

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 RAILWAY AT STURTEVANT,
WIS., ON AUGUST 12, 1927.

November 7, 1927.

To the Commission:

On August 12, 1927, there was a derailment of a mail train on the Chicago, Milwaukee & St. Paul Railway at Sturtevant, Wis., resulting in the death of two employeecs. The investigation of this accident was made jointly with a representative of the State Railroad Commission of Wisconsin.

Location and method of operation

This accident occurred on that part of the Chicago & Milwaukee 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 are operated by time-table, train orders and an automatic block-signal system; train orders are transmitted by both telegraph and telephone. 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 derailment occurred at the crossover leading from the westbound to the eastbound main track, located about 815 feet east of the passenger station at Sturtevant. The track is tangent and level for more than 1 mile in each direction from the point of accident.

The crossover connecting the westbound and eastbound main tracks at this point is 194 feet in length, No. 10 frogs being used. The crossover and main tracks in this vicinity are laid with 100-pound rails, with 20 hardwood ties to the rail, tie-plated, and single-spiked. The track is ballasted with gravel to a depth of about 18 inches. The switches controlling the crossover are of the Buda No. 6-B ground type, displaying a white target for main line and red for crossover movements. Both switches are located on the right side of their respective tracks as seen from a train approaching from the west. Each switch is provided with a lock and is intended to be secured by the lock and a hasp in the stand. The position of the crossover switch on the westbound main track could be distinguished for a distance of about 600 feet.

In the telegraph office at Sturtevant there is an indicator located over the desk of the operator, consisting of two lights, one of which indicates the approach of a train on the westbound track, the control circuit beginning at a point about 3 miles east of the station, while the other indicates the approach of a train on the eastbound track, the control circuit beginning at a point about 2 $\frac{1}{2}$ miles west of the station. These indicators are connected with the automatic block-signal system, the train-order signal and the switch indicators in the vicinity of the station. When a train is approaching, or one of the switches with which it is connected is open, the light is extinguished.

The maximum speed permitted by rule for train No. 54 in this vicinity is 65 miles per hour.

The weather was clear at the time of the accident, which occurred at 6.34 a.m.

Description

Eastbound mail train No. 54 consisted of two baggage cars, Nos. 738 and 1039, one railway post office car, No. 2127, three baggage cars, Nos. 729, 631, and 810, and one rider car, No. 740, in the order named, hauled by engine 6116 and was in charge of Conductor Elliott and Engineman Brock. The second, third, and sixth cars were of all-steel construction, the first, fourth, and seventh were of steel-underframe construction, and the fifth car was of wooden construction. The train departed from Milwaukee at 4.58 a.m., on time, and departed from tower A-68, 17 miles east of Milwaukee, at 5.25 a.m. where it was diverted to the westbound main track, it proceeded on the latter track 6.3 miles to Sturtevant where it was derailed on the crossover from the westbound to the eastbound track while running at a speed variously estimated to have been from 45 to 65 miles per hour.

Engine 6116 came to rest on its right side on the eastbound passing track, which parallels the eastbound main track on the south, about 445 feet east of the initial point of derailment, and was badly damaged. It came into contact with engine 5589 standing on the passing siding east of the crossover and slightly damaged it. The tender lay at right angles to the engine across the eastbound track. Car 738 came to rest in an upright position across both main tracks and the eastbound passing siding close to the tender. Car 1039 was entirely derailed and tipped to the east fouling the westbound main and passing tracks. Car 2127 was also derailed and tipped to the east. Cars 729, 631, and 810 were derailed but remained upright on the road-bed. The leading track

of car 740 was derailed but the rear truck remained on the rails.

The first marks of the derailment were found on the ties outside the north rail of the crossover about 95 feet east of the west crossover switch. The tracks were damaged and torn up for a distance of 280 feet east of the crossover. The employees killed were the engineer and fireman.

Summary of evidence

Train Dispatcher Cone, on duty at the time of the accident, stated that eastbound freight train extra 8343 passed tower A-68 at 5.04 a.m. At that time he knew that the eastbound siding at Sturtevant was blocked but thought the extra would be able to clear at Sturtevant for train No. 54. At about 5.10 a.m. the operator at Sturtevant informed him that extra 8343 would be unable to clear for train No. 54 whereupon he immediately called the operators at tower A-68, Ranney and Sturtevant, and issued train order No. 12 giving train No. 54 right over opposing trains on the westbound track from tower A-68 to Ranney. Ranney is approximately 10 miles east of Sturtevant. He stated the order was proper and in the usual form. About three minutes after he completed the order, the operator at Sturtevant reported that the extra had succeeded in clearing and that train No. 54 could come on the eastbound track; he immediately called tower A-68 but was unable to get a response. Later the operator at tower A-68 reported train No. 54 as arriving at 5.21 a.m., and departing on the westbound track at 5.25 a.m. The first intimation of an accident he received was a few minutes later when the operator at Sturtevant told him that train No. 54 had been derailed. Dispatcher Cone further stated that to avoid delays they often had occasion to run trains against the current of traffic on that division. When running trains against the current of traffic at this point it is customary to run them from tower A-68 to Ranney on account of there being long crossovers at both places.

