CMStP&PRR are operated by time-table, train orders and a manual block-signal system. The tracks of the two roads intersect at an angle of 10° 14' and the grade is practically level. Both trains involved were westbound, according to time-table direction, but for the purpose of this report compass directions are used. Approaching the crossing from the southwest, the direction from which the C&NW train approached, and beginning at the junction switch of the Lake Shore Division and the Madison Division, the switch being located 169 feet southwest of the center of the crossing, there is a compound curve to the left extending to and beyond the crossing. Approaching the crossing from the north, the direction from which the CMStP&P train approached, the track is tangent to and for a short distance beyond the crossing. On the CMStP&P RR there is a railroad crossing stop sign located on a telegraph pole on Rock River bridge at a point 441.5 feet from the center of the crossing, there was no stop sign on the C&NWRy at the time of the accident. There is no interlocking plant at this point, and it is provided by State law that all trains shall come to a full stop before arriving at or crossing the track of another railroad at grade, not protected by interlocking, and within 400 feet thereof; and the train arriving near said crossing first shall cross and move on first.



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Janesville, Wis
Jan 18, 1930

Approaching the crossing from the southwest on the track of the C&NWRy from the vicinity of the junction switch a view of the crossing can be had across the inside of the curve from the fireman's side of an engine cab, however, while rounding the curve the fireman's view of the tracks north of the crossing is obscured from view by the engine; from the engineman's side of the cab the view of the crossing is considerably restricted around the outside of the curve. Approaching the crossing from the north on the track of the CMStP&PRR a view of the crossing can be had from either side of an engine cab for a considerable distance; however, a view of the approaching C&NW train could be had only from the fireman's side of the engine cab. At the time of the accident there was a C&NW freight train standing on the Lake Shore Division track of the C&NWRy which track parallels the CMStP&P track on the east, with the front end of the engine at a point approximately 191 feet north of the crossing.

The weather was clear at the time of the accident, which occurred at about 6.22 a.m.

Description

C&NW passenger train No. 507 consisted of two express cars, two mail cars, one baggage car, one smoking car, one coach and three sleeping cars, in the order named, hauled by engine 1635, and was in charge of Conductor Murphy and Engineman Brown. This train made a stop for the crossing, then proceeded, and while traveling at a speed estimated to have been 8 or 10 miles per hour collided with CMStP&P train No. 221.

CMStP&P train No. 221 consisted of one mail and express car, one baggage car, one storage express car, two coaches, five sleeping cars, and one cafe-observation car, in the order named, hauled by engine 6363, and was in charge of Conductor Chrystal and Engineman Higgins. This train was traveling at a speed estimated to have been from 5 to 8 miles per hour when it collided with C&NW train No. 507.

The engines collided near their forward ends. C&NW engine 1635 came to rest on its left side, down an embankment and on the west side of the crossing; its tender was behind it with the cistern torn from the frame. The first car in C&NW train No. 507 was slightly damaged. CMStP&P engine 6363 also came to rest on its left side, but on the east side of the crossing, its tender was to the rear and to the right of it. None of the cars in CMStP&P train No. 221 was derailed or damaged. The employees injured were the engineman and fireman of C&NW train No. 507, and the engineman and a coal passer of CMStP&P train No. 221.

Summary of evidence

Engineman Brown, of C&NW train No. 507, stated that he made the stop for the crossing with the pilot of the engine at a point about 275 feet south of the center of the crossing, then released the air brakes, proceeded, the junction switch being lined for the Madison Division, C&NWRy, and sounded two blasts on the engine whistle for the crossing and in answer to the proceed signal of the switchtender, whose shanty is located east of the tracks about 200 feet south of the center of the crossing. He said the switchtender's signal had no influence whatever in connection with this movement over the crossing. Engineman Brown stated that he had the side window of the engine cab open, but that the front window was closed; the engine bell was ringing. On account of the curve to the left he did not have a clear view of the crossing until reaching a point in the vicinity of the switchtender's shanty, about 75 or 100 feet north of where the stop was made; when he first saw the crossing it was clear. While rounding the curve he saw the headlight of the engine of CMStP&P train No. 221, burning brightly, and it appeared to be at or near the north end of Rock River bridge, that bridge being about 450 feet in length and its south end about 275 feet north of the center of the crossing, at which time his own train was about 150 feet from the crossing. Engineman Brown estimated the speed of his own train to have been about 8 miles per hour when his engine started toward the crossing; at that time the engine of CMStP&P train No. 221 was just about off the south end of Rock River bridge, but exactly how close to the south end of the bridge he could not say. There was a whistle signal blown on an engine whistle, one very short sharp blast, when the pilot of his own engine was approaching the crossing, and it appeared to him that the engine of CMStP&P train No. 221 was about 75 or 100 feet from his own engine, he immediately applied the air brakes in emergency and closed the throttle, at which time the engine of CMStP&P train No. 221 was about 50 or 60 feet from his own engine, and then the collision occurred. Engineman Brown stated that at the time he made the stop for the crossing he could not see the CMStP&P track around the front end of his own engine, but that just after starting again his fireman said "clear over here, there is a St Paul headlight showing up the other side of the crossing, it is some distance off." Engineman Brown said that he depended on his fireman until starting round the curve, and that when he did have a clear view he did not keep a continuous lookout for CMStP&P train No. 221, because he had to momentarily divert his attention from that train in order to watch for the indication of a block signal located on his side of the track of the Madison Division, C&NWRy, at a point about 135 feet north of the center of the crossing, this signal, however, had nothing to do with his movement over the crossing.

Engineman Brown stated that the air brakes on his train worked properly and that the headlight was turned on full, that he did not hear the CMStP&P engine sound two blasts on the whistle to indicate that that train had made the required stop for the crossing, that approaching the crossing his fireman was sitting on the fireman's seat box, looking ahead; and that another C&NW train was standing on the track of the Lake Shore Division, C&NWRy, which track parallels the CMStP&P track on the east, with its engine at a point 150 or 200 feet north of the crossing, with the headlight dimmed, but that there was no smoke or steam around that engine which would obscure his view of the headlight of the engine of CMStP&P train No. 221. Engineman Brown further stated that he was familiar with the rule requiring trains to approach railroad crossings at grade prepared to stop and where required by law trains must stop, and it was his understanding that after coming to a full stop it was required to approach the crossing expecting to find it obstructed, saying that he considered that he fully complied with the rule. When he first saw the headlight of CMStP&P train No. 221 in the vicinity of the north end of Rock River bridge he figured that that train had not arrived within the required 400 feet stopping distance from the crossing, and when he saw that train close to the south end of the bridge there was no doubt in his mind but that it would come to a stop before reaching the crossing.

Fireman St. John, of C&NW train No. 507, stated that when his train started, after making the stop probably between 300 and 400 feet from the crossing, he was sitting on his seat box, with the left side windows of the engine cab open, and that he had a clear view of the crossing and informed Engineman Brown that the crossing was clear; however, he denied having been aware of any train approaching on the CMStP&P track, saying that the first he knew of anything wrong was when the collision occurred. Fireman St. John said that there was a C&NW freight train standing north of the crossing with the headlight on the engine dimmed; that there was no smoke or steam around that engine to obstruct the view of the CMStP&P track, which track he could see for only a short distance north of the crossing. Fireman St. John stated that he heard a blast sounded on an engine whistle and he thought that a flag was being called in; it seemed to him that after a little time there was another blast sounded, as he thought he heard two short blasts of the whistle. Fireman St. John did not know whether Engineman Brown sounded two blasts on the engine whistle after making the stop for the crossing, and did not recall whether the engine bell was ringing. He estimated the speed of his train to have been 10 miles per hour or less approaching the crossing.

Conductor Murray, Baggageman Rohendoll, Brakeman Gervin and Fireman Newby, of C&NW train No. 507, all of whom were riding back on the train, were unaware of anything wrong prior to the accident. Their statements were to the effect that the stop was made for the crossing, that the air brakes worked properly and that two blasts were sounded on the engine whistle, their estimates of the location of their engine when the stop was made ranged from about 265 to 400 feet from the center of the crossing, while their estimates of the speed of their train at the time of the collision ranged from 8 to 10 miles per hour.

Engineman Higgins, of CMStP&P train No. 221, stated that he made the stop for the crossing right at the stop board, the engine cab being nearly opposite the stop board. Then he released the air brakes, sounded two blasts on the engine whistle and proceeded, attaining a speed of about 6 or 8 miles per hour. Just before reaching the crossing there was a C&NW freight train standing on the adjacent parallel track on the opposite side of his own engine, but he said that steam and smoke from the engine of that train did not interfere with his own view to and beyond the crossing. On reaching a point about 40 or 50 feet from the crossing he noticed the reflection of a headlight, but could not tell exactly where it was; however, he figured that it was on the engine of a train coming over the crossing, and he sounded one long blast on the engine whistle and applied the air brakes in emergency. Then the collision occurred, at which time he estimated the speed of his own train to have been 6 or 8 miles per hour. Engineman Higgins stated that after starting ahead following the stop made at the stop board he inquired of his fireman, who was sitting on the fireman's seat box with the window open, as to conditions ahead from that side of the engine and the fireman informed him that he could not see anything on account of steam and smoke from the engine of C&NW train No. 322. Engineman Higgins said that he did not hear any signal sounded on either the engine whistle of C&NW train No. 507 or C&NW train No. 322, that C&NW train No. 322 obstructed his view of C&NW train No. 507 as it approached the crossing. The air brakes on his own train worked properly and the headlight was burning all right. Engineman Higgins stated that he was familiar with the rule requiring trains to approach railroad crossings at grade prepared to stop and which required by law trains must stop; in his opinion he complied with the rule.