Operator McAnaney, at tower A-68, stated that he delivered copies of train order No. 12 to the engineer and conductor of train No. 54. After train No. 54 had departed he returned to the tower and reported the arrival and departure of this train to the dispatcher, whereupon the dispatcher told him that the situation at Sturtevant had cleared up and that they could have let train No. 54 go on the eastbound track.

Operator Sturgis, employed at Sturtevant, stated that about 5.10 a.m. on the day of the accident tower A-68 reported eastbound extra 8343 passing. He believed then that it was not going to stop at Sturtevant but was going to Ranney for train No. 54. At that time the eastbound automatic signal, the first signal east of his station, was at danger so he thought some of the switches must be wrong, thereupon he went down near the switch shanty, and acting upon his instructions Mr. Potter, a company policeman, closed one switch of the crossover and Freight Conductor Kennedy closed the other. He then started to return to the station, and before he reached it the signal cleared. When extra 8343 approached his station he noticed it was slowing up so he asked the dispatcher what he was going to do with it as the passing track was blocked, and that there would be difficulty in clearing for train No. 54. The dispatcher said he would run trains Nos. 54 and 56 on the westbound track and immediately issued the necessary orders. He noticed that the westbound indicator light in his office had not been lighted for some time and thought a switch must be open, so he threw the train-order signal to stop and started to go down to see if the main track switches were lined up. He thought probably one of the inside switches was open. A former employee of the railroad company, named Osborn, who was in the office at the time, went out with him and asked him where he was going. Operator Sturgis replied that he was going to see if the main line switches were lined up, as trains Nos. 54 and 56 were running on the westbound track. Osborn then offered to go down and see if everything was all right and said he would give a "high sign." Operator Sturgis assented to this arrangement and returned to the office and threw his train-order signal clear to see if the indicator would respond, but it would not do so, a little later he cleared the train-order signal again and since Mr. Osborn had gone down and looked at the switches he was satisfied that the main line was properly lined up and that one of the inside switches was the one which was wrong.

When he returned to the office he told the dispatcher that the extra would clear for train No. 54 and if train No. 54 had not passed tower A-68 he had better let them come on the right track, but the dispatcher replied that it had already passed the tower. In the meantime he received an "all right" hand signal from Mr. Osborn. Train No. 54 passed his tower at 5.34 a.m. on the westbound track, and he did not know of the accident until some one told him a few minutes later. As far as he could remember he did not mention anything about the crossover switches to Mr. Osborn but told him that trains Nos. 54 and 56 were going on the westbound track and to run down

and see if the main line switches were lined up. Operator Sturgis stated that he should have gone down himself to examine the switches instead of sending Mr. Osborne, but Mr. Osborne had been around there a long time and he thought he understood what was wanted. He did not at any time tell him to throw any switches, but asked him to see if the main line switch was lined up. In some way Mr. Osborne must have misunderstood him, however, as he lined it for the crossover instead of leaving it set for the main track. He stated that switching crews frequently go away and leave their switches unlocked when they expect to be right back and no other trains are due.

H. L. Osborne stated that at the present time he is employed by the Ajax Rubber Company and in addition he is employed by the express company as watchman for an express car which arrives at Sturtevant about 3.15 a.m. and he remains watching the car until about 5.30 a.m. He had been employed by the railroad company in various capacities around Sturtevant station for about three years. He stated that on the day of the accident at about 5.15 a.m. he was sitting in the telegraph office reading a paper when he heard Operator Sturgis talking over the telephone and from the conversation he understood that a train was coming on the westbound track. After finishing the conversation Sturgis threw the train-order signal to the stop position and then said in an excited manner, "Harley, will you go down and see if the crossovers are lined up." He replied that he would and that he would give Sturgis a "high sign." Both then went out on the platform and Mr. Osborne hurried down the westbound track until he came to the first switch. Freight Conductor Kennedy was standing near the east switch, and he told Kennedy, "They want the crossovers lined up," and at the same time threw the switch leading from the westbound main track to the eastbound and he saw Kennedy stoop down and throw the switch on the eastbound track. Osborne then went back to the depot and sat down a few minutes reading a paper, and later left the premises before the accident occurred. He stated that he gained the impression from Operator Sturgis, and from the fact that Operator Sturgis threw the train-order signal against train No. 54, that it was the intention to cross train No. 54 back from the westbound track to the eastbound track and that was the reason for his throwing the switch, although he admitted Sturgis only told him to see if the crossover was lined up. The lock of the west switch was in the hasp but not locked. He stated he had not been in the habit of throwing switches, and that he had not had a switch key since he left the employ of the company.

Conductor Kennedy stated that on the night of the accident he was conductor on the train known as the Racine night patrol. Just prior to the accident his engine with five cars had crossed over from the westbound main to the eastbound main, using the crossover involved in this accident, afterwards the switch on the eastbound main was closed and locked by Railroad Policeman Potter, while Brakeman Donnegan closed the switch on the westbound track, but he is not sure whether it was locked. He had just given his men permission to eat lunch when he saw Osborne running down the track. Thinking Osborne had some message for him he shouted to him and asked what he wanted, whereupon Osborne replied that train No. 54 was coming on the westbound track and they want to cross them back over here. Osborne then opened the switch on the westbound main track while he, Kennedy, opened the switch on the eastbound track; he remained in the vicinity until he saw train No. 54 approaching. When train No. 54 reached the coal shed he noticed they were running at a high rate of speed and he attempted to reach the switch and close it ahead of the train but did not succeed. He stated that he knew that Osborne had worked around the station and watched the express car and that at the time Osborne told him they wanted to cross train No. 54 back on the right track the operator was standing on the platform, so he thought the operator had sent Osborne down there and that it was all right. Conductor Kennedy stated that the switch targets are rather low but he thinks they could be seen from the station. He also stated that it is the practice to lock the switches when they are not being used.

Brakeman Donnegan stated that on the night of the accident he was working with Conductor Kennedy, before his engine passed through the crossover he unlocked and opened the switch, and he remained at the switch until the engine had passed, when he closed the switch and again locked it. He stated that it is always the practice to lock main line switches when not using them unless a man remains at the switch.

Conductor Elliott, of train No. 54, stated that at tower A-68 his train was stopped and he was given an order giving them right over the westbound track from tower A-68 to Ranney, leaving the tower he rode in the last car, as the train approached Startsvant there was no indication but that they were to continue on that track until they reached Ranney, the first indication of anything wrong was when he felt the jar of the derailment, when he reached the crossover switches after the accident he found them both set for a crossover movement and neither switch was locked, he estimated the speed of his train at the time of derailment to have been about 50

miles per hour. He stated that the air brakes were working on all the cars in his train and that they were tested before leaving Milwaukee and were working properly.

Conclusions

This accident was caused by a train entering a crossover at excessive speed, the crossover, due to a misunderstanding, having been improperly lined up for a crossover movement. For this Operator Sturgis is responsible.

Upon receipt of train order No. 12 directing train No. 54 to run over the opposite track from tower A-68 to Ranney, Operator Sturgis should have communicated the information to all employees at his station who might have occasion to use the main line switches, it was also his duty to see that all switches were properly set; instead of doing this, however, he delegated the duty to an ex-employee, Mr. Osborne, who misunderstood the situation and thought that train No. 54 was to be crossed back to the eastbound track at Sturtevant and arranged the crossover switches accordingly.

It also appears that Operator Sturgis had some warning that all switches were not properly set, because of the failure of the indicator lamp to light. This should have led him to place his train-order signal in the stop position and ascertain positively just which switch was open. Had he done this he would have discovered the open crossover switches and the accident could have been averted.

From the facts that after the accident both switches were found unlocked, and that at least the switch on the westbound main track was unlocked at the time Osborne threw it, it is apparent that main line switches are not always locked when not actually in use. Had the switch thrown by Osborne been locked he could not have opened it and in the delay which would have resulted in having it unlocked and thrown, the misunderstanding on Osborne's part might have been discovered.

General rule 924 of the book of operating rules of the Chicago, Milwaukee and St. Paul Railway Company is as follows:

Trains moving against the current of traffic on double track must approach all crossovers under control and prepared to stop if necessary.

The officials of this company stated that their interpretation of this rule and their instructions to the employees are to the effect that it applies only at crossovers where crossover movements are to be made, and inquiry among employees disclosed that this is the general understanding and practice. Under this interpretation of the rule and the instructions given to their employees, there was no duty resting upon Engineman Brock to approach this crossover prepared to stop and it is doubtful if at the speed at which the train was moving there was sufficient distance, after he discovered the open switch, in which to materially reduce the speed of the train before entering the crossover.

Superintendent Ryan assumed charge of this division in April, 1927; he stated that rule No. 924 had been in effect for many years prior to that time, and that since he had been an officer on this division there had been no change either in the rule or in the application of it. It is apparent that the practice followed under this rule, which was sanctioned by the interpretation placed upon it by officials, did not conform to the clear and explicit requirements of the rule; the interpretation of the rule, together with instructions given employees with respect thereto, actually resulted in a modification of the rule although no change in the rule as printed in the rule book was made. The result was that the rule did not correspond with the authorized and existing practice, which condition should be corrected.

All the employees involved were experienced men and 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.