Fireman Gates, of CMStP&P train No. 221, stated that when his train stopped at the stop board, with the front end of the engine just a little by the board, toward the crossing, he was sitting on the seat box with his head out of the open side window far enough to look ahead through the

windshield, and that he saw C&NW train No. 322 standing on the adjacent track. After making the stop and whistling off, Engineman Higgins inquired as to conditions ahead on the fireman's side and the fireman informed his engineman that he could not see on account of the smoke and steam from the engine of C&NW train No. 322. Just as his own engine was passing that engine he saw the reflection of the headlight of the engine of C&NW train No. 507, at which time he estimated the speed of his train to have been 5 or 6 miles per hour; then the collision occurred before he could give warning of danger. Fireman Gates further stated that in his opinion had it not been for C&NW freight train No. 322 standing on the adjacent track with the front end of the engine north of the crossing, he could have seen C&NW passenger train No. 507 approaching the crossing. In other respects his testimony practically corroborated that of Engineman Higgins.

Statements of Coal Passer Jordeo, Conductor Chrystal, Baggagemen Kubitz, Express Messenger Judge, Brakeman Jeffrey and Flagman Pronold, of CMStP&P train No. 221, were to the effect that their train made the stop for the crossing in the vicinity of the stop board and that two blasts were sounded on the engine whistle. The air brakes worked properly. Their estimates of the speed of their train at the time of the collision ranged from 5 to 7 miles per hour. Flagman Pronold, Baggageman Kubitz and Express Messenger Judge also stated that after the accident that C&NW freight train No. 322 backed away from the crossing at least a couple of car lengths, why, they did not know.

Members of the crew of C&NW freight train No. 322, however, denied that their train backed up after the accident; their statements were to the effect that C&NW train No. 507 did make a stop for the crossing, the distance that engine being from the crossing at the time the stop was made varying, but that CMStP&P train No. 221 apparently did not make a stop for the crossing. Switch Tender Cronin, of the C&NWRy, stated that C&NW train No. 507 made a stop for the crossing with the front end of the engine at a point 297 feet south of the center of the crossing.

Conclusions

This accident was caused by the failure of Engineman Higgins, of CMStP&P train No. 221, to ascertain definitely that the crossing was clear before attempting to pass over it.

Engineman Higgins said that when proceeding after making the stop at the stop board, he inquired of the fireman as to conditions from that side of the engine, and was told that the fireman could not see anything on account of smoke and steam from the engine standing on the adjoining track.

This smoke and steam did not obscure Engineman Hagan's own view of the crossing, but he said the train itself obscured his view of the approaching C&NW passenger train. Notwithstanding that neither he nor his fireman could tell whether a train was approaching from the left side, he continued toward the crossing, and it was not until within 40 or 50 feet of it that he noticed the reflection of the headlight of an engine shining on the crossing, and realized a train was about to pass over it. The damage to the engines clearly indicates that the front end of the C&NW engine had reached a point to the right of the CMStP&P track as seen from an engine approaching on the CMStP&P track, which seems conclusive evidence that the crossing was not clear when the CMStP&P engine attempted to cross, and, furthermore, it seems clearly established that the crossing actually was clear when the C&NW engine reached the crossing.

Engineman Hagans was familiar with the tracks in that locality and he had reason to believe that a train might be expected to move on to the crossing at any time from the left side of the CMStP&P track, and the fact that the view to the left of the track on which his train was moving was obscured should have prompted him to take extra precaution in approaching the crossing.

The testimony is conflicting as to whether either train came to a full stop within the 400 foot limit. The entire crew of the CMStP&P train testified that their train came to a full stop, while the conductor and engineman of the C&NW freight train, who were in a position to observe the movement, said the train did not stop. The entire crew of the C&NW passenger train stated that their train came to a full stop within the 400 foot limit, and their testimony is supported by that of the switchtender, but a fireman on a CMStP&P passenger engine, who was in a position to know, said the C&NW train did not come to a full stop.

A state law requires all trains to stop at this crossing and the rules of both railroad companies require all trains to approach the crossing with caution. Each crew claimed that their respective trains were handled in accordance with both the law and the rules, but the fact remains that the two engines did collide on the crossing with such force as to turn both over on their sides and do considerable damage.

There is no form of crossing protection at this point except the stop board located on the CMStP&PRR at a point 441.5 feet north of the center of the crossing; there is a daily movement of approximately 45 trains over this crossing, and the need for additional protection which would be provided by an interlocking plant should be given careful consideration.

All of the employees involved were 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.